



ANNEX D: POS RESULTS

It will show in this annex the results of all the reference buildings regarding the validations that have been carried out in the 13 climates, from W0S3 to W4S0.

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	PACKAGE	
1	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	40.51	61.18€	143.73€	30%	8.82	32%	10.87	21.09	5.09	73,411.66€	P9	
2	EW_27	0.70	9.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	40.15	64.07€	145.81€	31%	8.74	33%	11.10	21.53	5.19	76,887.10€	P9	
3	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	39.84	65.97€	147.05€	31%	8.67	34%	11.31	21.90	5.28	79,166.77€	P9	
4	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	90.00€	38.75	67.76€	147.30€	33%	8.39	36%	11.92	23.20	5.61	82,509.05€	P12
5	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	39.49	72.70€	152.98€	32%	8.58	34%	11.52	22.32	5.38	87,239.54€	P9	
6	EW_27	0.70	9.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	39.17	75.60€	155.14€	33%	8.50	35%	11.71	22.70	5.48	90,714.99€	P9	
7	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	FR_2	1.47	24.49€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	39.43	75.36€	155.49€	32%	8.56	34%	11.55	22.39	5.40	90,434.11€	P9	
8	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	38.93	77.50€	156.67€	33%	8.44	35%	11.85	22.99	5.55	92,994.65€	P9	
9	EW_26	1.47	14.88€	W_13	1.4	1.43	0.58	184.83€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	90.00€	38.75	78.20€	156.74€	33%	8.39	36%	11.92	23.20	5.61	93,835.49€	P12
10	EW_3	3.33	48.94€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	FR_3	2.35	28.78€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	90.00€	38.73	80.29€	158.77€	33%	8.39	36%	11.94	23.23	5.61	96,343.39€	P12
11	EW_3	3.33	48.94€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	39.55	78.92€	159.38€	32%	8.60	34%	11.50	22.24	5.36	94,704.05€	P9	
12	EW_3	3.33	48.94€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	90.00€	38.51	81.71€	159.68€	34%	8.33	36%	12.07	23.50	5.68	98,046.33€	P12

W0S3

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	PACKAGE
1	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	73.84	61.18€	225.51€	14%	17.63	14%	7.96	14.37	3.34	73,411.66€	P9
2	EW_27	0.70	9.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	72.77	64.07€	225.99€	15%	17.37	15%	8.62	15.65	3.66	76,887.10€	P9
3	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	74.31	62.81€	228.18€	13%	17.74	13%	7.65	13.80	3.21	75,368.09€	P12
4	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	73.10	65.97€	228.70€	15%	17.45	14%	8.44	15.25	3.55	79,166.77€	P9
5	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	74.17	68.76€	233.83€	14%	17.71	13%	7.76	13.97	3.22	82,509.05€	P12
6	EW_27	0.70	9.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	72.19	75.60€	236.22€	16%	17.23	16%	8.99	16.35	3.82	90,714.99€	P9
7	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	72.06	77.50€	237.85€	16%	17.20	16%	9.07	16.50	3.86	92,994.65€	P9
8	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	74.96	72.70€	239.57€	13%	17.90	12%	7.27	13.02	3.02	87,239.54€	P9
9	EW_3	3.33	48.94€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	72.46	78.92€	240.13€	16%	17.29	15%	8.81	16.03	3.75	94,704.05€	P9
10	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	FR_2	1.47	24.49€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	75.12	75.36€	242.56€	12%	17.93	12%	7.16	12.83	2.98	90,434.11€	P9
11	EW_3	3.33	48.94€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	75.02	75.75€	242.63€	13%	17.90	12%	7.16	12.95	3.02	90,905.37€	P12
12	EW_3	3.33	48.94€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	73.91	78.65€	243.12€	14%	17.64	14%	7.91	14.28	3.33	94,375.95€	P12

W0S4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	33.20	61.18€	123.28€	42%	6.61	42%	20.30	28.67	5.70	73,411.66€	P9
2	EW_27	0.70	9.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	32.60	64.07€	125.06€	43%	6.49	43%	20.81	29.39	5.85	76,887.10€	P9
3	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	NO IMPROVEMENT	-	30.40	68.76€	125.57€	47%	6.05	47%	22.65	32.03	6.38	82,509.05€	P12
4	EW_26	1.47	14.88€	W_18	2.7	3.5	0.77	62.11€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	31.85	65.97€	125.65€	44%	6.36	44%	21.50	30.28	6.01	79,166.77€	P9
5	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTION CONTOURS	15.26€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	31.54	72.70€	131.82€	45%	6.30	45%	21.78	30.65	6.08	87,239.54€	P9
6	EW_27	0.70	9.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	31.01	75.60€	133.71€	46%	6.19	46%	22.22	31.29	6.21	90,714.99€	P9
7	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	FR_2	1.47	24.49€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	31.39	75.36€	134.27€	45%	6.27	45%	21.94	30.83	6.11	90,434.11€	P9
8	EW_26	1.47	14.88€	W_14	1.4	1.3	0.58	129.57€	B_0	BASE	-	TR_4	3.75	37.29€	50% REDUCTIONS + WINDOWS	15.27€	0.42	2,095.39€	3	17.00€	SHADING ELEMENTS COVER 50%	90.00€	30.39	77.50€	134.52€	47%	6.07	47%	22.79	32.			



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.07	30.42 €	200.95 €	24%	18.28	21%	20.82	29.84	6.01	36,503.16 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.61	33.43 €	201.16 €	26%	17.98	23%	22.02	31.60	6.36	40,112.76 €	P5
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.73	31.45 €	201.36 €	24%	18.21	22%	21.12	30.25	6.09	37,744.14 €	P6S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.98	34.85 €	201.37 €	26%	17.85	23%	22.54	32.35	6.52	41,815.70 €	P5S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.31	32.56 €	201.59 €	25%	18.12	22%	21.42	30.76	6.20	39,074.08 €	P6S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.27	34.46 €	201.59 €	26%	17.92	23%	22.31	31.99	6.44	41,353.74 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.65	35.88 €	201.80 €	27%	17.79	24%	22.82	32.74	6.60	43,056.68 €	P5S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.33	32.71 €	201.84 €	25%	18.13	22%	21.43	30.72	6.19	39,255.16 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.38	32.94 €	202.16 €	25%	18.14	22%	21.39	30.67	6.17	39,531.72 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.00	33.75 €	202.26 €	25%	18.06	22%	21.72	31.13	6.26	40,496.14 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.04	33.98 €	202.58 €	25%	18.07	22%	21.68	31.07	6.25	40,772.70 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.23	36.89 €	203.93 €	26%	17.91	23%	22.35	32.04	6.45	44,269.22 €	P5S

W1S4

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.97	35.88 €	137.81 €	47%	10.81	44%	55.07	62.89	10.20	43,056.68 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.79	34.85 €	138.04 €	46%	10.94	43%	54.23	61.91	10.04	41,815.70 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.24	34.46 €	138.39 €	46%	11.02	43%	53.78	61.37	9.94	41,353.74 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.05	33.43 €	138.63 €	45%	11.15	42%	52.93	60.39	9.78	40,112.76 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.12	31.45 €	139.97 €	43%	11.50	40%	50.84	57.91	9.36	37,744.14 €	P6S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.69	33.75 €	139.97 €	44%	11.26	42%	52.30	59.63	9.65	40,496.14 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.94	30.42 €	140.21 €	42%	11.64	40%	49.99	56.93	9.20	36,503.16 €	P6S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.50	32.71 €	140.21 €	43%	11.39	41%	51.46	58.65	9.49	39,255.16 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.78	33.98 €	140.35 €	44%	11.28	42%	52.21	59.52	9.63	40,772.70 €	P5
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.76	32.56 €	140.43 €	43%	11.43	41%	51.16	58.34	9.45	39,074.08 €	P6S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.59	32.94 €	140.59 €	43%	11.41	41%	51.36	58.54	9.47	39,531.72 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.15	36.89 €	140.68 €	46%	11.00	43%	53.87	61.47	9.96	44,269.22 €	P5S

W2S0

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.31	35.88 €	165.97 €	41%	13.84	37%	53.85	60.31	9.55	43,056.68 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.12	34.85 €	166.18 €	41%	13.97	36%	53.01	59.34	9.39	41,815.70 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.60	34.46 €	166.62 €	40%	14.06	36%	52.55	58.76	9.29	41,353.74 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.41	33.43 €	166.83 €	40%	14.19	35%	51.71	57.79	9.13	40,112.76 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.08	33.75 €	168.28 €	39%	14.31	34%	51.06	56.99	8.99	40,496.14 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.54	31.45 €	168.34 €	38%	14.56	33%	49.59	55.23	8.69	37,744.14 €	P6S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.88	32.71 €	168.49 €	38%	14.44	34%	50.22	56.02	8.83	39,255.16 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8																					



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.04	35.88 €	182.16 €	36%	15.60	31%	44.04	51.33	8.53	43,056.68 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.75	34.85 €	182.30 €	35%	15.72	31%	43.33	50.47	8.38	41,815.70 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.18	34.46 €	182.66 €	35%	15.80	30%	42.94	49.97	8.28	41,353.74 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.89	33.43 €	182.80 €	34%	15.93	30%	42.23	49.11	8.13	40,112.76 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.75	31.45 €	183.99 €	33%	16.26	28%	40.47	46.88	7.73	37,744.14 €	P6S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.46	30.42 €	184.12 €	32%	16.38	28%	39.76	46.02	7.58	36,503.16 €	P6S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.47	33.75 €	184.13 €	34%	16.03	29%	41.70	48.41	8.00	40,496.14 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.19	32.71 €	184.26 €	33%	16.16	29%	40.99	47.56	7.86	39,255.16 €	P5
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.38	32.56 €	184.37 €	33%	16.18	29%	40.75	47.32	7.82	39,074.08 €	P6S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.55	33.98 €	184.50 €	34%	16.05	29%	41.62	48.32	7.99	40,772.70 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.27	32.94 €	184.63 €	33%	16.17	29%	40.91	47.46	7.84	39,531.72 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.10	36.89 €	184.96 €	35%	15.79	30%	43.02	50.06	8.30	44,269.22 €	P5S

W2S3

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.32	35.88 €	149.40 €	49%	12.03	47%	67.98	78.76	12.99	43,056.68 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.36	34.85 €	150.00 €	49%	12.20	47%	66.92	77.52	12.78	41,815.70 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.91	34.46 €	150.53 €	48%	12.30	46%	66.38	76.86	12.67	41,353.74 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.94	33.43 €	151.13 €	47%	12.47	45%	65.33	75.62	12.46	40,112.76 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_17	3.64	54.56 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.42	38.76 €	151.13 €	47%	12.05	47%	67.88	78.64	12.97	46,510.13 €	P5S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.70	33.75 €	152.71 €	47%	12.61	45%	64.58	74.71	12.30	40,496.14 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.80	36.89 €	152.78 €	48%	12.28	46%	66.49	76.99	12.69	44,269.22 €	P5S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.82	33.98 €	153.13 €	47%	12.63	45%	64.47	74.57	12.28	40,772.70 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.48	31.45 €	153.30 €	45%	12.91	44%	62.80	72.57	11.93	37,744.14 €	P6S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.73	32.71 €	153.32 €	46%	12.78	44%	63.53	73.47	12.09	39,255.16 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.09	32.56 €	153.68 €	46%	12.83	44%	63.13	73.04	12.03	39,074.08 €	P6
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.85	32.94 €	153.73 €	46%	12.80	44%	63.41	73.33	12.07	39,531.72 €	P5

W3S0

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.99	35.88 €	222.60 €	43%	19.82	40%	85.18	97.95	16.01	43,056.68 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.27	34.85 €	223.58 €	43%	20.03	40%	83.86	96.41	15.76	41,815.70 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.97	34.46 €	224.37 €	42%	20.16	39%	83.18	95.57	15.61	41,353.74 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.25	33.43 €	225.34 €	42%	20.37	39%	81.86	94.03	15.35	40,112.76 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_17	3.64	54.56 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.11	38.76 €	225.67 €	43%	19.84	40%	85.06	97.80	15.99	46,510.13 €	P5S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.84	36.89 €	226.58 €	42%	20.13	39%	83.32	95.73	15.64	44,269.22 €	P5S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.22	33.75 €	227.27 €	41%	20.54	38%	80.91	92.86	15.15	40,496.14 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.36	33.98 €	227.73 €	41%	20.56	38%	80.77	92.69	15.12	40,772.70 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.50	32.71 €	228.24 €	40%	20.75	37%	79.60	91.34	14.90	39,255.16 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.44	31.45 €	228.55 €	40%	20.92	37%	78.68	90.21	14.70	37,744.14 €	P6S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE																										



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _a [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.24	35.88	195.80	47%	16.94	45%	86.55	100.80	16.73	43,056.68	P55
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.53	34.85	196.81	46%	17.15	44%	85.22	99.25	16.47	41,815.70	P55
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.20	34.46	197.52	46%	17.27	44%	84.55	98.44	16.33	41,353.74	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.49	33.43	198.53	45%	17.48	43%	83.23	96.89	16.07	40,112.76	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.36	38.76	198.87	47%	16.96	45%	86.43	100.66	16.70	46,510.13	P55
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.07	36.89	199.74	46%	17.24	44%	84.69	98.60	16.35	44,269.22	P55
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	100.43	33.75	200.37	44%	17.64	43%	82.29	95.77	15.88	40,496.14	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	100.58	33.98	200.83	44%	17.67	43%	82.15	95.60	15.85	40,772.70	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.72	32.71	201.37	44%	17.86	42%	80.98	94.22	15.62	39,255.16	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	NO SHADING ELEMENTS	-	94.15	44.62	201.53	48%	16.62	46%	88.88	103.31	17.10	53,542.28	P6
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.63	31.45	201.59	43%	18.01	42%	80.07	93.13	15.43	37,744.14	P65
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.86	32.94	201.83	43%	17.88	42%	80.83	94.05	15.59	39,531.72	P5

W4S0

Table 73- POS of the MFH2 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _a [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	3	17.00	SHADING ELEMENTS COVER 50%	90.00	41.16	19.23	102.25	28%	8.87	32%	50.95	113.86	29.18	135,857.47	P17
2	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.99	22.22	104.59	28%	8.80	32%	50.58	115.03	29.67	156,977.19	P9
3	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.87	24.80	106.92	29%	8.77	33%	51.07	115.87	29.86	175,189.42	P9
4	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.69	25.97	107.73	29%	8.73	33%	51.89	117.14	30.13	183,434.63	P9
5	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	41.69	23.96	107.78	27%	8.95	31%	47.63	110.11	28.58	169,280.78	P9
6	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.80	26.02	107.98	29%	8.76	33%	51.37	116.38	29.98	183,781.64	P9
7	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	41.50	25.13	108.59	28%	8.92	31%	48.47	111.41	28.85	177,525.98	P17
8	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.62	27.19	108.79	29%	8.72	33%	52.19	117.66	30.25	192,026.85	P9
9	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	39.45	29.87	108.85	31%	8.44	35%	56.47	125.91	32.24	210,965.66	P9
10	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	39.38	31.08	109.91	31%	8.42	35%	56.77	126.44	32.36	219,557.87	P9
11	EW_8	2.35	51.51	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.01	33.46	113.65	30%	8.57	34%	54.26	121.98	31.33	236,358.60	P17
12	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	38.95	36.69	114.67	32%	8.33	36%	58.72	129.43	32.99	259,165.07	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _a [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	3	17.00	SHADING ELEMENTS COVER 50%	90.00	62.96	19.23	155.92	24%	14.65	26%	60.98	138.49	35.71	135,857.47	P17	
2	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.91	22.22	158.57	24%	14.61	26%	60.28	138.81	35.98	156,977.19	P9	
3	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.43	29.87	160.49	27%	14.00	29%	68.89	156.37	40.31	210,965.66	P9	
4	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO IMPROVEMENT	-	90.00	53.11	46.85	160.79	36%	12.20	38%	94.70	208.05	52.96	330,943.48	P11
5	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.62	24.80	160.82	24%	14.57	26%	60.85	139.87	36.22	175,189.42	P9	
6	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.51	25.97	161.44	24%	14.52	26%	61.89	141.68	36.64	183,434.63	P9	
7	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.33	31.08	161.50	27%	13.97	29%	69.25	157.05	40.47	219,557.87	P9	
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO IMPROVEMENT	-	90.00	52.95	48.02	161.57	36%	12.16	38%	95.18	209.20	53.27	339,188.69	P95
9	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO IMPROVEMENT	-	90.00	54.99	43.09	161.62	33%	12.70	36%	89.14	194.78	49.48	304,381.89	P125
10	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.67	26.02	161.83	24%	14.55	26%	61.21	140.52	36.38	183,781.64	P9	
11	EW_27	0.70	9.88	W_14																														



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.44	46.85 €	162.45 €	43%	12.38	43%	161.66	288.50	66.78	330,943.48 €	P11
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.09	48.02 €	162.90 €	44%	12.30	44%	163.26	291.01	67.31	339,188.69 €	P95
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.32	48.07 €	163.40 €	43%	12.35	43%	162.20	289.39	66.97	339,535.70 €	P11
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.96	49.23 €	163.86 €	43%	12.27	44%	163.80	291.89	67.51	347,780.91 €	P12
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.38	43.09 €	165.00 €	40%	13.05	40%	149.91	267.74	62.00	304,381.89 €	P125
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.64	47.18 €	165.26 €	42%	12.64	42%	156.55	280.04	64.90	333,280.04 €	P95
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.01	44.26 €	165.45 €	40%	12.98	41%	151.61	270.34	62.54	312,627.10 €	P125
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.71	43.28 €	165.87 €	39%	13.13	40%	148.45	265.39	61.49	305,749.54 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.54	52.46 €	166.23 €	44%	12.18	44%	165.72	294.89	68.15	370,558.27 €	P10
10	EW_26	1.47	14.88 €	W_14	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.09	52.09 €	166.98 €	43%	12.30	44%	163.26	291.01	67.31	367,983.21 €	P95
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.64	53.12 €	167.10 €	44%	12.20	44%	165.20	294.14	68.00	375,232.30 €	P10
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.32	52.14 €	167.48 €	43%	12.35	43%	162.20	289.39	66.97	368,330.22 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.44	48.02 €	116.82 €	55%	7.28	55%	295.07	359.19	62.53	339,188.69 €	P95
2	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.30	46.85 €	117.03 €	54%	7.42	54%	290.01	353.16	61.50	330,943.48 €	P11
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.21	49.23 €	117.66 €	55%	7.24	55%	296.42	360.82	62.81	347,780.91 €	P12
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.07	48.07 €	117.87 €	54%	7.38	54%	291.37	354.79	61.78	339,535.70 €	P11
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.10	52.46 €	119.15 €	56%	7.05	56%	303.27	368.70	64.10	370,558.27 €	P10
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.61	42.75 €	119.45 €	51%	8.13	50%	286.27	336.78	56.52	301,945.97 €	P95
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.42	41.58 €	119.53 €	50%	8.26	49%	281.37	331.12	55.59	293,700.76 €	P11
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.66	54.29 €	120.28 €	56%	6.98	57%	305.82	371.76	64.62	383,477.51 €	P12
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.39	48.07 €	120.31 €	51%	8.09	50%	287.61	338.37	56.78	310,538.19 €	P10
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.19	42.80 €	120.39 €	50%	8.22	49%	282.71	332.72	55.86	302,292.98 €	P11
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.49	53.12 €	120.45 €	56%	7.12	56%	300.88	365.89	63.63	375,232.30 €	P10
12	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.44	52.09 €	120.90 €	55%	7.28	55%	295.07	359.19	62.53	367,983.21 €	P95

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.01	48.02 €	128.34 €	54%	8.52	55%	309.34	395.27	72.18	339,188.69 €	P95
2	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.86	48.02 €	128.55 €	54%	8.66	54%	304.32	389.27	71.16	330,943.48 €	P11
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.77	49.23 €	129.16 €	55%	8.48	55%	310.72	396.95	72.48	347,780.91 €	P12
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.62	48.07 €	129.37 €	54%	8.62	54%	305.70	390.96	71.46	339,535.70 €	P11
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.91	52.46 €	132.56 €	55%	8.36	55%	316.76	403.03	73.31	37	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.44	48.02	126.71	56%	8.32	56%	353.67	431.28	75.21	339,188.69	P95
2	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.50	46.85	127.26	55%	8.50	55%	347.39	423.77	73.93	330,943.48	P11
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.15	49.23	127.47	56%	8.27	56%	355.33	433.28	75.56	347,780.91	P12
4	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.22	48.07	128.01	55%	8.46	55%	349.05	425.78	74.28	339,535.70	P11
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	46.75	52.46	128.53	57%	8.05	58%	364.06	443.22	77.17	370,558.27	P10
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	46.22	54.29	129.50	58%	7.96	58%	367.17	446.97	77.81	383,477.51	P10
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	51.73	42.75	129.69	53%	9.21	51%	344.74	408.05	68.94	301,945.97	P95
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	47.25	53.12	130.00	57%	8.13	57%	361.03	439.65	76.56	375,232.30	P10
9	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	52.75	41.58	130.13	52%	9.38	51%	338.57	400.83	67.73	293,700.76	P11
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	51.45	43.96	130.45	53%	9.16	52%	346.39	410.02	69.28	310,538.19	P12
11	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.44	52.09	130.79	56%	8.32	56%	353.67	431.28	75.21	367,983.21	P95
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	52.47	42.80	130.90	52%	9.33	51%	340.23	402.81	68.07	302,292.98	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	74.42	48.02	172.18	53%	13.15	53%	478.74	596.43	106.29	339,188.69	P95
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	74.05	49.23	172.80	53%	13.09	54%	480.88	599.03	106.74	347,780.91	P12
3	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	75.77	46.85	173.19	52%	13.38	53%	470.79	586.92	104.67	330,943.48	P11
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	72.36	52.46	173.55	54%	12.83	55%	491.80	610.96	106.57	370,558.27	P10
5	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	75.40	48.07	173.80	53%	13.32	53%	472.93	589.52	105.12	339,535.70	P11
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	71.67	54.29	174.25	55%	12.71	55%	495.83	615.85	109.42	383,477.51	P10
7	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	73.00	53.12	175.23	54%	12.93	54%	487.95	606.44	107.82	375,232.30	P10
8	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	74.42	52.09	176.26	53%	13.15	53%	478.74	596.43	106.29	367,983.21	P95
9	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	72.33	55.97	176.76	54%	12.79	55%	491.10	611.20	108.81	395,384.84	P12
10	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	74.05	53.31	176.87	53%	13.09	54%	480.88	599.03	106.74	376,575.43	P12
11	EW_26	1.47	14.88	W_11	1.1	1.3	0.59	269.77	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	70.34	59.56	177.33	56%	12.48	56%	503.51	625.23	111.06	420,735.32	P12
12	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	71.96	57.19	177.37	55%	12.73	55%	493.25	613.81	109.27	403,977.05	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.47	48.02	140.41	53%	9.79	54%	357.19	447.34	80.13	339,188.69	P95
2	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	56.47	46.85	140.84	52%	9.95	53%	351.30	440.32	78.94	330,943.48	P11
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.20	49.23	141.17	54%	9.74	54%	358.80	449.30	80.48	347,780.91	P12
4	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	56.19	48.07	141.60	53%	9.91	53%	352.91	442.29	79.28	339,535.70	P11
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.12	52.46	142.98	54%	9.59	55%	366.25	456.86	81.52	370,558.27	P10
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	53.60	54.29	143.95	55%	9.50	55%	369.26	460.54	82.16	383,477.51	P10
7	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.58	53.12	144.35	54%	9.66	54%	363.45	453.64	80.99	375,232.30	P10
8	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.47	52.09	144.49	53%	9.79	54%	357.19	447.34	80.13	367,983.21	P95
9	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.20	53.31	145.25	54%	9.74	54%	358.80	449.30	80.48	376,575.43	P12



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	PACKAGE
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	65.25	30.28 €	173.47 €	39%	15.35	40%	44.03	84.06	20.13	59,960.07 €	P13
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	66.83	30.28 €	177.03 €	38%	15.73	38%	42.42	80.92	19.37	59,958.45 €	P14
3	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.86	39.74 €	183.81 €	39%	15.44	39%	42.91	82.85	19.95	78,685.43 €	P14
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.74	51.45 €	184.15 €	44%	14.22	44%	48.29	92.98	22.36	101,867.77 €	P13
5	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.68	43.10 €	185.03 €	40%	15.22	40%	44.64	85.19	20.40	85,335.43 €	P13
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.30	56.73 €	190.75 €	43%	14.37	44%	47.78	91.88	22.08	112,325.34 €	P14
7	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.19	64.64 €	196.01 €	44%	14.08	45%	48.75	94.07	22.65	127,989.24 €	P14
8	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	70.49	47.84 €	202.32 €	35%	16.56	35%	38.19	73.68	17.74	94,716.15 €	P16
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	67.01	56.52 €	202.40 €	38%	15.63	39%	40.96	80.57	19.57	111,908.14 €	P13
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.85	70.20 €	202.99 €	41%	14.87	42%	44.19	86.82	21.07	138,990.02 €	P14
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.29	70.33 €	210.06 €	40%	14.97	41%	43.71	85.96	20.88	139,245.35 €	P14
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.47	77.79 €	212.25 €	43%	14.41	44%	47.65	91.54	21.99	154,033.72 €	P14

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	36.30	30.28 €	97.18 €	57%	7.12	57%	65.56	94.38	19.06	59,960.07 €	P13
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.25	30.28 €	100.68 €	54%	7.49	55%	62.67	90.52	18.33	59,958.45 €	P14
3	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.37	43.10 €	108.51 €	58%	6.96	58%	67.09	96.21	19.37	85,335.43 €	P13
4	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.81	39.74 €	110.26 €	54%	7.50	55%	60.97	89.41	18.31	78,685.43 €	P14
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	33.42	51.45 €	115.72 €	60%	6.85	59%	72.34	100.07	19.59	101,867.77 €	P13
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	34.14	56.73 €	122.32 €	59%	6.99	58%	71.31	98.65	19.31	112,325.34 €	P14
7	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.35	47.84 €	125.77 €	50%	8.29	50%	56.80	82.40	16.74	94,716.15 €	P16
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.73	7.69 €	125.84 €	29%	12.61	25%	40.20	47.99	8.18	15,224.26 €	P14
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	0.5	40.00 €	NO SHADING ELEMENTS	- €	52.02	22.20 €	127.31 €	38%	11.23	33%	52.37	63.25	10.92	43,961.25 €	P13
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	32.99	64.64 €	128.28 €	61%	6.79	59%	73.13	100.93	19.72	127,989.24 €	P14
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	59.24	12.78 €	130.31 €	29%	12.55	25%	41.17	48.96	8.31	25,308.66 €	P13
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.25	56.52 €	131.42 €	51%	7.97	52%	57.35	84.57	17.38	111,908.14 €	P13

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	50.20	30.28 €	129.29 €	52%	10.57	51%	70.26	105.88	22.11	59,960.07 €	P13
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	52.58	30.28 €	133.65 €	49%	11.03	49%	66.83	101.17	21.19	59,958.45 €	P14
3	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.09	43.10 €	140.26 €	53%	10.37	52%	72.05	108.08	22.49	85,335.43 €	P13
4	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.70	39.74 €	142.20 €	49%	10.93	50%	65.52	100.92	21.39	78,685.43 €	P14
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.81	51.45 €	144.98 €	56%	10.00	54%	79.15	114.57	23.23	101,867.77 €	P13
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.85	56.73 €	152.17 €	55%	10.20	53%	77.67	112.52	22.83	112,325.34 €	P14
7	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.7																			



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS				
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	60.67	51.45	154.95	65%	10.97	64%	176.03	218.58	38.83	101,867.77	€	P13	
2	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	57.36	64.64	162.93	66%	10.42	66%	181.66	225.14	39.92	127,989.24	€	P14	
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	80.34	30.28	163.69	53%	14.13	54%	141.61	179.64	32.58	59,960.07	€	P13
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	63.32	56.73	164.54	63%	11.43	63%	171.67	213.34	37.92	112,325.34	€	P14	
5	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	77.15	43.10	171.39	55%	13.59	56%	146.90	185.95	33.66	85,335.43	€	P13
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	85.98	30.28	172.97	50%	15.11	51%	132.44	168.48	30.64	59,958.45	€	P14
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	77.31	37.71	182.17	55%	15.38	50%	162.59	185.63	30.10	74,665.27	€	P13	
8	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	87.84	39.74	184.94	49%	15.37	50%	128.85	164.80	30.12	78,685.43	€	P14	
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.24	5,245.29	NO IMPROVEMENT	-	€	62.84	77.79	185.72	63%	11.45	63%	173.38	214.29	37.89	154,033.72	€	P14		
10	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	€	3	17.00	NO SHADING ELEMENTS	-	74.76	46.56	186.85	56%	14.94	51%	166.77	190.69	30.97	85,335.43	€	P14
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	0.5	40.00	NO SHADING ELEMENTS	-	94.39	22.20	188.73	45%	17.69	42%	128.79	151.83	25.54	43,961.25	€	P13
12	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	NO SHADING ELEMENTS	-	89.80	29.36	188.89	48%	16.95	45%	136.78	160.90	27.00	58,132.93	€	P13

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS				
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	54.48	30.28	123.52	56%	9.89	57%	103.70	137.68	26.03	59,960.07	€	P13
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	58.18	30.28	129.71	53%	10.54	54%	97.77	130.34	24.73	59,958.45	€	P14
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	43.89	51.45	130.11	65%	8.36	64%	123.78	158.65	29.06	101,867.77	€	P13	
4	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	52.48	43.10	133.17	58%	9.55	59%	107.06	141.63	26.70	85,335.43	€	P13
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	45.63	56.73	138.31	63%	8.67	62%	120.98	155.19	28.45	112,325.34	€	P14	
6	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	41.95	64.64	140.33	66%	8.05	65%	127.15	162.49	29.68	127,989.24	€	P14
7	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	59.51	39.74	140.55	52%	10.69	54%	94.81	127.72	24.45	78,685.43	€	P14	
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	NO SHADING ELEMENTS	-	70.99	22.20	155.04	43%	14.15	39%	89.31	104.98	17.40	43,961.25	€	P13	
9	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_0	BASE	-	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	63.94	47.84	157.26	48%	11.61	50%	88.94	118.95	22.63	94,716.15	€	P16
10	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	NO SHADING ELEMENTS	-	68.20	29.36	158.11	45%	13.72	40%	94.36	110.51	18.45	58,132.93	€	P13
11	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	€	B_0	BASE	-	€	TR_0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	61.08	56.52	160.32	51%	11.00	52%	92.67	124.61	23.82	111,908.14	€	P13
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.24	5,245.29	NO IMPROVEMENT	-	€	62.84	77.79	185.72	63%	8.87	61%	121.51	154.39	28.04	154,033.72	€	P14		

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS				
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	66.45	51.45	173.63	59%	13.00	58%	147.95	192.02	35.58	101,867.77	€	P13	
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	82.17	30.28	176.26	50%	15.51	50%	120.33	160.90	30.61	59,960.07	€	P13
3	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	63.43	64.64	181.90	61%	12.48	60%	152.93	198.01	36.61	127,989.24	€	P14	
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	68.89	56.73	183.05	58%	13.44	57%	144.12	187.19	34.71	112,325.34	€	P14	
5	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	79.53	43.10	184.74	51%	15.05	51%	124.65	166.14	31.52	85,335.43	€	P13
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	87.15	30.28	184.78	47%	16.41	47%	112.58	151.05	28.82	59,958.45	€	P14
7	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	87.69	39.74	194.25	46%	16.41	47%	110.82	149.98	28.83	78,685.43	€	P14	
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	82.21	37.71	198.66	50%	17.17	45%	135.22	160.83	27.32	74,665.27	€	P13	
9	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	79.75	46.56	203.27	51%	16.73	46%	139.03	165.70	28.21	92,183.91	€	P14		
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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	73.57	51.45 €	174.34 €	63%	13.02	63%	199.94	245.87	43.25	101,867.77 €	P13	
2	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	69.58	64.64 €	181.25 €	65%	12.35	65%	206.69	253.76	44.57	127,989.24 €	P14	
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	76.69	56.73 €	184.74 €	61%	13.56	61%	194.82	239.68	42.18	112,325.34 €	P14	
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	96.76	30.28 €	188.29 €	51%	16.72	52%	159.16	199.95	35.93	59,960.07 €	P13
5	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	93.15	43.10 €	195.31 €	53%	16.11	54%	165.20	207.11	37.14	85,335.43 €	P13
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	88.14	37.71 €	196.61 €	55%	16.89	52%	188.32	187.21	35.58	74,665.27 €	P13	
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	102.20	30.28 €	198.79 €	48%	17.83	49%	148.62	187.21	33.73	59,958.45 €	P14
8	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	85.06	46.56 €	200.35 €	57%	16.35	53%	193.28	223.12	36.65	92,183.91 €	P14	
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	76.06	77.79 €	205.82 €	62%	13.57	61%	196.91	240.93	42.16	154,033.72 €	P14	
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	NO SHADING ELEMENTS	- €	104.02	29.36 €	208.64 €	47%	19.02	45%	156.71	185.57	31.37	58,132.93 €	P13
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	0.5	40.00 €	NO SHADING ELEMENTS	- €	109.46	22.20 €	209.95 €	45%	19.91	43%	147.39	174.80	29.60	43,961.25 €	P13
12	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	104.83	39.74 €	210.40 €	47%	18.05	48%	145.44	183.98	33.28	78,685.43 €	P14

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	93.87	51.45 €	203.28 €	62%	16.06	63%	255.88	308.03	53.00	101,867.77 €	P13	
2	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	88.27	64.64 €	207.48 €	65%	15.11	65%	265.22	319.13	54.88	127,989.24 €	P14	
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	102.00	37.71 €	209.90 €	59%	18.25	57%	249.67	291.94	48.66	74,665.27 €	P14	
4	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	97.98	46.56 €	212.17 €	61%	17.55	59%	256.23	299.90	50.04	92,183.91 €	P13	
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	97.95	56.73 €	215.14 €	61%	16.75	61%	249.12	299.96	51.62	112,325.34 €	P14	
6	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	100.26	60.84 €	228.59 €	60%	17.77	59%	250.92	295.39	49.61	120,470.47 €	P15	
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	95.59	77.79 €	232.63 €	62%	16.37	62%	253.25	304.63	52.37	154,033.72 €	P14	
8	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	99.67	65.56 €	232.91 €	60%	17.73	59%	252.45	296.56	49.68	129,808.75 €	P15	
9	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	101.54	69.75 €	237.50 €	59%	17.76	59%	246.75	292.86	49.63	138,105.69 €	P135	
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	NO SHADING ELEMENTS	- €	127.14	29.36 €	237.58 €	49%	22.03	49%	203.45	242.17	41.17	58,132.93 €	P13
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	128.95	30.28 €	238.49 €	48%	22.02	49%	197.49	238.58	41.20	59,960.07 €	P13
12	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	97.40	84.00 €	241.44 €	61%	16.65	61%	249.96	301.06	51.83	166,321.18 €	P15	

Table 75- POS of the MFH4 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.54	19.16 €	100.64 €	25%	8.70	28%	28.86	64.45	16.51	93,670.94 €	P17
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	41.02	32.36 €	114.40 €	24%	8.76	27%	26.43	62.13	16.22	158,154.35 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	40.90	34.77 €	116.57 €	24%	8.74	28%	26.77	62.70	16.35	169,957.74 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	40.84	35.91 €	117.58 €	24%	8.72	28%	26.94	63.01	16.42	175,526.38 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	41.71	34.44 €	117.89 €	22%	8.91	26%	24.34	58.77	15.49	168,341.11 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	40.75	37.01 €	118.52 €	24%	8.71	28%	27.24				



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.63	19.16 €	115.01 €	25%	10.22	28%	42.21	80.39	19.23	93,670.94 €	P17		
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.56	48.94 €	127.90 €	40%	8.43	40%	81.85	129.60	27.97	239,199.56 €	P125
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.37	51.18 €	129.80 €	40%	8.40	41%	82.51	130.52	28.15	250,155.55 €	P125
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.27	51.94 €	130.59 €	41%	8.40	41%	83.35	131.00	28.13	253,897.76 €	P10
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.87	32.36 €	131.64 €	21%	10.58	25%	32.58	69.43	17.46	158,154.35 €	P9
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.11	54.18 €	132.51 €	41%	8.37	41%	83.95	131.82	28.30	264,853.75 €	P10
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.86	53.36 €	132.93 €	40%	8.50	40%	80.91	128.13	27.66	260,828.23 €	P9
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.11	52.71 €	132.98 €	39%	8.57	39%	80.58	126.89	27.29	257,668.49 €	P10
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.74	34.77 €	133.78 €	22%	10.56	25%	32.98	70.07	17.60	169,957.74 €	P9
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.07	57.75 €	132.92 €	42%	8.12	43%	86.70	136.90	27.49	282,296.90 €	P11
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.95	58.89 €	134.71 €	43%	8.10	43%	87.05	137.47	29.62	287,865.54 €	P11
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.69	35.91 €	134.82 €	22%	10.54	26%	33.08	70.29	17.66	175,526.38 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.64	48.94 €	165.03 €	40%	12.43	40%	101.34	177.52	40.68	239,199.56 €	P125
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.75	51.94 €	166.22 €	41%	12.24	41%	104.04	181.89	41.63	253,897.76 €	P10
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.38	51.18 €	166.76 €	40%	12.38	40%	102.13	178.77	40.95	250,155.55 €	P125
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.51	54.18 €	167.97 €	41%	12.18	41%	104.78	183.06	41.89	264,853.75 €	P10
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.10	57.75 €	168.34 €	43%	11.84	43%	108.27	189.96	43.57	282,296.90 €	P11
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	71.43	19.16 €	160.00 €	21%	16.00	23%	48.35	95.45	23.22	93,670.94 €	P17		
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.99	58.89 €	169.27 €	43%	11.82	43%	108.60	190.46	43.67	287,865.54 €	P11
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.91	52.71 €	169.41 €	40%	12.49	40%	100.64	176.21	40.37	257,668.49 €	P10
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.92	53.36 €	170.01 €	40%	12.49	40%	100.43	176.15	40.39	260,828.23 €	P9
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.86	59.99 €	170.10 €	43%	11.79	43%	108.96	191.10	43.82	293,252.89 €	P95
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	51.23	61.90 €	170.67 €	44%	11.65	44%	110.80	194.20	44.51	302,563.74 €	P10
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.76	61.13 €	171.04 €	43%	11.77	43%	109.28	191.60	43.92	298,821.53 €	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.36	51.11 €	118.85 €	56%	7.18	54%	210.14	247.74	41.67	249,834.80 €	P11		
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.44	51.94 €	119.27 €	54%	7.12	55%	200.42	242.47	41.94	253,897.76 €	P10
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.90	57.75 €	119.33 €	58%	6.51	59%	214.82	259.78	44.91	282,296.90 €	P11
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.22	52.25 €	119.73 €	56%	7.15	54%	210.66	248.44			



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.54	57.75 €	145.46 €	53%	9.33	52%	192.17	256.91	48.87	282,296.90 €	P11
2	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.39	58.89 €	146.32 €	53%	9.31	52%	192.65	257.61	49.02	287,865.54 €	P11
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.27	48.94 €	146.46 €	47%	10.38	46%	170.13	228.90	43.78	239,199.56 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.95	59.99 €	146.71 €	53%	9.23	52%	194.45	259.77	49.38	293,252.89 €	P95
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	51.61	51.94 €	146.95 €	48%	10.11	48%	177.27	236.99	45.08	253,897.76 €	P10
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.85	61.90 €	147.03 €	54%	9.06	53%	199.38	265.13	50.20	302,563.74 €	P10
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.60	62.43 €	147.18 €	54%	9.02	53%	200.55	266.39	50.39	305,146.74 €	P10
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.81	61.13 €	147.57 €	53%	9.20	52%	194.94	260.48	49.53	298,821.53 €	P12
9	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.68	51.18 €	147.72 €	47%	10.27	47%	172.40	231.75	44.29	250,155.55 €	P125
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	51.04	54.18 €	148.22 €	49%	10.01	48%	179.51	239.78	45.58	264,853.75 €	P10
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.29	64.14 €	148.32 €	55%	8.96	54%	201.60	267.89	50.69	313,519.73 €	P10
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.90	59.66 €	151.44 €	50%	9.77	49%	183.08	245.33	46.76	291,636.26 €	P95

Table 76- POS of the MFH5 building in all climates



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.75	31.44 €	111.50 €	21%	8.55	24%	19.98	48.87	12.94	146,578.02 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.73	44.96 €	126.53 €	19%	8.71	23%	15.98	44.29	12.19	209,609.44 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.56	50.00 €	131.21 €	19%	8.67	23%	16.44	45.08	12.37	233,089.89 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.46	50.57 €	131.57 €	19%	8.65	24%	16.69	45.53	12.48	235,762.38 €	P9
5	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.52	51.93 €	133.05 €	19%	8.66	24%	16.58	45.30	12.42	242,111.23 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.46	52.37 €	133.37 €	19%	8.65	24%	16.69	45.53	12.48	244,167.55 €	P9
7	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.42	52.51 €	133.41 €	20%	8.64	24%	16.83	45.75	12.52	244,783.73 €	P9
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	- €	47.84	34.26 €	133.70 €	5%	10.64	6%	3.36	11.16	3.22	259,734.06 €	P17
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	40.42	54.31 €	135.22 €	20%	8.64	24%	16.83	45.75	12.52	253,188.90 €	P9
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	39.32	61.76 €	140.28 €	22%	8.39	26%	19.64	50.85	12.48	287,916.45 €	P9
11	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	39.22	64.13 €	142.43 €	22%	8.36	26%	19.91	51.34	13.83	298,994.12 €	P9
12	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	- €	47.87	43.24 €	142.75 €	5%	10.65	6%	3.29	11.02	3.18	201,586.95 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.07	31.44 €	159.06 €	17%	13.67	19%	23.68	57.93	15.34	146,578.02 €	P17	
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	52.31	64.24 €	176.10 €	27%	11.98	29%	38.66	89.46	23.22	299,477.31 €	P125
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	60.91	44.96 €	176.21 €	15%	14.06	17%	18.05	49.34	13.53	209,609.44 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	52.27	66.17 €	177.95 €	27%	11.97	29%	38.74	89.63	23.27	308,498.66 €	P125
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	51.88	67.38 €	178.22 €	27%	11.87	30%	39.53	91.45	23.74	314,136.75 €	P10
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	51.84	67.51 €	178.27 €	27%	11.86	30%	39.60	91.62	23.78	314,752.93 €	P10
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	52.57	66.09 €	178.54 €	26%	12.04	29%	38.00	88.22	22.93	308,092.54 €	P9
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	51.84	69.32 €	180.07 €	27%	11.86	30%	39.60	91.62	23.78	323,158.10 €	P10
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	60.76	50.00 €	180.92 €	15%	14.03	17%	18.49	50.06	13.69	233,089.89 €	P9
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	60.68	50.57 €	181.34 €	15%	14.01	17%	18.70	50.42	13.77	235,762.38 €	P9
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	50.86	73.42 €	181.74 €	29%	11.60	32%	41.47	96.21	25.00	342,272.36 €	P11
12	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	60.69	51.93 €	182.72 €	15%	14.01	17%	18.66	50.36	13.76	242,111.23 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.85	31.44 €	100.20 €	19%	7.31	23%	17.64	40.06	10.33	146,578.02 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	41.63	44.96 €	119.78 €	10%	7.95	17%	2.80	22.44	7.34	209,609.44 €	P9
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	- €	46.20	34.26 €	121.49 €	1%	9.29	2%	-1.17	1.13	1.10	159,734.06 €	P17
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	31.26	64.24 €	123.12 €	33%	6.27	34%	45.13	70.78	15.18	299,477.31 €	P125
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	41.37	50.00 €	124.32 €	11%	7.90	17%	3.61	23.65	7.59	233,089.89 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	41.23	50.57 €	124.61 €	11%	7.87	17%	4.03	24.29	7.73	235,762.38 €	P9
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	31.21	66.17 €	124.97 €	33%	6.26	34%	45.29	70.99	15.22	308,498.66 €	P125
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	31.69	66.09 €	125.80 €	32%	6.36	33%	43.83	68.79	14.76	308,092.54 €	P9
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.											



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.69	58.00 €	123.82 €	43%	6.98	41%	120.83	138.13	22.43	270,401.96 €	P11
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.52	59.94 €	125.50 €	44%	6.95	41%	121.50	138.89	22.55	279,423.30 €	P9S
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.44	60.38 €	125.78 €	44%	6.93	41%	121.72	139.26	22.63	281,479.63 €	P11
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.28	62.31 €	127.46 €	44%	6.91	41%	122.38	140.02	22.76	290,500.97 €	P12
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.67	62.07 €	127.86 €	43%	6.98	41%	120.89	138.20	22.44	289,367.16 €	P12S
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.71	67.51 €	129.09 €	45%	6.51	45%	118.38	142.70	24.59	314,752.93 €	P10
7	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.88	67.38 €	129.23 €	45%	6.54	44%	117.70	141.90	24.45	314,136.75 €	P10
8	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.95	64.24 €	129.33 €	42%	6.89	42%	109.39	132.24	22.86	299,477.31 €	P12S
9	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.71	69.32 €	130.89 €	45%	6.51	45%	118.38	142.70	24.59	323,158.10 €	P10
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.77	66.17 €	130.98 €	42%	6.86	42%	110.09	133.07	23.00	308,498.66 €	P12S
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	35.53	73.42 €	131.41 €	48%	6.14	48%	126.68	152.83	26.36	342,272.36 €	P11
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.56	66.09 €	132.19 €	41%	6.99	41%	107.09	129.41	22.35	308,092.54 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.72	64.24 €	141.25 €	41%	8.17	42%	115.19	147.83	27.11	299,477.31 €	P12S
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.72	67.51 €	141.58 €	44%	7.86	44%	123.66	157.16	28.55	314,752.93 €	P10
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.89	67.38 €	141.72 €	44%	7.89	44%	122.99	156.36	28.42	314,136.75 €	P10
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	44.54	66.17 €	142.90 €	42%	8.14	42%	115.89	148.66	27.25	308,498.66 €	P12S
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.26	73.42 €	143.22 €	47%	7.41	47%	132.50	168.59	30.66	342,272.36 €	P11
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.72	69.32 €	143.38 €	44%	7.86	44%	123.66	157.16	28.55	323,158.10 €	P10
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.40	66.09 €	144.28 €	41%	8.30	41%	112.75	144.67	26.52	308,092.54 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.64	77.30 €	144.83 €	49%	7.17	49%	139.69	176.18	31.78	360,374.45 €	P10
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.09	75.35 €	144.87 €	48%	7.38	47%	133.20	169.41	30.80	351,293.70 €	P9S
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	67.93	31.44 €	144.96 €	11%	12.02	14%	22.32	39.61	9.14	146,578.02 €	P17
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.83	75.93 €	145.00 €	48%	7.33	48%	134.10	170.59	31.02	353,966.20 €	P9S
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.01	75.79 €	145.15 €	48%	7.36	47%	133.41	169.77	30.89	353,350.03 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	50.70	31.44 €	118.19 €	16%	9.20	20%	21.99	44.35	10.89	146,578.02 €	P17
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.78	64.24 €	130.05 €	39%	6.99	39%	79.91	109.24	21.18	299,477.31 €	P12S
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.67	66.17 €	131.80 €	39%	6.97	40%	80.35	109.78	21.27	308,498.66 €	P12S
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.72	67.51 €	131.96 €	41%	6.85	41%	84.89	114.21	21.84	314,752.93 €	P10
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.83	67.38 €	132.00 €	40%	6.87	40%	84.46	113.69	21.76	314,136.75 €	P10
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0																								



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.70	77.30 €	175.14 €	51%	10.37	50%	222.89	275.21	48.61	360,374.45 €	P10
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	56.99	79.07 €	175.69 €	51%	10.24	51%	225.52	278.53	49.21	368,625.64 €	P10
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.27	78.94 €	176.02 €	51%	10.29	51%	224.39	277.19	48.98	368,009.47 €	P10
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	60.88	73.42 €	176.06 €	48%	10.88	48%	209.68	260.36	46.25	342,272.36 €	P11
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.85	67.51 €	176.89 €	44%	11.59	44%	194.99	241.88	42.92	314,752.93 €	P10
6	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	65.13	67.38 €	177.21 €	44%	11.64	44%	193.89	240.56	42.70	314,136.75 €	P10
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	67.67	58.00 €	177.37 €	42%	12.68	39%	196.80	228.72	37.86	270,401.96 €	P11
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	60.24	75.93 €	177.49 €	48%	10.76	48%	212.13	263.38	46.78	353,966.20 €	P9S
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	56.99	80.87 €	177.50 €	51%	10.24	51%	225.52	278.53	49.21	377,030.81 €	P10
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	60.59	75.35 €	177.52 €	48%	10.83	48%	210.83	261.74	46.48	351,293.70 €	P9S
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	60.53	75.79 €	177.83 €	48%	10.81	48%	210.97	262.00	46.55	353,350.03 €	P11
12	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.85	69.32 €	178.69 €	44%	11.59	44%	194.99	241.88	42.92	323,158.10 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.33	67.51 €	150.84 €	44%	8.83	43%	143.46	178.29	31.70	314,752.93 €	P10
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.54	67.38 €	151.04 €	43%	8.87	43%	142.65	177.32	31.53	314,136.75 €	P10
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	51.83	64.24 €	151.28 €	41%	9.22	41%	132.97	166.64	29.87	299,477.31 €	P12S
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	52.46	58.00 €	151.31 €	40%	9.91	37%	142.91	163.71	26.65	270,401.96 €	P11
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	46.29	73.42 €	151.47 €	47%	8.27	47%	154.47	192.46	34.30	342,272.36 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.19	77.30 €	152.35 €	50%	7.96	49%	163.53	202.23	35.78	360,374.45 €	P10
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.33	69.32 €	152.64 €	44%	8.83	43%	143.46	178.29	31.70	323,158.10 €	P10
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	51.62	66.17 €	152.88 €	41%	9.19	41%	133.80	167.63	30.04	308,498.66 €	P12S
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	52.26	59.94 €	152.93 €	40%	9.88	37%	143.73	164.66	26.80	279,423.30 €	P9S
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	46.08	75.35 €	153.06 €	47%	8.24	47%	155.31	193.46	34.47	351,293.70 €	P9S
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.62	79.07 €	153.12 €	50%	7.85	50%	165.59	204.89	36.27	368,625.64 €	P10
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	45.79	75.93 €	153.14 €	48%	8.18	48%	156.33	194.79	34.72	353,966.20 €	P9S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.42	58.00 €	156.87 €	46%	10.47	44%	199.11	232.49	38.69	270,401.96 €	P11
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.14	59.94 €	158.36 €	46%	10.42	44%	200.25	233.81	38.90	279,423.30 €	P9S
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.08	60.38 €	158.68 €	46%	10.41	45%	200.37	234.07	38.97	281,478.63 €	P11
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.80	62.31 €	160.16 €	46%	10.36	45%	201.51	235.39	39.19	290,500.97 €	P12
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.40	62.07 €	160.90 €	46%	10.47	44%	199.20	232.59	38.70	289,367.16 €	P12S
6	EW_26	1.47																															



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.37	26.30 €	98.52 €	44%	7.69	46%	22.87	36.43	7.89	31,556.01 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	43.16	39.19 €	117.52 €	38%	8.33	42%	19.05	31.88	7.12	47,025.94 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	43.57	38.82 €	117.69 €	38%	8.39	41%	18.58	31.39	7.05	46,583.38 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	41.81	42.20 €	118.01 €	40%	8.06	43%	20.20	33.50	7.44	50,635.54 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	41.24	43.62 €	118.36 €	41%	7.95	44%	20.69	34.18	7.58	52,338.49 €	P9
6	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	34.09	55.33 €	119.16 €	51%	6.80	52%	28.24	42.76	8.96	66,401.50 €	P125
7	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	44.56	40.72 €	122.24 €	36%	8.67	39%	18.21	30.20	6.71	48,863.04 €	P17
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	42.71	44.10 €	122.38 €	39%	8.33	42%	19.92	32.42	7.12	52,915.20 €	P9
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	42.06	45.52 €	122.59 €	40%	8.20	43%	20.47	33.20	7.27	54,618.15 €	P9
10	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	35.00	57.23 €	123.48 €	50%	7.06	51%	27.91	41.67	8.64	62,308.17 €	P125
11	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	38.78	53.92 €	124.13 €	44%	7.47	48%	22.80	37.13	8.16	64,708.26 €	P9
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	38.19	55.34 €	124.44 €	45%	7.35	48%	23.30	37.84	8.30	66,411.21 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.65	26.30 €	133.13 €	40%	11.40	41%	25.69	43.02	9.61	31,556.01 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	58.02	39.19 €	151.26 €	36%	11.95	38%	22.18	38.97	8.94	47,025.94 €	P9
3	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	48.19	55.33 €	151.42 €	47%	10.26	47%	31.98	50.77	10.97	66,401.50 €	P125
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	56.76	42.20 €	151.87 €	37%	11.70	40%	23.24	40.49	9.25	50,635.54 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	58.69	38.82 €	151.96 €	35%	12.06	38%	21.50	38.17	8.81	46,583.38 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	56.21	43.62 €	152.26 €	38%	11.59	40%	23.69	41.14	9.38	52,338.49 €	P9
7	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.99	57.23 €	153.53 €	47%	10.29	47%	32.51	51.01	10.94	68,681.17 €	P125
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	56.45	44.10 €	154.01 €	38%	11.73	40%	23.98	40.85	9.22	52,915.20 €	P9
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	58.46	40.72 €	154.25 €	35%	12.11	38%	22.19	38.44	8.75	48,863.04 €	P17
10	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	55.87	45.52 €	154.32 €	38%	11.61	40%	24.46	41.55	9.36	54,618.15 €	P9
11	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	52.75	53.92 €	156.06 €	42%	10.89	44%	26.62	45.30	10.21	64,708.26 €	P9
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.37	65.44 €	156.29 €	50%	9.70	50%	34.41	54.16	11.64	78,526.45 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	79.06	26.30 €	193.33 €	35%	17.88	35%	28.85	50.79	11.67	31,556.01 €	P17	
2	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	66.09	57.23 €	198.16 €	46%	15.09	45%	38.73	66.35	15.02	68,681.17 €	P125
3	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	67.25	55.33 €	198.43 €	45%	15.32	44%	37.73	64.95	14.74	66,401.50 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	61.49	67.34 €	198.74 €	49%	14.07	49%	42.07	71.87	16.24	80,806.11 €	P95
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	60.87	68.76 €	199.93 €	50%	13.94	49%	42.95	72.61	16.40	80,806.11 €	P12
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4																						



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.80	26.30 €	131.32 €	41%	11.13	44%	35.58	51.40	10.41	31,556.01 €	P17
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.70	55.33 €	141.50 €	53%	9.14	54%	48.15	65.93	12.80	66,401.50 €	P125
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	48.41	57.23 €	142.19 €	54%	9.02	54%	49.96	67.47	12.95	68,681.17 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.38	67.34 €	143.81 €	59%	7.97	60%	55.92	74.71	14.20	82,509.05 €	P12
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.90	65.44 €	143.81 €	57%	8.32	58%	52.93	71.68	13.79	78,526.45 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.20	67.34 €	143.81 €	59%	8.13	59%	55.18	73.73	14.02	80,806.11 €	P95
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.14	66.86 €	143.81 €	58%	8.18	59%	53.63	72.60	13.96	80,229.39 €	P11
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.77	63.96 €	144.66 €	56%	8.57	57%	52.62	70.64	13.49	76,753.94 €	P95
9	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	48.93	64.07 €	149.20 €	53%	9.03	54%	49.04	66.85	12.93	76,887.10 €	P10
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.69	65.97 €	149.96 €	54%	8.92	55%	50.80	68.34	13.07	79,166.77 €	P10
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	50.43	63.15 €	150.61 €	52%	9.28	53%	47.48	65.05	12.63	75,780.16 €	P9
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	52.14	60.14 €	150.61 €	50%	9.60	52%	45.91	63.00	12.25	72,170.56 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	65.36	68.76 €	188.34 €	55%	12.72	55%	72.69	97.19	18.49	82,509.05 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	66.34	67.34 €	188.66 €	55%	12.91	54%	71.80	96.01	18.27	80,806.11 €	P95
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	69.06	66.86 €	191.76 €	53%	13.28	53%	68.57	92.75	17.82	80,229.39 €	P11
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	69.98	65.44 €	191.96 €	52%	13.45	52%	67.73	91.64	17.61	78,526.45 €	P11
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	70.28	63.96 €	191.99 €	52%	13.62	52%	68.05	91.28	17.41	76,753.94 €	P95
6	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.39	81.71 €	192.91 €	59%	11.83	58%	77.46	103.15	19.56	98,046.33 €	P12
7	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.37	80.29 €	193.24 €	58%	12.02	57%	76.57	101.97	19.33	96,343.39 €	P11
8	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	62.56	79.83 €	194.69 €	57%	12.22	57%	75.38	100.55	19.09	95,794.83 €	P12
9	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	63.55	78.41 €	195.02 €	57%	12.41	56%	74.48	99.36	18.87	94,091.89 €	P115
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	76.08	57.23 €	195.16 €	48%	14.67	48%	62.54	84.32	16.16	68,681.17 €	P125
11	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.12	84.60 €	195.36 €	59%	11.79	58%	77.72	103.47	19.61	101,516.91 €	P11
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.34	77.50 €	195.62 €	56%	12.57	55%	73.81	98.40	18.67	92,994.65 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	62.82	68.76 €	171.02 €	61%	10.82	61%	96.35	117.17	20.37	82,509.05 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.05	67.34 €	171.63 €	60%	11.03	60%	95.15	115.70	20.12	80,806.11 €	P95
3	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.90	81.71 €	172.78 €	65%	9.64	60%	103.29	125.47	21.79	98,046.33 €	P12
4	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.15	80.29 €	173.43 €	64%	9.85	65%	102.07	123.97	21.53	96,343.39 €	P12
5	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €																			



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.35	81.71 €	220.03 €	61%	14.63	61%	134.40	162.33	28.03	98,046.33 €	P12
2	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.89	80.29 €	221.14 €	61%	14.90	61%	132.88	160.48	27.71	96,343.39 €	P12
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	94.10	88.76 €	221.20 €	57%	16.12	58%	125.60	151.82	26.23	82,509.05 €	P12
4	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	84.89	84.60 €	222.18 €	62%	14.55	62%	134.87	162.88	28.12	101,516.91 €	P11
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	95.61	67.34 €	222.25 €	57%	16.38	57%	124.11	150.01	25.92	80,806.11 €	P9S
6	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.43	83.18 €	223.29 €	61%	14.82	61%	133.34	161.03	27.80	99,813.97 €	P11
7	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	89.17	79.83 €	224.32 €	60%	15.28	60%	130.56	157.74	27.24	95,794.83 €	P10
8	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	82.96	90.44 €	224.92 €	62%	14.23	63%	136.84	165.19	28.51	108,531.93 €	P11S
9	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	90.70	78.41 €	225.40 €	59%	15.55	59%	129.04	155.90	26.93	94,091.89 €	P10
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	91.66	77.50 €	226.04 €	58%	15.71	59%	128.09	154.75	26.73	92,994.65 €	P11S
11	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	88.57	82.68 €	226.20 €	60%	15.18	60%	131.16	158.46	27.37	99,220.55 €	P11
12	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	90.10	81.26 €	227.29 €	59%	15.44	59%	129.64	156.62	27.05	97,517.61 €	P11

Table 78- POS of the MFH7 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.47	28.35 €	112.91 €	34%	9.04	37%	26.43	54.23	13.42	71,611.41 €	P17
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.99	40.88 €	126.09 €	33%	9.11	37%	25.08	52.92	13.25	103,268.28 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.39	44.02 €	127.99 €	34%	8.97	37%	26.01	54.43	13.59	111,196.20 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.17	44.50 €	128.01 €	35%	8.92	38%	26.33	54.99	13.71	112,409.59 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.87	46.21 €	129.09 €	35%	8.86	38%	26.76	55.73	13.88	116,722.30 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.58	46.18 €	130.64 €	34%	9.03	37%	25.81	53.94	13.45	116,657.60 €	P9
7	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.81	45.70 €	130.65 €	34%	9.08	37%	25.49	53.36	13.32	115,444.21 €	P17
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.26	47.89 €	131.66 €	34%	8.95	38%	26.29	54.76	13.64	120,970.31 €	P9
9	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.69	55.18 €	135.39 €	37%	8.57	40%	28.28	58.71	14.60	139,374.31 €	P9
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.39	56.88 €	136.45 €	37%	8.50	41%	28.72	59.48	14.78	143,687.02 €	P9
11	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.11	58.41 €	139.65 €	36%	8.68	40%	27.86	57.66	14.32	147,534.52 €	P17
12	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.34	62.29 €	141.86 €	37%	8.50	41%	28.96	59.62	14.78	157,339.75 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.49	28.35 €	162.19 €	30%	14.34	32%	32.08	68.15	17.12	71,611.41 €	P17
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.41	40.88 €	176.35 €	29%	14.52	31%	30.33	65.82	16.68	103,268.28 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.50	44.50 €	178.57 €	30%	14.31	32%	31.67	68.12	17.20	112,409.59 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.93	44.02 €	178.57 €	30%	14.42	32%	31.13	67.02	16.92	111,196.20 €	P9
5	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.21	46.18 €	178.96 €	31%	14.23	33%	31.87	68.84	17.41	116,657.60 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77																										



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	67.98	28.35 €	172.09 €	34%	15.39	35%	48.96	88.55	20.64	71.611.41 €	P17		
2	EW_26	1.47	14.88 €	W_18	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.82	61.05 €	184.36 €	44%	13.20	44%	65.26	114.21	26.16	154.216.88 €	P125
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.88	59.37 €	184.76 €	43%	13.43	43%	63.47	111.52	25.60	149.968.87 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.94	69.83 €	186.89 €	47%	12.53	47%	69.28	121.47	27.85	176.399.76 €	P95
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.93	68.15 €	187.20 €	46%	12.75	46%	67.71	118.98	27.31	172.151.75 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.44	69.35 €	187.50 €	46%	12.65	46%	68.60	120.21	27.55	175.186.38 €	P95
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.42	71.54 €	187.54 €	47%	12.42	47%	70.13	122.80	28.13	180.712.47 €	P12
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.38	65.15 €	187.58 €	44%	13.11	44%	65.97	115.31	26.39	164.568.35 €	P10
9	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.47	62.96 €	187.63 €	43%	13.35	43%	64.28	112.56	25.79	159.042.25 €	P10
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.44	69.86 €	187.92 €	46%	12.64	46%	68.51	120.23	27.58	176.464.46 €	P11
11	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.42	63.47 €	187.96 €	43%	13.33	43%	64.26	112.69	25.84	160.320.34 €	P10
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	70.75	40.88 €	189.28 €	31%	15.88	33%	43.30	81.53	19.40	103.268.28 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	67.60	28.35 €	137.70 €	34%	11.56	35%	68.98	86.42	15.49	71.611.41 €	P17		
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.77	69.83 €	138.22 €	59%	7.24	59%	124.50	151.65	26.42	176.399.76 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.91	71.54 €	138.50 €	60%	7.08	60%	126.28	153.84	26.80	180.712.47 €	P12
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.60	61.05 €	138.76 €	53%	8.22	54%	112.06	136.92	23.93	154.216.88 €	P125
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.06	69.35 €	139.78 €	58%	7.45	58%	121.71	148.39	25.87	175.186.38 €	P95
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	48.19	56.17 €	140.41 €	53%	8.94	49%	117.97	135.45	22.11	141.891.60 €	P95
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	47.32	57.88 €	140.68 €	54%	8.79	50%	119.76	137.64	22.49	146.204.31 €	P12
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	50.72	54.49 €	141.39 €	50%	9.22	48%	110.80	129.06	21.41	137.643.59 €	P11
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.10	75.64 €	141.43 €	61%	6.96	61%	128.17	155.88	27.11	191.063.94 €	P10
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.71	65.15 €	141.51 €	54%	8.08	54%	114.06	139.18	24.29	164.568.35 €	P10
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	49.89	56.20 €	141.73 €	51%	9.07	49%	112.52	131.15	21.78	141.956.30 €	P11
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.47	68.15 €	142.04 €	55%	7.82	56%	116.08	142.31	24.95	172.151.75 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	71.45	28.35 €	147.66 €	36%	12.64	39%	76.14	103.67	20.03	71.611.41 €	P17		
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.25	69.83 €	151.95 €	58%	8.71	58%	129.66	164.78	29.94	176.399.76 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.33	71.54 €	152.08 €	59%	8.55	58%	131.50	167.11	30.36	180.712.47 €	P12
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.11	61.05 €	152.								



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.82	71.54 €	146.88 €	61%	7.97	61%	150.95	184.24	32.16	180,712.47 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.85	69.83 €	146.89 €	61%	8.16	61%	148.84	181.63	31.70	176,399.76 €	P95
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.29	61.05 €	148.43 €	55%	9.25	55%	135.12	165.35	28.94	154,216.88 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.46	69.35 €	148.96 €	59%	8.42	59%	145.37	177.56	31.02	175,186.38 €	P95
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.80	75.64 €	149.50 €	62%	7.82	62%	153.31	186.80	32.55	191,063.94 €	P10
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.43	57.88 €	149.63 €	56%	9.74	53%	144.32	167.53	27.69	146,204.31 €	P12
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.47	56.17 €	149.65 €	55%	9.92	52%	142.20	164.92	27.23	141,891.60 €	P95
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	52.20	65.15 €	149.65 €	56%	9.07	56%	137.61	168.13	29.38	164,568.35 €	P10
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.19	73.07 €	150.91 €	60%	8.24	60%	148.40	180.76	31.49	184,579.36 €	P10
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	41.30	83.00 €	151.14 €	65%	7.21	65%	160.62	195.65	34.08	209,665.27 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.35	81.30 €	151.17 €	64%	7.40	64%	158.47	193.00	33.62	205,352.55 €	P12
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.40	73.45 €	151.49 €	60%	8.26	60%	147.81	180.25	31.43	185,537.85 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	71.15	71.54 €	191.70 €	58%	12.73	58%	202.21	251.18	44.63	180,712.47 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	72.47	69.83 €	192.20 €	58%	12.97	57%	199.53	247.85	44.04	176,399.76 €	P95
3	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.97	83.00 €	193.26 €	62%	11.69	62%	215.39	266.80	47.27	209,665.27 €	P12
4	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.30	81.30 €	193.79 €	61%	11.93	61%	212.66	263.42	46.68	205,352.55 €	P12
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	69.84	75.64 €	193.97 €	59%	12.54	59%	205.34	254.48	45.12	191,063.94 €	P10
6	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.65	85.56 €	195.31 €	62%	11.63	62%	216.07	267.60	47.41	216,132.48 €	P11
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	74.77	69.35 €	195.40 €	56%	13.36	56%	194.61	242.03	43.06	175,186.38 €	P95
8	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	63.76	87.10 €	195.74 €	63%	11.52	62%	218.34	269.84	47.70	220,016.74 €	P10
9	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.99	83.86 €	195.84 €	61%	11.87	61%	213.34	264.23	46.81	211,819.77 €	P11
10	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.66	81.34 €	195.90 €	60%	12.14	60%	209.65	260.01	46.13	205,469.73 €	P11
11	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.98	79.63 €	196.41 €	60%	12.38	59%	206.95	256.66	45.53	201,157.02 €	P115
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	72.89	73.07 €	196.49 €	57%	13.08	57%	199.11	246.78	43.76	184,579.36 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.95	71.54 €	162.94 €	58%	9.69	58%	152.38	190.46	34.05	180,712.47 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.98	69.83 €	162.95 €	57%	9.87	57%	150.30	187.85	33.58	176,399.76 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.59	69.35 €	165.05 €	54%	10.14	56%	146.83	183.78	32.90	175,186.38 €	P95
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.12	75.64 €	166.01 €	59%	9.58	59%	154.52	192.55	34.32	191,063.94 €	P10
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.35	61.05 €	166.07 €	52%	11.13	52%	134.67	169.23	30.41	154,216.88 €	P125
6	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.49	83.00 €	167.32 €	62%	8.94	61%	161.94	201.72	35.94	209,665.27 €	P12
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	84.68	28.35 €	167.32 €	35%	14.71	37%	84.80	112.83	21.37	71,611.41 €	P17
8	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.54	81.30 €	167.38 €	61%	9.13	61%	159.83	199.07	35.47	205,352.55 €	



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.13	16.66 €	132.30 €	12%	12.38	13%	51.75	116.53	29.95	262,253.27 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	55.59	21.72 €	140.36 €	10%	12.71	11%	37.52	93.45	24.89	341,861.86 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.39	42.74 €	142.56 €	23%	10.68	25%	100.91	222.54	56.74	672,932.73 €	P9
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.18	43.94 €	143.26 €	23%	10.63	26%	102.63	225.95	57.57	691,754.24 €	P125
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	55.47	25.71 €	144.09 €	10%	12.68	11%	38.70	95.44	25.34	404,723.05 €	P9
6	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.75	45.93 €	144.21 €	24%	10.52	26%	105.50	232.70	59.33	723,058.04 €	P10
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.14	45.16 €	144.38 €	23%	10.62	26%	102.92	226.62	57.74	710,939.60 €	P125
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.03	46.17 €	145.12 €	24%	10.59	26%	103.67	228.36	58.19	726,818.99 €	P10
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	55.39	26.93 €	145.14 €	10%	12.66	11%	39.44	96.69	25.62	423,908.40 €	P9
10	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.71	47.15 €	145.33 €	24%	10.51	26%	105.78	233.36	59.50	742,243.40 €	P10
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.50	47.90 €	145.54 €	24%	10.45	27%	107.01	236.66	60.40	754,057.63 €	P11
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	55.41	27.59 €	145.87 €	10%	12.67	11%	39.21	96.27	25.52	434,379.86 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.88	21.72 €	86.74 €	6%	6.91	9%	13.04	38.54	10.80	341,861.86 €	P9
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.69	25.71 €	90.36 €	7%	6.87	10%	15.00	41.54	11.44	404,723.05 €	P9
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.55	26.93 €	91.34 €	7%	6.84	10%	16.72	43.73	11.83	423,908.40 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.60	27.59 €	92.07 €	7%	6.85	10%	15.75	42.85	11.73	434,379.86 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	37.33	26.61 €	92.37 €	5%	6.98	8%	7.10	31.42	9.58	418,955.46 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.46	28.81 €	93.05 €	7%	6.82	10%	17.48	45.05	12.13	453,565.21 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	27.54	42.74 €	93.33 €	30%	5.38	29%	141.01	185.48	34.79	672,932.73 €	P9
8	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	27.17	43.94 €	93.79 €	31%	5.30	30%	144.87	191.38	36.03	691,754.24 €	P125
9	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	27.15	45.16 €	94.97 €	31%	5.30	30%	145.09	191.69	36.09	710,939.60 €	P125
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	36.14	31.65 €	95.22 €	8%	6.75	11%	20.49	50.07	13.25	498,311.47 €	P9
11	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	27.37	45.93 €	96.36 €	30%	5.37	29%	144.31	188.25	35.04	723,058.04 €	P10
12	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	27.48	46.17 €	96.85 €	30%	5.39	29%	143.29	186.42	34.62	726,818.99 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.61	16.66 €	98.01 €	15%	8.67	17%	65.40	118.63	27.69	262,253.27 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.32	21.72 €	107.53 €	10%	9.14	12%	30.25	75.87	20.26	341,861.86 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.14	25.71 €	111.16 €	10%	9.10	13%	32.04	78.73	20.88	404,723.05 €	P9
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.01	26.93 €	112.13 €	10%	9.08	13%	33.68	80.89	21.28	423,908.40 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	35.50	42.74 €	112.85 €	29%	7.48	28%	160.85	230.51	46.39	672,932.73 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.06	27.59 €	112.87 €	10%	9.09	13%	32.68	79.95	21.17	434,379.86 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.82	26.61 €	113.27 €	9%	9.23	11%	24.11	68.10	18.85	418,955.46 €	P9
8	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	35.14	43.94 €	113.32 €	30%	7.41	29%	164.45	236.21	47.62	691,754.24 €	P125
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT															



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	33.42	45.93 €	103.78 €	54%	6.14	52%	502.40	606.46	104.65	723,058.04 €	P10
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	35.75	42.74 €	104.16 €	50%	6.51	49%	469.95	569.68	98.74	672,932.73 €	P9
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	35.19	43.94 €	104.37 €	51%	6.41	50%	476.73	578.53	100.39	691,754.24 €	P125
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	33.20	47.15 €	104.67 €	54%	6.10	52%	505.24	609.79	105.21	742,243.40 €	P10
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.47	50.16 €	104.98 €	56%	5.82	54%	528.96	637.12	109.69	789,611.67 €	P10
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	33.10	47.90 €	105.00 €	54%	6.06	53%	504.58	611.39	105.92	754,057.63 €	P11
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	34.97	45.16 €	105.23 €	51%	6.37	50%	479.71	582.06	100.98	710,939.60 €	P125
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	34.38	46.17 €	105.59 €	52%	6.31	51%	489.79	591.26	102.03	726,819.99 €	P10
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	32.88	49.12 €	105.87 €	54%	6.02	53%	507.55	614.88	106.51	773,242.98 €	P95
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.24	51.77 €	106.16 €	57%	5.77	55%	531.37	640.68	110.42	815,018.24 €	P10
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	32.90	49.78 €	106.52 €	54%	6.02	53%	507.00	614.60	106.53	783,714.44 €	P11
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.04	52.99 €	107.06 €	57%	5.74	55%	534.06	643.81	110.94	834,203.59 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.89	16.66 €	93.79 €	14%	8.17	16%	80.85	118.79	24.36	262,253.27 €	P17
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.87	42.74 €	95.45 €	44%	5.60	42%	303.51	371.12	64.90	672,932.73 €	P9
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.40	43.94 €	95.78 €	45%	5.51	43%	308.71	378.41	66.35	691,754.24 €	P125
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.27	45.16 €	96.79 €	45%	5.48	44%	310.43	380.45	66.69	710,939.60 €	P125
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	28.62	45.93 €	96.83 €	46%	5.41	44%	321.74	390.83	67.89	723,058.04 €	P10
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	28.50	47.15 €	97.87 €	47%	5.39	45%	323.24	392.58	68.18	742,243.40 €	P10
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	29.16	46.17 €	97.97 €	45%	5.50	43%	314.86	382.32	66.38	726,819.99 €	P10
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	28.45	47.90 €	98.20 €	47%	5.34	45%	321.33	393.46	68.91	754,057.63 €	P11
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.57	46.74 €	98.90 €	45%	5.54	43%	306.86	375.76	65.81	735,793.91 €	P9
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	28.33	49.12 €	99.22 €	47%	5.32	45%	322.95	395.37	69.23	773,242.98 €	P95
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	28.27	49.78 €	99.75 €	47%	5.31	45%	323.26	396.23	69.47	783,714.44 €	P11
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	27.85	50.16 €	99.91 €	48%	5.29	46%	332.40	402.80	69.79	789,611.67 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.27	42.74 €	117.14 €	43%	7.92	41%	380.82	482.84	87.53	672,932.73 €	P9
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.32	45.93 €	117.25 €	46%	7.59	44%	407.06	513.52	92.64	723,058.04 €	P10
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.74	43.94 €	117.35 €	44%	7.81	42%	386.74	491.15	89.18	691,754.24 €	P125
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.73	47.90 €	117.86 €	47%	7.45	45%	411.79	522.91	94.93	754,057.63 €	P11
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.14	47.15 €	118.16 €	46%	7.56	44%	409.40	516.41	93.16	742,243.40 €</	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.63	50.16 €	110.22 €	57%	6.37	56%	616.99	736.03	125.41	789,611.67 €	P10
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.36	45.93 €	110.30 €	53%	6.82	52%	580.37	693.14	118.25	723,058.04 €	P10
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.10	47.15 €	111.10 €	54%	6.78	53%	583.89	697.30	118.95	742,243.40 €	P10
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	37.87	47.90 €	111.22 €	54%	6.71	53%	584.64	700.81	120.03	754,057.63 €	P11
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.43	51.77 €	111.44 €	57%	6.32	56%	619.10	739.23	126.08	815,018.24 €	P10
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	41.28	42.74 €	111.61 €	50%	7.29	49%	540.12	647.16	110.79	672,932.73 €	P9
7	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	40.67	49.14 €	111.74 €	51%	7.18	50%	547.59	656.83	112.58	691,754.24 €	P125
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	37.60	43.92 €	111.99 €	54%	6.66	54%	588.31	705.15	120.77	773,242.98 €	P95
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	40.27	42.81 €	112.08 €	51%	7.35	49%	569.70	663.10	109.95	673,988.12 €	P11
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.17	52.99 €	112.24 €	57%	6.28	56%	622.63	743.37	126.78	834,203.59 €	P10
11	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.56	46.17 €	112.49 €	52%	7.03	51%	564.64	674.24	115.01	726,818.99 €	P10
12	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	40.39	45.16 €	112.51 €	51%	7.13	50%	551.26	661.19	113.32	710,939.60 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.82	50.16 €	119.66 €	60%	7.35	60%	839.64	1002.55	171.00	789,611.67 €	P10
2	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	47.12	42.81 €	119.68 €	56%	8.13	55%	786.49	934.97	158.71	673,988.12 €	P11
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	46.73	44.03 €	120.28 €	56%	8.07	56%	791.64	941.05	159.74	693,173.47 €	P95
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.68	51.77 €	121.02 €	60%	7.22	60%	841.34	1004.82	171.43	815,018.24 €	P10
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	46.87	44.70 €	121.14 €	56%	8.09	56%	789.65	938.90	159.41	703,644.94 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.30	52.99 €	121.63 €	60%	7.26	60%	846.36	1010.77	172.43	834,203.59 €	P10
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	46.48	45.91 €	121.74 €	56%	8.02	56%	794.80	944.99	160.44	722,830.29 €	P12
8	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.81	52.99 €	121.83 €	56%	8.03	56%	786.75	939.77	160.35	723,058.04 €	P10
9	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.43	47.15 €	122.44 €	56%	7.96	56%	791.76	945.72	161.36	742,243.40 €	P10
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	47.10	46.04 €	122.87 €	56%	8.13	55%	786.71	935.24	158.76	724,761.21 €	P125
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	46.60	47.90 €	123.40 €	56%	7.99	56%	789.16	943.13	161.02	754,057.63 €	P11
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.35	52.01 €	123.94 €	58%	7.61	58%	819.32	978.59	166.97	818,779.19 €	P10

Table 80- POS of the MFH9 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	46.51	24.38 €	115.84 €	28%	9.76	29%	34.94	58.02	12.90	79,159.73 €	P13
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.13	24.38 €	117.06 €	27%	9.89	28%	33.62	56.01	12.47	79,157.00 €	P14
3	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	45.38	29.02 €	118.37 €	30%	9.54	31%	37.53	61.69	13.63	94,230.90 €	P14
4	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	90.00 €	46.83	29.49 €	121.66 €	27%	9.84	28%	34.42	57.00	12.65	95,733.31 €	P13
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.35	45.68 €	122.66 €	40%	8.22	40%	54.97	84.52	17.89	1	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	44.67	45.68 €	132.13 €	55%	9.22	53%	129.66	174.21	33.28	148,307.44 €	P13		
2	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.87	52.22 €	137.27 €	55%	9.07	53%	131.67	176.81	33.76	169,521.50 €	P14		
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.83	50.30 €	139.03 €	53%	9.46	51%	127.19	170.46	32.49	163,314.63 €	P14		
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.02	41.92 €	140.06 €	48%	10.46	46%	114.75	153.58	29.25	136,084.78 €	P14		
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.04	42.98 €	142.78 €	47%	10.64	45%	112.03	150.29	28.67	139,538.84 €	P14		
6	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.95	48.69 €	144.90 €	49%	10.26	47%	117.33	157.06	29.91	158,067.64 €	P15		
7	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.50	62.74 €	146.00 €	57%	8.89	54%	136.07	181.26	34.37	203,687.94 €	P15		
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	53.17	41.39 €	148.77 €	46%	11.47	41%	118.39	146.61	25.97	134,386.46 €	P13		
9	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.42	54.03 €	150.98 €	51%	10.35	47%	126.77	162.04	29.60	175,429.21 €	P15		
10	EW_2	2.22	44.00 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.74	50.34 €	151.11 €	49%	10.77	45%	125.99	157.77	28.26	163,438.57 €	P15		
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	68.72	24.38 €	151.16 €	30%	13.49	31%	66.79	96.14	19.41	79,159.73 €	P13		
12	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	66.44	29.02 €	151.81 €	32%	13.07	33%	72.48	103.54	20.79	94,230.90 €	P14

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.51	45.68 €	171.29 €	53%	13.44	51%	148.36	220.47	45.58	148,307.44 €	P13
2	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.52	52.22 €	175.96 €	54%	13.24	52%	150.61	223.68	46.22	169,521.50 €	P14
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.69	50.30 €	178.23 €	52%	13.68	50%	145.88	216.66	44.77	163,314.63 €	P14
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.16	62.74 €	182.21 €	55%	12.78	53%	156.30	231.36	47.69	203,687.94 €	P15
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.16	41.92 €	182.43 €	47%	15.03	45%	131.78	195.63	40.41	136,084.78 €	P14
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.37	42.98 €	185.64 €	46%	15.25	44%	128.82	191.71	39.67	139,538.84 €	P14
7	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.83	48.69 €	186.62 €	48%	14.75	46%	134.69	199.95	41.30	158,067.64 €	P15
8	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.85	54.03 €	189.13 €	50%	14.46	47%	146.03	209.63	42.24	175,429.21 €	P15
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	69.65	41.39 €	189.47 €	46%	15.86	42%	136.26	190.82	37.72	134,386.46 €	P13
10	EW_26	1.47	14.88 €	W_8	0.6	1.3	0.26	346.16 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.26	72.32 €	189.69 €	55%	12.55	54%	152.26	231.01	48.46	234,802.56 €	P15
11	EW_2	2.22	44.00 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.54	50.34 €	190.15 €	49%	14.97	46%	144.72	204.15	40.59	163,438.57 €	P15
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.51	71.34 €	191.40 €	55%	12.85	53%	155.36	230.21	47.49	231,624.27 €	P14

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_2	2.22	44.00 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.14	50.34 €	148.25 €	65%	10.36	65%	304.56	363.04	61.81	163,438.57 €	P15
2	EW_2	2.22	44.00 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	58.50	53.84 €	149.29 €	66%	10.10	66%	309.33	368.36	62.65	174,784.90 €	P15
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	67.46	41.39 €	151.28 €	61%	11.63	60%	284.92	339.26	57.69	134,386.46 €	P13
4	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.64	54.03 €	152.45 €	65%	10.41	65%	302.67	361.40	61.64	175,429.21 €	P15
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	66.60	45.68 €	153.27 €	61%	11.38	61%	285.77	342.06	58.50	148,307.44 €	P13
6	EW_2	2.22	44.00 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42</																



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	69.53	45.68	168.91	57%	13.09	56%	238.89	301.87	54.55	148,307.44	P13
2	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	67.83	52.22	172.59	58%	12.79	57%	243.31	307.38	55.53	169,521.50	P14
3	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	62.55	62.74	174.75	62%	11.91	60%	257.94	324.53	58.40	203,687.94	P15
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	71.36	50.30	176.82	56%	13.44	55%	234.48	295.94	53.41	163,314.63	P14
5	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.91	50.34	177.12	58%	13.49	55%	248.05	303.88	53.25	163,438.57	P15
6	EW_28	1.16	12.16	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	67.47	54.03	177.13	58%	13.09	56%	249.74	308.57	54.54	175,429.21	P13S
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_0	BASE	-	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	77.70	41.92	178.96	52%	14.55	51%	217.69	275.34	49.80	136,084.78	P14
8	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	67.96	53.84	179.41	58%	13.37	55%	251.20	306.98	53.66	174,784.90	P15
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	76.13	41.39	180.86	53%	14.84	50%	230.16	280.45	48.87	134,386.46	P13
10	EW_26	1.47	14.88	W_8	0.6	1.3	0.26	346.16	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	61.86	72.32	181.53	62%	11.60	61%	257.03	326.77	59.39	234,802.56	P14
11	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	75.59	48.69	182.11	53%	14.17	53%	223.11	282.20	51.04	158,067.64	P15
12	EW_2	2.22	44.00	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	71.01	52.64	182.99	56%	13.87	54%	242.65	297.07	52.02	170,911.38	P15

Table 81- POS of the MFH10 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.41	105.40 €	187.93 €	35%	8.82	37%	11.68	20.75	4.79	98,652.80 €	P9
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.62	109.11 €	189.81 €	37%	8.63	38%	12.05	21.49	4.97	102,127.37 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.84	111.01 €	192.24 €	36%	8.68	38%	11.96	21.29	4.92	103,907.01 €	P9
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.33	115.32 €	195.32 €	37%	8.55	39%	12.16	21.76	5.05	107,941.91 €	P9
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.74	117.63 €	196.20 €	38%	8.40	40%	12.40	22.32	5.19	110,099.27 €	P12
6	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.58	122.07 €	200.26 €	38%	8.36	40%	12.46	22.47	5.23	114,258.85 €	P12
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.44	122.51 €	202.79 €	37%	8.58	38%	12.12	21.66	5.02	114,671.05 €	P9
8	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.49	123.97 €	204.39 €	37%	8.60	38%	12.11	21.61	5.00	116,036.38 €	P9
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.78	126.22 €	204.91 €	38%	8.41	40%	12.38	22.27	5.18	118,145.62 €	P9
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.96	128.13 €	207.26 €	38%	8.46	39%	12.31	22.11	5.13	119,925.27 €	P9
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.42	130.59 €	208.39 €	39%	8.31	40%	12.52	22.61	5.27	122,228.64 €	P12
12	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.74	131.65 €	210.22 €	38%	8.40	40%	12.40	22.32	5.19	123,219.84 €	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.75	105.40 €	230.61 €	39%	13.42	40%	17.16	34.26	8.38	98,652.80 €	P9
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.17	109.11 €	233.00 €	39%	13.27	41%	17.44	34.81	8.51	102,127.37 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	56.65	111.01 €	233.62 €	40%	13.14	41%	17.64	35.29	8.64	103,907.01 €	P9
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.96	115.32 €	237.79 €	42%	12.69	43%	18.29	36.87	9.06	107,941.91 €	P9
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.77	117.63 €	235.66 €	42%	12.64	43%	18.38	37.05	9.10	110,099.27 €	P12
6	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.13	122.07 €	238.53 €	43%	12.48	44%	18.62	37.65	9.26	114,258.85 €	P12
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.48	122.51 €	242.25 €	41%	12.83	43%	18.10	36.39	8.93	114,671.05 €	P9
8	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.79	123.97 €	244.51 €	41%	12.91	42%	17.99	36.10	8.85	116,036.38 €	P9
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.03	126.22 €	244.90 €	42%	12.71	43%	18.28	36.81	9.03	118,145.62 €	P9
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.43	128.13 €	245.33 €	42%	12.56	44%	18.51	37.37	9.18	119,925.27 €	P9
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.89	130.59 €	246.47 €	43%	12.41	45%	18.72	37.87	9.32	122,228.64 €	P12
12	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.77	131.65 €	249.67 €	42%	12.64	43%	18.38	37.05	9.10	123,219.84 €	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	30.01	109.11 €	164.41 €	55%	5.89	55%	25.22	34.56	6.71	102,127.37 €	P9
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.74	105.40 €	164.53 €	53%	6.30	52%	24.35	32.94	6.33	98,652.80 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	30.51	111.01 €	167.91 €	54%	6.06	54%	25.20	34.09	6.55	103,907.01 €	P9
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	29.88	115.32 €	171.08 €	55%	5.94	55%	25.63	34.68	6.66	107,941.91 €	P9
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.25	117.63 €	171.91 €	56%	5.78	56%	25.91	35.27	6.81</		



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.61	42.60 €	163.40 €	49%	12.79	47%	55.57	64.81	10.77	39,870.01 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.29	41.56 €	165.03 €	48%	13.07	46%	54.23	63.23	10.51	38,901.22 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.21	42.59 €	170.79 €	46%	13.58	44%	51.95	60.50	10.04	39,868.67 €	P7
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.19	53.09 €	171.93 €	50%	12.59	48%	56.83	66.13	10.96	49,696.01 €	P6
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.99	40.69 €	172.11 €	44%	13.91	43%	49.17	57.90	9.73	38,089.02 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.90	41.56 €	172.44 €	44%	13.86	43%	50.60	58.92	9.77	38,899.88 €	P7
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.86	52.06 €	173.51 €	49%	12.86	47%	55.50	64.58	10.70	48,727.22 €	P6
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.72	56.36 €	175.71 €	49%	12.64	48%	56.26	65.64	10.91	52,749.37 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.78	57.74 €	177.19 €	49%	12.65	48%	56.22	65.59	10.90	54,043.70 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.41	55.32 €	177.34 €	48%	12.92	47%	54.91	64.06	10.65	51,780.58 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.82	60.64 €	178.53 €	50%	12.48	49%	56.96	66.48	11.06	56,762.93 €	P5
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.47	56.70 €	178.82 €	48%	12.93	47%	54.87	64.01	10.64	53,074.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.98	42.60 €	191.87 €	44%	15.86	41%	54.45	62.34	10.14	39,870.01 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.63	41.56 €	193.43 €	43%	16.13	40%	53.13	60.79	9.88	38,901.22 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.78	40.69 €	199.29 €	40%	16.84	37%	48.34	55.97	9.22	38,089.02 €	P7
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.61	42.59 €	199.35 €	41%	16.65	38%	50.83	58.01	9.40	39,868.67 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.71	53.09 €	200.74 €	45%	15.69	41%	55.65	63.53	10.30	49,696.01 €	P6
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.27	41.56 €	200.99 €	40%	16.93	37%	49.50	56.45	9.14	38,899.88 €	P7
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.33	52.06 €	202.24 €	44%	15.96	40%	54.33	62.01	10.05	48,727.22 €	P6
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.07	56.36 €	204.14 €	45%	15.70	41%	55.15	63.19	10.29	52,749.37 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.13	57.74 €	205.61 €	45%	15.71	41%	55.10	63.13	10.28	54,043.70 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.73	55.32 €	205.69 €	44%	15.97	40%	53.82	61.64	10.03	51,780.58 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.16	60.64 €	206.91 €	45%	15.54	42%	55.85	64.04	10.44	56,762.93 €	P5
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.78	56.70 €	207.17 €	44%	15.99	40%	53.77	61.59	10.02	53,074.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.86	42.60 €	158.60 €	41%	12.36	35%	35.53	39.45	6.18	39,870.01 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.88	41.56 €	159.15 €	40%	12.52	34%	34.69	38.49	6.02	38,901.22 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.09	40.69 €	160.33 €	37%	12.73	33%	32.25	36.42	5.83	38,089.02 €	P7
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.82	42.59 €	163.42 €	38%	12.87	32%	33.23	36.67	5.70	39,868.67 €	P7
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.87	41.56 €	164.01 €	37%	13.04	31%	32.38	35.69	5.54	38,899.88 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.93	38.78 €	167.99 €	33%	13.75	27%	29.28	31.89	4.87	36,296.83 €	P8
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.29	53.09 €	168.65 €	41%	12.31	35%	36.19	39.97	6.2		



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.60	42.60 €	262.85 €	45%	23.36	43%	84.02	97.88	16.24	39,870.01 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.15	41.56 €	265.85 €	44%	23.79	42%	82.00	95.50	15.85	38,901.22 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	126.31	53.09 €	270.06 €	46%	23.01	43%	86.02	100.03	16.57	49,696.01 €	P6
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	128.84	52.06 €	273.02 €	45%	23.44	42%	84.00	97.66	16.17	48,727.22 €	P6
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	135.76	42.59 €	274.42 €	42%	24.58	40%	78.43	91.18	15.10	39,868.67 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.28	56.36 €	274.43 €	45%	23.13	43%	85.05	99.12	16.46	52,749.37 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.36	57.74 €	275.96 €	45%	23.14	43%	84.98	99.04	16.45	54,043.70 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.93	60.64 €	276.52 €	46%	22.90	44%	86.09	100.38	16.68	56,762.93 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	138.29	41.56 €	277.40 €	41%	25.01	39%	76.41	88.81	14.70	38,899.88 €	P7
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	129.83	55.32 €	277.44 €	44%	23.56	42%	83.02	96.74	16.06	51,780.58 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	140.27	40.69 €	278.18 €	40%	25.17	38%	74.13	86.96	14.55	38,089.02 €	P7
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	129.91	56.70 €	278.96 €	44%	23.57	42%	82.95	96.66	16.05	53,074.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.57	42.60 €	208.94 €	45%	17.65	42%	63.56	73.33	12.04	39,870.01 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	98.49	41.56 €	210.93 €	44%	17.97	41%	62.03	71.54	11.74	38,901.22 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	94.99	53.09 €	217.30 €	46%	17.42	43%	64.99	74.81	12.25	49,696.01 €	P6
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.94	42.59 €	217.62 €	42%	18.56	39%	59.36	68.30	11.18	39,868.67 €	P7
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	96.89	52.06 €	219.25 €	45%	17.74	42%	63.47	73.03	11.95	48,727.22 €	P6
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.86	41.56 €	219.62 €	41%	18.89	38%	57.83	66.51	10.88	38,899.88 €	P7
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.26	40.69 €	219.67 €	40%	18.97	38%	56.09	65.20	10.79	38,089.02 €	P7
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.54	56.36 €	221.00 €	45%	17.47	43%	64.35	74.30	12.21	52,749.37 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.61	57.74 €	222.49 €	45%	17.48	43%	64.30	74.23	12.19	54,043.70 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.46	55.32 €	222.99 €	44%	17.79	42%	62.81	72.50	11.91	51,780.58 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.50	60.64 €	223.56 €	46%	17.28	43%	65.15	75.27	12.38	56,762.93 €	P5
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.52	56.70 €	224.48 €	44%	17.80	42%	62.76	72.44	11.89	53,074.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.08	42.60 €	236.31 €	48%	20.50	47%	85.18	100.41	16.89	39,870.01 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.65	41.56 €	239.39 €	46%	20.93	46%	83.14	98.00	16.48	38,901.22 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	115.61	53.09 €	243.12 €	49%	20.11	46%	87.24	102.72	17.25	49,696.01 €	P6
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	118.17	52.06 €	246.16 €	48%	20.54	47%	85.21	100.32	16.85	48,727.22 €	P6
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.20	42.59 €	247.79 €	44%	21.71	44%	79.59	93.75	15.75	39,868.67 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.77	56.36 €	247.94 €	48%	20.27	47%	86.20	101.64	17.10	52,749.37 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.85	57.74 €	249.46 €	48%	20.29	47%	86.13	101.56	17.09	54,043.70 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.43	60.64 €	250.07 €	49%	20.05	48%	87.23	102.88	17.31	56,762.93 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.76	41.56 €	250.84 €	43%	22.15	43%	77.56	91.35	15.35	38,899.88 €	P7
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.35	55.32 €	251.03 €	47%	20.71	46%	84.15	99.22	16.69	51,780.58 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_																					



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.99	33.01 €	164.71 €	28%	14.09	22%	11.43	13.25	2.19	18,289.64 €	P15
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.21	41.40 €	168.93 €	30%	13.64	24%	11.90	14.24	2.43	22,938.62 €	P15
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.32	41.24 €	171.97 €	28%	13.99	22%	11.78	13.62	2.24	22,846.70 €	P1
4	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.58	41.24 €	172.16 €	28%	14.01	22%	11.60	13.48	2.23	22,846.70 €	P15
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.40	38.49 €	172.65 €	26%	14.35	20%	10.84	12.47	2.04	21,325.72 €	P15
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.99	46.72 €	175.10 €	30%	13.74	24%	12.34	14.36	2.38	25,882.78 €	P1
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.97	42.43 €	175.80 €	26%	14.27	21%	11.01	12.71	2.09	23,507.06 €	P15
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.59	46.72 €	175.94 €	29%	13.83	23%	12.02	14.02	2.33	25,882.78 €	P15
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.34	47.94 €	176.02 €	29%	13.70	24%	11.93	14.16	2.40	26,561.93 €	P3
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.53	47.94 €	176.02 €	29%	13.83	23%	12.09	14.06	2.33	26,561.93 €	P1
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.42	46.71 €	177.47 €	28%	13.99	22%	11.70	13.57	2.24	25,881.90 €	P15
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.28	45.69 €	178.06 €	27%	14.16	21%	11.36	13.09	2.14	25,314.35 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	44.99	41.24 €	131.86 €	30%	9.68	31%	5.62	10.43	2.46	22,846.70 €	P15
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	46.30	41.24 €	134.33 €	27%	9.95	30%	5.11	9.70	2.32	22,846.70 €	P1
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	44.99	47.94 €	138.57 €	30%	9.68	31%	5.62	10.43	2.46	26,561.93 €	P25
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	50.85	45.69 €	146.08 €	20%	10.72	24%	2.98	7.18	1.89	25,314.35 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	44.99	56.46 €	147.08 €	30%	9.68	31%	5.62	10.43	2.46	31,279.43 €	P25
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.72	39.72 €	149.19 €	17%	11.71	17%	3.82	6.15	1.34	22,004.87 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	47.16	56.46 €	149.28 €	26%	9.91	30%	4.25	9.23	2.34	31,278.55 €	P2
8	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	50.62	49.75 €	149.86 €	21%	10.69	24%	3.12	7.31	1.91	27,564.20 €	P1
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	46.95	55.23 €	149.91 €	26%	10.12	28%	4.96	9.35	2.22	30,600.28 €	P3
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	52.72	41.40 €	150.87 €	17%	11.71	17%	3.82	6.15	1.34	22,938.62 €	P15
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	47.00	56.46 €	151.79 €	26%	10.19	28%	5.10	9.32	2.18	31,279.43 €	P35
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	49.58	55.23 €	153.07 €	22%	10.44	26%	3.43	7.89	2.04	30,600.28 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.40	40.13 €	166.54 €	38%	13.54	38%	11.47	19.91	4.54	22,232.39 €	P35
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.49	42.11 €	166.60 €	39%	13.33	39%	11.76	20.41	4.65	23,329.40 €	P2
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.18	43.13 €	166.99 €	39%	13.26	39%	11.87	20.58	4.69	23,897.84 €	P35
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.77	44.36 €	167.38 €	39%	13.17	39%	12.01	20.81	4.74	24,576.98 €	P35
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.87	56.90 €	176.12 €	41%	12.77	41%	12.68	21.86	4.96	31,522.31 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.18	55.87 €	177.93 €	40%	13.05	40%	12.23	21.14	4.81	30,953.00 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.49	54.90 €	179.39 €	39%	13.33	39%	11.76	20.41	4.65	30,417.36 €	P3
8	EW_26	1.47	14.88 €	W_21																													



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.83	40.13 €	112.85 €	46%	7.73	45%	14.75	19.04	3.51	22,232.39 €	P3S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.80	42.11 €	113.01 €	47%	7.53	46%	15.18	19.61	3.62	23,329.40 €	P2
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.27	43.13 €	113.29 €	48%	7.46	47%	15.46	19.90	3.66	23,897.84 €	P3S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.66	44.36 €	113.51 €	49%	7.35	48%	15.74	20.24	3.72	24,576.98 €	P3S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	35.97	56.90 €	121.55 €	52%	6.87	51%	16.94	21.73	3.98	31,522.31 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	37.87	55.87 €	123.63 €	50%	7.20	49%	16.07	20.68	3.80	30,953.00 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.80	54.90 €	125.81 €	47%	7.53	46%	15.18	19.61	3.62	30,417.36 €	P3
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	37.92	58.12 €	125.96 €	50%	7.21	49%	16.05	20.65	3.80	32,201.45 €	P4
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.49	58.28 €	127.04 €	49%	7.31	48%	15.78	20.34	3.74	32,287.57 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	37.87	59.50 €	127.26 €	50%	7.20	49%	16.07	20.68	3.80	32,966.72 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.66	58.12 €	127.27 €	49%	7.35	48%	15.74	20.24	3.72	32,200.58 €	P3
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	41.48	54.90 €	128.70 €	45%	7.84	44%	14.45	18.68	3.45	30,416.48 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.31	44.36 €	151.60 €	46%	11.41	45%	21.12	27.55	5.13	24,576.98 €	P3S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.27	43.13 €	151.99 €	45%	11.58	44%	20.70	27.02	5.03	23,897.84 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.36	42.11 €	152.74 €	44%	11.77	43%	20.20	26.41	4.93	23,329.40 €	P2
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.88	40.13 €	153.48 €	43%	12.06	42%	19.57	25.57	4.77	22,232.39 €	P3S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.33	56.90 €	157.30 €	50%	10.69	48%	22.86	29.76	5.53	31,522.31 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.41	55.87 €	161.50 €	47%	11.24	46%	21.50	28.05	5.22	30,953.00 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.46	58.12 €	163.85 €	47%	11.25	46%	21.48	28.02	5.22	32,201.45 €	P4
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.41	59.50 €	165.13 €	47%	11.24	46%	21.50	28.05	5.22	32,966.72 €	P3S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.31	58.12 €	165.36 €	46%	11.41	45%	21.12	27.55	5.13	32,200.58 €	P3
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.36	58.28 €	165.52 €	46%	11.41	45%	21.08	27.52	5.13	32,287.57 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.36	54.90 €	165.53 €	44%	11.77	43%	20.20	26.41	4.93	30,417.36 €	P3
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.46	61.96 €	167.69 €	47%	11.25	46%	21.48	28.02	5.22	34,327.10 €	P2S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.68	44.36 €	132.15 €	54%	9.29	54%	29.41	35.24	6.03	24,576.98 €	P3S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.98	43.13 €	133.02 €	53%	9.51	53%	28.81	34.52	5.91	23,897.84 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.58	42.11 €	134.53 €	52%	9.78	52%	28.05	33.63	5.76	23,329.40 €	P2
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.42	40.13 €	135.59 €	50%	10.10	50%	27.21	32.61	5.58	22,232.39 €	P3S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.38	56.90 €	136.06 €	59%	8.38	58%	31.85	38.18	6.54	31,522.31 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.56	55.87 €	141.79 €	55%	9.09	55%	29.91	35.86	6.14	30,953.00 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.63	58.12 €	144.15 €	55%	9.10	55%	29.88	35.82	6.14	32,201.45 €	P4



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.04	44.36	174.34	51%	13.75	51%	38.38	45.90	7.84	24,576.98	P3S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	73.18	56.90	175.77	55%	12.57	55%	41.55	49.70	8.49	31,522.31	P4
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.72	43.13	175.83	50%	14.04	50%	37.60	44.97	7.68	23,897.84	P3S
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	83.88	42.11	178.27	49%	14.40	48%	36.59	43.77	7.48	23,329.40	P2
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.37	40.13	180.33	47%	14.83	47%	35.45	42.39	7.24	22,232.39	P3S
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.67	55.87	183.60	52%	13.51	52%	39.01	46.66	7.97	30,953.00	P2
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.93	72.95	185.32	58%	11.89	57%	43.63	52.05	8.87	40,415.80	P4
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.75	58.12	185.99	52%	13.52	52%	38.97	46.61	7.97	32,201.45	P4
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.67	59.50	187.24	52%	13.51	52%	39.01	46.66	7.97	32,966.72	P3S
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.04	58.12	188.10	51%	13.75	51%	38.38	45.90	7.84	32,200.58	P2
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.36	58.28	188.74	51%	13.80	51%	38.22	45.72	7.81	32,287.57	P3S
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.01	58.28	189.19	52%	13.87	50%	40.50	47.02	7.77	32,288.45	P4

Table 83- POS of the MFH12 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.35	20.44	122.75	21%	10.92	24%	19.65	38.31	9.27	55,183.98	P1
2	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	51.93	22.14	123.61	22%	10.83	25%	20.37	39.45	9.51	59,781.94	P1
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.17	29.44	124.82	28%	10.18	29%	28.84	49.60	11.25	79,479.48	P1
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.76	28.58	125.16	27%	10.31	28%	27.85	48.01	10.90	77,163.96	P1S
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	47.50	31.45	125.54	29%	10.05	30%	30.10	51.42	11.62	84,914.18	P1
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	47.73	31.14	125.61	28%	10.09	30%	29.59	50.80	11.51	84,077.44	P1
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.72	27.75	126.07	25%	10.50	27%	25.95	45.42	10.40	74,930.74	P1
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.88	29.44	126.24	27%	10.34	28%	27.66	47.70	10.84	79,474.79	P1
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	47.05	33.15	126.34	29%	9.95	31%	30.85	52.62	11.88	80,512.14	P1
10	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	50.31	26.89	126.40	24%	10.62	26%	24.96	43.84	10.06	72,615.22	P1S
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.28	29.46	126.87	26%	10.40	28%	26.70	46.62	10.66	79,528.69	P1
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	48.20	31.45	126.96	28%	10.20	29%	28.92	49.53	11.21	84,909.49	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.09	50.39	184.52	38%	14.37	39%	57.31	104.53	24.47	136,054.88	P3
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	61.36	52.40	185.01	39%	14.21	39%	58.45	106.48	24.91	141,489.58	P2
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	61.62	52.09	185.21	39%	14.26	39%	58.01	105.79	24.77	140,652.84	P3
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.90	54.11	185.69	40%	14.10	40%	59.14	107.74	25.21	146,087.54	P2
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.02	51.82	185.85	38%	14.36	39%	57.47	104.72	24.50	139,920.79	P2S
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.75	48.71	186.33	37%	14.74	37%	54.67	100.05	23.46	131,506.14	P2
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	62.93	50.39	186.38	38%	14.57	38%	56.09	102.26	23.94	136,050.19	P2S
8	EW_26	1.47	14.88	W_21	BASE	BASE																											



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.64	39.49 €	178.65 €	50%	14.89	49%	120.43	182.99	38.42	106,612.01 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.30	45.27 €	181.71 €	51%	14.60	50%	122.63	186.60	39.21	122,234.03 €	P4S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.21	34.11 €	183.88 €	46%	16.02	45%	110.03	167.94	35.37	92,099.80 €	P3S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.76	37.80 €	184.72 €	47%	15.72	46%	112.61	171.85	36.19	102,058.58 €	P2
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.81	39.02 €	186.03 €	47%	15.73	46%	112.53	171.73	36.17	105,347.18 €	P2S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.79	42.04 €	186.91 €	48%	15.50	47%	114.16	174.48	36.78	113,520.80 €	P4S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.30	50.54 €	186.98 €	51%	14.60	50%	122.67	186.60	39.21	136,455.50 €	P4
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.53	38.75 €	187.17 €	47%	15.88	45%	111.25	169.78	35.76	104,611.62 €	P3S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.95	36.73 €	187.82 €	46%	16.16	45%	108.54	165.95	34.99	99,176.92 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.81	41.50 €	188.51 €	47%	15.73	46%	112.53	171.73	36.17	112,046.71 €	P4
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.47	40.34 €	188.66 €	47%	15.86	46%	111.35	169.93	35.79	108,922.84 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.76	41.77 €	188.70 €	47%	15.72	46%	112.61	171.85	36.19	112,788.75 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.52	41.77 €	149.85 €	61%	11.43	61%	239.25	285.53	48.68	112,788.75 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.26	39.49 €	156.21 €	58%	12.34	58%	225.43	270.03	46.22	106,612.01 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.97	45.27 €	158.38 €	59%	11.96	59%	230.70	276.20	47.25	122,234.03 €	P4S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.61	39.76 €	159.96 €	57%	12.72	57%	224.16	266.39	45.20	107,356.74 €	P4
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.25	44.06 €	162.92 €	58%	12.58	57%	228.41	270.07	45.57	118,955.50 €	P4S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.97	50.54 €	163.64 €	59%	11.96	59%	230.70	276.20	47.25	136,455.50 €	P4
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.95	37.80 €	166.95 €	54%	13.66	54%	208.08	249.28	42.67	102,058.58 €	P2
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.35	34.11 €	167.15 €	52%	14.07	52%	202.67	242.79	41.56	92,099.80 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.01	39.02 €	168.27 €	54%	13.67	54%	207.93	249.09	42.64	105,347.18 €	P2S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.40	42.04 €	168.78 €	54%	13.40	55%	211.68	253.44	43.36	113,520.80 €	P4S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.46	35.13 €	169.61 €	52%	14.23	52%	204.15	242.49	41.13	94,842.23 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.24	37.14 €	169.61 €	53%	14.01	52%	206.87	245.79	41.70	100,276.93 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.37	39.49 €	164.48 €	58%	13.23	58%	229.35	279.94	48.87	106,612.01 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.16	41.77 €	166.80 €	59%	13.26	58%	239.27	285.90	48.80	112,788.75 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.93	45.27 €	168.69 €	59%	13.07	58%	233.64	283.84	49.31	122,234.03 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.93	50.54 €	173.96 €	59%	13.07	58%	233.64	283.84	49.31	136,455.50 €	P4
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.24	37.80 €	175.66 €	54%	14.60	53%	211.80	258.70	45.19	102,058.58 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.76	34.11 €	176.15 €	52%	15.04	52%	206.26	251.89	44.00	92,099.80 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.															



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.42	41.77 €	167.93 €	62%	13.35	62%	284.07	339.16	57.84	112,788.75 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.67	39.49 €	173.11 €	59%	14.13	59%	270.84	324.99	55.72	106,612.01 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.88	45.27 €	174.59 €	61%	13.68	61%	277.39	332.51	56.95	122,234.03 €	P4S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.59	39.76 €	178.36 €	58%	14.67	58%	269.04	319.80	54.28	107,358.74 €	P4
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	79.88	50.54 €	179.85 €	61%	13.68	61%	277.39	332.51	56.95	136,455.50 €	P4
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.64	44.06 €	180.40 €	59%	14.43	58%	274.68	325.07	54.91	118,955.50 €	P4S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.91	37.80 €	186.37 €	55%	15.71	55%	250.02	300.05	51.46	102,058.58 €	P2
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.77	34.11 €	187.33 €	53%	16.20	53%	243.57	292.31	50.13	92,099.80 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.99	39.02 €	187.72 €	55%	15.72	55%	249.84	299.84	51.42	105,347.18 €	P2S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.01	42.04 €	187.73 €	56%	15.41	56%	254.57	305.18	52.28	113,520.80 €	P4S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.33	38.75 €	189.63 €	54%	15.96	54%	246.85	296.22	50.80	104,611.62 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.99	41.50 €	190.20 €	55%	15.72	55%	249.84	299.84	51.42	112,046.71 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.23	41.77 €	229.17 €	59%	19.85	58%	362.22	433.26	74.04	112,788.75 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.08	39.49 €	236.28 €	56%	20.82	56%	339.99	412.06	71.40	106,612.01 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.97	45.27 €	237.79 €	57%	20.38	57%	348.04	420.46	72.61	122,234.03 €	P4S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	116.97	50.54 €	243.05 €	57%	20.38	57%	348.04	420.46	72.61	136,455.50 €	P4
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	126.19	39.76 €	251.76 €	54%	22.46	52%	333.49	395.57	66.98	107,358.74 €	P2
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.67	37.80 €	253.46 €	52%	22.82	52%	314.05	380.79	66.01	102,058.58 €	P4
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.99	44.06 €	253.99 €	55%	22.25	53%	340.52	401.51	67.55	118,955.50 €	P4S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.77	39.02 €	254.86 €	52%	22.84	52%	313.82	380.50	65.96	105,347.18 €	P2S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	129.62	42.04 €	255.12 €	52%	22.55	52%	319.65	386.31	66.74	113,520.80 €	P4S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	135.47	34.11 €	256.02 €	50%	23.48	50%	305.61	370.52	64.23	92,099.80 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.77	41.50 €	257.34 €	52%	22.84	52%	313.82	380.50	65.96	112,046.71 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.67	41.77 €	257.44 €	52%	22.82	52%	314.05	380.79	66.01	112,788.75 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.33	41.77 €	182.51 €	59%	14.91	58%	276.97	330.16	56.21	112,788.75 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.18	39.49 €	184.88 €	57%	15.38	57%	261.70	317.08	54.93	106,612.01 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.31	45.27 €	188.48 €	58%	15.16	58%	267.05	322.11	55.54	122,234.03 €	P4S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	87.31	50.54 €	193.75 €	58%	15.16	58%	267.05	322.11	55.54	136,455.50 €	P4
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	98.08	37.80 €	197.68 €	53%	16.91	53%	241.74	293.04	50.79	102,058.58 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.97	34.11 €	198.74 €	51%	17.42	51%	235.32	285.23	49.43	92,099.80 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.																				



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	63.90	24.17 €	161.48 €	19%	14.71	20%	31.90	64.00	15.68	103,853.57 €	P17			
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.02	49.21 €	164.98 €	31%	12.40	32%	55.19	106.41	25.60	211,412.69 €	P125	
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.29	51.84 €	165.93 €	32%	12.22	33%	56.75	109.55	26.38	222,704.12 €	P125	
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.46	53.43 €	167.89 €	32%	12.26	33%	56.38	108.85	26.21	229,552.37 €	P10	
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.45	49.42 €	168.22 €	30%	12.72	31%	51.66	100.28	24.20	212,291.92 €	P9	
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.32	54.52 €	168.67 €	32%	12.23	33%	56.72	109.45	26.35	234,197.12 €	P10	
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	52.77	56.06 €	168.93 €	33%	12.09	34%	57.77	111.78	26.94	240,843.80 €	P10	
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.41	52.42 €	169.02 €	31%	12.49	32%	54.26	104.76	25.22	225,214.28 €	P9	
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.02	53.84 €	169.61 €	31%	12.40	32%	55.19	106.41	25.60	231,310.83 €	P9	
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	65.94	28.44 €	169.02 €	16%	15.17	17%	26.73	55.24	13.71	122,190.35 €	P9
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.41	53.57 €	170.16 €	31%	12.49	32%	54.26	104.76	25.22	230,145.51 €	P11	
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.02	54.99 €	170.76 €	31%	12.40	32%	55.19	106.41	25.60	236,242.06 €	P11	

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	45.16	24.17 €	104.53 €	23%	8.54	24%	39.17	57.51	11.79	103,853.57 €	P17			
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	32.79	49.21 €	109.74 €	44%	6.44	43%	83.92	110.63	20.79	211,412.69 €	P125	
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.68	51.84 €	110.46 €	46%	6.24	45%	87.68	115.41	21.66	222,704.12 €	P125	
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	32.29	53.43 €	113.32 €	45%	6.38	43%	86.10	112.79	21.07	229,552.37 €	P10	
5	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	44.64	34.08 €	113.47 €	24%	8.44	25%	40.77	59.74	12.23	146,404.15 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	44.02	35.50 €	113.73 €	25%	8.31	26%	42.64	62.40	12.76	152,500.70 €	P9
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	31.92	54.52 €	113.87 €	45%	6.32	44%	87.55	114.36	21.31	234,197.12 €	P10	
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	34.94	49.42 €	113.97 €	40%	6.87	39%	77.42	101.40	18.94	212,291.92 €	P9	
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.05	33.95 €	114.03 €	23%	8.51	25%	39.36	57.99	11.91	145,854.02 €	P17
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	33.37	52.42 €	114.04 €	43%	6.56	42%	82.19	108.16	20.29	225,214.28 €	P9	
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.51	31.45 €	114.05 €	21%	8.78	22%	34.44	51.70	10.76	135,112.72 €	P9
12	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	48.17	28.44 €	114.14 €	18%	9.11	19%	29.38	44.57	9.35	122,190.35 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.39	24.17 €	129.03 €	23%	11.17	24%	45.41	71.30	15.30	103,853.57 €	P17		
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.94	49.21 €	133.66 €	40%	9.01	39%	89.54	124.81	24.58	211,412.69 €	P125
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.64	51.84 €	133.98 €	42%	8.77	40%	93.78	130.40	25.63	222,704.12 €	P125
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.33	53.43 €	137.01 €	41%	8.92	39%	91.96	127.42	24.97		



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.41	51.84 €	143.76 €	53%	9.74	53%	220.14	268.31	46.77	222,704.12 €	P125
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.12	56.06 €	144.46 €	55%	9.37	55%	228.75	278.14	48.36	240,843.80 €	P10
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.13	54.52 €	146.23 €	54%	9.72	53%	221.69	269.50	46.85	234,197.12 €	P10
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.02	49.21 €	146.99 €	50%	10.36	50%	207.26	252.81	44.10	211,412.69 €	P125
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.67	53.43 €	147.58 €	52%	9.98	52%	216.04	262.90	45.75	229,552.37 €	P10
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.41	57.62 €	149.54 €	53%	9.74	53%	220.14	268.31	46.77	247,533.49 €	P12
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.41	56.20 €	149.82 €	53%	9.92	52%	216.73	264.00	45.99	241,436.94 €	P95
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.12	61.84 €	150.24 €	55%	9.37	55%	228.75	278.14	48.36	265,673.17 €	P10
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.45	56.07 €	151.37 €	52%	10.10	51%	213.00	259.55	45.23	240,886.81 €	P95
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.02	53.84 €	151.62 €	50%	10.36	50%	207.26	252.81	44.10	231,310.83 €	P9
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.01	52.42 €	151.89 €	50%	10.54	49%	203.88	248.56	43.34	225,214.28 €	P9
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.39	59.71 €	151.96 €	53%	9.78	53%	220.99	268.39	46.61	256,506.41 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.49	51.84 €	122.40 €	52%	7.49	51%	152.22	188.83	33.51	222,704.12 €	P125
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.78	49.21 €	123.50 €	49%	7.88	48%	144.07	178.00	31.82	211,412.69 €	P125
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.24	56.06 €	124.85 €	54%	7.30	52%	157.25	194.20	34.31	240,843.80 €	P10
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.52	54.52 €	125.47 €	52%	7.53	51%	152.87	188.71	33.32	234,197.12 €	P10
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.46	53.43 €	125.82 €	51%	7.68	50%	149.33	184.68	32.67	229,552.37 €	P10
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.55	52.42 €	128.07 €	48%	8.03	47%	141.58	175.70	31.19	225,214.28 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.78	53.84 €	128.13 €	49%	7.88	48%	144.07	179.00	31.82	231,310.83 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.27	56.20 €	128.14 €	51%	7.64	50%	149.70	185.49	32.88	241,436.94 €	P95
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.49	57.62 €	128.18 €	52%	7.49	51%	152.22	188.83	33.51	247,533.49 €	P12
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.61	49.42 €	128.71 €	46%	8.42	45%	134.86	166.85	29.53	212,291.92 €	P9
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.80	56.07 €	128.85 €	51%	7.72	49%	147.75	183.21	32.50	240,886.81 €	P95
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.55	53.57 €	129.22 €	48%	8.03	47%	141.58	175.70	31.19	230,145.51 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.36	51.84 €	155.50 €	48%	11.02	47%	181.28	229.91	41.69	222,704.12 €	P125
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.57	56.06 €	156.96 €	50%	10.73	48%	188.00	237.61	42.94	240,843.80 €	P10
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.44	49.21 €	158.06 €	45%	11.57	44%	170.69	216.68	39.32	211,412.69 €	P125
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.36	54.52 €	158.51 €	48%	11.06	47%	182.02	229.91	41.53	234,197.12 €	P10
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.60	53.43 €	159.44 €	47%	11.27	46%	177.55	224.56	40		



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.64	51.84	156.98	53%	11.13	52%	251.83	304.39	52.60	222,704.12	P125
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.99	56.06	157.14	53%	10.70	54%	261.82	315.78	54.44	240,843.80	P10
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.29	54.52	159.37	53%	11.10	53%	253.66	305.88	52.72	234,197.12	P10
4	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	67.71	49.21	160.93	50%	11.83	49%	237.23	286.92	49.61	211,412.69	P125
5	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	65.01	53.43	161.00	52%	11.39	51%	247.36	298.51	51.49	229,552.37	P10
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.64	57.62	162.76	53%	11.13	52%	251.83	304.39	52.60	247,533.49	P12
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	60.99	61.84	162.92	55%	10.70	54%	261.82	315.78	54.44	265,673.17	P10
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	64.76	56.20	162.22	52%	11.33	52%	247.99	299.60	51.74	241,436.94	P95
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	65.97	56.07	165.03	51%	11.53	51%	243.60	294.40	50.86	240,886.81	P95
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.53	59.71	165.06	53%	11.16	52%	253.09	304.88	52.49	256,506.41	P10
11	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.29	60.29	165.15	53%	11.10	53%	253.66	305.88	52.72	259,026.49	P9
12	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	67.71	53.84	165.56	50%	11.83	49%	237.23	286.92	49.61	231,310.83	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	77.80	56.06	182.03	55%	13.32	55%	341.67	408.79	69.87	240,843.80	P10
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	81.70	51.84	184.08	53%	13.98	53%	327.59	392.03	67.03	227,704.12	P125
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	82.89	49.91	185.21	52%	14.31	52%	325.77	386.90	65.61	214,408.17	P12
4	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	80.81	54.52	185.35	53%	13.84	53%	330.89	395.86	67.66	234,197.12	P10
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	84.26	48.49	186.04	51%	14.55	51%	320.94	381.02	64.59	208,312.62	P95
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	77.80	61.84	187.81	55%	13.32	55%	341.67	408.79	69.87	265,673.17	P10
7	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	83.12	53.43	188.00	52%	14.23	52%	322.54	385.91	65.97	229,552.37	P10
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	81.70	57.62	189.86	53%	13.98	53%	327.59	392.03	67.03	247,533.49	P12
9	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	87.06	49.21	190.11	50%	14.90	50%	308.33	369.00	63.09	211,412.69	P125
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	83.06	56.20	190.66	52%	14.22	52%	322.77	386.19	66.02	241,436.94	P95
11	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	80.89	59.71	190.73	53%	13.86	53%	330.72	395.52	67.58	256,506.41	P10
12	EW_3	3.33	48.94	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	72.15	73.98	190.82	58%	12.36	58%	361.96	433.05	74.02	317,801.82	P10

Table 85- POS of the MFH14 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	46.63	42.60	135.23	17%	9.89	18%	3.91	7.56	1.82	34,929.85	P9
2	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	44.78	51.62	140.46	20%	9.49	22%	4.85	9.08	2.15	42,329.53	P9
3	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	44.51	53.90	142.18	20%	9.43	22%	4.98	9.30	2.20	44,197.77	P9
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.89	54.77	142.20	21%	9.34	23%	5.48	9.81	2.28	44,912.66	P17
5	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.97	55.88	143.04	21%	9.31	23%	5.25	9.75	2.30	45,820.57	P9
6	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	49.94	43.05	143.81	11%	10.77	11%	2.80	4.85	1.10	35,300.22	P17
7	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	44.39	56.23	143.98	21%	9.37	23%	4.92	9.40	2.25	46,107.71	P9
8	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	44.27	57.58	145.41	21%	9.38	23%	5.33	9.50	2.24	47,217.20	P9
9	EW_27	0.70	9.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.55	60.49	146.51	22%	9.18	24%	5.35	10.09	2.40	49,598.75	P9
10	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29																			



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.39	42.60 €	165.03 €	17%	13.04	18%	6.81	11.01	2.41	34,929.85 €	P9
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.57	54.77 €	167.01 €	24%	11.96	25%	10.47	15.78	3.29	44,912.66 €	P17
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.32	51.62 €	168.28 €	21%	12.42	22%	8.58	13.52	2.91	42,329.53 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.98	53.90 €	169.90 €	21%	12.35	23%	8.75	13.80	2.97	44,197.77 €	P9
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.95	55.88 €	169.96 €	23%	12.15	24%	9.36	14.65	3.14	45,820.57 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.99	65.60 €	171.28 €	30%	11.27	29%	13.96	19.53	3.86	53,788.31 €	P9
7	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.01	56.23 €	171.93 €	21%	12.32	23%	8.59	13.77	3.00	46,107.71 €	P9
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.23	57.58 €	172.31 €	22%	12.22	24%	9.25	14.41	3.08	47,217.20 €	P9
9	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.80	75.25 €	173.00 €	36%	10.42	35%	16.35	22.97	4.55	61,703.89 €	P125
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.62	60.49 €	173.56 €	37%	12.04	25%	9.39	14.92	3.23	49,598.75 €	P9
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.69	43.05 €	173.58 €	13%	13.91	13%	5.69	8.30	1.69	35,300.22 €	P17
12	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.89	59.86 €	173.92 €	23%	12.15	24%	9.43	14.69	3.14	49,085.44 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	73.04	65.60 €	215.92 €	32%	16.08	31%	17.21	27.57	5.99	53,788.31 €	P9		
2	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.24	75.25 €	216.15 €	36%	15.07	36%	19.81	31.50	6.82	61,703.89 €	P125
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.69	75.52 €	216.80 €	36%	15.11	35%	19.35	31.13	6.79	61,925.30 €	P11
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.17	79.78 €	218.07 €	37%	14.79	37%	20.17	32.38	7.05	65,416.34 €	P11
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.72	74.62 €	218.43 €	35%	15.38	34%	19.01	30.29	6.56	61,187.99 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.24	78.88 €	219.78 €	36%	15.07	36%	19.81	31.50	6.82	64,679.03 €	P9
7	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.07	81.21 €	219.89 €	37%	14.83	37%	20.48	32.46	7.01	66,591.57 €	P125
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.49	81.48 €	220.48 €	37%	14.86	36%	20.04	32.12	6.99	66,812.98 €	P95
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.96	85.74 €	221.74 €	38%	14.54	38%	20.86	33.37	7.25	70,304.02 €	P12
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.17	83.48 €	221.73 €	37%	14.79	37%	20.17	32.38	7.05	68,457.22 €	P125
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.17	83.76 €	222.13 €	37%	14.80	37%	20.21	32.38	7.04	68,681.22 €	P95
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.38	81.51 €	222.16 €	36%	15.04	36%	19.52	31.39	6.84	66,834.42 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.72	69.48 €	197.20 €	40%	13.51	39%	35.37	42.15	7.17	56,972.60 €	P11
2	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.39	73.74 €	197.66 €	41%	13.11	41%	36.94	44.06	7.50	60,463.64 €	P11
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.58	75.44 €	199.70 €	41%	13.14	41%	36.83	43.90	7.47	61,860.28 €	P95
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.24	79.70 €	200.14 €	43%	12.74	43%	38.42	45.82	7.81	65,351.32 €	P12
5	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.59	75.25 €	200.70 €	40%	13.27	40%	35.95	43.07	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.42	75.52 €	215.63 €	37%	14.88	37%	30.68	38.96	7.07	61,925.30 €	P11
2	EW_27	0.70	9.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.68	75.25 €	215.89 €	37%	14.94	36%	30.56	38.75	7.03	61,703.89 €	P12
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.23	79.78 €	216.05 €	39%	14.47	38%	32.07	40.76	7.41	65,416.34 €	P11
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.54	69.48 €	217.28 €	35%	15.71	33%	29.64	36.40	6.39	56,972.60 €	P11
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.37	73.74 €	217.75 €	37%	15.31	35%	31.02	38.19	6.72	60,463.64 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.52	81.48 €	218.34 €	39%	14.54	38%	31.92	40.53	7.36	66,812.98 €	P9S
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.69	65.60 €	218.50 €	32%	16.24	31%	26.14	33.00	5.96	53,788.31 €	P9
8	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.80	81.21 €	218.65 €	39%	14.60	38%	31.78	40.30	7.31	66,591.57 €	P12S
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.32	85.74 €	218.75 €	41%	14.13	40%	33.31	42.33	7.69	70,304.02 €	P12
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	81.84	74.62 €	219.04 €	36%	15.34	35%	29.20	36.98	6.70	61,187.99 €	P9
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.68	78.88 €	219.52 €	37%	14.94	36%	30.56	38.75	7.03	64,679.03 €	P9
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.23	83.48 €	219.76 €	39%	14.47	38%	32.07	40.76	7.41	68,457.22 €	P12S

Table 86- POS of the MFH15 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.52	41.93 €	131.29 €	34%	9.55	36%	14.77	26.32	6.09	46,544.50 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.03	19.24 €	132.12 €	21%	12.07	20%	10.46	15.76	3.29	21,358.00 €	P15
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.90	45.08 €	133.31 €	35%	9.42	37%	15.21	27.01	6.23	50,035.54 €	P1
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.48	50.32 €	138.35 €	36%	9.40	37%	15.86	27.47	6.26	55,852.13 €	P1
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.37	48.73 €	138.55 €	34%	9.59	36%	15.23	26.49	6.04	54,094.05 €	P15
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.82	52.25 €	139.01 €	37%	9.26	38%	16.38	28.21	6.41	57,996.18 €	P1
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.69	50.66 €	139.20 €	35%	9.45	37%	15.76	27.24	6.20	56,238.10 €	P15
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.88	53.46 €	140.27 €	37%	9.27	38%	16.29	28.15	6.40	59,343.17 €	P1
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.52	54.56 €	140.76 €	37%	9.20	39%	16.60	28.54	6.47	60,557.82 €	P1
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.72	52.25 €	140.84 €	35%	9.46	37%	15.75	27.21	6.19	57,992.60 €	P1
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.21	55.39 €	140.93 €	38%	9.13	39%	16.80	28.89	6.55	61,487.22 €	P1
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.96	29.56 €	141.28 €	22%	11.95	21%	11.78	16.96	3.42	32,809.68 €	P15

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.68	41.93 €	193.41 €	29%	16.22	30%	17.19	32.27	7.66	46,544.50 €	P1		
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.84	45.08 €	194.77 €	30%	16.03	31%	17.73	33.21	7.88	50,035.54 €	P1		
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.44	19.24 €	197.19 €	18%	19.07	18%	12.32	20.33	4.50	21,358.00 €	P15		
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.39	50.32 €	197.27 €	31%	15.74	32%	18.85	34.81	8.20	55,852.13 €	P1		
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.53	52.25 €	197.45 €	32%	15.55	33%	19.45	35.77	8.41	57,996.18 €	P1		
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.92	72.97 €	197.47 €	42%	13.34	42%	25.46	46.43	10.87	80,996.75 €	P2
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.21	74.90 €	197.91 €	43%	13.18	43%	25.92	47.22	11.05	83,140.80 €	P3
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.61	48.73 €	198.27 €	30%	16.02	31%	18.07	33.46	7.89	54,094.05 €	P15		
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.74	50.66 €	198.45 €	31%	15.83	32%	18.68	34.42	8.10	56,238.10 €	P15		
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.54	53.46 €	198.60 €	32%	15.55	33%	19.39	35.75	8.42	59,343.17 €	P1		
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.68	55.39 €	198.78 €	33%	15.36	34%	19.98	36.71	8.63	61,487.22 €	P1		
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.15	76.12 €	198.92 €	43%	13.15	43%	25.91	47.28	11.07	84,487.79 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.97	19.24 €	130.86 €	28%	11.88	27%	19.67	25.88	4.85	21,358.00 €	P15
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.80	41.93 €	135.85 €	36%	9.97	39%	22.88	33.83	6.97	46,544.50 €	P1
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.23	29.56 €	136.09 €	32%	11.34	30%	23.67	30.02	5.44	32,809.68 €	P15
4	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.80	45.08 €	137.22 €	37%	9.78	40%	23.72	34.94	7.18	50,035.54 €	P1
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.62	31.87 €	137.39 €	33%	11.24	31%	24.22	30.70	5.56	35,371.32 €	P25
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.19	52.25 €	138.95 €	42%	9.21	43%	27.28	38.94	7.81	57,996.18 €	P1
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.67	50.32 €	139.56 €	40%	9.48	42%	25.99	37.30	7.52	55,852.13 €	P1
8	EW_28	1.16	1																														



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.42	53.44 €	136.03 €	69%	8.74	69%	104.48	124.70	21.26	59,321.25 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.78	39.24 €	156.78 €	55%	12.43	55%	83.07	99.88	17.16	43,557.25 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.97	50.63 €	157.18 €	59%	11.27	60%	89.38	107.43	18.45	56,196.22 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.46	59.90 €	159.23 €	62%	10.50	62%	93.60	112.44	19.30	66,492.68 €	P4S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.47	48.69 €	160.89 €	57%	11.86	57%	86.14	103.55	17.79	54,048.59 €	P2
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.32	55.35 €	160.90 €	60%	11.16	60%	90.02	108.16	18.57	61,441.76 €	P4S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.09	44.83 €	161.19 €	56%	12.31	56%	85.51	101.76	17.29	49,765.81 €	P3S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.66	51.14 €	162.04 €	58%	11.74	58%	88.72	105.56	17.93	56,763.18 €	P4
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.38	43.61 €	162.13 €	55%	12.53	55%	82.51	99.21	17.05	48,406.99 €	P2
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.17	42.53 €	162.24 €	55%	12.67	55%	83.58	99.45	16.90	47,924.16 €	P3S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.75	45.54 €	163.03 €	55%	12.42	55%	83.10	99.92	17.17	50,551.04 €	P3S
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.59	50.94 €	163.33 €	57%	11.88	57%	86.03	103.42	17.77	56,545.49 €	P2S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.64	53.44 €	154.35 €	66%	10.71	64%	104.53	125.03	21.36	59,321.25 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.63	50.63 €	164.41 €	60%	12.05	60%	91.58	112.82	19.88	56,196.22 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.65	39.24 €	164.56 €	56%	13.27	56%	85.18	105.04	18.53	43,557.25 €	P3S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.19	48.69 €	168.30 €	58%	12.66	58%	88.31	108.87	19.20	54,048.59 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.90	59.90 €	168.32 €	62%	11.48	62%	95.42	116.97	20.51	66,492.68 €	P4S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.19	43.61 €	169.75 €	55%	13.36	55%	84.64	104.43	18.43	48,406.99 €	P2
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.78	55.35 €	170.08 €	60%	12.15	59%	91.94	112.66	19.77	61,441.76 €	P4S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.57	45.54 €	170.69 €	56%	13.25	56%	85.23	105.12	18.55	50,551.04 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.31	50.94 €	170.75 €	58%	12.69	58%	88.20	108.73	19.17	56,545.49 €	P2S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.35	47.85 €	171.01 €	56%	13.04	56%	86.34	106.47	18.78	53,112.69 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.31	52.94 €	172.74 €	58%	12.69	58%	88.20	108.73	19.17	58,757.87 €	P3S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.42	51.13 €	172.75 €	57%	12.88	57%	87.19	107.51	18.96	56,759.60 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.15	39.24 €	127.90 €	58%	9.40	58%	62.34	79.16	14.37	43,557.25 €	P3S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.39	50.63 €	131.37 €	62%	8.56	62%	66.63	84.45	15.30	56,196.22 €	P4
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.58	43.61 €	132.89 €	57%	9.46	58%	61.90	78.69	14.30	48,406.99 €	P2
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.82	48.69 €	133.43 €	60%	8.98	60%	64.41	81.75	14.83	54,048.59 €	P2
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.17	45.54 €	134.22 €	58%	9.40	58%	62.31	79.14	14.37	50,551.04 €	P3S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.33	47.85 €	135.14 €	58%	9.25	59%	63.08	80.07	14.53	53,112.69 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.91	50.94 €	135.82 €	60%	9.00	60%	64.34	81.65	14.82		



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.15	53.44	201.17	66%	15.66	65%	156.88	187.95	32.17	59,321.25	P4
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.10	59.90	228.02	60%	17.79	60%	140.89	171.35	29.80	66,492.68	P4S
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	108.57	50.63	228.55	58%	18.83	58%	134.52	164.17	28.66	56,196.22	P4
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	107.81	55.35	232.75	58%	18.78	58%	135.60	165.01	28.71	61,441.76	P4S
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.97	39.24	234.16	54%	20.63	54%	124.96	152.62	26.66	43,557.25	P3S
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.77	48.69	235.09	56%	19.72	56%	129.72	158.40	27.66	54,048.59	P2
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.95	50.94	237.63	56%	19.75	56%	129.56	158.20	27.63	56,545.99	P2S
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.58	43.61	239.47	53%	20.72	54%	124.37	151.94	26.55	48,406.99	P2
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.98	47.85	239.50	54%	20.28	55%	126.77	154.83	27.04	53,112.69	P3S
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.95	52.94	239.62	56%	19.75	56%	129.56	158.20	27.63	58,757.87	P4
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.77	53.44	239.84	56%	19.72	56%	129.72	158.40	27.66	59,321.25	P3S
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.75	45.54	240.07	54%	20.58	54%	125.14	152.87	26.71	50,551.04	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	66.12	53.44	165.87	66%	11.92	65%	120.50	144.14	24.63	59,321.25	P4
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.20	59.90	183.13	59%	14.02	59%	104.09	127.40	22.30	56,196.22	P4
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.13	39.24	184.65	55%	15.38	55%	96.80	118.61	20.79	43,557.25	P3S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	76.78	59.90	186.04	61%	13.35	61%	108.64	132.32	23.05	66,492.68	P4S
5	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.20	48.69	187.68	57%	14.70	57%	100.40	122.96	21.54	54,048.59	P2
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.13	55.35	188.52	59%	14.09	59%	104.60	127.48	22.22	61,441.76	P4S
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.67	43.61	189.86	54%	15.47	55%	96.27	118.00	20.69	48,406.99	P2
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.34	50.94	190.16	56%	14.73	57%	100.27	122.81	21.51	56,545.99	P2S
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.04	45.54	190.80	55%	15.37	55%	96.88	118.71	20.80	50,551.04	P3S
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.68	47.85	190.90	55%	15.13	56%	98.14	120.22	21.06	53,112.69	P3S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.34	52.94	192.15	56%	14.73	57%	100.27	122.81	21.51	58,757.87	P4
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.57	51.13	192.35	56%	14.94	56%	99.13	121.44	21.28	56,759.60	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.88	53.44	184.95	68%	13.91	67%	156.48	187.01	31.93	59,321.25	P4
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.25	59.90	220.21	60%	16.95	60%	138.93	166.61	28.55	66,492.68	P4S
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	106.48	50.63	225.55	57%	18.18	57%	132.19	158.59	27.19	56,196.22	P4
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.61	57.66	224.03	59%	17.60	59%	138.01	164.00	27.83	64,003.41	P4S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	104.91	55.35	224.80	58%	17.92	58%	133.67	160.33	27.48	61,441.76	P4S
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	107.79	51.14	226.55	57%	18.55	57%	131.73	157.13	26.77	56,763.18	P4
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.65	39.24	227.61	53%	19.92	53%	122.74	147.30	25.26	43,557.25	P3S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	112.86	44.83	228.38	55%	19.41	55%	127.00	151.51	25.82	49,765.81	P3
9	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	111.60	48.69	228.89	55%	19.05	55%	127.43	152.90	26.22	54,048.59	P2
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	107.11	55.36	230.47	57%	18.53	57%	132.81	157.89	26.80	61,441.76	P4S
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B_0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	115.99	42.53	231.12	53%	19.95	53%	124.09	148.03	25.22	47,204.16	P3S
12	EW_27	0.70	9.88	W_21	BASE	BASE</																											



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.24	11.85 €	86.73 €	28%	7.96	28%	29.61	38.95	7.30	27,481.27 €	P15
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.63	11.85 €	90.38 €	33%	7.52	32%	34.77	45.00	8.32	45,549.81 €	P15
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.33	21.38 €	91.61 €	33%	7.46	33%	35.32	45.70	8.44	49,591.60 €	P25
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.25	20.75 €	92.55 €	32%	7.63	31%	33.61	43.56	8.06	48,143.65 €	P45
5	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.86	25.69 €	92.83 €	34%	7.12	36%	33.49	46.79	9.23	59,601.31 €	P1
6	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.73	24.19 €	92.87 €	33%	7.29	34%	31.97	44.77	8.85	56,110.27 €	P1
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.81	32.02 €	95.89 €	38%	6.78	39%	37.50	51.54	10.03	74,286.96 €	P1
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.68	30.52 €	95.94 €	36%	6.94	37%	35.97	49.51	9.65	70,795.92 €	P1
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.11	33.48 €	96.14 €	39%	6.65	40%	38.78	53.17	10.33	77,669.85 €	P1
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.97	31.97 €	96.18 €	37%	6.81	39%	37.26	51.16	9.95	74,178.81 €	P1
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.63	33.48 €	97.05 €	38%	6.75	39%	37.87	51.97	10.11	77,663.98 €	P1
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.50	31.97 €	97.10 €	36%	6.91	38%	36.34	49.94	9.72	74,172.94 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.79	11.85 €	110.33 €	26%	10.50	25%	29.92	41.14	8.01	27,481.27 €	P15
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.08	25.69 €	113.18 €	32%	9.31	33%	35.09	52.07	10.75	59,601.31 €	P1
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.04	24.19 €	113.44 €	31%	9.50	32%	33.47	49.84	10.32	56,110.27 €	P1
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.06	19.63 €	113.67 €	29%	10.03	28%	35.18	47.48	9.10	45,549.81 €	P15
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.76	21.38 €	114.89 €	30%	9.97	29%	35.72	48.17	9.23	49,591.60 €	P25
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.68	20.75 €	115.85 €	29%	10.14	27%	34.06	46.05	8.84	48,143.65 €	P45
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.91	32.02 €	115.95 €	35%	8.94	36%	39.23	57.11	11.63	74,286.96 €	P1
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.19	33.48 €	116.14 €	36%	8.80	37%	40.49	58.77	11.94	77,669.85 €	P1
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.88	30.52 €	116.23 €	34%	9.13	35%	37.61	54.86	11.19	70,795.92 €	P1
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.16	31.97 €	116.42 €	35%	8.99	36%	38.87	56.52	11.50	74,178.81 €	P1
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.74	33.48 €	117.14 €	36%	8.91	36%	39.57	57.50	11.69	77,663.98 €	P1
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.88	35.22 €	117.32 €	37%	8.74	37%	41.05	59.50	12.08	81,711.64 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.48	33.10 €	131.90 €	48%	10.57	47%	68.04	103.47	21.74	76,798.87 €	P35
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.84	36.66 €	136.11 €	48%	10.64	47%	67.44	102.65	21.58	85,050.61 €	P2
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.99	39.09 €	136.88 €	49%	10.46	48%	68.75	104.62	21.99	90,692.21 €	P2
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.29	40.55 €	136.96 €	50%	10.31	48%	69.82	106.25	22.33	94,080.98 €	P4
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.32	42.81 €	137.30 €	51%	10.11	49%	71.29	108.50	22.81	99,324.22 €	P45
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.04	40.17 €	138.07 €	49%	10.47	47%	68.68	104.50	21.96	93,189.11 €	P25
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.19	38.12 €	138.33 €	48%	10.72	46%	66.97	101.82	21.39	88,433.50 €	P35
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €																						



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	33.11	33.10 €	90.36 €	60%	6.08	59%	94.11	115.33	20.21	76,798.87 €	P3S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	33.68	36.66 €	94.81 €	59%	6.17	58%	92.98	114.01	20.00	85,050.61 €	P2
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	31.47	40.55 €	95.15 €	62%	5.79	61%	97.28	119.13	20.87	94,080.98 €	P4
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.48	39.09 €	95.30 €	61%	5.96	60%	95.32	116.80	20.47	90,692.21 €	P2
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.54	40.17 €	96.48 €	61%	5.98	60%	95.20	116.66	20.45	93,189.11 €	P2S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	34.03	38.12 €	96.92 €	59%	6.24	58%	92.40	113.20	19.84	88,433.50 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.84	40.79 €	97.59 €	60%	6.03	59%	94.61	115.96	20.33	94,642.07 €	P3S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_18	2.14	23.79 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.90	40.87 €	97.77 €	60%	6.04	59%	94.49	115.82	20.30	94,808.33 €	P2S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	33.66	39.86 €	98.06 €	59%	6.18	58%	93.12	114.07	19.98	92,475.29 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.54	42.29 €	98.61 €	61%	5.98	60%	95.20	116.66	20.45	94,642.07 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	32.48	42.54 €	98.75 €	61%	5.96	60%	95.32	116.80	20.47	96,683.85 €	P3S
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	34.03	40.17 €	98.97 €	59%	6.24	58%	92.40	113.20	19.84	93,194.98 €	P2S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.68	33.10 €	112.13 €	57%	8.40	56%	108.43	135.91	24.37	76,798.87 €	P3S
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.99	42.54 €	115.42 €	62%	7.76	59%	119.20	146.78	25.85	98,683.85 €	P4
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	41.33	40.55 €	115.62 €	60%	7.98	58%	112.79	141.36	25.34	94,080.98 €	P4
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.79	39.09 €	116.60 €	58%	8.24	56%	110.06	137.98	24.74	90,692.21 €	P2
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	44.46	36.66 €	116.96 €	57%	8.54	55%	106.93	134.10	24.05	85,050.61 €	P2
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.87	40.17 €	117.82 €	58%	8.26	56%	109.91	137.78	24.71	93,189.11 €	P2S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.63	42.81 €	118.15 €	60%	8.02	58%	115.78	142.97	25.26	99,324.22 €	P4S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.22	45.63 €	118.64 €	62%	7.77	59%	118.47	146.25	25.83	105,857.58 €	P4S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	44.82	38.12 €	119.08 €	56%	8.61	54%	106.30	133.25	23.89	88,433.50 €	P3S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.29	40.79 €	119.15 €	58%	8.33	56%	109.11	136.80	24.53	94,642.07 €	P3S
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_18	2.14	23.79 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.38	40.87 €	119.36 €	58%	8.35	56%	108.95	136.60	24.50	94,808.33 €	P2S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.87	42.29 €	119.94 €	58%	8.26	56%	109.91	137.78	24.71	98,122.76 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	35.27	42.54 €	99.88 €	72%	6.07	72%	174.78	208.87	35.66	98,683.85 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	34.93	45.63 €	102.36 €	72%	6.00	72%	175.37	209.66	35.81	105,857.58 €	P4S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	37.20	42.81 €	103.19 €	70%	6.39	70%	170.94	204.39	34.91	99,324.22 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	44.50	33.10 €	104.97 €	64%	7.60	65%	156.40	187.45	32.10	76,798.87 €	P3S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	36.39	44.55 €	104.99 €	71%	6.40	70%	174.12	206.28	34.88	103,366.01 €	P4S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.56	42.81 €	106.66 €	69%	6.76	68%	169.79	201.23	34.05	99,330.10 €	P4S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	41.16	40.55 €	107.02 €	67%							



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SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.19	42.54 €	118.80 €	71%	8.06	71%	219.24	262.15	44.78	98,683.85 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.70	45.63 €	122.69 €	70%	8.15	70%	218.26	260.98	44.58	105,857.58 €	P4S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.69	44.55 €	124.18 €	70%	8.43	69%	217.45	258.68	43.94	103,366.01 €	P4S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.54	42.81 €	124.45 €	68%	8.63	68%	212.72	254.39	43.46	99,324.22 €	P4S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.41	42.81 €	126.71 €	68%	8.88	68%	212.04	252.37	42.89	99,330.10 €	P4S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.95	33.10 €	129.88 €	63%	10.23	63%	194.41	232.57	39.75	76,798.87 €	P3S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.41	35.78 €	130.20 €	64%	9.99	64%	197.55	236.14	40.32	83,007.43 €	P3S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.83	40.55 €	130.70 €	65%	9.53	65%	202.39	242.10	41.37	94,080.98 €	P4
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.83	40.80 €	131.07 €	65%	9.55	65%	202.55	242.11	41.34	94,647.94 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.70	55.43 €	132.49 €	70%	8.15	70%	218.26	260.98	44.58	128,587.97 €	P4
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.94	34.04 €	132.56 €	62%	10.42	62%	192.63	230.25	39.32	78,965.65 €	P3S
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.41	39.09 €	133.40 €	64%	9.97	64%	197.39	236.13	40.35	90,692.21 €	P2

Table 88- POS of the MFH17 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	40.12	34.04 €	113.91 €	25%	8.53	28%	14.27	29.37	7.28	75,575.77 €	P9
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	39.48	36.10 €	114.72 €	26%	8.40	29%	15.20	30.79	7.58	80,141.05 €	P17
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	40.47	34.57 €	115.20 €	24%	8.61	27%	13.83	28.59	7.10	76,753.93 €	P9
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS COVER 50%	90.00 €	39.79	36.77 €	116.24 €	25%	8.49	28%	15.01	30.09	7.37	81,625.91 €	P17
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	39.69	37.91 €	116.90 €	26%	8.44	29%	14.87	30.33	7.49	84,153.61 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	39.05	39.96 €	117.71 €	27%	8.30	30%	15.78	31.73	7.78	88,718.90 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	39.35	39.48 €	117.76 €	26%	8.36	29%	15.31	31.09	7.66	87,644.65 €	P9
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	38.72	41.54 €	118.57 €	27%	8.23	30%	16.22	32.48	7.95	92,209.94 €	P9
9	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	38.68	43.36 €	120.16 €	27%	8.20	31%	16.09	32.57	8.01	96,261.24 €	P9
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	38.33	44.93 €	120.99 €	28%	8.12	31%	16.54	33.34	8.19	99,752.28 €	P9
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	46.56	25.85 €	121.56 €	13%	10.23	13%	8.42	15.08	3.50	57,384.90 €	P17
12	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	38.40	50.67 €	126.99 €	28%	8.15	31%	16.57	33.18	8.12	112,479.54 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	60.18	34.04 €	163.35 €	22%	13.85	23%	17.56	37.46	9.42	75,575.77 €	P9
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	59.29	36.10 €	163.51 €	23%	13.65	25%	18.72	39.45	9.87	80,141.05 €	P17
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	60.51	34.57 €	164.57 €	21%	13.92	23%	17.15	36.74	9.26	76,753.93 €	P9
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS COVER 50%	90.00 €	59.48	36.77 €	164.72 €	23%	13.71	24%	18.64	39.03	9.74	81,625.91 €	P17
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	59.54	37.91 €	165.81 €	23%	13.70	24%	18.35	38.89	9.76	84,153.61 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	58.65	39.96 €	165.97 €	24%	13.50	25%	19.50	40.87	10.21	88,718.90 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS COVER 50%	90.00 €	59.11										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.56	58.87 €	169.41 €	43%	11.83	42%	52.53	87.25	19.40	130,697.71 €	P95
2	EW_26	1.47	14.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.31	58.95 €	171.24 €	42%	12.02	42%	51.72	85.57	18.98	130,869.61 €	P125
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.69	62.74 €	171.51 €	44%	11.64	43%	53.72	89.17	19.81	139,275.55 €	P95
4	EW_27	0.70	9.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.61	56.89 €	171.72 €	41%	12.29	40%	49.81	82.70	18.38	126,304.33 €	P125
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.10	64.31 €	171.88 €	44%	11.51	44%	54.53	90.48	20.10	142,766.59 €	P12
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.98	60.68 €	171.99 €	42%	11.91	42%	51.85	86.32	19.21	134,710.27 €	P11
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.37	62.25 €	172.33 €	43%	11.78	43%	52.69	87.66	19.51	138,201.31 €	P11
8	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.90	61.21 €	174.37 €	41%	12.11	41%	50.55	84.27	18.77	135,877.25 €	P17
9	EW_27	0.70	9.88 €	W_19	1.4	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.60	56.28 €	175.09 €	38%	12.71	38%	46.98	78.28	17.43	124,947.79 €	P9
10	EW_27	0.70	9.88 €	W_19	1.4	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.21	59.62 €	175.65 €	40%	12.42	40%	48.96	81.36	18.09	132,347.47 €	P9
11	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.69	67.13 €	175.90 €	44%	11.64	43%	53.72	89.17	19.81	149,020.38 €	P95
12	EW_27	0.70	9.88 €	W_19	1.4	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.61	61.19 €	176.01 €	41%	12.29	40%	49.81	82.70	18.38	135,838.51 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.23	57.16 €	127.14 €	56%	7.41	55%	102.38	120.97	20.40	126,895.09 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.26	55.10 €	127.14 €	55%	7.59	54%	100.46	118.68	20.01	123,404.05 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.47	58.87 €	129.29 €	55%	7.45	55%	98.31	118.22	20.32	130,697.71 €	P95
4	EW_27	0.70	9.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.05	55.10 €	129.55 €	53%	7.88	53%	97.02	114.70	19.35	122,328.81 €	P11
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.10	53.53 €	129.67 €	52%	8.06	51%	95.07	112.37	18.96	118,838.77 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.45	64.31 €	129.85 €	58%	6.93	58%	103.90	124.91	21.46	142,766.59 €	P12
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.50	62.74 €	129.99 €	57%	7.11	57%	101.96	122.58	21.06	139,275.55 €	P95
8	EW_26	1.47	14.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.72	58.95 €	131.39 €	54%	7.66	54%	95.98	115.44	19.84	130,869.61 €	P125
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.03	56.22 €	132.24 €	52%	8.05	52%	95.21	112.53	18.98	124,815.50 €	P125
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.40	62.25 €	132.55 €	55%	7.43	55%	98.43	118.37	20.35	138,201.31 €	P11
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.46	60.68 €	132.70 €	54%	7.62	54%	96.47	116.02	19.94	134,710.27 €	P11
12	EW_27	0.70	9.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.58	56.89 €	133.96 €	51%	8.15	51%	90.66	109.08	18.76	126,304.33 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.39	58.87 €	139.37 €	54%	8.53	54%	100.87	124.83	22.10	130,697.71 €	P95
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.35	64.31 €	139.84 €	57%	8.01	57%	106.45	131.57	23.26	142,766.59 €	P12
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.43	62.74 €	140.06 €	56%	8.20	56%	104.49	129.18	22.84	139,275.55 €	P95
4	EW_26	1.47	14.88 €	W_18	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.66	58.95 €	141.49 €	53%	8.75	53%	98.52	122.01	21.62	130,869.61 €	P125
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.26	62.25 €	142.48 €	54%	8.51	54%	101.04	125.11	22.16	138,201.31 €	P11
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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.78	57.16 €	138.13 €	57%	8.57	56%	122.84	145.53	24.61	126,895.09 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.04	55.59 €	138.60 €	56%	8.79	55%	120.52	142.74	24.13	123,404.05 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.80	64.31 €	140.29 €	59%	8.04	59%	124.51	149.93	25.81	142,766.59 €	P12
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.07	62.74 €	140.78 €	58%	8.26	58%	122.18	147.12	25.32	139,275.55 €	P95
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.51	58.87 €	140.85 €	56%	8.67	56%	117.65	141.71	24.40	130,697.71 €	P95
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.30	55.10 €	141.67 €	54%	9.17	53%	116.21	137.72	23.30	122,329.81 €	P11
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.56	53.53 €	142.14 €	53%	9.38	52%	113.89	134.93	22.82	118,838.77 €	P11
8	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.47	58.95 €	142.48 €	53%	8.83	55%	115.86	139.57	24.03	130,869.61 €	P125
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.41	62.25 €	144.07 €	56%	8.65	56%	117.80	141.91	24.44	138,201.31 €	P11
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.68	60.68 €	144.55 €	55%	8.87	55%	115.48	139.11	23.95	134,710.27 €	P11
11	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.80	68.70 €	144.68 €	59%	8.04	59%	124.51	149.93	25.81	152,511.42 €	P12
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.47	56.22 €	144.70 €	53%	9.37	52%	114.05	135.12	22.85	124,815.50 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.25	64.31 €	177.95 €	57%	12.04	56%	162.22	198.09	34.60	142,766.59 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.88	62.74 €	179.06 €	56%	12.32	55%	159.23	194.47	33.97	139,275.55 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	72.99	58.87 €	180.24 €	54%	12.85	53%	153.49	187.57	32.78	130,697.71 €	P95
4	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.25	68.70 €	182.34 €	57%	12.04	56%	162.22	198.09	34.60	150,511.42 €	P12
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.04	57.16 €	182.64 €	54%	13.31	52%	157.94	187.46	31.77	126,895.09 €	P12
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.74	62.25 €	183.15 €	54%	12.80	54%	153.89	188.13	32.89	138,201.31 €	P11
7	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.88	67.13 €	183.45 €	56%	12.32	55%	159.23	194.47	33.97	149,020.38 €	P95
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.63	55.59 €	183.65 €	53%	13.58	51%	154.99	183.92	31.16	123,404.05 €	P95
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	74.37	60.68 €	184.25 €	53%	13.09	53%	150.92	184.51	32.26	134,710.27 €	P11
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.51	78.33 €	184.32 €	60%	11.23	59%	171.03	208.61	36.39	173,881.82 €	P12
11	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.48	58.95 €	184.35 €	52%	13.28	52%	148.89	182.04	31.83	130,869.61 €	P125
12	EW_26	1.47	14.88 €	W_11	1.1	1.3	0.59	269.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.73	75.43 €	185.14 €	58%	11.62	58%	167.04	203.67	35.52	167,456.30 €	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	51.55	64.31 €	150.01 €	57%	9.08	56%	122.41	148.59	26.15	142,766.59 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.06	58.87 €	150.29 €	54%	9.68	54%	115.92	141.79	24.80	130,697.71 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.80	62.74 €	150.51 €	56%	9.29	55%	120.13	146.81	25.66	139,275.55 €	P95
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.82	58.95 €	153.23 €	52%	9.98	52%	112.67	137.88	24.13	130,869.61 €	P125
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.89	62.25 €	153.34 €	54%	9.64	54%	116.17	142.16	24.88	138,201.31 €	P11
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0																										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.76	62.26 €	180.22 €	50%	12.64	49%	40.99	69.87	15.77	80,185.74 €	P125
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.57	67.57 €	182.56 €	51%	12.32	50%	41.60	71.41	16.18	87,024.53 €	P95
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.76	67.18 €	182.66 €	51%	12.37	50%	41.50	71.16	16.11	86,527.76 €	P95
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.52	61.17 €	182.83 €	48%	13.03	48%	39.66	67.61	15.26	78,792.24 €	P125
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	68.41	35.67 €	182.90 €	37%	15.77	37%	31.00	52.30	11.73	45,939.20 €	P17
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.11	44.82 €	183.45 €	41%	14.85	40%	34.56	57.84	12.92	57,732.97 €	P9
7	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.40	44.44 €	183.72 €	41%	14.92	40%	34.36	57.46	12.82	57,236.20 €	P17
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.04	70.28 €	184.04 €	51%	12.18	51%	41.91	72.09	16.35	90,515.57 €	P12
9	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.42	47.53 €	184.68 €	42%	14.69	41%	35.05	58.72	13.12	61,224.01 €	P9
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.11	51.25 €	185.41 €	43%	14.37	42%	35.89	60.41	13.52	66,012.01 €	P17
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.51	66.48 €	185.54 €	49%	12.75	49%	40.11	68.91	15.62	85,633.03 €	P11
12	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.31	55.44 €	185.82 €	45%	13.97	44%	37.27	62.73	14.05	71,403.52 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	30.21	62.26 €	116.84 €	70%	5.80	69%	69.96	89.72	16.44	80,185.74 €	P125
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.36	44.82 €	116.90 €	59%	7.65	59%	57.59	75.35	14.06	57,732.97 €	P9
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.78	44.44 €	117.25 €	58%	7.73	58%	57.18	74.81	13.96	57,236.20 €	P17
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.55	47.53 €	118.15 €	59%	7.50	60%	58.38	76.40	14.26	61,224.01 €	P9
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	48.11	35.67 €	119.02 €	52%	8.88	52%	50.57	66.66	12.52	45,939.20 €	P17
6	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.14	55.44 €	120.15 €	63%	6.87	63%	61.78	80.79	15.07	71,403.52 €	P17
7	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.98	51.25 €	120.79 €	60%	7.38	60%	58.88	77.13	14.41	66,012.01 €	P17
8	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	33.99	61.17 €	121.70 €	66%	6.43	65%	65.77	84.85	15.63	78,792.24 €	P125
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	30.25	67.57 €	121.92 €	60%	5.78	69%	69.72	89.67	16.48	87,024.53 €	P95
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	30.52	67.18 €	122.00 €	69%	5.83	69%	69.45	89.32	16.41	86,527.76 €	P95
11	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	29.57	70.28 €	123.40 €	70%	5.65	70%	70.36	90.54	16.64	90,515.57 €	P12
12	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	30.81	67.99 €	123.91 €	69%	5.95	68%	69.53	88.94	16.26	87,570.93 €	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.02	62.26 €	144.02 €	64%	8.72	61%	71.17	94.69	17.94	80,185.74 €	P125
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.11	44.82 €	145.88 €	53%	10.76	52%	58.00	79.12	15.31	57,732.97 €	P9
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.58	44.44 €	146.35 €	53%	10.85	52%	57.55	78.51	15.19	57,236.20 €	P17
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.18	47.53 €	146.87 €	54%	10.58	53%	58.87	80.32	15.55	61,224.01 €	P9
5	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.71	55.44 €	146.94 €	58%	9.75	57%	63.29	86.08	16.62	71,403.52 €	P17
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35																				



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	50.36	77.65	161.04	76%	8.83	76%	168.61	204.23	35.37	100,013.09	P12
2	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.16	74.94	161.28	75%	9.14	75%	166.70	201.91	34.97	96,522.05	P12
3	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.93	79.30	162.00	76%	8.76	76%	169.08	204.79	35.46	102,134.56	P11
4	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	51.73	76.59	162.24	75%	9.07	75%	167.18	202.47	35.06	98,643.52	P11
5	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	55.75	66.95	163.63	73%	10.26	72%	165.80	197.29	33.53	86,232.29	P12
6	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.81	76.20	163.63	75%	9.26	74%	166.02	201.08	34.82	98,146.76	P11
7	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	55.34	68.60	164.66	74%	10.19	72%	166.26	197.81	33.61	88,353.76	P11
8	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	57.09	65.89	164.76	73%	10.49	71%	164.38	195.57	33.23	84,862.72	P11
9	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.09	76.58	165.91	74%	9.46	74%	164.53	199.43	34.56	98,636.81	P11
10	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	63.07	62.26	166.11	70%	10.99	70%	154.88	187.87	32.58	80,185.74	P12
11	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.89	73.87	166.15	73%	9.77	73%	162.63	197.11	34.16	95,145.77	P11
12	EW_3	3.33	48.94	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	52.99	78.46	166.40	75%	9.31	74%	165.97	200.85	34.75	101,056.26	P10

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.45	62.26	135.75	71%	7.79	71%	111.98	137.61	24.19	80,185.74	P12
2	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	37.47	74.94	138.91	75%	6.78	74%	118.52	145.32	25.49	96,522.05	P12
3	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	36.28	77.65	139.60	76%	6.57	75%	119.75	146.85	25.76	100,013.09	P12
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	42.91	67.57	140.00	71%	7.68	71%	112.44	138.30	24.33	87,024.53	P9
5	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	37.21	76.59	140.17	75%	6.74	75%	118.81	145.64	25.54	98,643.52	P11
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	41.65	70.28	140.58	72%	7.45	72%	113.74	139.93	24.63	90,515.57	P12
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.54	67.18	140.62	71%	7.78	71%	111.77	137.50	24.20	86,527.76	P9
8	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	37.76	76.20	140.65	75%	6.83	74%	118.21	144.94	25.42	98,146.76	P11
9	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	36.03	79.30	140.88	76%	6.53	75%	120.02	147.17	25.81	102,134.56	P11
10	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	39.69	73.87	141.27	74%	7.15	73%	116.03	142.46	25.02	95,145.77	P11
11	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.27	73.49	141.82	73%	7.24	73%	115.40	141.71	24.89	94,649.01	P11
12	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	38.45	76.58	141.90	74%	6.92	74%	117.30	144.05	25.30	98,636.81	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.92	74.94	173.00	71%	10.42	70%	138.43	173.62	31.14	96,522.05	P12
2	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	53.34	77.65	173.01	72%	10.13	71%	140.04	175.65	31.51	100,013.09	P12
3	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.57	76.59	174.08	71%	10.36	70%	138.81	174.07	31.22	98,643.52	P11
4	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.99	79.30	174.10	72%	10.08	71%	140.42	176.11	31.59	102,134.56	P11
5	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.52	76.20	175.32	71%	10.53	70%	137.85	172.85	31.00	98,146.76	P11
6	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	64.66	62.26	176.47	66%	12.13						



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.45	77.65 €	176.00 €	75%	10.40	75%	191.69	231.16	39.85	100,013.09 €	P12
2	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.71	66.95 €	176.05 €	73%	11.56	72%	189.63	225.68	38.35	86,232.29 €	P12
3	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.50	74.94 €	176.63 €	74%	10.76	74%	189.51	228.52	39.39	96,522.05 €	P12
4	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.96	79.30 €	176.86 €	75%	10.32	75%	192.23	231.80	39.95	102,134.56 €	P11
5	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.25	68.60 €	176.98 €	73%	11.49	72%	190.15	226.28	38.45	88,353.76 €	P11
6	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.01	76.59 €	177.49 €	74%	10.67	74%	190.05	226.16	39.50	98,643.72 €	P11
7	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.27	65.89 €	177.55 €	72%	11.83	71%	187.98	223.67	38.00	84,862.72 €	P11
8	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.24	76.20 €	179.09 €	74%	10.88	74%	188.72	227.58	39.23	98,146.76 €	P11
9	EW_2	2.22	44.00 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.71	76.58 €	181.73 €	73%	11.12	73%	187.05	225.67	38.92	98,636.81 €	P11
10	EW_8	2.25	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.08	67.51 €	181.81 €	72%	12.11	71%	185.85	221.34	37.65	98,950.06 €	P11
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.58	86.48 €	181.97 €	76%	10.10	76%	193.83	233.58	40.23	111,386.09 €	P10
12	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.02	78.21 €	182.25 €	73%	11.01	73%	187.80	226.56	39.07	100,730.86 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.16	66.95 €	196.56 €	74%	13.71	74%	245.84	293.92	50.20	86,232.29 €	P12
2	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.49	68.60 €	197.15 €	74%	13.59	74%	246.56	294.77	50.35	88,353.76 €	P11
3	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.14	65.89 €	198.71 €	73%	14.05	73%	243.71	291.37	49.76	98,643.72 €	P11
4	EW_9	3.53	56.54 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.16	73.52 €	203.13 €	74%	13.71	74%	245.84	293.92	50.20	94,693.47 €	P12
5	EW_8	2.25	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.92	67.51 €	204.78 €	72%	14.52	72%	240.68	287.78	49.16	86,950.06 €	P11
6	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.31	77.65 €	207.31 €	74%	13.71	74%	245.54	293.72	50.19	100,013.09 €	P12
7	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.65	79.30 €	207.88 €	74%	13.60	74%	246.26	294.58	50.34	102,134.56 €	P11
8	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.95	74.94 €	208.86 €	73%	14.16	73%	242.70	290.32	49.62	96,522.05 €	P12
9	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.28	76.59 €	209.43 €	73%	14.05	73%	243.42	291.18	49.76	98,643.72 €	P11
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.66	59.58 €	210.91 €	70%	16.00	70%	231.23	276.52	47.24	76,734.77 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	77.50	86.48 €	211.61 €	75%	13.23	75%	248.57	297.33	50.81	111,386.09 €	P10
12	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	83.97	76.20 €	211.76 €	73%	14.33	73%	241.60	289.01	49.39	98,146.76 €	P11

Table 90- POS of the MFH19 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.91	17.24 €	96.33 €	30%	8.44	32%	16.24	30.23	7.15	31,028.17 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.53	19.18 €	97.49 €	30%	8.36	33%	16.67	30.92	7.30	34,519.21 €	P1
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.57	22.64 €	101.31 €	30%	8.40	32%	16.88	30.84	7.23	40,745.96 €	P1
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.12	21.66 €	101.46 €	29%	8.52	31%	16.26	29.85	7.01	38,987.88 €	P15
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.15	23.88 €	101.71 €	31%	8.31	33%	17.36	31.60	7.39	42,984.49 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.																	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.33	17.24	119.01	31%	10.84	32%	27.04	43.13	9.35	31,028.17	P1
2	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	53.59	19.18	119.58	32%	10.69	33%	28.00	44.47	9.61	34,519.21	P1
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	51.12	23.88	120.48	35%	10.29	36%	31.88	48.90	10.34	42,984.49	P1
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.09	22.64	120.96	33%	10.48	35%	30.58	47.17	10.01	40,745.96	P1
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	50.36	25.82	121.02	36%	10.14	37%	32.87	50.27	10.60	46,475.53	P1
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	50.70	25.37	121.21	35%	10.21	36%	32.45	49.66	10.48	45,659.02	P1
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.20	22.90	121.48	33%	10.50	34%	30.48	46.97	9.96	41,226.41	P15
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	51.33	24.58	121.50	34%	10.33	36%	31.56	48.53	10.27	44,237.00	P1
9	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	39.44	43.59	121.58	50%	8.33	48%	49.70	69.93	13.88	78,462.89	P2
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	38.81	44.83	121.69	50%	8.20	49%	50.53	71.06	14.09	80,701.42	P3
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	49.94	27.31	121.75	36%	10.06	37%	33.44	51.04	10.75	49,150.06	P1
12	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	53.16	21.66	121.95	32%	10.68	33%	29.18	45.24	9.63	38,987.88	P15

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	54.67	30.89	146.76	€	49%	12.40	48%	59.78	94.12	20.24	55,604.30	P2		
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	52.55	35.27	146.88	€	51%	11.95	49%	62.23	97.95	21.06	63,485.84	P4		
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	54.64	31.53	147.42	€	49%	12.41	48%	59.88	94.17	20.23	56,747.08	P35		
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	51.36	38.19	147.43	€	52%	11.70	51%	63.59	100.07	21.51	68,733.55	P45		
5	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	53.51	34.03	147.58	€	50%	12.16	49%	61.13	96.21	20.68	61,245.90	P2		
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	54.59	32.13	147.87	€	49%	12.39	48%	59.91	94.27	20.26	57,842.83	P35		
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	50.57	41.05	148.61	€	53%	11.52	51%	64.41	101.50	21.84	73,895.19	P45		
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	54.23	33.62	148.65	€	49%	12.32	48%	60.32	94.91	20.40	60,517.36	P35		
9	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	53.55	35.41	149.05	€	50%	12.17	49%	61.08	96.14	20.67	63,742.80	P25		
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	53.86	35.58	149.83	€	50%	12.23	48%	60.73	95.58	20.55	64,051.39	P4		
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	53.55	36.76	150.39	€	50%	12.17	49%	61.08	96.14	20.67	66,160.37	P3		
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	3	17.00	NO SHADING ELEMENTS	-	50.57	42.99	150.54	€	53%	11.52	51%	64.41	101.50	21.84	77,386.04	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	37.65	37.07	98.32	€	70%	6.48	70%	132.31	157.84	26.89	66,725.92	P4		
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	36.83	41.05	100.59	€	71%	6.30	71%	133.17	159.30	27.22	73,895.19	P45		
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	39.27	38.19	101.64	€	69%	6.71	69%	129.49	154.92	26.48	68,733.55	P45		
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	3	17.00	NO SHADING ELEMENTS	-	36.83	42.99	102.53	€	71%	6.30	71%	133.17	159.30	27.22	77,386.04	P4
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	43.19	35.27	105.00	€	66%	7.37	66%	123.53	147.86	25.28	63,485.84	P4		
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	39.77	39.67	106.53	€	68%	7.08	67%	131.11	154.02	25.80	71,408.08	P45		
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	45.55	34.03	107.56	€	64%	7.78	64%	119.99	143.62	24.56	61,245.90	P2		
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-																									



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.52	35.27 €	126.37 €	59%	9.69	58%	103.67	131.86	23.98	63,485.84 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.91	41.05 €	127.59 €	62%	9.21	60%	110.24	138.34	24.83	73,895.19 €	P4S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.12	38.19 €	128.41 €	60%	9.60	58%	107.03	134.37	24.13	68,733.55 €	P4S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.58	34.03 €	128.61 €	58%	10.05	56%	100.70	128.14	23.31	61,245.90 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.82	37.07 €	128.66 €	61%	9.76	58%	109.19	134.92	23.85	66,725.92 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.91	30.89 €	129.41 €	56%	10.47	54%	97.34	123.94	22.56	55,604.30 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.91	42.99 €	129.53 €	62%	9.21	60%	110.24	138.34	24.83	77,386.04 €	P4
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.70	31.53 €	129.73 €	56%	10.44	55%	97.70	124.34	22.62	56,747.08 €	P3S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.51	32.13 €	130.00 €	56%	10.40	55%	97.94	124.67	22.68	57,842.83 €	P3S
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.65	35.41 €	130.11 €	57%	10.07	56%	100.60	128.02	23.29	63,742.80 €	P2S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.80	33.62 €	130.29 €	57%	10.28	55%	98.96	125.94	22.91	60,517.36 €	P3S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.29	35.58 €	131.37 €	57%	10.18	56%	99.68	126.86	23.08	64,051.39 €	P3S

Table 91- POS of the MFH20 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.44	55.40 €	156.10 €	32%	10.76	35%	6.94	13.98	3.43	33,242.89 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	50.67	63.48 €	166.07 €	30%	10.96	33%	6.29	13.24	3.31	38,085.32 €	P9
3	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	51.06	64.16 €	167.54 €	30%	11.05	33%	6.14	13.00	3.26	38,494.81 €	P9
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	49.56	68.35 €	168.80 €	32%	10.74	35%	6.74	13.91	3.45	41,008.38 €	P17
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	49.86	67.99 €	168.93 €	31%	10.79	35%	6.59	13.72	3.42	40,792.52 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	48.37	72.18 €	170.21 €	33%	10.48	36%	7.18	14.62	3.60	43,306.09 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	49.51	70.12 €	170.33 €	32%	10.71	35%	6.72	13.93	3.47	42,069.73 €	P9
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	48.02	74.31 €	171.60 €	34%	10.40	37%	7.31	14.83	3.65	44,583.30 €	P9
9	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.75	80.89 €	176.94 €	36%	10.27	38%	8.19	15.59	3.73	48,534.97 €	P125
10	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.73	80.91 €	170.21 €	34%	10.29	38%	7.30	15.01	3.72	48,594.99 €	P9
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	62.27	46.88 €	178.09 €	14%	14.04	15%	3.47	6.28	1.46	28,128.90 €	P17
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.35	83.04 €	178.56 €	35%	10.21	38%	7.43	15.23	3.77	49,825.20 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	75.02	55.40 €	219.14 €	28%	17.55	30%	8.55	17.93	4.48	33,242.89 €	P17	
2	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	66.78	80.89 €	226.29 €	36%	15.58	38%	11.15	22.88	5.66	48,534.97 €	P125
3	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	65.06	85.08 €	226.80 €	38%	15.19	39%	11.75	23.91	5.90	51,048.54 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	63.62	91.46 €	230.06 €	39%	14.81	41%	12.12	24.78	6.12	55,094.17 €	P95
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	63.85	91.46 €	230.09 €	39%	14.86	41%	12.00	24.63	6.10	54,878.31 €	P11
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	62.08	95.65 €	230.44 €	41%	14.44	42%	12.60	25.70	6.34	57,391.88 €	P95
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	76.81	63.48 €	230.46 €	27%	17.89	28%	7.77	16.87	4.27	38,085.32 €	P9
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	63.46	93.59 €	231.34 €	40%	14.76	41%	12.13	24.88	6.15	56,155.52 €	P11
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	61.67	97.78 €	231.68 €	41%	14.35	43%	12.73	25.94	6.40	58,669.09 €	P12
10	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	68.05	84.43 €	232.71 €	35%	15.88	37%	10.73	22.12	5.48	50,657.63 €	P9
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	77.51	64.16 €	232.71 €	26%	18.06	28%	7.54	16.44	4.17	38,494.81 €	P9
12	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	75.54	68.35 €	232.83 €	28%	17.63	30%	8.26	17.62	4.43	41,008.38 €	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.31	55.40 €	152.60 €	35%	10.34	38%	10.36	17.13	3.80	33,242.89 €	P17	
2	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	43.41	85.08 €	166.26 €	47%	8.65	48%	15.32	23.07	4.81	51,048.54 €	P125
3	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.87	80.89 €	166.36 €	44%	9.10	45%	14.18	21.59	4.54	48,534.97 €	P125
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	57.30	63.48 €	167.06 €	30%	11.01	34%	8.34	17.43	3.39	38,085.32 €	P9
5	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	52.86	72.18 €	167.87 €	35%	10.18	39%	10.35	17.40	3.89	43,306.09 €	P9
6	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17																										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.30	78.71 €	205.85 €	48%	13.47	47%	35.52	42.04	7.10	47,225.48 €	P95
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.23	80.84 €	206.24 €	48%	13.28	48%	36.06	42.68	7.21	48,502.69 €	P12
3	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.45	74.52 €	211.44 €	44%	14.50	43%	32.39	38.35	6.48	44,711.91 €	P11
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.39	76.65 €	211.84 €	44%	14.32	43%	32.92	38.99	6.59	45,989.12 €	P11
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	72.26	95.65 €	212.73 €	51%	12.38	51%	36.48	44.47	7.75	57,391.88 €	P95
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	71.18	97.78 €	213.11 €	51%	12.20	52%	37.01	45.11	7.86	58,669.09 €	P12
7	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.74	85.08 €	214.29 €	46%	13.66	46%	32.73	39.97	6.98	51,048.54 €	P125
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.38	78.16 €	214.97 €	44%	14.49	43%	32.43	38.39	6.49	46,898.52 €	P125
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	76.96	91.82 €	216.53 €	47%	13.19	48%	34.13	41.64	7.27	55,094.17 €	P95
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.62	91.46 €	218.84 €	46%	13.47	47%	33.30	40.65	7.10	54,878.31 €	P11
11	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.55	93.59 €	219.23 €	47%	13.29	47%	33.83	41.29	7.21	56,155.52 €	P11
12	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.78	80.89 €	219.88 €	41%	14.70	42%	29.71	36.35	6.36	48,534.97 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.22	95.65 €	225.50 €	51%	13.76	52%	38.15	48.56	8.84	57,391.88 €	P95
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	76.09	97.78 €	225.74 €	52%	13.56	52%	38.69	49.24	8.96	58,669.09 €	P12
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.02	85.08 €	227.82 €	46%	15.12	47%	34.32	43.88	8.02	51,048.54 €	P125
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.09	91.46 €	229.72 €	48%	14.61	49%	35.75	45.63	8.32	55,094.17 €	P95
5	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	83.71	91.46 €	231.93 €	47%	14.88	48%	34.93	44.66	8.16	54,878.31 €	P11
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.59	93.59 €	232.19 €	48%	14.68	48%	35.47	45.34	8.28	56,155.52 €	P11
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.99	78.71 €	232.67 €	45%	16.35	43%	35.77	42.69	7.28	47,225.48 €	P95
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.90	80.84 €	233.01 €	46%	16.16	43%	36.31	43.35	7.39	48,502.69 €	P12
9	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	91.20	80.89 €	233.74 €	42%	16.19	43%	31.26	40.17	7.38	48,502.69 €	P125
10	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.22	106.06 €	235.90 €	51%	13.76	52%	38.15	48.56	8.84	63,633.87 €	P95
11	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	76.09	108.19 €	236.15 €	52%	13.56	52%	38.69	49.24	8.96	64,911.08 €	P12
12	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.12	74.52 €	238.21 €	41%	17.38	39%	32.65	39.02	6.66	44,711.91 €	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	78.59	55.40 €	189.17 €	32%	14.18	35%	15.44	22.66	4.64	33,242.89 €	P17
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.75	85.08 €	190.74 €	48%	11.21	49%	24.61	33.37	6.42	51,048.54 €	P125
3	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.19	95.65 €	193.50 €	52%	10.39	53%	26.76	36.10	6.92	57,391.88 €	P95
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.96	80.89 €	193.51 €	44%	11.95	45%	22.54	30.84	5.98	48,534.97 €	P125
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.36	97.78 €	194.19 €	52%	10.23	53%	27.14	36.60	7.01	58,669.09 €	P12
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.44	91.82 €	195.13 €	49%	10.96	50%	25.19	34.15	6.57	55,094.17 €	P95
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.58	91.46 €	196.55 €	48%	11.15	49%	24.60	33.47	6.46	54,878.31 €	P11
8	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.76	93.59 €	197.26 €	49%	11.00	50%	24.98	33.96	6.55	56,155.52 €	P11
9	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPRO														



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	119.78	97.78	295.79	50%	20.96	51%	58.49	72.75	12.94	58,669.09	P12
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	121.43	95.65	296.39	50%	21.25	50%	57.68	71.76	12.77	57,391.88	P95
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.93	80.84	301.45	47%	23.40	45%	56.28	67.26	11.48	48,502.69	P12
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	130.54	78.71	301.96	46%	23.68	44%	55.48	66.29	11.32	47,225.48	P95
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	128.87	91.82	304.75	47%	22.54	47%	54.00	67.29	12.00	55,094.17	P95
6	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	119.78	108.19	301.9	50%	20.96	51%	58.49	72.75	12.94	64,911.08	P12
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	117.00	91.82	306.70	51%	20.51	52%	59.93	74.42	13.22	67,815.09	P10
8	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	121.43	106.06	306.79	50%	21.25	50%	57.68	71.76	12.77	63,033.87	P95
9	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	134.42	85.08	307.09	44%	23.50	45%	51.25	63.96	11.42	51,048.54	P125
10	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	129.44	93.59	307.34	46%	22.63	47%	53.69	66.95	11.94	56,155.52	P11
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	109.45	126.33	307.51	55%	19.18	55%	63.64	78.95	14.01	75,800.60	P12
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	131.06	91.46	307.89	46%	22.91	46%	52.89	65.98	11.77	54,878.31	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	90.47	95.65	245.00	50%	15.81	51%	44.02	55.13	9.88	57,391.88	P95
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	89.19	97.78	245.00	51%	15.58	52%	44.64	55.90	10.01	58,669.09	P12
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.08	80.84	249.45	46%	18.11	44%	41.95	49.96	8.50	47,225.48	P95
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.83	80.84	249.45	46%	17.89	45%	42.57	50.71	8.63	48,502.69	P12
5	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	99.98	85.08	250.00	45%	17.46	46%	39.30	49.42	8.89	51,048.54	P125
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	96.06	91.82	250.32	47%	16.78	48%	41.25	51.78	9.30	55,094.17	P95
7	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	97.82	91.46	252.77	46%	17.07	47%	40.35	50.72	9.12	54,878.31	P11
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	96.56	93.59	252.80	47%	16.85	48%	40.97	51.48	9.25	56,155.52	P11
9	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	90.47	106.06	255.40	50%	15.81	51%	44.02	55.13	9.88	63,633.87	P95
10	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	89.19	108.19	255.40	51%	15.58	52%	44.64	55.90	10.01	64,911.08	P12
11	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	106.17	74.52	256.50	42%	19.30	40%	38.34	45.71	7.78	44,711.91	P11
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	104.93	76.65	256.58	42%	19.08	41%	38.95	46.45	7.91	45,989.12	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.96	80.84	276.31	48%	20.69	48%	56.06	66.66	11.32	48,502.69	P12
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.56	78.71	276.78	48%	20.96	47%	55.26	65.70	11.15	47,225.48	P95
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	115.50	97.78	284.58	50%	19.75	50%	56.86	68.74	11.88	58,669.09	P12
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	117.10	95.65	285.05	49%	20.03	49%	56.06	67.78	11.72	57,391.88	P95
5	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.30	76.65	287.07	44%	22.27	44%	51.33	61.06	10.37	45,989.12	P11
6	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	129.87	74.52	287.49	44%	22.54	43%	50.55	60.12	10.21	44,711.91	P11
7	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	108.98	109.39	288.93	53%	19.00	52%	61.12	72.65	12.33	65,634.20	P12
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	129.76	78.16	290.96	44%	22.52	43%	50.60	60.18	10.22	46,898.52	P125
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	124.35	91.82	292.96	46%	21.27	46%	52.43	63.43	10.97	55,094.17	P95
10	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS												



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.08	50.51 €	209.90 €	33%	16.98	30%	7.84	9.52	1.65	11,718.71 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.99	52.88 €	210.46 €	33%	16.78	30%	8.05	9.77	1.70	12,268.84 €	P65
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.93	57.39 €	213.05 €	34%	16.58	31%	8.23	10.02	1.74	13,314.87 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.83	59.76 €	213.59 €	35%	16.39	32%	8.44	10.27	1.79	13,865.00 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.05	58.08 €	214.56 €	34%	16.60	31%	8.21	9.99	1.74	13,475.28 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.95	60.45 €	214.50 €	35%	16.41	32%	8.41	10.25	1.78	14,025.41 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.61	50.51 €	216.06 €	30%	17.63	27%	7.21	8.70	1.50	11,718.06 €	P7
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.53	52.88 €	216.63 €	31%	17.44	28%	7.41	8.95	1.54	12,268.19 €	P7
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.06	48.52 €	218.17 €	28%	18.06	25%	6.75	8.13	1.40	11,257.62 €	P7
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.48	57.39 €	219.24 €	31%	17.24	28%	7.60	9.20	1.59	13,314.22 €	P7
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.38	59.76 €	219.78 €	32%	17.04	29%	7.80	9.45	1.64	13,864.35 €	P7
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.73	45.43 €	220.07 €	26%	18.60	23%	6.31	7.51	1.28	10,540.27 €	P85

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.73	50.51 €	247.86 €	30%	21.06	27%	7.84	9.91	1.79	11,718.71 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.76	52.88 €	248.61 €	30%	20.89	27%	8.02	10.14	1.83	12,268.84 €	P65
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	98.42	57.39 €	250.60 €	31%	20.62	28%	8.24	10.45	1.90	13,314.87 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.43	59.76 €	251.33 €	32%	20.45	29%	8.43	10.68	1.94	13,865.00 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.55	58.08 €	251.53 €	31%	20.65	28%	8.22	10.42	1.89	13,475.28 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.56	60.45 €	252.26 €	32%	20.47	29%	8.40	10.65	1.93	14,025.41 €	P5
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.14	31.36 €	253.31 €	20%	23.68	18%	5.58	6.80	1.19	7,274.71 €	P75
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.03	50.51 €	253.68 €	27%	21.68	25%	7.25	9.15	1.65	11,718.06 €	P7
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.06	52.88 €	254.43 €	28%	21.51	25%	7.44	9.37	1.69	12,268.19 €	P7
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.23	48.52 €	255.34 €	26%	22.06	23%	6.84	8.64	1.56	11,257.62 €	P7
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.57	59.54 €	255.35 €	31%	20.90	27%	8.10	10.18	1.83	13,812.28 €	P5
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.69	38.24 €	255.83 €	22%	23.22	19%	6.01	7.37	1.29	8,870.87 €	P75

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.39	50.51 €	316.31 €	30%	28.43	27%	8.91	12.56	2.49	11,718.71 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.29	52.88 €	316.74 €	30%	28.22	28%	9.10	12.81	2.54	12,268.84 €	P65
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.62	57.39 €	317.92 €	31%	27.87	29%	9.35	13.20	2.62	13,314.87 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	124.50	59.76 €	318.32 €	32%	27.66	29%	9.55	13.46	2.67	13,865.00 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.19	59.54 €	318.79 €	31%	27.73	29%	9.37	13.30	2.66	13,812.28 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.78	58.08 €	318.91 €	31%	27.90	29%	9.33	13.16	2.62	13,475.28 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	124.04	61.91 €	319.13 €	32%	27.51	30%	9.57	13.57	2.		



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.26	52.88	267.76	35%	22.82	33%	12.86	15.23	2.57	12,268.84	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.83	50.51	269.93	34%	23.09	32%	12.55	14.86	2.51	11,718.71	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.92	59.76	269.09	37%	22.23	34%	13.49	16.00	2.71	13,865.00	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.51	57.39	269.30	36%	22.50	34%	13.18	15.63	2.65	13,314.87	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.11	60.45	270.10	37%	22.26	34%	13.45	15.96	2.70	14,025.41	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.70	58.08	270.31	36%	22.54	34%	13.14	15.59	2.64	13,475.28	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.87	61.91	276.22	36%	22.77	33%	13.32	15.55	2.59	14,362.41	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	127.43	52.88	272.41	32%	23.73	30%	11.89	14.03	2.36	12,268.19	P7
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.51	59.54	276.50	35%	23.05	32%	13.01	15.17	2.52	13,812.28	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.63	66.16	276.56	37%	22.35	34%	13.73	16.07	2.68	15,350.12	P5S
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.99	50.51	276.57	31%	24.00	29%	11.59	13.67	2.30	11,718.06	P7
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.28	63.79	276.87	36%	22.63	33%	13.41	15.69	2.62	14,799.99	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	158.36	52.88	336.03	33%	30.09	31%	14.81	18.09	3.16	12,268.84	P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.48	59.76	336.41	35%	29.40	32%	15.53	18.99	3.32	13,865.00	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.22	50.51	336.75	32%	30.42	30%	14.46	17.66	3.08	11,718.71	P6S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	156.37	57.39	337.17	34%	29.73	32%	15.18	18.55	3.24	13,314.87	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.70	60.45	337.47	35%	29.44	33%	15.49	18.94	3.31	14,025.41	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	156.59	58.08	338.23	34%	29.77	32%	15.14	18.50	3.23	13,475.28	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	155.30	61.91	341.17	34%	29.69	32%	15.53	18.80	3.25	14,362.41	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	152.88	66.16	341.23	35%	29.24	33%	15.97	19.36	3.36	15,350.12	P5S
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	157.24	59.54	342.03	33%	30.03	31%	15.16	18.35	3.18	13,812.28	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.83	63.79	342.13	34%	29.59	32%	15.60	18.91	3.28	14,799.99	P5S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	164.53	52.88	346.57	30%	31.21	29%	13.68	16.66	2.90	12,268.19	P7
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.69	59.76	347.00	32%	30.53	30%	14.40	17.55	3.06	13,864.35	P7

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	178.64	59.76	352.02	39%	30.92	39%	22.27	26.52	4.51	13,865.00	P5
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	178.93	60.45	353.18	39%	30.97	39%	22.21	26.45	4.50	14,025.41	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	183.82	52.88	353.54	37%	31.81	37%	21.27	25.32	4.31	12,268.84	P6S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	181.25	57.39	353.88	38%	31.37	38%	21.76	25.92	4.41	13,314.87	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	175.29	66.16	354.24	40%	30.49	39%	23.06	27.30	4.61	15,350.12	P5S
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	181.54	58.08	355.04	38%	31.42	38%	21.71	25.85	4.40	13,475.28	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	178.43	61.91	355.19	39%	31.04	38%	22.47	26.57	4.48	14,362.41	P5
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	186.39	50.51	355.33	36%	32.25	36%	20.77	24.73	4.20	11,718.71	P6S
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	177.98	63.79	356.21	39%	30.95	39%	22.54	26.68	4.51	14,799.99	P5S
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	181.09	59.54	357.12	38%	31.50	37%	21.95	25.96	4.38	13,812.28	P5
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_18	2.14	23.79	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	177.54	67.30	361.87	39%	31.19	38%	22.96	26.78	4.45	15,613.48	P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	178.19</										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	231.34	66.16	443.30	39%	39.90	38%	28.77	34.16	5.79	15,350.12	P5
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	236.28	59.76	443.80	38%	40.62	37%	27.68	33.01	5.62	13,865.00	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	236.65	60.45	445.09	37%	40.68	37%	27.61	32.93	5.61	14,025.41	P5
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	235.13	61.91	445.28	38%	40.56	37%	28.05	33.28	5.64	14,362.41	P5
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	234.57	63.79	446.15	38%	40.45	38%	28.15	33.41	5.66	14,799.99	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	239.43	57.39	446.51	37%	41.16	37%	27.07	32.28	5.50	13,314.87	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	242.79	52.88	447.45	36%	41.73	36%	26.43	31.50	5.36	12,268.84	P6
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	239.80	58.08	447.80	37%	41.22	36%	27.00	32.20	5.48	13,475.28	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	238.33	59.54	448.08	37%	41.11	37%	27.43	32.54	5.51	13,812.28	P5
10	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B 18	2.14	23.79	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	232.23	67.30	448.44	39%	40.34	38%	28.90	33.95	5.69	15,613.48	P7
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	245.88	50.51	450.08	35%	42.26	35%	25.83	30.79	5.24	11,718.71	P6
12	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B 17	1.43	19.85	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	234.63	65.33	450.14	38%	40.72	37%	28.41	33.40	5.60	15,157.02	P7

Table 93- POS of the SFH1 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	46.58	143.31	239.58	45%	10.30	47%	4.34	8.13	1.93	30,726.59	P12
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	51.42	134.97	241.46	39%	11.39	41%	3.74	7.09	1.69	28,937.00	P9
3	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	50.38	141.54	245.80	40%	11.15	42%	3.86	7.31	1.74	30,345.55	P9
4	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	49.19	145.94	247.85	42%	10.90	43%	4.03	7.57	1.80	31,289.47	P9
5	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	46.58	161.30	257.57	45%	10.30	47%	4.34	8.13	1.93	34,582.19	P12
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	48.80	156.92	257.89	42%	10.80	44%	4.07	7.66	1.82	33,644.11	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	47.83	161.49	260.55	43%	10.59	45%	4.20	7.86	1.86	34,624.13	P9
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	47.77	163.49	262.25	43%	10.56	45%	4.19	7.87	1.87	35,052.67	P9
9	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	45.94	169.06	264.11	46%	10.17	47%	4.44	8.27	1.96	36,247.18	P12
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	46.58	167.89	264.26	45%	10.31	47%	4.36	8.13	1.93	35,996.59	P9
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	45.37	173.32	267.13	46%	10.03	48%	4.51	8.39	1.98	37,159.96	P12
12	EW_3	3.33	48.94	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	47.97	175.95	275.42	43%	10.64	45%	4.20	7.83	1.85	37,722.84	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	66.88	143.31	289.61	45%	15.68	46%	5.77	11.64	2.86	30,726.59	P12
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	74.32	134.97	297.91	39%	17.47	40%	4.94	10.05	2.48	28,937.00	P9
3	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	72.77	141.54	300.99	40%	17.09	41%	5.11	10.38	2.56	30,345.55	P9
4	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	71.07	145.94	301.78	41%	16.71	42%	5.32	10.75	2.64	31,289.47	P9
5	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	66.88	161.30	307.99	45%	15.68	46%	5.77	11.64	2.86	34,582.19	P12
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	69.73	156.92	309.57	42%	16.36	44%	5.44	11.03	2.72	33,644.11	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	67.99	161.49	310.24	44%	15.94	45%	5.64	11.40	2.81	34,624.13	P9
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	68.18	163.49	312.55	44%	15.98	45%	5.61	11.37	2.80	35,052.67	P9
9	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	65.77	169.06	312.98	46%	15.43	47%	5.90	11.88	2.92	36,247.18	P12
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	66.40	167.89	313.12	46%	15.57	46%	5.82	11.75	2.89	35,996.59	P9
11	EW_3																																



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.36	56.51 €	305.50 €	25%	26.68	22%	5.70	8.09	1.62	12,115.63 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.48	58.91 €	306.35 €	25%	26.52	22%	5.84	8.27	1.65	12,629.47 €	P65
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.03	65.53 €	310.15 €	26%	26.22	23%	6.05	8.59	1.71	14,050.37 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.20	63.39 €	310.20 €	26%	26.45	23%	5.87	8.34	1.66	13,590.70 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.16	67.93 €	311.01 €	27%	26.06	24%	6.19	8.77	1.75	14,564.22 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.27	64.08 €	311.03 €	26%	26.47	23%	5.86	8.32	1.66	13,738.94 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.32	65.79 €	311.05 €	26%	26.29	23%	6.02	8.52	1.70	14,104.54 €	P5
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.86	63.53 €	311.38 €	25%	26.56	22%	5.75	8.19	1.64	13,620.30 €	P65
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.40	66.48 €	311.88 €	26%	26.30	23%	6.01	8.51	1.70	14,252.78 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.01	69.79 €	312.49 €	27%	26.01	24%	6.20	8.80	1.76	14,963.15 €	P55
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.14	72.19 €	313.35 €	28%	25.85	24%	6.35	8.99	1.79	15,476.99 €	P55
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.73	56.51 €	315.65 €	21%	27.77	19%	4.90	6.94	1.38	12,114.74 €	P7

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.51	58.91 €	257.53 €	37%	21.05	35%	12.71	14.68	2.41	12,629.47 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.39	56.51 €	258.09 €	36%	21.36	34%	12.37	14.27	2.34	12,115.63 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.12	67.93 €	259.37 €	39%	20.29	37%	13.49	15.62	2.57	14,564.22 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.01	65.53 €	259.96 €	38%	20.61	36%	13.14	15.21	2.51	14,050.37 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.17	72.19 €	260.46 €	40%	19.96	38%	13.84	16.04	2.65	15,476.99 €	P55
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.33	65.79 €	260.84 €	38%	20.67	36%	13.10	15.14	2.49	14,104.54 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.08	69.79 €	261.06 €	39%	20.27	37%	13.49	15.63	2.58	14,963.15 €	P55
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.22	63.39 €	261.42 €	37%	20.99	35%	12.75	14.74	2.42	13,590.70 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.47	66.48 €	261.76 €	38%	20.70	36%	13.07	15.11	2.49	14,252.78 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.36	64.08 €	262.33 €	37%	21.01	35%	12.73	14.71	2.42	13,738.94 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.94	63.53 €	264.14 €	36%	21.26	34%	12.42	14.37	2.37	13,620.30 €	P65
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.99	75.22 €	266.44 €	39%	20.27	37%	13.51	15.65	2.58	16,126.91 €	P55

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.23	58.91 €	296.98 €	34%	25.30	30%	12.62	14.49	2.36	12,629.47 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	135.12	56.51 €	297.58 €	33%	25.62	29%	12.28	14.09	2.30	12,115.63 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.76	67.93 €	298.64 €	36%	24.52	33%	13.41	15.45	2.53	14,564.22 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	130.66	65.53 €	299.26 €	35%	24.84	32%	13.06	15.04	2.46	14,050.37 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	126.78	72.19 €	299.64 €	37%	24.18	33%	13.76	15.87	2.61	15,476.99 €	P55
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.01	65.79 €	300.20 €	35%	24.91	31%	13.01	14.97	2.45	14,104.54 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.69	69.79 €	300.27 €	36%	24.50	33%	13.41	15.46	2.54	14,963.15 €	P55
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	132.91	63.39 €	300.81 €	34%	25.23	31%	12.67	14.56	2.38	13,590.70 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.15	66.48 €	301.13 €	35%	24.94	31%	12.99	14.94	2.44	14,252.78 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.05	64.08 €	301.73 €	34%	25.26	30%	12.64	14.53	2.37	13,738.94 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,															



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.44	58.91	284.16	38%	23.87	37%	15.26	17.76	2.94	12,629.47	P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.20	67.93	284.58	41%	22.96	39%	16.18	18.88	3.14	14,564.22	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	125.88	72.19	285.03	42%	22.56	40%	16.59	19.38	3.23	15,476.99	P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	135.74	56.51	285.42	37%	24.26	35%	14.84	17.27	2.86	12,115.63	P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	130.52	65.53	285.87	40%	23.35	38%	15.76	18.39	3.06	14,050.37	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.21	69.79	286.34	41%	22.95	39%	16.17	18.88	3.14	14,963.15	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	130.84	65.79	286.77	40%	23.42	38%	15.72	18.32	3.04	14,104.54	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	131.01	66.48	287.73	39%	23.45	38%	15.69	18.28	3.04	14,252.78	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.15	63.39	288.04	38%	23.81	37%	15.30	17.82	2.96	13,590.70	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.31	64.08	289.00	38%	23.84	37%	15.27	17.79	2.95	13,738.94	P5
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	135.32	63.53	291.51	37%	24.16	36%	14.89	17.36	2.88	13,620.30	P6S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.04	75.22	291.61	41%	22.93	39%	16.21	18.92	3.15	16,126.91	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	192.53	72.19	403.91	38%	35.19	36%	21.25	24.88	4.15	15,476.99	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.42	67.93	404.36	37%	35.69	35%	20.74	24.26	4.05	14,564.22	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	201.90	58.91	405.93	35%	36.81	33%	19.59	22.87	3.81	12,629.47	P6S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.42	69.79	406.12	37%	35.68	35%	20.73	24.26	4.05	14,963.15	P5S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	198.29	65.53	406.55	36%	36.17	34%	20.22	23.65	3.94	14,050.37	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	198.69	65.79	406.55	36%	36.25	34%	20.16	23.56	3.93	14,104.54	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	204.75	56.51	408.07	34%	37.29	32%	19.07	22.26	3.70	12,115.63	P6S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	198.89	66.48	408.58	36%	36.29	33%	20.12	23.52	3.92	14,252.78	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	201.54	63.39	409.71	35%	36.74	33%	19.64	22.95	3.82	13,590.70	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	201.75	64.08	410.74	35%	36.77	33%	19.60	22.91	3.82	13,738.94	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.22	75.22	411.33	37%	35.66	35%	20.77	24.31	4.02	16,126.91	P5S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	192.71	80.82	412.83	38%	35.22	35%	21.22	24.85	4.15	17,328.04	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	152.33	58.91	322.81	34%	28.00	32%	14.83	17.19	2.84	12,629.47	P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	147.25	67.93	323.50	37%	27.12	34%	15.72	18.28	3.03	14,564.22	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.51	56.51	323.87	34%	28.37	31%	14.43	16.72	2.76	12,115.63	P6S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	145.01	72.19	324.07	38%	26.73	35%	16.12	18.76	3.11	15,476.99	P5S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.45	65.53	324.57	36%	27.49	33%	15.32	17.81	2.95	14,050.37	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	147.21	69.79	325.16	37%	27.10	34%	15.72	18.28	3.03	14,963.15	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.81	65.79	325.54	36%	27.57	33%	15.27	17.73	2.93	14,104.54	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.97	66.48	326.00	35%	27.59	33%	15.24	17.69	2.92	14,252.78	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	151.99	63.39	326.61	35%	27.93	32%	14.87	17.26	2.85	13,590.70	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	152.15	64.08	327.57	35%	27.96	32%	14.85	17.22	2.85	13,738.94	P5
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	153.99	63.53	329.78	34%	28.25	31%	14.49	16.83	2.78	13,620.30	P6S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	147.10	75.22	330.53	37%	27.09	34%	15.75	18.31	3.03	16,126.91	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _g [W/m²K]	U _f [W/m²K
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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.87	21.20 €	151.26 €	22%	13.94	24%	1.42	3.26	0.84	4,101.95 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.54	24.04 €	153.36 €	22%	13.86	24%	1.45	3.32	0.86	4,651.15 €	P1
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.55	24.22 €	157.37 €	20%	14.27	22%	1.18	2.93	0.78	4,687.08 €	P15
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.21	25.65 €	158.05 €	20%	14.19	22%	1.22	3.00	0.80	4,963.66 €	P1
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.39	25.25 €	158.06 €	20%	14.23	22%	1.20	2.96	0.79	4,885.58 €	P15
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.05	26.68 €	158.74 €	20%	14.15	23%	1.23	3.03	0.80	5,162.16 €	P1
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.96	27.90 €	159.78 €	21%	14.13	23%	1.24	3.04	0.81	5,399.32 €	P1
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.83	28.49 €	160.06 €	21%	14.10	23%	1.26	3.07	0.81	5,512.86 €	P1
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.67	29.52 €	160.75 €	21%	14.06	23%	1.27	3.10	0.82	5,711.36 €	P1
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.59	30.74 €	161.79 €	21%	14.04	23%	1.28	3.12	0.82	5,948.52 €	P1
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.61	26.68 €	162.17 €	18%	14.52	21%	1.07	2.73	0.73	5,161.87 €	P1
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	61.18	30.51 €	162.86 €	20%	14.18	22%	1.22	3.00	0.80	5,903.90 €	P45

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	32.57	21.20 €	80.06 €	28%	6.26	32%	1.37	2.48	0.58	4,101.95 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	32.16	24.04 €	82.15 €	29%	6.18	33%	1.43	2.56	0.59	4,651.15 €	P1
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.91	13.62 €	93.03 €	10%	8.47	8%	0.72	0.87	0.15	2,634.95 €	P15
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.38	24.22 €	94.38 €	15%	7.46	19%	0.62	1.36	0.34	4,687.08 €	P15
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.90	25.65 €	94.93 €	17%	7.37	20%	0.69	1.45	0.36	4,963.66 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.13	25.25 €	94.97 €	16%	7.42	20%	0.66	1.41	0.35	4,885.58 €	P15
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.65	26.68 €	95.52 €	17%	7.32	21%	0.73	1.50	0.37	5,162.16 €	P1
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.51	27.90 €	96.50 €	17%	7.30	21%	0.75	1.53	0.38	5,399.32 €	P1
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.37	28.49 €	96.81 €	18%	7.27	21%	0.76	1.55	0.38	5,512.86 €	P1
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	37.12	29.52 €	97.40 €	18%	7.22	22%	0.80	1.60	0.39	5,711.36 €	P1
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	36.99	30.74 €	98.39 €	19%	7.20	22%	0.82	1.63	0.40	5,948.52 €	P1
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.96	26.68 €	99.69 €	12%	7.77	16%	0.39	1.05	0.29	5,161.87 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.66	21.20 €	109.73 €	28%	9.44	31%	1.82	3.41	0.81	4,101.95 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.16	24.04 €	111.64 €	29%	9.34	31%	1.89	3.51	0.83	4,651.15 €	P1
3	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.57	24.22 €	120.46 €	22%	10.27	25%	1.32	2.65	0.65	2,634.95 €	P15
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.07	25.65 €	120.96 €	22%	10.17	25%	1.39	2.75	0.67	4,963.66 €	P1
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.31	25.25 €	121.02 €	22%	10.22	25%	1.36	2.70	0.66	4,885.58 €	P15
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.81	26.68 €	121.53 €	23%	10.12	26%	1.43	2.80	0.68	5,162.16 €	P1
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.67	27.90 €	122.49 €	23%	10.09	26%	1.45	2.83	0.68	5,399.32 €	P1
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMP																



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.14	33.71 €	129.29 €	43%	10.13	43%	6.44	8.08	1.45	6,523.04 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.68	34.74 €	131.19 €	42%	10.23	42%	6.35	7.97	1.43	6,721.54 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.96	39.32 €	131.34 €	45%	9.76	45%	6.79	8.50	1.52	7,609.35 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.36	35.96 €	131.91 €	42%	10.17	42%	6.40	8.03	1.44	6,958.70 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.29	38.30 €	132.48 €	44%	9.99	43%	6.57	8.24	1.48	7,410.56 €	P2
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.82	43.59 €	132.98 €	47%	9.48	46%	7.21	8.91	1.58	8,434.84 €	P4S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.13	31.94 €	134.11 €	39%	10.83	39%	5.81	7.31	1.31	6,180.22 €	P3S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.60	39.78 €	134.47 €	43%	10.04	43%	6.52	8.18	1.47	7,698.25 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.36	40.33 €	134.63 €	43%	10.00	43%	6.56	8.23	1.48	7,803.37 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.36	40.55 €	134.85 €	43%	10.00	43%	6.56	8.23	1.48	7,846.51 €	P2
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.02	46.84 €	134.94 €	48%	9.35	47%	7.34	9.07	1.60	9,063.33 €	P4S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.29	41.01 €	135.19 €	44%	9.99	43%	6.57	8.24	1.48	7,935.41 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.93	33.71 €	104.20 €	40%	7.49	40%	3.99	5.25	0.99	6,523.04 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.29	34.74 €	105.86 €	40%	7.55	40%	3.94	5.18	0.97	6,721.54 €	P3S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	42.43	31.94 €	106.69 €	37%	7.94	37%	3.61	4.77	0.90	6,180.22 €	P3S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.10	35.96 €	106.78 €	40%	7.52	40%	3.97	5.22	0.98	6,958.70 €	P3S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	38.62	39.32 €	107.67 €	42%	7.26	42%	4.20	5.51	1.03	7,609.35 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.41	38.30 €	107.94 €	41%	7.40	41%	4.07	5.35	1.00	7,410.56 €	P2
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.06	18.67 €	109.26 €	21%	9.61	24%	1.76	2.71	0.58	3,612.89 €	P2S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.60	39.78 €	109.73 €	41%	7.43	41%	4.04	5.32	1.00	7,698.25 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.46	40.33 €	110.05 €	41%	7.41	41%	4.07	5.34	1.00	7,803.37 €	P2S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.46	40.55 €	110.27 €	41%	7.41	41%	4.07	5.34	1.00	7,846.51 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	39.41	41.01 €	110.65 €	41%	7.40	41%	4.07	5.35	1.00	7,935.41 €	P3S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	40.63	39.32 €	111.00 €	39%	7.61	39%	3.88	5.12	0.96	7,609.06 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.54	33.71 €	144.02 €	38%	11.73	38%	5.44	7.26	1.38	6,523.04 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.02	34.74 €	145.88 €	38%	11.82	37%	5.37	7.16	1.36	6,721.54 €	P3S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.61	39.32 €	146.35 €	40%	11.38	40%	5.74	7.63	1.44	7,609.35 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.75	35.96 €	146.64 €	38%	11.77	38%	5.41	7.22	1.37	6,958.70 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.78	38.30 €	147.32 €	39%	11.60	38%	5.56	7.40	1.40	7,410.56 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.14	31.94 €	148.51 €	35%	12.40	34%	4.90	6.56	1.25	6,180.22 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.06	39.78 €	149.27 €	39%	11.65	38%	5.52	7.35	1.39	7,698.25 €	P3S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.25	43.59 €	149.37 €	42%	11.26	40%	6.05	7.89	1.47	8,434.84 €	P4S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.85	40.33 €	149.46 €	39%	11.61	38%	5.55	7.39	1.40	7,803.37 €	P2S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.85	40.55 €	149.68 €	39%	11.61	38%	5.55	7.39	1.40	7,846.51 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.78	41.01 €	150.03 €	39%	11.60	38%	5.56				



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.07	33.71 €	145.27 €	41%	11.81	41%	7.46	9.16	1.61	6,523.04 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.55	39.32 €	146.80 €	44%	11.38	43%	7.87	9.64	1.69	7,609.35 €	P4
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.68	34.74 €	147.30 €	41%	11.92	41%	7.36	9.04	1.59	6,721.54 €	P3S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.78	43.59 €	147.46 €	46%	11.01	45%	8.40	10.18	1.76	8,434.84 €	P4S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.32	35.96 €	147.94 €	41%	11.86	41%	7.42	9.11	1.60	6,958.70 €	P3S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.08	38.30 €	148.25 €	42%	11.64	42%	7.62	9.35	1.64	7,410.56 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.84	46.84 €	149.19 €	47%	10.85	46%	8.55	10.36	1.79	9,063.33 €	P4S
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.44	39.78 €	150.32 €	42%	11.71	42%	7.56	9.28	1.63	7,698.25 €	P3S
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.16	40.33 €	150.42 €	42%	11.66	42%	7.61	9.33	1.64	7,803.37 €	P2S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.16	40.55 €	150.64 €	42%	11.66	42%	7.61	9.33	1.64	7,803.37 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.08	41.01 €	150.97 €	42%	11.64	42%	7.62	9.35	1.64	7,935.41 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.65	31.94 €	151.02 €	37%	12.61	37%	6.73	8.27	1.45	6,180.22 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.48	41.01 €	167.50 €	48%	13.39	47%	11.66	13.65	2.28	7,935.41 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.16	43.59 €	170.76 €	47%	13.45	47%	11.19	13.32	2.27	8,434.84 €	P4S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.87	46.84 €	171.95 €	48%	13.23	47%	11.40	13.57	2.31	9,063.33 €	P4S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.46	33.71 €	173.96 €	41%	14.83	41%	9.81	11.72	2.00	6,523.04 €	P2
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.09	39.32 €	174.14 €	43%	14.26	43%	10.36	12.37	2.11	7,609.35 €	P4
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.26	34.74 €	176.29 €	41%	14.97	40%	9.68	11.56	1.97	6,721.54 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.14	38.30 €	176.42 €	42%	14.61	42%	10.03	11.97	2.04	7,410.56 €	P2
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.79	35.96 €	176.75 €	41%	14.89	41%	9.76	11.65	1.99	6,958.70 €	P3S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	76.39 €	52.08 €	177.19 €	48%	13.23	47%	11.40	13.57	2.31	10,077.79 €	P4
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR 8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.25	40.33 €	178.63 €	42%	14.63	42%	10.01	11.95	2.04	7,803.37 €	P2S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR 13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.62	39.78 €	178.68 €	42%	14.69	42%	9.95	11.88	2.03	7,698.25 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.25	40.55 €	178.85 €	42%	14.63	42%	10.01	11.95	2.04	7,846.51 €	P4

Table 95- POS of the SFH3 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.95	153.72 €	238.47 €	42%	9.06	42%	1.71	2.67	0.57	13,527.35 €	P12
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.12	158.82 €	243.68 €	42%	9.07	42%	1.69	2.65	0.57	13,976.46 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.87	156.87 €	245.75 €	39%	9.50	39%	1.61	2.50	0.53	13,804.65 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.92	168.68 €	255.64 €	41%	9.29	40%	1.66	2.58	0.55	14,843.84 €	P9
5	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.95	175.33 €	260.07 €	42%	9.06	42%	1.71	2.67	0.57	15,428.91 €	P12
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.34	185.20 €	268.32 €	43%	8.88	43%	1.72	2.72	0.59	16,297.98 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.87	183.25 €	269.96 €	41%	9.27	40%	1.66	2.59	0.55	16,126.16 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.91	195.06 €	279.84 €	42%	9.06	42%	1.71	2.67	0.57	17,165.35 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.98	193.32 €	282.39 €	39%	9.52	39%	1.60	2.49	0.53	17,011.72 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.02	220.90 €	301.74 €	45%	8.64						



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	75.68	57.09	207.07	30%	16.01	26%	2.38	2.87	0.49	5,023.73	P65
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	79.10	51.33	207.37	27%	16.66	23%	2.16	2.57	0.44	4,516.69	P85
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.53	72.57	207.99	37%	14.46	33%	2.78	3.50	0.63	6,385.77	P65
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.57	56.69	210.14	28%	16.38	24%	2.26	2.70	0.46	4,988.86	P85
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	79.41	54.63	211.43	27%	16.74	23%	2.14	2.54	0.43	4,807.15	P85
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	69.17	76.07	212.54	36%	14.57	33%	2.73	3.44	0.62	6,694.32	P7
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	72.02	71.97	213.69	33%	15.13	30%	2.55	3.19	0.57	6,333.48	P7
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	72.13	72.16	214.08	33%	15.15	30%	2.54	3.18	0.57	6,350.07	P85
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.46	78.22	215.09	37%	14.62	32%	2.85	3.50	0.62	6,883.15	P55
10	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	73.84	70.09	215.14	32%	15.48	28%	2.43	3.03	0.54	6,168.36	P7
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	69.85	77.06	216.50	35%	14.89	31%	2.76	3.38	0.59	6,780.97	P5
12	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 17	1.43	19.85	FR_2	1.47	24.49	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.95	56.57	216.95	24%	17.11	21%	1.93	2.32	0.40	4,978.29	P75

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.72	57.09	254.40	32%	21.11	30%	2.82	3.95	0.78	5,023.73	P65
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.56	51.33	255.74	29%	21.87	27%	2.58	3.61	0.71	4,516.69	P85
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.34	72.57	257.17	37%	19.75	34%	3.19	4.51	0.90	6,385.77	P65
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.82	56.69	257.96	31%	21.53	28%	2.69	3.76	0.74	4,988.86	P85
5	EW_26	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.30	78.22	259.42	38%	19.39	35%	3.33	4.69	0.93	6,883.15	P55
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.85	54.63	259.71	29%	21.94	27%	2.57	3.59	0.71	4,807.15	P85
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.87	77.06	261.25	37%	19.71	34%	3.24	4.55	0.90	6,780.97	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	84.52	83.58	261.94	39%	19.05	36%	3.44	4.85	0.96	7,355.32	P55
9	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.18	76.07	262.24	36%	19.92	34%	3.13	4.44	0.88	6,694.32	P7
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.10	82.42	263.39	38%	19.37	35%	3.35	4.71	0.93	7,253.15	P5
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.64	78.21	263.84	36%	19.86	34%	3.19	4.48	0.89	6,882.31	P55
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	84.61	85.94	264.07	39%	19.07	36%	3.44	4.84	0.96	7,562.53	P55

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.95	83.58	239.80	50%	16.53	49%	7.05	8.32	1.40	7,355.32	P55
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.31	78.22	239.84	48%	17.11	47%	6.80	8.03	1.35	6,883.15	P55
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	103.81	72.57	241.56	45%	17.88	45%	6.33	7.54	1.28	6,385.77	P65
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	95.11	82.42	242.41	50%	16.56	49%	7.04	8.31	1.40	7,562.53	P55
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.04	57.09	242.84	40%	19.66	39%	5.73	6.73	1.13	5,023.73	P65
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.60	82.42	242.99	48%	16.99	48%	6.86	8.09	1.36	7,253.15	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	100.94	77.06	242.97	47%	17.56	46%	6.61	7.79	1.31	6,780.97	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.41	84.41	244.67	49%	16.96	48%	6.87	8.10	1.36	7,428.08	P55
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.25	83.57	246.77	48%	17.27	47%	6.74	7.94	1.34	7,354.49	P55
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.59	78.21	246.77	46%	17.84	45%	6.49	7.65	1.29	6,882.31	P55
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	105.52	76.07	247.80	44%	18.17	44%	6.20	7.39	1.26	6,694.32	P7
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	104.22	76.47	247.82	45%	18.13	44%	6.38	7.51	1.26	6,728.52	P5



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.08	72.57 €	264.71 €	40%	20.42	38%	5.21	6.37	1.11	6,385.77 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.01	78.22 €	267.52 €	42%	20.14	39%	5.53	6.64	1.14	6,883.15 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.04	83.58 €	267.90 €	44%	19.61	41%	5.74	6.90	1.18	7,355.32 €	P5S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.54	57.09 €	269.74 €	34%	22.61	32%	4.60	5.45	0.92	5,023.73 €	P6S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_17	3.64	54.56 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.18	85.94 €	270.50 €	44%	19.63	41%	5.73	6.89	1.18	7,562.53 €	P5S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.41	77.06 €	270.50 €	41%	20.57	38%	5.37	6.43	1.10	6,780.97 €	P5
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_17	3.64	54.56 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.61	76.07 €	270.79 €	39%	20.70	37%	5.10	6.23	1.09	6,694.32 €	P7
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.46	82.42 €	270.91 €	42%	20.05	39%	5.58	6.69	1.15	7,201.69 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.28	84.41 €	272.60 €	42%	20.02	39%	5.59	6.70	1.15	7,428.08 €	P5S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.53	51.33 €	274.18 €	31%	23.69	28%	4.18	4.92	0.82	4,516.69 €	P8S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.91	78.21 €	274.19 €	40%	20.84	37%	5.26	6.29	1.08	6,882.31 €	P5S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.96	83.57 €	274.59 €	42%	20.32	39%	5.47	6.55	1.12	7,354.49 €	P5S

Table 96- POS of the SFH4 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.89	147.84 €	228.51 €	26%	8.62	27%	0.74	1.34	0.31	14,340.01 €	P9
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.94	150.56 €	229.04 €	28%	8.39	29%	0.78	1.43	0.34	14,604.04 €	P12
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.30	147.54 €	229.07 €	25%	8.71	27%	0.71	1.30	0.30	14,311.28 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.69	152.90 €	233.15 €	26%	8.58	28%	0.75	1.36	0.32	14,831.12 €	P9
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.87	164.04 €	244.69 €	26%	8.62	27%	0.74	1.34	0.31	15,912.18 €	P9
6	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.94	170.17 €	248.66 €	28%	8.39	29%	0.78	1.43	0.34	16,506.74 €	P12
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.19	171.78 €	250.88 €	27%	8.45	29%	0.77	1.41	0.33	16,662.92 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.58	171.49 €	251.43 €	26%	8.54	28%	0.75	1.37	0.32	16,634.20 €	P9
9	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR 3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.09	176.55 €	255.41 €	27%	8.43	29%	0.78	1.42	0.33	17,125.38 €	P12
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.98	176.85 €	255.52 €	27%	8.41	29%	0.78	1.43	0.33	17,154.04 €	P9
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.62	185.07 €	262.89 €	28%	8.31	30%	0.80	1.47	0.34	17,951.31 €	P12
12	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.38	187.41 €	267.02 €	27%	8.51	28%	0.77	1.39	0.32	18,178.39 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.44	150.56 €	264.80 €	31%	12.23	33%	1.16	2.38	0.59	14,604.04 €	P12
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.77	147.84 €	265.21 €	30%	12.57	31%	1.10	2.25	0.56	14,340.01 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.39	147.54 €	266.31 €	29%	12.72	31%	1.07	2.19	0.54	14,311.28 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.45	152.90 €	269.56 €	30%	12.49	32%	1.12	2.29	0.56	14,831.12 €	P9
5	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR 2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.19	164.04 €	280.03 €	31%	12.42	32%	1.13	2.31	0.57	15,912.18 €	P9
6	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.44	170.17 €	284.41 €	31%	12.23	33%	1.16	2.38	0.59	16,506.74 €	P12
7	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.36	171.78 €	285.84 €	32%	12.22	33%	1.17	2.39	0.59	16,662.92 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.98	171.49 €	286.94 €	31%	12.37	32%	1.14	2.33	0.58	16,634.20 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.03	176.85 €	290.16 €	32%	12.14	34%	1.18	2.42	0.60	17,154.04 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR 3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.53	176.55 €	291.05 €	31%	12.26	33%	1.16	2.37	0.59	17,125.38 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.92	185.07 €	298.14 €	32%	12.11	34%	1.19	2.43	0.60	17,951.31 €	P12
12	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR 4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	53.94	187.41 €	302.94 €	31%	12.37	32%	1.15	2.33	0.58	18,178.39 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	49.90	47.41 €	142.97 €	12%	10.19	7%	0.69	0.65	0.08	4,598.72 €	P85
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.54	62.91 €	147.17 €	23%	9.99	18%	1.16	1.27	0.19	6,102.69 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.16	60.60 €	147.65 €	20%	9.28	16%	1.03	1.11	0.17	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	44.85	62.91 €	149.44 €	21%	9.23	16%	1.06	1.14	0.17	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	43.37	65.67 €	149.64 €	23%	9.96	19%	1.17	1.28	0.20	6,370.04 €	P65
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR 8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €											



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.87	62.91 €	179.01 €	36%	12.28	36%	3.35	3.93	0.66	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.42	65.67 €	181.05 €	37%	12.21	36%	3.38	3.98	0.67	6,370.04 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.95	60.60 €	183.29 €	33%	12.98	32%	3.02	3.54	0.59	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.17	62.91 €	184.35 €	33%	12.85	33%	3.08	3.61	0.60	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.72	65.66 €	186.39 €	34%	12.77	33%	3.12	3.66	0.61	6,369.37 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.30	47.41 €	186.97 €	23%	14.77	23%	2.19	2.53	0.42	4,598.72 €	P85
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.66	76.67 €	190.79 €	37%	12.08	37%	3.44	4.05	0.68	7,437.41 €	P5
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.92	78.66 €	191.53 €	38%	11.94	37%	3.50	4.12	0.69	7,629.58 €	P65
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.75	78.06 €	192.31 €	37%	12.09	37%	3.44	4.04	0.68	7,571.54 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.13	80.96 €	192.58 €	39%	11.81	38%	3.57	4.20	0.71	7,853.34 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.21	79.43 €	192.83 €	38%	12.00	37%	3.48	4.09	0.69	7,704.76 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	69.30	80.81 €	194.35 €	38%	12.01	37%	3.47	4.09	0.69	7,838.89 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.84	62.91 €	197.20 €	33%	14.25	31%	3.29	3.80	0.62	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.39	65.67 €	199.24 €	34%	14.17	31%	3.32	3.84	0.63	6,370.04 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.98	60.60 €	201.64 €	30%	14.96	28%	2.95	3.40	0.56	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.19	62.91 €	202.69 €	31%	14.83	28%	3.02	3.47	0.57	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.75	65.66 €	204.73 €	31%	14.75	29%	3.05	3.52	0.58	6,369.37 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.64	47.41 €	206.10 €	21%	16.83	19%	2.11	2.36	0.37	4,598.72 €	P85
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.59	76.67 €	208.88 €	35%	14.03	32%	3.38	3.92	0.65	7,437.41 €	P5
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.79	78.66 €	209.49 €	35%	13.88	33%	3.44	4.00	0.66	7,629.58 €	P65
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.68	78.06 €	210.41 €	34%	14.04	32%	3.38	3.91	0.64	7,571.54 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.00	80.96 €	210.53 €	36%	13.75	34%	3.51	4.07	0.67	7,853.34 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.14	79.43 €	210.92 €	35%	13.95	33%	3.42	3.96	0.65	7,704.76 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.23	80.81 €	212.45 €	35%	13.97	32%	3.41	3.95	0.65	7,838.89 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.06	62.91 €	167.71 €	30%	11.14	26%	2.17	2.44	0.39	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.36	47.41 €	169.49 €	18%	12.97	14%	1.37	1.44	0.21	4,598.72 €	P85
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.76	65.67 €	169.98 €	31%	11.09	27%	2.20	2.47	0.39	6,370.04 €	P65
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.86	60.60 €	170.00 €	27%	11.63	23%	1.95	2.17	0.34	5,878.26 €	P7
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.33	62.91 €	171.44 €	27%	11.54	24%	1.99	2.22	0.35	6,102.02 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.03	65.66 €	173.71 €	28%	11.49	24%	2.02	2.25	0.35	6,369.37 €	P7
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.14	76.67 €	179.87 €	31%	10.97	27%	2.24	2.53	0.40	7,437.41 €	P5
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE</																							



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.34	62.91 €	261.38 €	34%	21.03	33%	5.08	5.97	1.00	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.67	65.67 €	263.05 €	35%	20.91	33%	5.14	6.03	1.01	6,370.04 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	124.61	60.60 €	269.28 €	31%	22.11	29%	4.58	5.36	0.89	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.44	62.91 €	269.69 €	31%	21.91	30%	4.67	5.47	0.91	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.78	65.66 €	271.37 €	32%	21.79	30%	4.73	5.54	0.92	6,369.37 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.52	76.67 €	272.13 €	35%	20.71	34%	5.23	6.15	1.03	7,437.41 €	P5
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.39	78.66 €	272.20 €	36%	20.51	35%	5.32	6.26	1.05	7,629.58 €	P65
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.20	80.96 €	272.59 €	37%	20.30	35%	5.41	6.37	1.07	7,853.34 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.65	78.06 €	273.72 €	35%	20.73	34%	5.22	6.13	1.03	7,571.54 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.85	79.43 €	273.80 €	36%	20.59	34%	5.28	6.21	1.04	7,704.76 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.53	83.72 €	274.25 €	37%	20.19	36%	5.47	6.44	1.08	8,120.69 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.98	80.81 €	275.39 €	36%	20.62	34%	5.27	6.20	1.04	7,838.89 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.46	62.91 €	213.62 €	34%	15.97	32%	3.84	4.45	0.73	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.95	65.67 €	215.55 €	34%	15.88	33%	3.88	4.50	0.74	6,370.04 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.24	60.60 €	219.07 €	30%	16.79	29%	3.45	3.98	0.65	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.34	62.91 €	219.93 €	31%	16.64	29%	3.53	4.07	0.67	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.83	65.66 €	221.86 €	31%	16.55	30%	3.57	4.12	0.68	6,369.37 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.04	76.67 €	225.01 €	35%	15.72	33%	3.95	4.59	0.76	7,437.41 €	P5
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.14	78.66 €	225.45 €	36%	15.56	34%	4.02	4.67	0.77	7,629.58 €	P65
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.54	47.41 €	226.12 €	21%	18.93	20%	2.47	2.79	0.45	4,998.72 €	P85
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.23	80.96 €	226.30 €	36%	15.40	35%	4.09	4.76	0.79	7,571.54 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.14	78.06 €	226.56 €	35%	15.74	33%	3.94	4.58	0.76	7,571.54 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.53	79.43 €	226.94 €	35%	15.63	34%	3.99	4.64	0.77	7,704.76 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.71	83.72 €	228.22 €	37%	15.31	35%	4.14	4.81	0.80	8,120.69 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.38	62.91 €	245.51 €	36%	19.31	36%	5.15	6.10	1.03	6,102.69 €	P65
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.71	65.67 €	247.19 €	36%	19.20	36%	5.20	6.17	1.04	6,370.04 €	P65
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.58	60.60 €	253.23 €	32%	20.37	32%	4.64	5.50	0.93	5,878.26 €	P7
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.41	62.91 €	253.66 €	33%	20.18	33%	4.74	5.61	0.95	6,102.02 €	P7
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.75	65.66 €	255.34 €	33%	20.06	33%	4.79	5.68	0.96	6,369.37 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.60	76.67 €	256.37 €	37%	19.01	37%	5.29	6.27	1.06	7,437.41 €	P5
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.52	78.66 €	256.58 €	38%	18.82	37%	5.37	6.38	1.08	7,629.58 €	P65
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.34	80.96 €	256.98 €	38%	18.62	38%	5.47	6.49	1.10	7,853.34 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.72	78.06 €	257.96 €	37%	19.03	36%	5.28	6.26	1.06	7,571.54 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.93	79.43 €	258.05 €	37%	18.89	37%	5.34	6.34	1.07	7,704.76 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.67	83.72 €	258.65 €	39%	18.50	38%	5.52	6.56	1.11		



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.20	128.53 €	202.98 €	35%	7.93	35%	1.69	2.43	0.49	14,651.92 €	P12
2	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.20	136.73 €	211.18 €	35%	7.93	35%	1.69	2.43	0.49	15,586.89 €	P12
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.14	138.45 €	216.69 €	31%	8.33	32%	1.54	2.21	0.45	15,783.61 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.52	139.25 €	220.00 €	29%	8.60	30%	1.42	2.05	0.41	15,874.19 €	P9
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.38	145.95 €	222.87 €	33%	8.19	33%	1.61	2.30	0.46	16,638.46 €	P9
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.63	148.47 €	223.86 €	34%	8.03	34%	1.66	2.38	0.48	16,925.08 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.96	150.63 €	226.73 €	33%	8.10	34%	1.64	2.34	0.47	17,171.79 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.01	149.26 €	227.16 €	32%	8.29	32%	1.54	2.22	0.45	17,015.65 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.86	155.96 €	230.01 €	35%	7.88	36%	1.73	2.47	0.50	17,779.92 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	39.57	176.09 €	249.51 €	36%	7.82	36%	1.75	2.50	0.50	20,073.76 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.99	179.63 €	251.97 €	37%	7.70	37%	1.79	2.57	0.52	20,478.21 €	P12
12	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	45.61	169.62 €	258.24 €	26%	9.45	23%	1.48	1.81	0.32	19,336.11 €	P12B

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.00	128.53 €	222.41 €	35%	10.02	35%	1.87	2.91	0.62	14,651.92 €	P12
2	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	48.00	136.73 €	230.61 €	35%	10.02	35%	1.87	2.91	0.62	15,586.89 €	P12
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	50.25	138.45 €	236.77 €	32%	10.49	32%	1.70	2.65	0.57	15,783.61 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	51.60	139.25 €	240.10 €	30%	10.76	30%	1.59	2.50	0.53	15,874.19 €	P9
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.50	145.95 €	242.92 €	33%	10.35	33%	1.77	2.74	0.58	16,638.46 €	P9
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	48.41	148.47 €	243.23 €	34%	10.11	35%	1.85	2.86	0.61	16,925.08 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	48.66	150.63 €	245.97 €	34%	10.17	34%	1.83	2.83	0.60	17,171.79 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.77	149.26 €	246.58 €	32%	10.38	33%	1.74	2.70	0.58	17,015.65 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.64	155.96 €	249.35 €	35%	9.97	35%	1.91	2.95	0.63	17,779.92 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	47.34	176.09 €	268.85 €	36%	9.90	36%	1.93	2.98	0.63	20,073.76 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.80	179.63 €	271.35 €	36%	9.79	37%	1.97	3.04	0.65	20,478.21 €	P12
12	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.43	169.62 €	280.11 €	26%	11.81	24%	1.62	2.17	0.42	19,336.11 €	P12B

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.54	77.43 €	234.27 €	23%	16.80	22%	1.71	2.54	0.52	8,826.96 €	P6S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.44	74.01 €	236.40 €	20%	17.39	19%	1.49	2.21	0.46	8,436.70 €	P7
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.17	81.53 €	236.62 €	24%	16.71	22%	1.74	2.58	0.53	9,294.75 €	P6S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.24	81.51 €	237.81 €	24%	16.74	22%	1.74	2.57	0.53	9,292.31 €	P6S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.12	63.56 €	238.82 €	13%	18.76	12%	0.97	1.45	0.30	7,246.13 €	P8S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.92										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.40	77.43 €	193.51 €	26%	12.36	22%	2.32	2.53	0.39	8,826.96 €	P6S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.24	74.01 €	196.49 €	22%	13.04	17%	1.96	2.09	0.31	8,436.70 €	P7
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.92	81.53 €	196.67 €	27%	12.26	22%	2.35	2.58	0.40	9,294.75 €	P6S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.00	81.51 €	196.95 €	27%	12.29	22%	2.36	2.57	0.39	9,292.31 €	P6S
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.88	83.16 €	198.33 €	27%	12.26	22%	2.36	2.59	0.40	9,480.56 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.53	77.42 €	198.77 €	23%	12.92	18%	2.03	2.17	0.32	8,826.19 €	P7
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.22	84.95 €	198.96 €	28%	12.14	23%	2.42	2.66	0.41	9,684.24 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.92	83.74 €	198.97 €	27%	12.27	22%	2.36	2.58	0.40	9,546.24 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.94	63.56 €	200.96 €	11%	14.62	7%	1.18	1.10	0.13	7,246.13 €	P8S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.48	88.50 €	201.21 €	28%	12.00	24%	2.49	2.75	0.43	10,088.69 €	P5S
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.71	79.74 €	201.30 €	22%	12.94	18%	2.01	2.15	0.32	9,090.30 €	P7
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.48	87.24 €	201.77 €	27%	12.19	23%	2.40	2.63	0.41	9,945.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.49	77.43 €	224.60 €	28%	15.67	25%	2.96	3.50	0.59	8,826.96 €	P6S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.01	81.53 €	227.80 €	29%	15.58	25%	2.99	3.55	0.60	9,294.75 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.97	81.51 €	227.81 €	29%	15.58	25%	3.01	3.56	0.60	9,292.31 €	P6S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.87	83.16 €	229.26 €	29%	15.56	25%	3.01	3.57	0.60	9,480.56 €	P5
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.38	74.01 €	229.58 €	24%	16.57	21%	2.52	2.94	0.49	8,436.70 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.10	84.95 €	229.68 €	29%	15.42	26%	3.08	3.65	0.62	9,684.24 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.92	83.74 €	229.91 €	29%	15.57	25%	3.01	3.56	0.60	9,546.24 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.46	77.42 €	231.46 €	24%	16.40	21%	2.60	3.04	0.51	8,826.19 €	P7
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.23	88.50 €	231.72 €	30%	15.26	27%	3.15	3.75	0.64	10,088.69 €	P5S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.35	87.24 €	232.47 €	29%	15.47	26%	3.06	3.63	0.61	9,945.91 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.58	89.03 €	232.89 €	30%	15.32	27%	3.13	3.71	0.63	10,149.59 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.40	87.82 €	233.12 €	29%	15.48	26%	3.05	3.62	0.61	10,011.60 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.49	77.43 €	212.61 €	35%	14.32	34%	4.38	5.05	0.83	8,826.96 €	P6S
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.78	81.51 €	215.55 €	36%	14.20	34%	4.45	5.13	0.84	9,292.31 €	P6S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.98	81.53 €	215.79 €	36%	14.22	34%	4.42	5.11	0.84	9,294.75 €	P6S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.71	83.16 €	217.05 €	36%	14.19	34%	4.45	5.14	0.84	9,480.56 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.72	84.95 €	217.19 €	37%	14.01	35%	4.54	5.25	0.86	9,684.24 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.77	83.74 €	217.71 €	36%	14.20	34%	4.45	5.13	0.84	9,546.24 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.62	88.50 €	218.92 €	38%	13.82	36%	4.65	5.38	0.89	10,088.69 €	P5S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE																										



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SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.69	77.43 €	253.73 €	35%	18.66	34%	5.66	6.60	1.10	8,826.96 €	P6S
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.80	81.51 €	256.39 €	36%	18.51	35%	5.74	6.70	1.11	9,292.31 €	P6S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.08	81.53 €	256.80 €	36%	18.55	34%	5.71	6.67	1.11	9,294.75 €	P6S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.53	84.95 €	257.72 €	36%	18.29	35%	5.86	6.85	1.14	9,684.24 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.73	83.16 €	257.90 €	36%	18.50	35%	5.75	6.71	1.12	9,480.56 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.80	83.74 €	258.59 €	36%	18.51	35%	5.74	6.70	1.11	9,546.24 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.19	88.50 €	259.08 €	37%	18.06	36%	5.99	7.00	1.17	10,088.69 €	P5S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.64	89.03 €	260.37 €	37%	18.14	36%	5.95	6.95	1.16	10,149.59 €	P5S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.84	87.24 €	260.56 €	36%	18.35	35%	5.83	6.81	1.13	9,945.91 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.91	87.82 €	261.24 €	36%	18.36	35%	5.82	6.80	1.13	10,011.60 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	102.30	92.58 €	261.74 €	38%	17.91	37%	6.07	7.10	1.18	10,554.04 €	P5S
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.78	74.01 €	263.44 €	30%	20.05	29%	4.89	5.68	0.94	8,436.70 €	P7

Table 98- POS of the SFH6 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.52	26.01 €	112.20 €	33%	9.21	36%	2.04	4.34	1.09	5,513.44 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.95	29.22 €	114.19 €	33%	9.08	37%	2.10	4.46	1.12	6,194.62 €	P1
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.93	26.77 €	114.29 €	32%	9.36	35%	2.04	4.26	1.06	5,674.45 €	P1S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.23	28.38 €	114.41 €	33%	9.19	36%	2.12	4.41	1.10	6,017.49 €	P1
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.63	31.60 €	116.32 €	34%	9.06	37%	2.19	4.53	1.13	6,698.67 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.81	28.93 €	118.29 €	30%	9.55	34%	1.92	4.07	1.02	6,133.60 €	P1
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.60	27.31 €	118.36 €	29%	9.73	32%	1.83	3.90	0.98	5,790.56 €	P1S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.62	29.59 €	118.56 €	31%	9.51	34%	1.95	4.11	1.03	6,272.32 €	P1
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.19	33.89 €	119.82 €	33%	9.19	36%	2.12	4.41	1.10	7,183.68 €	P4S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.13	32.15 €	120.05 €	32%	9.40	35%	2.00	4.21	1.05	6,814.78 €	P1
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	42.94	32.80 €	120.32 €	32%	9.35	35%	2.03	4.25	1.06	6,953.50 €	P1
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	45.07	28.93 €	120.91 €	28%	9.83	32%	1.76	3.80	0.96	6,133.26 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.11	28.38 €	165.85 €	30%	14.73	32%	2.66	5.75	1.45	6,017.49 €	P1
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.95	26.77 €	166.09 €	29%	14.93	31%	2.57	5.57	1.41	5,674.45 €	P1S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.38	31.60 €	167.43 €	31%	14.56	33%	2.75	5.91	1.49	6,698.67 €	P1
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.04	28.93 €	168.13 €	29%	14.92	31%	2.53	5.56	1.42	6,133.60 €	P1
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.77	29.59 €	168.22 €	29%	14.86	31%	2.56	5.61	1.43	6,272.32 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.96	27.31 €	168.52 €	28%	15.13	30%	2.42	5.36	1.37	5,790.56 €	P1S
7	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.39	26.01 €	168.55 €	28%	15.28	29%	2.41	5.27	1.34	5,513.44 €	P1
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.24	32.15 €	169.60 €	30%	14.73	32%	2.62	5.73	1.46	6,814.78 €	P1
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.97	32.80 €	169.68 €	30%	14.67	32%	2.65	5.78	1.47	6,953.50 €	P1
10	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.67	29.22 €	170.18 €	28%	15.11	30%	2.49	5.42	1.37	6,194.62 €	P1
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.06	33.89 €	171.24 €	30%	14.72	32%	2.67	5.76	1.46	7,183.68 €	P4S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT														



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.33	40.40 €	164.72 €	45%	13.31	45%	5.78	10.05	2.29	8,564.46 €	P2
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.17	37.28 €	167.16 €	42%	13.91	42%	5.37	9.45	2.17	7,903.44 €	P3S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.91	41.60 €	168.96 €	43%	13.64	44%	5.55	9.72	2.23	8,819.30 €	P3S
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.70	46.14 €	169.08 €	45%	13.16	45%	5.85	10.18	2.33	9,781.72 €	P4
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.33	40.95 €	169.12 €	43%	13.72	43%	5.49	9.63	2.21	8,680.57 €	P3S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.78	45.59 €	170.66 €	44%	13.39	45%	5.70	9.95	2.28	9,665.26 €	P2
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.16	50.97 €	170.87 €	47%	12.84	47%	6.06	10.51	2.39	10,805.59 €	P4S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.68	20.67 €	171.37 €	32%	16.13	33%	3.92	7.22	1.70	4,382.75 €	P2S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.85	46.79 €	172.00 €	44%	13.41	44%	5.69	9.94	2.27	9,920.44 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.78	47.31 €	172.39 €	44%	13.39	45%	5.70	9.95	2.28	10,030.72 €	P3S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.19	46.66 €	172.54 €	44%	13.48	44%	5.64	9.87	2.26	9,892.00 €	P3S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.36	46.14 €	172.57 €	44%	13.54	44%	5.64	9.83	2.25	9,781.37 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.95	40.40 €	131.26 €	52%	9.61	53%	10.67	13.00	2.27	8,564.46 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.64	46.14 €	132.15 €	55%	9.10	55%	11.31	13.70	2.37	9,781.72 €	P4
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.86	50.97 €	133.92 €	57%	8.78	57%	11.60	14.08	2.44	10,805.59 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	57.38	41.60 €	135.32 €	51%	9.92	51%	11.47	12.70	2.20	8,819.30 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.34	45.59 €	135.96 €	53%	9.56	53%	10.83	13.13	2.28	9,665.26 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.46	37.28 €	135.97 €	48%	10.44	49%	9.92	12.04	2.09	7,903.44 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.38	40.95 €	136.29 €	50%	10.09	50%	10.29	12.48	2.17	8,680.57 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.37	53.91 €	136.59 €	57%	8.75	57%	11.74	14.18	2.45	11,429.67 €	P4S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.46	46.79 €	137.36 €	53%	9.58	53%	10.80	13.10	2.27	9,920.44 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.34	47.31 €	137.68 €	53%	9.56	53%	10.83	13.13	2.28	10,030.72 €	P3S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.34	46.66 €	138.64 €	52%	9.73	52%	10.65	12.92	2.24	9,892.00 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.34	48.41 €	138.78 €	53%	9.56	53%	10.83	13.13	2.28	10,263.48 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.64	40.40 €	141.22 €	53%	10.69	54%	11.21	14.36	2.63	8,564.46 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.93	46.14 €	143.47 €	55%	10.32	55%	11.78	14.93	2.70	9,781.72 €	P4
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.10	50.97 €	145.13 €	57%	9.98	57%	12.09	15.32	2.78	10,805.59 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.81	41.60 €	146.99 €	51%	11.17	52%	10.94	13.90	2.52	8,819.30 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.67	45.59 €	147.38 €	53%	10.79	53%	11.30	14.35	2.60	9,665.26 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.95	37.28 €	147.81 €	49%	11.72	49%	10.39	13.23	2.41	7,903.44 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.83	40.95 €	148.00 €	51%	11.35	51%	10.76	13.68	2.49	8,680.57 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE																												



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.81	46.14 €	142.33 €	57%	10.18	57%	13.56	16.40	2.84	9,781.72 €	P4
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.70	40.40 €	142.37 €	54%	10.79	54%	12.82	15.58	2.71	8,564.46 €	P2
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.26	50.97 €	142.85 €	59%	9.72	59%	13.99	16.94	2.93	10,805.59 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.89	53.91 €	145.75 €	59%	9.72	59%	14.11	17.02	2.93	11,429.67 €	P4S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.12	45.59 €	147.13 €	54%	10.74	54%	12.97	15.70	2.72	9,665.26 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.60	41.60 €	147.23 €	53%	11.18	53%	12.54	15.18	2.63	8,819.30 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.83	40.95 €	148.58 €	52%	11.39	52%	12.32	14.91	2.58	8,680.57 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.27	46.79 €	148.58 €	54%	10.77	54%	12.95	15.67	2.71	9,920.44 €	P4
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.12	47.31 €	148.86 €	54%	10.74	54%	12.97	15.70	2.72	10,030.72 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.40	37.28 €	149.03 €	50%	11.82	50%	11.87	14.37	2.49	7,903.44 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.90	47.31 €	149.48 €	56%	10.83	54%	13.82	16.17	2.70	10,030.72 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.12	48.41 €	149.96 €	54%	10.74	54%	12.97	15.70	2.72	10,263.48 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.91	46.14 €	199.31 €	54%	16.22	54%	18.14	22.47	3.98	9,781.72 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.75	50.97 €	200.45 €	55%	18.53	55%	18.50	22.92	4.06	10,805.59 €	P4S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.12	53.91 €	201.64 €	55%	15.65	55%	18.88	23.27	4.10	11,429.67 €	P4S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.88	40.40 €	202.38 €	51%	17.15	51%	16.99	21.20	3.78	8,564.46 €	P2
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.16	45.59 €	205.67 €	51%	16.95	52%	17.39	21.56	3.83	9,665.26 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.35	41.60 €	206.98 €	50%	17.51	50%	16.84	20.89	3.71	8,819.30 €	P3S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.35	46.79 €	207.20 €	51%	16.99	51%	17.36	21.52	3.82	9,920.44 €	P4
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.16	47.31 €	207.40 €	51%	16.95	52%	17.39	21.56	3.83	10,030.72 €	P3S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.12	59.88 €	207.61 €	55%	15.65	55%	18.88	23.27	4.10	12,694.14 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.16	48.41 €	208.50 €	51%	16.95	52%	17.39	21.56	3.83	10,263.48 €	P4
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.91	40.95 €	208.86 €	49%	17.78	49%	16.56	20.56	3.65	8,680.57 €	P3S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.73	46.66 €	209.29 €	51%	17.22	51%	17.11	21.23	3.77	9,892.00 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.58	46.14 €	160.57 €	54%	12.12	54%	13.62	16.95	3.02	9,781.72 €	P4
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.74	40.40 €	160.84 €	51%	12.75	52%	12.81	16.06	2.88	8,564.46 €	P2
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.19	50.97 €	163.19 €	55%	11.89	55%	13.87	17.24	3.07	10,805.59 €	P4S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.72	45.59 €	165.10 €	52%	12.66	52%	13.07	16.28	2.90	9,665.26 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.14	41.60 €	165.16 €	50%	13.09	50%	12.65	15.77	2.81	8,819.30 €	P3S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.22	53.91 €	165.26 €	55%	11.80	55%	14.12	17.44	3.08	11,429.67 €	P4S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.30	40.95 €	166.39 €	49%	13.29	50%	12.45	15.52	2.77	8,680.57 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.86	46.79 €	166.55 €	52%	12.68	52%	13.04	16.25	2.90	9,920.44 €	P4
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.75	37.28 €	166.67 €	48%	13.70	48%	12.01	15.00	2.68	7,903.44 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.72	47.31 €	166.82 €	52%	12.66	52%	13.07	16.28	2.90	10,030.72 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.72	48.									



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	94.48	40.80 €	251.24 €	38%	22.63	39%	4.93	10.58	2.67	7,425.04 €	P15	
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	93.41	44.58 €	253.28 €	39%	22.39	40%	5.05	10.78	2.71	8,113.71 €	P1	
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	94.25	42.96 €	253.41 €	38%	22.58	39%	4.96	10.63	2.68	7,818.25 €	P1	
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	96.23	39.44 €	254.03 €	37%	23.02	38%	4.74	10.26	2.60	7,177.75 €	P15	
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	96.00	41.60 €	255.70 €	37%	22.97	38%	4.76	10.31	2.61	7,570.96 €	P1	
6	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	99.05	35.70 €	256.57 €	35%	23.69	36%	4.47	9.75	2.48	6,497.42 €	P1	
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	93.15	48.87 €	257.02 €	39%	22.33	40%	5.07	10.82	2.72	8,894.51 €	P1	
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	93.99	47.25 €	257.14 €	38%	22.52	40%	4.98	10.67	2.69	8,599.06 €	P1	
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.23	66.14 €	258.95 €	44%	20.68	45%	5.75	12.08	3.02	12,038.08 €	P25
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	95.75	45.89 €	259.44 €	37%	22.91	39%	4.79	10.35	2.62	8,351.76 €	P1	
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.75	65.98 €	259.90 €	43%	20.80	44%	5.69	11.99	3.00	12,009.02 €	P3
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	86.00	67.61 €	259.92 €	44%	20.63	45%	5.77	12.13	3.03	12,304.48 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.08	35.70 €	156.40 €	46%	12.85	50%	5.46	9.96	2.33	6,497.42 €	P1	
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	64.08	39.99 €	159.97 €	46%	12.78	50%	5.51	10.03	2.34	7,278.22 €	P1	
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.78	40.80 €	160.98 €	47%	12.81	50%	5.92	10.26	2.34	7,425.04 €	P15	
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.95	44.58 €	161.49 €	49%	12.46	51%	6.17	10.60	2.40	8,113.71 €	P1	
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.42	42.96 €	162.45 €	48%	12.74	50%	5.97	10.33	2.35	7,818.25 €	P1	
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.54	48.87 €	165.02 €	49%	12.38	52%	6.23	10.67	2.42	8,894.51 €	P1	
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.87	39.44 €	165.06 €	45%	13.39	48%	5.50	9.70	2.23	7,177.75 €	P15	
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.01	47.25 €	165.98 €	48%	12.66	51%	6.02	10.40	2.37	8,599.06 €	P1	
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.50	41.60 €	166.53 €	48%	13.32	48%	5.54	9.77	2.25	7,570.96 €	P1	
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.09	45.89 €	170.05 €	45%	13.23	48%	5.60	9.84	2.26	8,351.76 €	P1	
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.99	66.14 €	172.24 €	55%	11.32	56%	7.29	11.87	2.61	12,038.08 €	P25
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.60	67.61 €	173.07 €	55%	11.26	56%	7.33	11.93	2.62	12,304.48 €	P2

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.77	40.80 €	201.66 €	44%	17.18	46%	6.43	11.35	2.61	7,425.04 €	P15
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.99	44.58 €	202.16 €	45%	16.84	47%	6.67	11.68	2.68	8,113.71 €	P1
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.42	42.96 €	203.24 €	44%	17.11	46%	6.47	11.42	2.63	7,818.25 €	P1
4	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.80	35.70 €	203.91 €	40%	17.95	43%	5.59	10.44	2.47	6,497.42 €	P1
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	83.76	39.44 €	205.60 €	41%	17.74	44%	6.02	10.81	2.51	7,177.75 €	P15
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.59	48.87 €	205.79 €	45%	16.76	47%	6.72	11.75	2.69	8,894.51 €	P1
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.02	47.25 €	206.71 €	44%	17.03	46%	6.52	11.49</			



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.81	50.93 €	243.27 €	54%	20.39	56%	18.00	24.43	4.71	9,269.06 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.76	45.62 €	256.01 €	50%	22.31	52%	16.36	22.44	4.36	8,302.17 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.99	49.57 €	258.66 €	50%	22.17	52%	16.48	22.58	4.39	9,021.20 €	P2
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	126.87	43.99 €	259.51 €	49%	22.85	51%	15.50	21.87	4.26	8,006.71 €	P3S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.13	62.06 €	260.57 €	53%	21.05	54%	17.57	23.83	4.59	11,294.48 €	P4S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.04	52.55 €	261.74 €	50%	22.18	52%	16.47	22.57	4.38	9,564.52 €	P4
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.04	52.55 €	261.74 €	50%	22.18	52%	16.47	22.57	4.38	9,564.52 €	P2S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.99	53.25 €	262.34 €	50%	22.17	52%	16.48	22.58	4.39	9,690.76 €	P3S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.76	52.55 €	262.94 €	50%	22.31	52%	16.36	22.44	4.36	9,563.96 €	P2
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.71	53.09 €	263.40 €	50%	22.30	52%	16.37	22.45	4.36	9,661.71 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.99	54.71 €	263.81 €	50%	22.17	52%	16.48	22.58	4.39	9,957.73 €	P4
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	126.11	51.62 €	265.85 €	49%	22.71	51%	16.01	22.01	4.29	9,395.30 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.57	50.93 €	181.24 €	58%	13.85	60%	12.77	18.52	3.76	9,269.06 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.86	45.62 €	188.11 €	54%	15.14	56%	11.70	17.19	3.52	8,302.17 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.95	43.99 €	189.99 €	53%	15.51	55%	11.39	16.81	3.46	8,006.71 €	P3S
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.30	49.57 €	191.10 €	55%	15.04	56%	11.78	17.29	3.54	9,021.20 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.34	52.55 €	194.15 €	54%	15.05	56%	11.78	17.29	3.54	9,564.52 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.34	52.55 €	194.15 €	54%	15.05	56%	11.78	17.29	3.54	9,564.52 €	P2S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.30	53.25 €	194.77 €	55%	15.04	56%	11.78	17.29	3.54	9,690.76 €	P3S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.80	42.63 €	194.99 €	51%	16.19	53%	10.82	16.11	3.33	7,759.41 €	P2
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.86	52.55 €	195.05 €	54%	15.14	56%	11.70	17.19	3.52	9,563.96 €	P2
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.82	53.09 €	195.32 €	54%	15.14	56%	11.71	17.20	3.53	9,661.71 €	P4
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.30	54.71 €	196.24 €	55%	15.04	56%	11.78	17.29	3.54	9,957.73 €	P4
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.40	51.62 €	196.64 €	53%	15.41	55%	11.47	16.91	3.48	9,395.30 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.90	50.93 €	267.06 €	50%	22.99	50%	15.33	21.42	4.22	9,269.06 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.59	45.62 €	278.23 €	46%	24.73	46%	13.94	19.65	3.91	8,302.17 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.91	49.57 €	280.98 €	46%	24.61	47%	14.03	19.78	3.93	9,021.20 €	P2
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.34	43.99 €	281.27 €	44%	25.23	45%	13.54	19.15	3.82	8,006.71 €	P3S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.95	52.55 €	284.05 €	46%	24.62	47%	14.03	19.77	3.93	9,564.52 €	P4
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.95	52.55 €	284.05 €	46%	24.62	47%	14.03	19.77	3.93	9,564.52 €	P2S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.17	62.0									



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	138.23	50.93	281.48	51%	24.42	53%	20.23	26.55	4.97	9,269.06	P4
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	150.68	45.62	296.52	47%	26.57	49%	18.35	24.28	4.58	8,302.17	P3S
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.81	49.57	299.03	47%	26.42	49%	18.48	24.44	4.61	9,021.20	P2
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	141.77	62.06	299.21	50%	25.12	51%	19.77	25.90	4.84	11,294.48	P4S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.22	43.99	300.69	46%	27.19	47%	17.82	23.64	4.47	8,006.71	P3S
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.87	52.55	302.11	47%	26.43	49%	18.47	24.43	4.60	9,564.52	P4
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.87	52.56	302.11	47%	26.43	49%	18.47	24.43	4.60	9,565.76	P2S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.81	53.25	302.71	47%	26.42	49%	18.48	24.44	4.61	9,690.76	P3S
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	150.68	52.55	303.46	47%	26.57	49%	18.35	24.28	4.58	9,563.96	P2
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	150.62	53.09	303.90	47%	26.56	49%	18.36	24.29	4.58	9,661.71	P4
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	149.81	54.71	304.17	47%	26.42	49%	18.48	24.44	4.61	9,957.73	P4
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	153.36	51.62	306.88	46%	27.03	48%	17.95	23.79	4.49	9,395.30	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	180.81	50.93	344.43	49%	31.04	50%	25.44	31.76	5.67	9,269.06	P4
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	184.17	62.06	361.32	48%	31.65	49%	24.96	31.15	5.56	11,294.48	P4S
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	196.96	45.62	365.32	45%	33.81	46%	22.99	28.82	5.17	8,021.20	P3S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.87	49.57	367.49	45%	33.63	46%	23.16	29.02	5.20	9,021.20	P2
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	185.45	53.25	367.74	48%	33.34	46%	25.98	30.92	5.25	9,690.76	P4
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.95	52.55	370.60	45%	33.64	46%	23.14	29.01	5.20	9,564.52	P4
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.95	52.56	370.61	45%	33.64	46%	23.14	29.01	5.20	9,565.76	P2S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	201.54	43.99	371.13	43%	34.60	44%	22.30	27.99	5.03	8,006.71	P3S
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.87	53.25	371.17	45%	33.63	46%	23.16	29.02	5.20	9,690.76	P3S
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	184.17	72.08	371.35	48%	31.65	49%	24.96	31.15	5.56	13,119.17	P4
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	196.96	52.55	372.25	45%	33.81	46%	22.99	28.82	5.17	9,563.96	P2
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	195.87	54.71	372.64	45%	33.63	46%	23.16	29.02	5.20	9,957.73	P4

Table 100- POS of the SFH8 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.31	31.03	119.94	34%	9.51	37%	2.84	6.33	1.62	8,811.27	P1
2	EW_0	BASE	-	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.09	33.10	123.53	34%	9.46	38%	2.88	6.39	1.63	9,399.90	P1
3	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.83	36.14	126.29	33%	9.64	37%	2.78	6.18	1.58	10,262.43	P1S
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.63	37.18	126.90	33%	9.59	37%	2.81	6.23	1.59	10,558.86	P1
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.72	37.55	127.48	33%	9.62	37%	2.80	6.21	1.59	10,665.00	P1S
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.52	38.60	128.09	33%	9.57	37%	2.83	6.27	1.60	10,961.43	P1
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.41	39.25	128.49	34%	9.54	37%	2.84	6.30	1.61	11,147.49	P1
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.46	40.29	129.65	34%	9.56	37%	2.84	6.28	1.60	11,442.40	P1
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.30	40.67	129.68	34%	9.52	37%	2.86	6.33	1.62	11,550.05	P1
10	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.62	40.73	130.42	33%	9.59	37%	2.81	6.24	1.59	11,566.60	P4S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.24	42.36	131.24	34%	9.50	37%	2.87	6.35	1.62	12,031.02	P1
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	45.										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.30	33.03 €	130.65 €	36%	10.64	39%	4.22	7.97	1.90	8,811.27 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.87	33.10 €	131.91 €	36%	10.55	39%	4.30	8.09	1.92	9,399.90 €	P1
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.81	36.14 €	136.99 €	35%	10.77	38%	4.15	7.82	1.86	10,262.43 €	P15
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.42	37.18 €	137.30 €	36%	10.69	38%	4.23	7.93	1.88	10,558.86 €	P1
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.52	37.55 €	137.90 €	36%	10.71	38%	4.21	7.90	1.88	10,665.00 €	P15
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.14	38.60 €	138.20 €	36%	10.64	39%	4.29	8.01	1.90	10,961.43 €	P1
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.00	39.25 €	138.56 €	36%	10.60	39%	4.31	8.05	1.91	11,147.49 €	P1
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.71	40.67 €	139.46 €	37%	10.55	39%	4.37	8.13	1.92	11,550.05 €	P1
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.97	40.29 €	139.61 €	36%	10.60	39%	4.32	8.06	1.91	11,442.40 €	P1
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.40	40.73 €	140.80 €	36%	10.69	38%	4.23	7.94	1.88	11,566.60 €	P45
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	49.55	42.36 €	140.87 €	37%	10.52	39%	4.41	8.18	1.93	12,031.02 €	P1
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.41	38.59 €	144.33 €	32%	11.29	35%	3.63	7.08	1.71	10,960.51 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.92	39.55 €	172.66 €	41%	14.26	41%	6.55	12.02	2.82	11,233.06 €	P2
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.80	34.01 €	173.07 €	38%	14.89	38%	6.05	11.20	2.64	9,659.05 €	P35
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.06	40.97 €	174.40 €	40%	14.29	41%	6.52	11.98	2.81	11,635.63 €	P35
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.50	42.90 €	175.20 €	41%	14.17	41%	6.62	12.14	2.85	12,184.29 €	P2
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.87	44.32 €	175.36 €	42%	14.04	42%	6.74	12.32	2.89	12,587.77 €	P4
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.91	42.66 €	175.79 €	41%	14.26	41%	6.55	12.02	2.82	12,116.60 €	P35
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.95	47.44 €	176.58 €	42%	13.84	43%	6.90	12.58	2.94	13,471.91 €	P45
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.65	44.66 €	177.25 €	41%	14.20	41%	6.59	12.10	2.84	12,682.45 €	P35
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.32	44.32 €	178.72 €	40%	14.35	41%	6.47	11.90	2.80	12,586.85 €	P2
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.53	46.02 €	178.37 €	41%	14.18	41%	6.62	12.13	2.85	13,068.75 €	P4
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.89	45.36 €	178.44 €	41%	14.26	41%	6.56	12.03	2.82	12,883.28 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.50	46.35 €	178.64 €	41%	14.17	41%	6.62	12.14	2.85	13,163.42 €	P35

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.15	39.55 €	126.07 €	47%	9.15	48%	2.44	11.66	2.44	11,233.06 €	P2
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.66	44.32 €	126.84 €	50%	8.73	51%	11.54	14.36	2.56	12,587.77 €	P4
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.95	47.44 €	127.73 €	52%	8.50	52%	12.02	14.85	2.62	13,471.91 €	P45
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	53.29	40.97 €	127.74 €	47%	9.18	48%	10.91	13.61	2.43	11,635.63 €	P35
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.17	42.90 €	127.85 €	48%	8.99	49%	11.18	13.93	2.48	12,184.29 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.94	42.66 €	128.85 €	48%	9.12	49%	11.00	13.71	2.45	12,116.60 €	P35
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.05	50.61 €	129.47 €	53%	8.35	53%	12.24	15.10	2.67	14,372.91 €	P45
8	EW_26																																



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	64.36	39.55	158.12	43%	12.62	43%	9.99	13.85	2.72	11,233.06	P2
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	62.12	44.32	159.10	45%	12.22	45%	10.50	14.48	2.83	11,233.06	P4
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	64.53	40.97	159.87	43%	12.65	43%	9.95	13.80	2.71	11,635.63	P35
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	63.48	42.90	159.99	44%	12.46	44%	10.19	14.10	2.76	12,184.29	P2
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	64.22	42.66	161.02	43%	12.60	43%	10.03	13.89	2.72	12,116.60	P35
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	€	69.70	34.01	161.79	38%	13.60	39%	8.81	12.33	2.44	9,659.05	P35
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	63.80	44.66	162.28	44%	12.52	44%	10.12	14.01	2.74	12,682.45	P35
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	61.71	47.44	162.83	45%	12.29	45%	10.78	14.60	2.81	13,471.91	P45
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	63.53	46.02	163.19	44%	12.47	44%	10.18	14.08	2.76	13,068.75	P4
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	63.48	46.35	163.43	44%	12.46	44%	10.19	14.10	2.76	13,163.42	P35
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	64.17	45.36	163.64	43%	12.59	43%	10.04	13.90	2.72	12,883.28	P4
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	63.48	47.06	164.14	44%	12.46	44%	10.19	14.10	2.76	13,365.18	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	55.89	44.32	135.82	52%	9.68	53%	13.88	17.27	3.07	12,587.77	P4
2	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	58.94	39.55	135.96	49%	10.20	50%	13.15	16.40	2.93	11,233.06	P2
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	53.74	47.44	136.17	54%	9.39	54%	14.49	17.88	3.16	13,471.91	P45
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	57.74	42.90	137.38	51%	10.00	51%	13.43	16.74	2.98	12,184.29	P2
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	52.62	50.61	137.56	55%	9.20	55%	14.76	18.19	3.21	14,372.91	P45
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	59.11	40.97	137.68	49%	10.23	50%	13.11	16.35	2.92	11,635.63	P35
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	58.68	42.66	138.67	50%	10.16	50%	13.21	16.47	2.94	12,116.60	P35
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	58.17	44.66	139.84	50%	10.07	51%	13.33	16.62	2.96	12,682.45	P35
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	57.80	46.02	140.60	50%	10.01	51%	13.42	16.72	2.98	13,068.75	P4
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	57.74	46.35	140.83	51%	10.00	51%	13.43	16.74	2.98	13,163.42	P35
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	58.62	45.36	141.27	50%	10.15	51%	13.23	16.49	2.94	12,883.28	P4
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	57.74	47.06	141.54	51%	10.00	51%	13.43	16.74	2.98	13,365.18	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	88.61	47.44	197.24	49%	15.88	49%	19.36	24.39	4.39	13,471.91	P45
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	91.36	44.32	197.40	48%	16.22	48%	18.54	23.61	4.30	12,587.77	P4
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	87.12	50.61	198.01	50%	15.62	50%	19.72	24.81	4.46	14,372.91	P45
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	95.33	39.55	199.04	45%	16.90	46%	17.60	22.48	4.10	11,233.06	P2
5	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	93.78	42.90	199.88	46%	16.63	47%	17.97	22.92	4.18	12,184.29	P2
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	95.58	40.97	200.88	45%	16.94	46%	17.55	22.41	4.09	11,635.63	P35
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	95.01	42.66	201.67	46%	16.84	46%	17.68	22.57	4.12	12,116.60	P35
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	94.34	44.66	202.55	46%	16.73	47%	17.83	22.76	4.15	12,682.45	P35
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	93.86	46.02	203.13	46%	16.64	47%	17.95	22.90	4.18	13,068.75	P4
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	TR 13	1.43	25.87	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	93.78	46.35	203.33	46%	16.63	47%	17.97	22.92	4.18	13,163.42	P35
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	93.78	47.06	204.04	46%	16.63	47%	17.97	22.92	4.18	13,365.18	P4
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	€	FR 3	2.35	28.78	50% REDU																	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.39	65.74 €	173.91 €	38%	11.54	39%	1.62	2.50	0.53	4,745.47 €	P1
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.62	61.45 €	174.13 €	36%	12.02	36%	1.52	2.34	0.50	4,435.92 €	P15
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.63	74.25 €	178.85 €	40%	11.16	41%	1.70	2.63	0.56	5,360.15 €	P1
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.22	68.55 €	183.20 €	35%	12.24	35%	1.52	2.30	0.48	4,948.94 €	P1
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.78	71.92 €	183.79 €	37%	11.94	37%	1.59	2.40	0.50	5,192.05 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.64	64.27 €	183.82 €	33%	12.76	32%	1.41	2.12	0.44	4,639.39 €	P15
7	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.09	53.50 €	184.77 €	24%	14.00	26%	0.94	1.58	0.35	3,862.17 €	P1
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.50	68.55 €	185.72 €	34%	12.51	34%	1.46	2.20	0.46	4,948.48 €	P1
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.06	71.92 €	186.33 €	36%	12.21	35%	1.53	2.31	0.48	5,191.58 €	P1
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.28	77.07 €	187.77 €	37%	11.82	37%	1.60	2.44	0.51	5,563.62 €	P1
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	55.27	80.31 €	188.24 €	39%	11.52	39%	1.62	2.51	0.53	5,797.81 €	P45
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.82	80.44 €	188.33 €	39%	11.52	39%	1.67	2.54	0.53	5,806.73 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.67	65.74 €	241.68 €	36%	18.84	36%	1.97	3.37	0.76	4,745.47 €	P1		
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.27	61.45 €	242.83 €	34%	19.42	34%	1.86	3.18	0.72	4,435.92 €	P15		
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	81.33	71.92 €	244.82 €	37%	18.51	37%	2.02	3.47	0.79	5,192.05 €	P1		
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	83.09	68.55 €	245.04 €	36%	18.90	36%	1.94	3.4	0.76	4,948.94 €	P1		
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.63	74.25 €	245.91 €	38%	18.38	37%	2.06	3.52	0.80	5,360.15 €	P1		
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.85	64.27 €	246.50 €	34%	19.51	34%	1.82	3.14	0.71	4,639.39 €	P15		
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.92	71.92 €	248.14 €	36%	18.87	36%	1.95	3.35	0.76	5,191.58 €	P1		
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	84.68	68.55 €	248.33 €	35%	19.25	35%	1.87	3.23	0.73	4,948.48 €	P1		
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.08	80.44 €	248.62 €	39%	18.01	39%	2.12	3.63	0.82	5,806.73 €	P1		
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.88	77.07 €	248.92 €	37%	18.40	37%	2.04	3.50	0.79	5,563.62 €	P1		
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	73.64	94.76 €	251.89 €	43%	16.83	43%	2.36	4.02	0.91	6,840.86 €	P2
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.68	80.43 €	251.97 €	38%	18.37	38%	2.05	3.52	0.80	5,806.26 €	P1		

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.55	65.74 €	200.74 €	40%	14.32	41%	2.88	3.81	0.72	4,745.47 €	P1		
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	81.96	61.45 €	202.70 €	38%	14.98	38%	2.70	3.57	0.67	4,435.92 €	P15		
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.88	74.25 €	204.37 €	42%	13.80	43%	3.02	4.01	0.76	5,360.15 €	P1		
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.11	94.76 €	209.67 €	50%	12.20	50%	3.63	4.71	0.87	6,840.86 €	P2
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.04	71.92 €	210.15 €	40%	14.67	40%	2.94	3.78	0.69	5,192.05 €	P1		
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	81.75	68.55 €	211.54 €	38%	15.18	38%	2.79	3.58	0.66	4,948.94 €	P1		
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.92	80.44 €	212.91 €	42%	14.06	42%	3.10	4.00	0.74	5,806.73 €	P1		
8																																			



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.80	85.70 €	269.52 €	57%	19.44	57%	9.12	10.92	1.87	6,186.97 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.27	58.18 €	270.30 €	50%	22.43	50%	8.07	9.66	1.65	4,199.87 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.71	87.09 €	273.23 €	57%	19.69	57%	9.10	10.85	1.85	6,286.79 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.00	90.45 €	279.86 €	56%	20.03	56%	8.94	10.69	1.82	6,529.43 €	P4
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.09	73.32 €	281.21 €	52%	21.99	51%	8.30	9.89	1.68	5,293.03 €	P3S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.04	69.95 €	285.99 €	50%	22.85	50%	8.00	9.53	1.62	5,049.92 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.08	82.88 €	288.20 €	52%	21.71	52%	8.32	9.96	1.70	5,983.03 €	P2
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.90	75.31 €	288.48 €	50%	22.54	50%	8.03	9.61	1.64	5,436.27 €	P3S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	136.61	71.94 €	292.74 €	48%	23.35	48%	7.75	9.27	1.58	5,193.17 €	P2
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	139.72	69.12 €	294.70 €	47%	23.85	47%	7.55	9.05	1.55	4,989.40 €	P3S
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.36	88.97 €	294.75 €	52%	21.76	52%	8.31	9.94	1.70	6,422.67 €	P2S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.36	89.07 €	294.86 €	52%	21.76	52%	8.31	9.94	1.70	6,430.07 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.73	85.70 €	273.96 €	57%	19.92	57%	9.24	11.18	1.94	6,186.97 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	132.99	58.18 €	276.68 €	51%	23.13	51%	8.16	9.86	1.70	4,199.87 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.52	87.09 €	287.21 €	56%	21.20	55%	9.10	10.84	1.84	6,286.79 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.47	90.45 €	290.61 €	55%	21.20	55%	8.99	10.77	1.84	6,529.43 €	P4
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.60	82.88 €	294.08 €	52%	22.35	52%	8.42	10.19	1.76	5,983.03 €	P2
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	138.91	69.12 €	295.21 €	48%	23.92	49%	7.73	9.44	1.65	4,989.40 €	P2
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.79	75.31 €	295.24 €	50%	23.28	50%	8.12	9.81	1.69	5,436.27 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.28	73.32 €	296.11 €	51%	23.60	50%	8.28	9.84	1.67	5,293.03 €	P3S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	138.71	71.94 €	300.03 €	49%	24.14	48%	7.83	9.45	1.63	5,193.17 €	P3S
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.90	88.97 €	300.69 €	52%	22.41	52%	8.40	10.16	1.76	6,422.67 €	P2S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.90	89.07 €	300.79 €	52%	22.41	52%	8.40	10.16	1.76	6,430.07 €	P4
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	138.54	69.95 €	301.63 €	49%	24.54	47%	7.98	9.46	1.60	5,049.92 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.02	58.18 €	217.12 €	52%	16.84	52%	5.98	7.35	1.29	4,199.87 €	P3S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.32	85.70 €	221.57 €	59%	14.39	59%	6.78	8.34	1.47	6,186.97 €	P4
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.85	69.12 €	230.67 €	50%	17.10	51%	5.74	7.15	1.27	4,989.40 €	P2
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.87	75.31 €	235.89 €	51%	17.01	51%	5.94	7.29	1.28	5,436.27 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.74	82.88 €	236.27 €	53%	16.25	53%	6.17	7.59	1.33	5,983.03 €	P2
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.58	71.94 €	238.77 €	49%	17.67	49%	5.73	7.02	1.23	5,193.17 €	P3S
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.16	87.09 €	239.84 €	55%	16.21	53%	6.58	7.84	1.34	6,286.79 €	P4
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 17	1.43	19.85 €																						



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SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	175.63	85.70 €	371.45 €	56%	30.23	56%	13.59	16.39	2.83	6,186.97 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	179.64	87.09 €	382.79 €	55%	31.30	55%	13.47	16.10	2.75	6,286.79 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	180.55	90.45 €	386.31 €	55%	31.31	55%	13.37	16.04	2.75	6,529.43 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	202.07	58.18 €	387.32 €	50%	34.82	50%	12.01	14.49	2.50	4,199.87 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.63	82.88 €	401.43 €	51%	33.70	51%	12.40	14.95	2.58	5,983.03 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	199.61	73.32 €	401.75 €	50%	34.76	50%	12.28	14.66	2.50	5,293.03 €	P3S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	202.98	75.31 €	406.05 €	50%	34.99	50%	11.96	14.42	2.48	5,436.27 €	P3S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	196.06	88.97 €	408.24 €	51%	33.77	51%	12.37	14.92	2.57	6,422.67 €	P2S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	196.06	89.07 €	408.34 €	51%	33.77	51%	12.37	14.92	2.57	6,430.07 €	P4
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.63	90.45 €	409.00 €	51%	33.70	51%	12.40	14.95	2.58	6,430.07 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	185.13	107.94 €	409.63 €	54%	31.92	54%	13.03	15.71	2.71	7,791.96 €	P4S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	207.05	69.95 €	410.78 €	49%	36.07	48%	11.85	14.13	2.41	5,049.92 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	132.84	85.70 €	301.27 €	57%	22.80	57%	10.53	12.71	2.19	6,186.97 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	153.38	58.18 €	307.47 €	50%	26.37	50%	9.31	11.23	1.94	4,199.87 €	P3S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	136.96	87.09 €	312.89 €	56%	23.90	55%	10.42	12.42	2.11	6,286.79 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	137.87	90.45 €	316.44 €	55%	23.91	55%	10.31	12.35	2.11	6,529.43 €	P4
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	148.41	82.88 €	323.99 €	52%	25.50	52%	9.61	11.59	2.00	5,983.03 €	P2
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	152.51	73.32 €	324.63 €	51%	26.60	50%	9.49	11.29	1.92	5,293.03 €	P3S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	154.21	75.31 €	326.08 €	50%	26.53	50%	9.27	11.17	1.92	5,436.27 €	P3S
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	148.75	88.97 €	330.65 €	52%	25.56	52%	9.59	11.57	1.99	6,422.67 €	P2S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	148.75	89.07 €	330.75 €	52%	25.56	52%	9.59	11.57	1.99	6,430.07 €	P4
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	162.00	69.12 €	331.06 €	48%	27.70	48%	8.75	10.61	1.84	4,989.70 €	P2
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	158.40	69.95 €	331.14 €	49%	27.65	48%	9.15	10.87	1.84	5,049.92 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	148.41	90.45 €	331.56 €	52%	25.50	52%	9.61	11.59	2.00	6,529.43 €	P3S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	175.81	85.70 €	369.58 €	56%	30.02	56%	13.45	16.09	2.75	6,186.97 €	P4
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	176.28	87.09 €	372.21 €	56%	30.15	56%	13.44	16.06	2.74	6,286.79 €	P4
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	178.50	90.45 €	378.92 €	55%	30.50	55%	13.30	15.90	2.71	6,529.43 €	P4
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	201.43	58.18 €	383.47 €	49%	34.40	49%	11.91	14.24	2.43	4,199.87 €	P3S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.79	73.32 €	390.08 €	51%	33.50	51%	12.27	14.65	2.50	5,293.03 €	P3S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.20	82.88 €	398.10 €	51%	33.33	51%	12.28	14.69	2.51	5,983.03 €	P2
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	202.91	69.95 €	398.34 €	49%	34.73	49%	11.84	14.14	2.41	5,049.92 €	P3S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	202.20	75.31 €	401.85 €	49%	34.53	49%	11.86	14.19	2.42	5,436.27 €	P3S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	185.35	101.87 €	401.95 €	54%	31.73	53%	12.91	15.40	2.63	7,353.84 €	P4S
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.61	88.97 €	404.85 €	51%	33.40	51%	12.26	14.66	2.51	6,422.67 €	P2S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	195.61	89.07 €	404.95 €	51%	33.40	51%	12.26	14.66	2.51	6,430.07 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	1																	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.58	61.92	190.78	43%	13.73	39%	4.07	4.84	0.82	5,906.75	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	70.53	59.33	191.51	41%	14.08	37%	3.93	4.66	0.79	5,659.52	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.68	46.87	192.00	35%	15.46	31%	3.42	3.97	0.66	4,471.37	P8S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	60.75	79.97	194.36	49%	12.19	45%	4.61	5.59	0.97	7,628.35	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	70.72	61.92	194.58	41%	14.13	37%	3.92	4.64	0.78	5,906.22	P7
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	62.76	77.38	195.19	47%	12.55	44%	4.46	5.40	0.93	7,381.12	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	72.68	59.32	195.31	39%	14.48	35%	3.77	4.45	0.75	5,658.99	P7
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	69.82	64.92	195.53	41%	13.91	38%	3.96	4.72	0.80	6,192.97	P6S
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	64.47	75.68	196.95	46%	12.92	42%	4.36	5.23	0.90	7,219.32	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	57.78	88.48	199.39	52%	11.60	48%	4.81	5.87	1.02	8,440.57	P5S
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	66.45	73.09	197.73	44%	13.28	41%	4.21	5.04	0.86	6,972.09	P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	62.89	79.96	198.15	47%	12.59	44%	4.46	5.38	0.93	7,627.81	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	76.91	61.92	212.46	42%	16.06	39%	4.23	5.34	0.97	5,906.75	P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.48	46.87	212.94	36%	17.72	32%	3.62	4.52	0.81	4,471.37	P8S
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.78	59.33	213.11	41%	16.41	37%	4.09	5.16	0.93	5,659.52	P6S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.94	61.92	216.10	41%	16.45	37%	4.08	5.15	0.93	5,906.22	P7
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	69.46	79.97	216.59	48%	14.58	44%	4.73	6.05	1.11	7,628.35	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.80	59.32	216.74	39%	16.79	36%	3.94	4.97	0.90	5,658.99	P7
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.07	64.92	217.19	41%	16.25	38%	4.13	5.23	0.95	6,192.97	P6S
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	71.39	77.38	217.36	46%	14.94	43%	4.59	5.87	1.07	7,381.12	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	73.01	75.68	218.94	45%	15.29	42%	4.49	5.71	1.04	7,219.32	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	74.91	73.09	219.65	44%	15.64	40%	4.35	5.53	1.01	6,972.09	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	66.63	88.48	219.79	50%	14.02	46%	4.92	6.32	1.16	8,440.57	P5S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	71.49	79.96	220.26	46%	14.97	43%	4.59	5.86	1.07	7,627.81	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.67	61.92	257.15	43%	20.88	41%	4.87	6.94	1.39	5,906.75	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.84	59.33	258.55	42%	21.30	40%	4.72	6.73	1.35	5,659.52	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.35	79.97	259.13	48%	19.16	46%	5.41	7.73	1.55	7,628.35	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.61	77.38	260.72	47%	19.61	45%	5.26	7.51	1.51	7,381.12	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	104.57	46.87	260.98	38%	22.89	35%	4.22	5.99	1.20	4,471.37	P8S
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	83.18	88.48	261.49	50%	18.51	48%	5.61	8.03	1.61	8,440.57	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.04	61.92	261.67	42%	21.36	40%	4.72	6.71	1.34	5,906.22	P7
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.32	75.68	262.51	46%	19.98	44%	5.16	7.35	1.47	7,219.32	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.21	59.32	263.05	41%	21.78	39%	4.57	6.50	1.30	5,658.99	P7
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.47	85.89	263.15	49%	18.96	46%	5.46	7.81	1.57	8,193.34	P5S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.38	64.92	263.30	42%	21.21	40%	4.76	6.77	1.36	6,192.97	P6S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.75	79.96	263.73	47%	19.66	45%	5.25	7.50	1.51	7,627.	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	82.58	79.97	224.99	53%	15.40	51%	7.50	8.92	1.52	7,628.35	P5
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	93.43	61.92	225.89	47%	17.41	44%	6.70	7.89	1.32	5,906.75	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.45	88.48	226.29	55%	14.63	53%	7.80	9.32	1.59	8,440.57	P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.57	77.38	227.32	51%	15.92	49%	7.26	8.64	1.47	7,381.12	P5
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.32	59.33	228.06	45%	17.91	43%	6.47	7.61	1.28	5,659.52	P6S
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.47	85.89	228.68	54%	15.16	52%	7.56	9.03	1.54	8,193.34	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.75	75.68	229.73	50%	16.36	48%	7.12	8.43	1.43	7,219.32	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.68	79.96	230.22	51%	15.95	49%	7.26	8.63	1.46	7,627.81	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.52	61.92	231.11	45%	17.96	43%	6.47	7.59	1.27	5,906.22	P7
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.54	88.48	231.51	54%	15.19	51%	7.57	9.02	1.54	8,440.03	P5S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.09	77.06	231.72	50%	16.42	48%	7.09	8.40	1.42	7,351.23	P5
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.68	73.09	231.97	49%	16.87	46%	6.89	8.15	1.38	6,972.09	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	103.47	79.97	264.73	52%	19.63	50%	8.69	10.70	1.88	7,628.35	P5
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.69	88.48	264.88	54%	18.75	52%	9.04	11.15	1.97	8,440.57	P5S
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	107.10	77.38	268.33	50%	20.29	48%	8.41	10.35	1.82	7,381.12	P5
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	115.91	61.92	268.48	46%	21.95	44%	7.78	9.51	1.66	5,906.75	P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.39	85.89	268.58	53%	19.41	51%	8.76	10.80	1.91	8,193.34	P5S
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	109.40	75.68	270.85	49%	20.74	47%	8.25	10.13	1.78	7,219.32	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	107.24	79.96	271.23	50%	20.33	48%	8.41	10.34	1.82	7,627.81	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.48	88.48	271.81	52%	19.44	51%	8.76	10.79	1.90	8,440.03	P5S
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.39	59.33	271.81	45%	22.58	43%	7.51	9.18	1.60	5,659.52	P6S
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	109.80	77.06	272.93	49%	20.81	47%	8.22	10.10	1.77	7,351.23	P5
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	112.97	73.09	273.22	48%	21.38	46%	7.98	9.79	1.72	6,972.09	P5
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	110.85	77.37	274.78	49%	20.98	47%	8.13	10.00	1.76	7,380.58	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.67	88.48	278.59	58%	20.11	58%	12.80	15.28	2.61	8,440.57	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.62	79.97	279.90	56%	21.15	55%	12.34	14.71	2.51	7,628.35	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	121.59	85.89	283.99	56%	20.96	56%	12.41	14.81	2.52	8,193.34	P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	127.46	77.38	285.16	54%	21.98	54%	11.95	14.25	2.43	7,381.12	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	121.62	88.48	286.68	56%	20.97	56%	12.41	14.81	2.52	8,440.03	P5S
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	138.15	61.92	287.53	50%	23.87	50%	11.13	13.23	2.25	5,906.75	P6S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	130.04	75.68	287.86	53%	22.45	53%	11.76	14.00	2.38	7,219.32	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	127.55	79.96	287.95	54%	22.00	54%	11.95	14.24	2.42	7,627.81	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	130.53	77.06	290.06	53%	22.53	52%	11.72	13.96	2.37	7,351.23	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	126.50	85.89	292.02	54%	21.81	54%	12.02	14.34	2.44	8,192.80	P5S
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	142.77	59.33	292.43	48%	24.66	48%	10.76	12.79	2.17	5,659.52	P6S
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	134.76	73.09	29								



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.08	88.48	337.92	56%	26.38	56%	15.91	19.02	3.25	8,440.57	P5
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	161.39	79.97	341.35	54%	27.64	54%	15.33	18.32	3.13	7,628.35	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.10	85.89	345.09	55%	27.41	55%	15.43	18.44	3.15	8,193.34	P5
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.27	88.48	347.97	55%	27.44	55%	15.42	18.43	3.14	8,440.03	P5
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	167.30	77.38	348.34	53%	28.66	53%	14.87	17.75	3.03	7,381.12	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	167.54	79.96	351.34	53%	28.70	52%	14.85	17.73	3.02	7,627.81	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	170.48	75.68	351.92	52%	29.21	52%	14.62	17.45	2.98	7,219.32	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	171.09	77.06	354.29	52%	29.32	51%	14.57	17.39	2.97	7,351.23	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	180.41	61.92	354.41	49%	30.93	49%	13.84	16.50	2.81	5,906.75	P6
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	166.24	85.89	355.05	53%	28.47	53%	14.95	17.86	3.05	8,192.80	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.87	94.55	355.07	54%	27.55	54%	15.38	18.37	3.13	9,018.89	P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.51	105.75	355.89	56%	26.45	56%	15.88	18.97	3.24	10,087.69	P5

Table 103- POS of the SFH11 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	42.43	120.12	204.93	40%	9.06	40%	1.69	2.69	0.58	11,457.89	P12
2	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	42.43	127.40	212.76	40%	9.06	40%	1.69	2.69	0.58	12,153.03	P12
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	44.56	128.33	217.78	37%	9.56	37%	1.58	2.48	0.53	12,241.65	P9
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	45.28	129.55	220.47	36%	9.71	36%	1.53	2.42	0.52	12,358.23	P9
5	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	45.79	128.70	220.47	35%	9.80	35%	1.49	2.37	0.51	12,276.66	P9
6	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	43.49	133.46	220.73	38%	9.32	39%	1.64	2.59	0.56	12,730.82	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	43.44	137.23	224.23	38%	9.29	39%	1.63	2.59	0.56	13,090.32	P9
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	44.71	137.60	227.01	37%	9.55	37%	1.55	2.47	0.53	13,125.33	P9
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	42.36	142.36	227.14	40%	9.06	40%	1.70	2.69	0.58	13,579.49	P9
10	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	41.74	144.05	227.67	41%	8.93	41%	1.74	2.75	0.59	13,741.02	P12
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	40.42	152.57	233.77	43%	8.63	43%	1.81	2.88	0.62	14,553.24	P12
12	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	47.39	142.95	240.91	33%	10.48	31%	1.54	2.21	0.45	13,636.18	P12B

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	58.35	120.12	244.47	42%	13.32	43%	2.25	4.10	0.96	11,457.89	P12
2	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	58.35	127.40	251.76	42%	13.32	43%	2.25	4.10	0.96	12,153.03	P12
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	61.25	128.33	259.21	40%	14.02	40%	2.11	3.82	0.89	12,241.65	P9
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	61.41	129.55	260.56	39%	14.03	40%	2.09	3.81	0.89	12,730.82	P9
5	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	59.79	133.46	261.17	41%	13.68	41%	2.19	3.96	0.92	12,730.82	P9
6	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	62.85	128.70	262.86	38%	14.37	38%	2.02	3.67	0.86	12,276.66	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	59.40	137.23	263.86	41%	13.56	42%	2.20	4.00	0.93	13,090.32	P9
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	57.91	142.36	265.76	43%	13.21	43%	2.27	4.14	0.97	13,579.49	P9
9	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	57.22	144.05	266.08	44%	13.07	44%	2.32	4.21	0.98	13,741.02	P12
10	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	61.07	137.60	267.67	40%	13.93	40%	2.10	3.84	0.90	13,125.33	P9
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	55.61	152.57	271.05	45%	12.69	46%	2.40	4.36	1.02	14,	



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.58	61.73 €	243.64 €	35%	19.46	33%	3.23	4.59	0.92	5,888.43 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.15	59.14 €	243.94 €	34%	19.77	32%	3.13	4.44	0.89	5,641.20 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.77	46.87 €	248.29 €	28%	21.54	26%	2.57	3.61	0.72	4,471.37 €	P85
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.03	61.72 €	248.32 €	34%	19.96	31%	3.07	4.35	0.87	5,887.90 €	P7
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.60	59.13 €	248.63 €	32%	20.27	30%	2.97	4.20	0.84	5,640.67 €	P7
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	82.03	79.78 €	250.93 €	40%	18.31	37%	3.59	5.11	1.02	7,610.03 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.63	77.19 €	251.30 €	38%	18.63	36%	3.48	4.96	0.99	7,362.80 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.83	75.49 €	252.07 €	37%	18.89	35%	3.41	4.85	0.97	7,201.00 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.40	72.90 €	252.39 €	36%	19.20	34%	3.30	4.70	0.94	6,953.77 €	P5
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.12	56.96 €	252.94 €	30%	20.96	28%	2.72	3.87	0.77	5,433.74 €	P7
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.00	76.87 €	253.78 €	37%	18.93	35%	3.40	4.83	0.97	7,332.90 €	P5
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.59	74.28 €	254.13 €	36%	19.24	34%	3.29	4.68	0.94	7,085.67 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.23	61.73 €	234.80 €	43%	18.31	43%	6.51	7.71	1.30	5,888.43 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.04	59.14 €	235.77 €	42%	18.79	41%	6.28	7.44	1.26	5,641.20 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.31	79.78 €	238.18 €	48%	16.76	48%	7.20	8.56	1.45	7,610.03 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.35	88.29 €	240.17 €	50%	16.07	50%	7.51	8.94	1.52	8,422.25 €	P55
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.21	77.19 €	240.28 €	46%	17.25	46%	6.97	8.29	1.41	7,362.80 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.81	75.49 €	241.29 €	46%	17.54	45%	6.85	8.13	1.38	7,201.00 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.44	61.72 €	241.68 €	41%	19.04	40%	6.17	7.31	1.24	5,887.90 €	P7
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.28	85.70 €	242.32 €	49%	16.57	48%	7.28	8.66	1.47	8,175.02 €	P55
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	102.09	76.87 €	243.13 €	45%	17.59	45%	6.83	8.11	1.37	7,332.90 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.66	72.90 €	243.31 €	44%	18.03	44%	6.63	7.86	1.33	6,953.77 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.23	59.13 €	243.61 €	39%	19.52	39%	5.95	7.04	1.19	5,640.67 €	P7
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.57	79.77 €	245.12 €	46%	17.49	45%	6.87	8.16	1.38	7,609.50 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.12	61.73 €	251.26 €	41%	20.09	40%	6.44	7.56	1.27	5,888.43 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	115.00	59.14 €	253.37 €	40%	20.59	38%	6.21	7.29	1.22	5,641.20 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	102.74	79.78 €	253.47 €	46%	18.41	45%	7.16	8.46	1.43	7,610.03 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	98.56	88.29 €	254.94 €	49%	17.66	47%	7.48	8.85	1.50	8,422.25 €	P55
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.69	77.19 €	255.72 €	45%	18.92	43%	6.92	8.17	1.38	7,362.80 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.47	75.49 €	257.16 €	44%	19.26	42%	6.80	8.00	1.34	7,201.00 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.55	85.70 €	257.24 €	47%	18.18	45%	7.24	8.57	1.45	8,175.02 €	P55
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0																								



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.99	61.73	264.14	44%	21.41	43%	7.78	9.22	1.56	5,888.43	€ P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.48	79.78	264.84	49%	19.58	48%	8.60	10.22	1.74	7,610.03	€ P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	108.80	88.29	265.64	51%	18.76	50%	8.96	10.67	1.81	8,422.25	€ P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	127.35	59.14	267.02	42%	21.99	42%	7.51	8.90	1.51	5,641.20	€ P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.96	77.19	267.89	47%	20.17	47%	8.32	9.89	1.68	7,362.80	€ P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	112.32	85.70	268.76	49%	19.37	49%	8.68	10.33	1.76	8,175.02	€ P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.78	75.49	269.29	46%	20.50	46%	8.18	9.72	1.65	7,201.00	€ P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.11	76.87	271.22	46%	20.56	46%	8.16	9.68	1.64	7,332.90	€ P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.19	72.90	272.25	45%	21.09	44%	7.91	9.39	1.59	6,953.77	€ P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	129.03	61.72	272.39	42%	22.29	41%	7.38	8.74	1.48	5,887.90	€ P7
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.58	79.77	273.16	46%	20.46	46%	8.19	9.73	1.65	7,609.50	€ P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.92	88.29	273.99	48%	19.65	48%	8.56	10.18	1.73	8,421.72	€ P5

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	148.21	88.29	333.51	49%	25.96	48%	11.21	13.36	2.27	8,422.25	€ P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.20	79.78	334.95	47%	27.02	46%	10.74	12.79	2.17	7,610.03	€ P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	152.61	85.70	338.09	47%	26.72	46%	10.86	12.94	2.20	8,175.02	€ P5S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	167.60	61.72	339.21	42%	29.38	41%	9.71	11.51	1.95	5,888.43	€ P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	158.54	77.19	339.44	45%	27.77	44%	10.40	12.37	2.10	7,362.80	€ P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.97	75.49	341.92	44%	28.21	43%	10.22	12.14	2.06	7,201.00	€ P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	171.80	59.14	343.47	40%	30.10	40%	9.38	11.11	1.88	5,641.20	€ P6S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	161.39	76.87	344.01	44%	28.28	43%	10.19	12.10	2.05	7,332.90	€ P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.77	88.29	344.30	46%	27.10	46%	10.69	12.73	2.16	8,421.72	€ P5S
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.72	79.77	345.68	44%	28.15	43%	10.23	12.16	2.06	7,609.50	€ P5
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	165.22	72.90	346.28	43%	28.94	42%	9.88	11.73	1.99	6,953.77	€ P5
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	165.65	74.28	348.37	43%	29.02	42%	9.85	11.69	1.98	7,085.67	€ P5

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _e [W/m²K]	U _i [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€m²)	Life Cycle Cost (€m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.37	61.73	275.06	42%	22.59	41%	7.44	8.76	1.47	5,888.43	€ P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	117.81	79.78	275.43	46%	20.72	46%	8.25	9.77	1.65	7,610.03	€ P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.09	88.29	276.05	49%	19.88	48%	8.61	10.22	1.73	8,422.25	€ P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	131.62	59.14	277.77	40%	23.15	39%	7.18	8.45	1.42	5,641.20	€ P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	121.16	77.19	278.31	45%	21.30	44%	7.99	9.45	1.59	7,362.80	€ P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.49	85.70	279.01	47%	20.47	46%	8.35	9.89	1.67	8,175.02	€ P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.13	75.49	280.05	44%	21.66	43%	7.84	9.26	1.56	7,201.00	€ P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.47	76.87	282.05	44%	21.72	43%	7.82	9.23	1.55	7,332.90	€ P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	126.43	72.90	282.84	43%	22.23	42%	7.58	8.94	1.51	6,953.77	€ P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.32	61.72	283.22	39%	23.46	38%	7.05	8.29	1.39	5,887.90	€ P7
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.82	79.77	283.67	43%	21.59	43%	7.86	9.29	1.57	7,609.50	€ P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€ B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.13	88.29	284.34	46%	20.76	45%	8.22	9.74	1.65	8,421.72	€ P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W
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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.89	56.27 €	184.98 €	47%	13.79	46%	5.14	8.62	1.93	9,116.06 €	P55
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.92	48.50 €	147.71 €	43%	14.71	43%	4.76	7.97	1.78	7,857.59 €	P65
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.30	52.01 €	185.96 €	45%	14.35	44%	4.92	8.23	1.84	8,426.37 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.49	56.27 €	186.29 €	47%	13.93	46%	5.08	8.52	1.91	9,115.70 €	P55
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.90	52.01 €	187.26 €	44%	14.49	44%	4.86	8.13	1.81	8,426.01 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.19	60.47 €	187.70 €	48%	13.63	47%	5.20	8.73	1.95	9,795.63 €	P55
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.59	56.21 €	188.68 €	46%	14.19	45%	4.99	8.35	1.86	9,105.94 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.78	60.46 €	188.99 €	47%	13.77	46%	5.15	8.64	1.93	9,795.27 €	P55
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.19	56.21 €	189.98 €	45%	14.33	44%	4.93	8.25	1.84	9,105.58 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.10	50.27 €	190.29 €	42%	15.00	42%	4.67	7.78	1.73	8,426.01 €	P65
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.63	49.87 €	190.98 €	42%	15.12	41%	4.61	7.69	1.71	8,079.04 €	P5
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.84	46.36 €	192.05 €	40%	15.61	39%	4.40	7.33	1.63	7,509.90 €	P7

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.89	56.27 €	143.12 €	57%	9.24	55%	8.04	10.12	1.82	9,116.06 €	P55
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.77	56.27 €	144.70 €	56%	9.40	54%	7.94	9.98	1.79	9,115.70 €	P55
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	46.71	60.47 €	145.26 €	58%	9.02	56%	8.19	10.31	1.86	9,795.63 €	P55
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.48	52.01 €	145.53 €	53%	9.95	51%	7.63	9.54	1.71	8,426.37 €	P5
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.15	48.50 €	146.64 €	51%	10.44	49%	7.29	9.11	1.63	7,857.59 €	P65
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	47.59	60.46 €	146.85 €	57%	9.19	55%	8.09	10.17	1.83	9,795.27 €	P55
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	52.36	52.01 €	147.12 €	53%	10.12	51%	7.52	9.40	1.68	8,426.01 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	50.30	56.21 €	147.70 €	54%	9.73	52%	7.78	9.73	1.74	9,105.94 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	51.19	56.21 €	149.29 €	54%	9.90	52%	7.67	9.59	1.71	9,105.58 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.54	50.27 €	151.22 €	50%	10.74	48%	7.15	8.88	1.58	8,143.93 €	P65
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	47.28	65.30 €	152.28 €	57%	9.14	55%	8.14	10.22	1.84	10,578.06 €	P6
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	49.95	61.79 €	152.38 €	55%	9.63	53%	7.80	9.79	1.76	10,009.28 €	P6

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.77	56.27 €	163.19 €	55%	11.40	53%	8.25	10.91	2.05	9,116.06 €	P55
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	56.65	56.27 €	164.82 €	54%	11.57	52%	8.15	10.76	2.03	9,115.70 €	P55
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	54.59	60.47 €	165.31 €	56%	11.18	54%	8.39	11.10	2.09	9,795.63 €	P55
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.32	52.01 €	165.67 €	52%	12.12	50%	7.85	10.33	1.94	8,426.37 €	P5
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	61.93	48.50 €	166.77 €	50%	12.61	48%	7.53	9.91	1.86	7,857.59 €	P65
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	55.48	60.46 €	166.94 €	55%	11.35	53%	8.29	10.95	2.06	9,795.27 €	P55
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	60.20	52.01 €	167.28 €	51%	12.29	49%	7.75	10.19	1.91	8,426.01 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	58.17	56.21 €	167.83 €	53%	11.90	51%	7.99	10.52	1.97	9,105.94 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	59.05	56.21 €	169.45 €	52%	12.07	50%	7.89	10.38	1.95	9,105.58 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	55.16	65.30 €	171.30 €	55%	11.30	53%	8.34	11.01	2.07	10,578.06 €	P6
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.32	50.27 €	171.38 €	49%	12.91	46%	7.39	9.68	1.81	8,143.93 €	P65



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.92	56.27 €	206.43 €	59%	15.90	58%	17.48	21.01	3.61	9,116.06 €	P55
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.50	60.47 €	206.64 €	60%	15.47	59%	17.80	21.40	3.68	9,795.63 €	P55
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.70	56.27 €	209.38 €	58%	16.21	58%	17.25	20.72	3.56	9,115.70 €	P55
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.29	60.46 €	209.62 €	59%	15.79	59%	17.57	21.11	3.63	9,795.27 €	P55
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.27	52.01 €	212.85 €	56%	17.03	55%	16.65	19.98	3.43	8,426.37 €	P5
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	89.27	65.30 €	212.88 €	60%	15.62	59%	17.71	21.27	3.65	10,578.06 €	P6
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	86.86	69.49 €	213.11 €	61%	15.21	60%	18.03	21.66	3.72	11,257.63 €	P6
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.91	56.21 €	213.16 €	57%	16.62	56%	16.97	20.36	3.49	9,105.94 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.39	79.91 €	215.10 €	63%	14.32	62%	18.81	22.55	3.86	12,945.53 €	P55
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.03	52.01 €	215.78 €	55%	17.34	55%	16.42	19.69	3.37	8,426.01 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	91.05	65.29 €	215.83 €	59%	15.94	58%	17.48	20.99	3.60	10,577.70 €	P6
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_17	3.64	54.56 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.86	69.10 €	215.88 €	60%	15.54	59%	17.75	21.34	3.67	11,194.27 €	P55

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.76	56.27 €	169.75 €	59%	12.03	58%	12.85	15.64	2.72	9,116.06 €	P55
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.98	60.47 €	170.98 €	60%	11.72	59%	13.08	15.93	2.77	9,795.63 €	P55
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	68.05	56.27 €	171.94 €	58%	12.26	57%	12.68	15.43	2.69	9,115.70 €	P55
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	66.28	60.46 €	173.18 €	59%	11.95	59%	12.91	15.72	2.74	9,795.27 €	P55
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.75	52.01 €	174.20 €	56%	12.96	55%	12.22	14.83	2.57	8,426.37 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.00	56.21 €	175.49 €	57%	12.65	56%	12.45	15.12	2.62	9,105.94 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	73.03	52.01 €	176.38 €	55%	13.19	54%	12.06	14.63	2.54	8,426.01 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	65.67	65.30 €	177.15 €	60%	11.86	59%	13.01	15.82	2.75	10,578.06 €	P6
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.68	48.50 €	177.24 €	54%	13.65	53%	11.71	14.20	2.46	7,857.59 €	P65
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.29	56.21 €	177.68 €	56%	12.88	55%	12.29	14.91	2.59	9,105.58 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	63.90	69.49 €	178.40 €	61%	11.55	60%	13.24	16.11	2.80	11,257.63 €	P6
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	66.95	65.29 €	179.33 €	59%	12.09	58%	12.84	15.61	2.71	10,577.70 €	P6

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.97	61.73 €	249.49 €	39%	19.96	37%	5.30	6.38	1.10	5,888.43 €	P65
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	107.50	59.14 €	251.20 €	37%	20.41	35%	5.11	6.14	1.05	5,641.20 €	P65
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.58	79.78 €	252.85 €	44%	18.40	42%	5.91	7.18	1.25	7,610.03 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	99.19	77.19 €	254.69 €	42%	18.86	40%	5.71	6.93	1.20	7,362.80 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.85	88.29 €	254.81 €	46%	17.70	44%	6.18	7.53	1.31	8,422.25 €	P55
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.81	75.49 €	255.97 €	41%	19.18	39%	5.60	6.77	1.17	7,201.00 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.82	61.72 €	256.13 €	37%	20.66	34%	5.01	6.01	1.03	5,887.90 €	P7
8	EW_28	1.																															



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.37	61.73	275.06	42%	22.59	41%	7.44	8.76	1.47	5,888.43	P65
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	117.81	79.78	275.06	46%	20.72	46%	8.25	9.77	1.65	7,610.03	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.09	88.29	276.05	49%	19.88	48%	8.61	10.22	1.73	8,422.25	P55
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	131.62	59.14	277.77	40%	23.15	39%	7.18	8.45	1.42	5,641.20	P65
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	121.16	77.19	278.31	45%	21.30	44%	7.99	9.45	1.59	7,362.80	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.49	85.70	279.01	47%	20.47	46%	8.35	9.89	1.67	8,175.02	P55
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.13	75.49	280.05	44%	21.66	43%	7.84	9.26	1.56	7,201.00	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.47	76.87	280.06	44%	21.72	43%	7.82	9.23	1.55	7,332.90	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	126.43	72.90	282.84	43%	22.23	42%	7.58	8.94	1.51	6,953.77	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.32	61.72	283.22	43%	23.46	42%	7.05	8.29	1.39	5,887.90	P7
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	122.82	79.77	283.67	44%	21.59	43%	7.86	9.29	1.57	7,609.50	P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.13	88.29	284.34	46%	20.76	45%	8.22	9.74	1.65	8,421.72	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	144.51	88.29	322.24	49%	24.74	49%	11.22	13.39	2.28	8,422.25	P55
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	150.26	79.78	323.10	47%	25.73	47%	10.76	12.84	2.19	7,610.03	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	163.15	61.73	326.12	43%	27.96	43%	9.75	11.61	1.98	5,888.43	P65
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	148.82	85.70	326.63	48%	25.48	48%	10.87	12.98	2.21	8,175.02	P55
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	154.51	77.19	327.41	46%	26.46	46%	10.42	12.43	2.12	7,362.80	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	156.76	75.49	329.43	45%	26.86	45%	10.25	12.22	2.08	7,201.00	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	167.27	59.14	330.21	41%	28.67	41%	9.42	11.22	2.01	5,641.20	P65
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	157.17	76.87	331.48	45%	26.93	45%	10.22	12.18	2.07	7,332.90	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	150.90	88.29	332.61	47%	25.84	47%	10.71	12.78	2.18	8,421.72	P55
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	156.62	79.77	333.44	45%	26.83	45%	10.26	12.23	2.08	7,609.50	P5
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	160.94	61.72	333.62	44%	27.57	43%	9.92	11.82	2.01	6,953.77	P5
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B 0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	161.35	74.28	335.68	43%	27.64	43%	9.88	11.78	2.01	7,085.67	P5

Table 105- POS of the SFH13 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.50	98.16	185.25	39%	9.30	39%	3.64	5.88	1.29	20,810.34	P12
2	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	46.08	95.36	187.95	38%	9.89	36%	3.32	5.33	1.16	20,216.98	P9
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	45.28	98.83	189.08	36%	9.73	37%	3.44	5.50	1.19	20,952.19	P9
4	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	44.33	100.92	190.08	38%	9.52	38%	3.57	5.70	1.24	21,395.58	P9
5	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.50	104.24	191.33	39%	9.30	39%	3.64	5.88	1.29	22,099.41	P12
6	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	45.19	102.79	193.22	37%	9.67	37%	3.41	5.52	1.21	21,790.74	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	44.35	106.25	195.22	38%	9.50	38%	3.54	5.70	1.24	22,525.95	P9
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	43.39	108.35	195.33	39%	9.29	40%	3.66	5.90	1.29	22,969.34	P9
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	46.48	101.94	195.40	35%	9.98	35%	3.28	5.25	1.14	21,612.25	P9
10	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	43.05	131.80	181.19	40%	9.23	40%	3.72	5.98	1.30	27,940.62	P12
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	41.64	136.05	219.44	42%	8.91	42%	3.89	6.27	1.37	28,843.19	P12
12	EW_3	3.33	48.94																														



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	56.22	98.16	204.44	47%	11.32	47%	7.62	10.68	2.11	20,810.34	P12
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	57.00	100.92	209.20	47%	11.54	46%	7.56	10.51	2.07	21,395.58	P9
3	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	60.69	95.36	210.26	43%	12.24	42%	6.98	9.73	1.92	20,216.98	P9
4	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	56.22	104.24	210.53	47%	11.32	47%	7.62	10.68	2.11	22,099.41	P12
5	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	58.85	98.83	210.53	45%	11.90	44%	7.28	10.12	1.99	20,952.19	P9
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	55.63	108.35	213.74	48%	11.23	47%	7.73	10.80	2.13	22,969.34	P9
7	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	59.44	102.79	215.01	44%	11.96	44%	7.13	9.99	1.98	21,790.74	P9
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	57.52	106.25	215.14	46%	11.60	45%	7.44	10.40	2.05	22,525.95	P9
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	60.98	101.94	217.49	43%	12.31	42%	6.95	9.67	1.90	21,612.25	P9
10	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	52.15	136.05	235.02	51%	10.55	50%	8.26	9.64	2.28	28,843.19	P12
11	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	54.69	131.80	235.60	49%	11.06	48%	7.89	11.00	2.17	27,940.62	P12
12	EW_3	3.33	48.94	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	SHADING ELEMENTS COVER 50%	90.00	53.10	138.81	240.09	50%	10.79	49%	8.18	11.34	2.22	29,428.42	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.18	68.89	246.87	38%	19.04	36%	7.77	11.20	2.26	14,603.85	P55
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	83.87	71.91	247.46	39%	18.78	37%	7.97	11.48	2.32	15,245.44	P55
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.78	64.63	247.67	36%	19.58	34%	7.41	10.65	2.15	13,701.29	P5
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.48	67.66	248.28	37%	19.33	35%	7.60	10.93	2.20	14,342.88	P5
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	93.64	55.60	250.00	32%	20.80	30%	6.57	9.41	1.89	11,788.20	P65
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.48	62.10	250.15	34%	20.12	32%	7.00	10.08	2.04	13,164.29	P65
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	92.36	58.63	250.67	33%	20.54	31%	6.77	9.68	1.95	12,429.79	P65
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.31	68.88	251.00	37%	19.48	34%	7.47	10.75	2.17	14,603.29	P55
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.73	62.48	251.49	34%	20.19	32%	6.99	10.03	2.02	13,246.76	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.00	71.91	251.99	38%	19.23	35%	7.67	11.03	2.23	15,244.88	P55
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.91	64.63	251.79	35%	20.02	33%	7.10	10.20	2.06	13,700.73	P5
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.44	65.51	251.89	35%	19.94	33%	7.18	10.30	2.07	13,888.35	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.77	71.91	231.07	48%	16.84	47%	15.97	19.00	3.23	15,245.44	P55
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	100.17	68.89	231.92	47%	17.25	46%	15.55	18.50	3.14	14,603.85	P55
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.97	67.66	233.71	46%	17.57	45%	15.24	18.11	3.07	14,342.88	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	104.34	64.63	234.52	44%	17.97	44%	14.82	17.61	2.99	13,701.29	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.41	71.91	237.01	46%	17.46	46%	15.33	18.23	3.10	15,244.88	P55
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	103.79	68.88	237.84	45%	17.87	44%	14.91	17.73	3.01	14,603.29	P55
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	NO SHADING ELEMENTS	-	96.17	82.10	238.75	49%	16.57	48%	16.26	19.34	3.29	17,404.44	P6
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	106.72	65.51	239.38	43%	18.39	43%	14.41	17.11	2.90	13,888.35	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	3	NO SHADING ELEMENTS	-	98.56	79.07	239.60	47%	16.98	47%	15.84	18.84	3.20	16,762.85	P6
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	105.59	67.65	239.63	44%	18.19	43%	14.60	17.35	2.94	14,342.32	P5
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	109.19	62.10	239.87	42%	18.81	41%	13.96	16.58	2.81	13,164.29	P65
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This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	98.29	71.91 €	247.72 €	44%	18.68	42%	13.16	16.08	2.81	15,245.44 €	P5S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	100.44	68.89 €	248.34 €	42%	19.07	40%	12.80	15.62	2.73	14,603.85 €	P5S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	102.25	67.66 €	250.39 €	41%	19.42	39%	12.51	15.24	2.65	14,342.88 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.36	64.63 €	250.96 €	40%	19.80	38%	12.16	14.79	2.57	13,701.29 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.65	71.91 €	253.53 €	42%	19.30	40%	12.60	15.37	2.68	15,244.88 €	P5S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.78	68.88 €	254.13 €	40%	19.69	38%	12.24	14.91	2.60	14,603.29 €	P5S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.72	62.10 €	255.83 €	38%	20.59	36%	11.42	13.87	2.41	13,164.29 €	P6S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.71	65.51 €	256.07 €	39%	20.25	37%	11.79	14.29	2.48	13,888.35 €	P5
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	97.09	82.10 €	256.08 €	44%	18.49	42%	13.38	16.33	2.85	17,404.44 €	P6
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.59	67.65 €	256.18 €	39%	20.03	37%	11.96	14.53	2.52	14,342.32 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	108.80	62.48 €	256.59 €	38%	20.63	35%	11.44	13.85	2.40	13,246.76 €	P5
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	99.23	79.07 €	256.68 €	43%	18.88	41%	13.02	15.88	2.77	16,762.85 €	P6

Table 106- POS of the SFH14 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.33	99.43 €	183.17 €	33%	8.95	35%	2.21	3.99	0.93	19,089.60 €	P12
2	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.33	105.82 €	189.56 €	33%	8.95	35%	2.21	3.99	0.93	20,317.00 €	P12
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.76	103.75 €	190.79 €	31%	9.30	32%	2.08	3.71	0.86	19,919.92 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	43.34	105.14 €	193.43 €	30%	9.44	32%	2.02	3.60	0.83	20,186.17 €	P9
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.41	109.59 €	195.94 €	32%	9.23	33%	2.12	3.78	0.87	21,042.13 €	P9
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.71	111.55 €	196.19 €	33%	9.05	34%	2.18	3.91	0.91	21,418.39 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.81	111.00 €	198.03 €	31%	9.30	33%	2.06	3.70	0.86	21,311.54 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	42.29	112.94 €	198.85 €	32%	9.18	33%	2.12	3.80	0.88	21,684.64 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	41.36	117.40 €	201.33 €	33%	8.97	35%	2.22	3.98	0.92	22,540.60 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.46	135.00 €	219.09 €	33%	8.99	35%	2.20	3.96	0.92	25,920.75 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	40.78	139.26 €	221.89 €	34%	8.83	36%	2.28	4.09	0.95	26,738.16 €	P12
12	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	48.71	128.85 €	230.99 €	22%	10.93	21%	1.66	2.57	0.55	24,739.08 €	P12B

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.13	99.43 €	224.58 €	36%	13.41	37%	3.14	6.28	1.54	19,089.60 €	P12
2	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.13	105.82 €	230.97 €	36%	13.41	37%	3.14	6.28	1.54	20,317.00 €	P12
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.10	103.75 €	233.51 €	34%	13.90	35%	2.97	5.90	1.44	19,919.92 €	P9
4	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.19	111.55 €	236.81 €	36%	13.42	37%	3.14	6.27	1.53	21,418.39 €	P9
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	60.96	105.14 €	236.86 €	33%	14.11	34%	2.88	5.74	1.40	20,186.17 €	P9
6	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.58	109.59 €	238.24 €	34%	13.78	36%	3.02	6.00	1.46	21,042.13 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.54	111.00 €	239.23 €	34%	13.74	36%	3.00	6.01	1.47	21,311.54 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	59.06	112.94 €	240.18 €	35%	13.63	36%	3.05	6.10	1.49	21,684.64 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	57.66	117.40 €	241.50 €	37%	13.29	38%	3.19	6.37	1.56	22,540.60 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	58.18	135.00 €	260.29 €	36%	13.42	37%	3.14	6.27	1.53	25,920.75 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.30	139.26 €	262.60 €	37%	13.21	38%	3.23	6.44	1.57	26,738.16 €	P12
12	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.74	128.85 €	272.94 €	28%	15.45	28%	2.57	4.82	1.14	24,739.08 €	P12B

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.32	99.43 €	169.88 €	44%	7.50	45%	4.10	5.85	1.17	19,089.60 €	P12
2	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	38.32	105.82 €	176.72 €	44%	7.50	45%	4.10	5.85	1.17	20,317.00 €	P12
3	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.70	103.75 €	177.27 €	42%	7.83	43%	3.96	5.58	1.11	19,919.92 €	P9
4	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.69	105.14 €	180.52 €	41%	8.02	41%	3.82	5.40	1.07	20,186.17 €	P9
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.97	109.59 €	181.83 €	43%	7.69	44%	4.07	5.73	1.14	21,042.13 €	P9
6	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	38.73	111.55 €	182.98 €	44%	7.60	44%	4.06	5.77	1.15	21,311.54 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	40.46	111.00 €	185.73 €	41%	7.95	42%	3.84	5.44	1.09	21,684.64 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.74	112.94 €	186.25 €	42%	7.80	43%	3.93	5.58	1.12	21,919.92 €	P9
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €</															



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.81	59.47 €	184.46 €	42%	13.23	41%	8.95	10.52	1.76	11,417.83 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.75	53.11 €	184.58 €	39%	13.92	38%	8.33	9.76	1.63	10,196.53 €	P6S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.66	62.13 €	185.28 €	43%	13.04	42%	9.14	10.74	1.80	11,929.14 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	72.40	66.39 €	185.85 €	45%	12.65	44%	9.49	11.17	1.87	12,746.55 €	P5S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.10	56.29 €	186.72 €	39%	13.81	38%	8.43	9.88	1.65	10,807.43 €	P6S
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.22	59.99 €	187.32 €	41%	13.48	40%	8.73	10.24	1.71	11,517.49 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.00	65.31 €	187.40 €	43%	12.92	42%	9.24	10.86	1.82	12,540.04 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.74	69.57 €	187.95 €	45%	12.53	44%	9.60	11.30	1.90	13,357.45 €	P5S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.38	60.68 €	188.28 €	41%	13.51	40%	8.70	10.21	1.71	11,650.24 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.57	63.17 €	189.46 €	41%	13.37	40%	8.83	10.37	1.74	12,128.39 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.93	50.44 €	190.32 €	35%	14.81	34%	7.50	8.76	1.46	9,684.38 €	P7
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	76.73	63.86 €	190.41 €	41%	13.40	40%	8.81	10.34	1.73	12,261.14 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.92	59.47 €	207.52 €	39%	15.71	36%	8.85	10.29	1.70	11,417.83 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.00	53.11 €	207.99 €	36%	16.44	33%	8.21	9.50	1.57	10,196.53 €	P6S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.77	62.13 €	208.33 €	40%	15.52	37%	9.03	10.51	1.74	11,929.14 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.46	66.39 €	208.76 €	41%	15.11	39%	9.39	10.95	1.82	12,746.55 €	P5S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.35	56.29 €	210.13 €	36%	16.33	34%	8.32	9.63	1.59	10,807.43 €	P6S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.11	65.31 €	210.45 €	40%	15.41	37%	9.14	10.64	1.76	12,540.04 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.40	59.99 €	210.55 €	38%	15.98	35%	8.62	10.00	1.65	11,517.49 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.80	69.57 €	210.88 €	42%	15.00	39%	9.50	11.08	1.84	13,357.45 €	P5S
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.57	60.68 €	211.52 €	37%	16.01	35%	8.59	9.97	1.65	11,650.24 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.75	63.17 €	212.68 €	38%	15.87	35%	8.73	10.13	1.67	12,128.39 €	P5
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	85.91	63.86 €	213.65 €	38%	15.90	35%	8.70	10.10	1.67	12,261.14 €	P5
12	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.31	50.44 €	214.04 €	32%	17.36	29%	7.38	8.48	1.39	9,684.38 €	P7

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.57	53.11 €	177.13 €	32%	13.20	28%	5.45	6.14	0.98	10,196.53 €	P6S
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	64.51	59.47 €	178.14 €	35%	12.63	31%	5.90	6.73	1.09	11,417.83 €	P6S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	63.75	62.13 €	179.59 €	36%	12.50	32%	6.03	6.88	1.11	11,929.14 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	67.14	56.29 €	179.62 €	33%	13.12	28%	5.52	6.23	0.99	10,807.43 €	P6S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.14	50.44 €	180.40 €	29%	13.83	24%	4.89	5.46	0.86	9,684.38 €	P7
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.67	59.99 €	180.74 €	34%	12.85	30%	5.74	6.51	1.05	11,517.49 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	62.08	66.39 €	180.99 €	38%	12.20	33%	6.28	7.20	1.17	12,746.55 €	P5S
8	EW_28																																



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.96	56.29 €	271.11 €	41%	22.78	39%	14.19	16.53	2.74	10,807.43 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.06	53.11 €	271.28 €	40%	23.13	38%	13.85	16.13	2.68	10,196.53 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	121.39	65.31 €	272.69 €	43%	21.99	41%	14.91	17.41	2.90	12,540.04 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.51	65.31 €	272.88 €	42%	22.35	40%	14.57	17.00	2.83	11,929.14 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.36	69.57 €	273.64 €	44%	21.64	42%	15.24	17.80	2.96	13,357.45 €	P5S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.69	69.57 €	274.29 €	42%	22.39	40%	14.55	16.97	2.82	12,128.39 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.80	59.99 €	274.47 €	41%	22.74	39%	14.21	16.56	2.75	11,517.49 €	P5
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.84	63.86 €	275.22 €	42%	22.41	40%	14.53	16.94	2.82	12,261.14 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.94	60.68 €	275.40 €	41%	22.77	39%	14.18	16.54	2.75	11,650.24 €	P5
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.91	66.39 €	276.27 €	42%	22.25	40%	14.36	16.93	2.85	12,746.55 €	P5S
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.89	59.47 €	277.21 €	40%	23.09	38%	13.86	16.16	2.69	11,417.83 €	P6S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	130.15	63.17 €	283.33 €	39%	23.34	37%	13.37	15.73	2.64	12,128.39 €	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.62	53.11 €	220.61 €	39%	17.77	37%	10.44	12.01	1.97	10,196.53 €	P6S
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.02	56.29 €	221.25 €	40%	17.50	38%	10.71	12.32	2.02	10,807.43 €	P6S
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.07	62.13 €	223.80 €	41%	17.15	39%	11.01	12.70	2.08	11,929.14 €	P5
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.45	65.31 €	224.42 €	42%	16.88	40%	11.27	13.01	2.14	12,540.04 €	P5
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.86	59.99 €	224.59 €	40%	17.46	38%	10.72	12.35	2.02	11,517.49 €	P5
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.25	63.17 €	225.22 €	41%	17.19	39%	10.99	12.66	2.08	12,128.39 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	95.97	60.68 €	225.47 €	40%	17.48	38%	10.70	12.33	2.02	11,650.24 €	P5
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.52	66.39 €	225.52 €	42%	16.87	40%	10.93	12.80	2.14	12,746.55 €	P5S
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.87	69.57 €	226.10 €	43%	16.61	41%	11.52	13.31	2.19	13,357.45 €	P5S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	94.36	63.86 €	226.10 €	41%	17.21	39%	10.97	12.64	2.07	12,261.14 €	P5
11	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	97.41	59.47 €	226.46 €	39%	17.71	37%	10.46	12.05	1.98	11,417.83 €	P6S
12	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	103.49	53.10 €	230.10 €	35%	18.77	33%	9.50	10.89	1.77	10,196.53 €	P7

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.90	56.29 €	248.11 €	43%	20.30	42%	14.35	16.89	2.84	10,807.43 €	P6S
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.01	53.11 €	248.30 €	42%	20.66	41%	14.00	16.49	2.77	10,196.53 €	P6S
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.38	65.31 €	249.80 €	45%	19.52	44%	15.07	17.76	2.99	12,540.04 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.51	62.13 €	250.02 €	44%	19.88	43%	14.72	17.35	2.92	11,929.14 €	P5
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.36	69.57 €	250.79 €	46%	19.18	45%	15.39	18.15	3.05	13,357.45 €	P5S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.66	63.17 €	251.35 €	44%	19.92	43%	14.70	17.32	2.91	12,128.39 €	P5
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.78	59.99 €	251.56 €	43%	20.27	42%	14.36	16.92	2.84		



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.28	86.65 €	183.54 €	54%	10.30	55%	5.33	7.20	1.38	9,704.77 €	P17		
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	52.32	91.56 €	185.01 €	56%	9.93	56%	5.49	7.42	1.43	10,255.04 €	P9		
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	50.68	95.52 €	186.04 €	57%	9.62	58%	5.63	7.61	1.46	10,697.81 €	P9		
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	59.95	81.33 €	188.03 €	49%	11.34	50%	4.83	6.57	1.27	9,108.96 €	P9		
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	65.60	72.24 €	188.17 €	45%	12.31	46%	4.31	5.94	1.16	8,091.10 €	P17		
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.95	86.24 €	189.42 €	51%	10.96	52%	5.00	6.79	1.31	9,659.22 €	P9		
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	56.33	90.20 €	190.48 €	53%	10.66	53%	5.14	6.98	1.34	10,101.99 €	P9		
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.29	77.86 €	190.52 €	47%	11.97	47%	4.55	6.20	1.20	10,191.99 €	P9		
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	70.09	64.94 €	193.88 €	41%	13.72	39%	4.21	5.43	1.00	7,273.18 €	P17		
10	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.72	120.02 €	232.65 €	56%	8.15	64%	6.20	8.61	1.62	13,441.88 €	P125
11	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	65.22	75.91 €	198.14 €	45%	13.02	43%	4.74	5.98	1.08	8,501.52 €	P9		
12	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	46.55	114.70 €	199.68 €	61%	9.04	60%	6.08	8.07	1.52	12,846.06 €	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.75	86.65 €	218.43 €	51%	14.04	51%	5.74	8.12	1.62	9,704.77 €	P17		
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.86	91.56 €	219.94 €	52%	13.68	52%	5.90	8.33	1.66	10,255.04 €	P9		
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.02	95.52 €	220.52 €	54%	13.32	53%	6.05	8.54	1.70	10,697.81 €	P9		
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.40	81.33 €	223.10 €	47%	15.10	47%	5.26	7.49	1.50	9,108.96 €	P9		
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	81.54	72.24 €	224.06 €	43%	16.17	43%	4.69	6.80	1.38	8,091.10 €	P17		
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	73.49	86.24 €	224.59 €	48%	14.74	48%	5.42	7.70	1.54	9,659.22 €	P9		
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	71.68	90.20 €	225.22 €	50%	14.38	50%	5.57	7.90	1.58	10,101.99 €	P9		
8	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.36	77.86 €	226.94 €	44%	15.88	44%	4.94	7.04	1.41	8,720.72 €	P9		
9	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	57.16	120.02 €	231.06 €	60%	11.85	58%	6.89	9.53	1.86	13,441.88 €	P125
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	86.75	64.94 €	232.65 €	39%	17.89	37%	4.63	6.21	1.19	7,273.18 €	P17		
11	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.31	114.70 €	234.83 €	56%	12.81	55%	6.46	8.95	1.76	12,846.06 €	P125
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	71.28	102.65 €	236.59 €	50%	14.27	50%	5.58	7.95	1.59	11,496.41 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.21	120.02 €	283.33 €	58%	17.47	56%	7.86	11.91	2.50	13,441.88 €	P125
2	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	97.13	86.65 €	286.39 €	47%	21.36	46%	6.42	9.79	2.06	9,704.77 €	P17		
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	92.70	95.52 €	286.72 €	50%	20.45	49%	6.75	10.28	2.16	10,697.81 €	P9		
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	94.92	91.56 €	287.10 €	49%	20.91	47%	6.59	10.04	2.11	10,255.04 €	P9		
5	EW_27	0.70	9.88 €	W_18	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	84.35	114.70 €	289.58 €	54%	18.71	53%	7.37	11.22	2.36	12,846.06 €	P125
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42																		



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	65.22	120.02	230.80	65%	11.74	65%	10.71	13.40	2.40	13,441.88	P125
2	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	81.44	95.52	231.49	56%	14.40	57%	9.14	11.58	2.10	10,697.81	P9
3	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	84.09	91.56	232.01	55%	14.88	55%	8.90	11.29	2.05	10,255.04	P9
4	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	87.02	86.65	232.01	53%	15.40	54%	8.63	10.96	1.99	9,704.77	P17
5	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	73.30	114.70	238.86	60%	13.16	60%	9.97	12.50	2.24	12,846.06	P125
6	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	90.07	90.20	240.53	51%	15.92	52%	8.35	10.62	1.93	10,101.99	P9
7	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	92.66	86.24	240.95	50%	16.39	51%	8.12	10.33	1.88	9,659.22	P9
8	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	95.62	81.33	240.99	48%	16.91	49%	7.85	10.00	1.82	9,108.96	P9
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	61.74	136.13	241.02	67%	11.12	66%	11.02	13.79	2.47	15,247.10	P12
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	67.15	127.27	241.19	64%	12.08	64%	10.53	13.19	2.36	14,254.07	P95
11	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	64.38	132.18	241.53	65%	11.59	65%	10.79	13.50	2.42	14,804.34	P95
12	EW_28	1.16	12.16	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.09	94.73	244.96	53%	15.94	52%	8.90	10.95	1.93	10,610.18	P17

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	98.32	120.02	292.80	59%	18.35	59%	12.53	15.94	2.90	13,441.88	P125
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.85	136.13	296.00	62%	16.98	62%	13.18	16.78	3.05	15,247.10	P12
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	94.09	132.18	297.58	61%	17.56	60%	12.90	16.41	2.99	14,804.34	P95
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	97.85	127.27	299.13	59%	18.25	59%	12.57	15.99	2.91	14,254.07	P95
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	98.28	121.84	300.01	59%	18.95	57%	12.85	15.94	2.83	13,646.63	P12
6	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	118.25	95.52	300.26	51%	21.73	51%	10.65	13.71	2.52	10,697.81	P9
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.44	117.89	301.40	58%	19.51	56%	12.56	15.59	2.77	13,203.87	P95
8	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	121.42	91.56	301.72	50%	22.30	50%	10.37	13.35	2.46	10,255.04	P9
9	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	125.30	86.65	303.55	48%	23.02	48%	10.04	12.92	2.38	9,704.77	P17
10	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	108.36	114.70	304.54	55%	20.16	54%	11.64	14.81	2.70	12,846.06	P125
11	EW_28	1.16	12.16	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.44	94.73	307.90	50%	22.64	49%	10.72	13.46	2.42	10,610.18	P17
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	101.28	130.82	308.41	58%	18.86	57%	12.26	15.61	2.84	14,651.28	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	105.99	121.84	294.53	64%	18.27	64%	18.01	21.54	3.68	13,646.63	P12
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	110.20	117.89	297.39	63%	18.99	63%	17.61	21.07	3.60	13,203.87	P95
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	112.04	120.02	301.04	62%	19.14	63%	17.36	20.86	3.58	13,441.88	P125
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	104.56	136.13	305.04	65%	17.86	65%	18.06	21.70	3.73	15,247.10	P12
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	108.77	132.18	307.91	64%	18.58	64%	17.66	21.23	3.65	14,254.07	P95
6	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	93.30	158.10	310.30	62%	16.30	69%	19.20	22.96	3.92	17,707.50	P12
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	113.79	127.27	311.12	69%	19.44	62%	17.19	20.67	3.55	14,254.07	P95
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	120.12	116.53	312.02	60%	20.68	60%	16.68	19.96	3.41	13,050.81	P11
9	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	124.21	112.57	314.70	58%	21.38	58%	16.30	19.50	3.33	12,608.05	P11
10	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	92.59	166.20	317.25	69%	15.98	69%	19.26</				



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SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _w [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	147.63	121.84 €	360.95 €	62%	25.29	62%	22.84	27.31	4.67	13,646.63 €	P12
2	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	152.99	117.89 €	365.66 €	61%	26.20	61%	22.34	26.71	4.56	13,203.87 €	P9S
3	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.87	158.10 €	371.77 €	66%	22.60	66%	24.32	29.08	4.97	17,707.50 €	P12
4	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	147.00	136.13 €	373.47 €	62%	25.10	63%	22.86	27.38	4.69	15,247.10 €	P12
5	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	159.31	120.02 €	377.23 €	59%	27.20	59%	21.71	26.00	4.45	13,441.88 €	P12S
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	152.35	132.18 €	378.15 €	61%	26.01	61%	22.36	26.78	4.58	14,804.34 €	P9S
7	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	130.98	166.20 €	378.44 €	67%	22.45	66%	24.41	29.18	4.98	18,614.58 €	P11
8	EW_9	3.53	56.54 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	136.50	162.25 €	383.39 €	65%	23.39	65%	23.89	28.56	4.88	18,171.81 €	P11
9	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	158.71	127.27 €	383.52 €	59%	27.10	60%	21.76	26.07	4.46	14,254.07 €	P9S
10	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	165.04	116.53 €	383.74 €	58%	28.26	58%	21.21	25.36	4.33	13,050.81 €	P11
11	EW_8	2.35	51.51 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	137.91	160.84 €	384.25 €	65%	23.63	65%	23.76	28.40	4.85	18,014.39 €	P11
12	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	131.24	172.39 €	384.28 €	66%	22.40	67%	24.34	29.15	4.99	19,307.97 €	P12

Table 108- POS of the SFH16 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _w [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	50.67	55.80 €	156.16 €	42%	10.71	43%	7.39	12.44	2.78	19,194.14 €	P17	
2	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.75	66.03 €	161.31 €	45%	10.18	46%	8.17	13.44	2.97	22,712.79 €	P17
3	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.87	69.95 €	161.61 €	47%	9.79	46%	8.60	14.08	3.10	24,063.91 €	P9
4	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	47.26	70.35 €	164.65 €	46%	10.07	46%	8.28	13.61	3.01	24,199.92 €	P9
5	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.41	74.28 €	164.99 €	48%	9.69	48%	8.70	14.24	3.14	25,551.04 €	P9
6	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	50.50	64.26 €	165.01 €	42%	10.76	43%	7.56	12.49	2.77	22,106.35 €	P9
7	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	46.27	73.22 €	165.54 €	47%	9.86	48%	8.49	13.95	3.08	25,187.63 €	P9
8	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	44.43	77.15 €	165.89 €	49%	9.48	50%	8.92	14.58	3.21	26,538.75 €	P9
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	57.71	52.73 €	171.78 €	34%	12.73	32%	6.64	10.01	2.09	18,140.60 €	P17
10	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	43.22	86.02 €	173.68 €	50%	9.37	50%	9.42	15.00	3.25	29,590.06 €	P12S	
11	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	41.77	89.95 €	174.75 €	52%	9.06	52%	9.75	15.49	3.35	30,941.18 €	P12S	
12	EW_27	0.70	9.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	45.62	85.04 €	175.80 €	47%	9.69	48%	8.59	14.17	3.14	29,253.06 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _w [W/m²K]	U _f [W/m²K]	g (Solar Factor)	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€/m²)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	60.61	89.95 €	221.22 €	51%	14.07	51%	12.34	21.91	5.06	30,941.18 €	P12S	
2	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.74	86.02 €	221.84 €	50%	14.55	49%	11.92	21.18	4.89	29,590.06 €	P12S	
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	77.88	55.80 €	223.35 €	37%	17.95	38%	8.83	15.97	3.72	19,194.14 €	P17	
4	EW_26	1.47	14.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	71.28	69.95 €	224.31 €	43%	16.54	43%	10.29	18.25	4.21	24,063.91 €	P17
5	EW_27	0.70	9.88 €	W_19	2.7	1.43	0.77	116.17 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	73.73	66.03 €	225.46 €	41%	17.08	41%	9.78	17.40	4.02	22,712.79 €	P9
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	90.00 €	59.65	97.18 €	226.08 €	52%	13.81	52%	12.47	22.25	5.15	33,431.57 €	



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	69.31	89.95	234.08	59%	15.42	57%	22.14	33.71	7.09	30,941.18	P125
2	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	73.47	86.02	238.04	56%	16.26	55%	21.15	32.28	6.80	29,590.06	P125
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	68.31	97.18	238.87	59%	15.16	58%	22.28	34.06	7.18	33,431.57	P95
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	64.94	104.38	239.50	61%	14.45	60%	23.06	35.22	7.42	35,906.41	P12
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	67.16	101.51	240.99	60%	14.92	59%	22.56	34.45	7.26	34,918.70	P95
6	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	69.30	100.45	243.86	59%	15.34	57%	22.02	33.71	7.12	34,555.29	P11
7	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	71.51	97.58	245.32	57%	15.80	56%	21.51	32.95	6.96	33,567.58	P11
8	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	71.66	100.25	249.00	57%	15.91	56%	21.61	32.90	6.92	34,484.34	P10
9	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	73.47	97.58	249.61	56%	16.26	55%	21.15	32.28	6.80	33,569.17	P9
10	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	68.41	107.44	249.61	56%	15.24	58%	22.35	34.02	7.15	36,959.18	P10
11	EW_27	0.70	9.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	75.58	94.71	250.87	55%	16.70	54%	20.67	31.56	6.65	32,581.46	P9
12	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	64.94	116.20	251.32	61%	14.45	60%	23.06	35.22	7.42	39,973.43	P12

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	74.13	92.07	212.65	66%	12.75	66%	42.13	50.44	8.63	31,672.81	P12
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.65	89.20	215.45	65%	13.25	65%	41.12	49.23	8.42	30,685.10	P95
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	80.55	89.95	220.00	64%	13.75	64%	40.13	48.23	8.28	30,941.18	P125
4	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.91	88.14	221.25	63%	14.08	63%	39.89	47.76	8.17	30,921.69	P11
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	73.28	104.38	222.68	67%	12.51	67%	42.22	50.73	8.71	35,906.41	P12
6	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.34	85.27	223.93	61%	14.67	61%	38.90	46.58	7.97	29,333.98	P11
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	79.07	97.18	224.84	64%	13.50	64%	40.56	48.74	8.37	33,431.57	P95
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	76.78	101.51	225.47	65%	13.11	65%	41.21	49.53	8.51	34,918.70	P95
9	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	87.97	86.02	228.05	60%	15.02	60%	38.00	45.68	7.85	29,590.06	P125
10	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	67.15	118.84	228.18	70%	11.57	69%	44.15	52.84	9.04	40,881.54	P12
11	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.08	90.19	228.43	61%	14.62	61%	38.98	46.67	7.98	31,024.96	P125
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	81.07	100.45	231.35	63%	13.84	63%	39.98	48.05	8.25	34,555.29	P11

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	82.79	89.95	226.67	64%	14.47	64%	41.01	50.36	8.85	30,941.18	P125
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	75.16	104.38	228.53	67%	13.14	67%	43.16	52.98	9.30	35,906.41	P12
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	81.20	92.07	231.21	65%	14.76	63%	42.33	50.90	8.75	31,672.81	P12
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	81.17	97.18	231.24	65%	14.19	65%	41.46	50.91	8.94	33,431.57	P95
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	78.79	101.51	231.62	66%	13.77	66%	42.13	51.73	9.09	34,918.70	P95
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	84.75	89.20	234.09	63%	15.37	62%	41.32	49.68	8.54	30,685.10	P95
7	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	90.44	86.02	235.29	61%	15.80	61%	38.84	47.73	8.39	29,590.06	P125
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	83.19	100.45	237.75	64%	14.53	64%	40.88	50.22	8.82	34,555.29	P11
9	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.00	88.14	239.87	61%	16.09	60%	40.09	48.22	8.29	30,921.69	P11
10	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER												



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.20	92.07	232.69	67%	14.88	67%	49.81	59.72	10.23	31,672.81	P12
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	90.36	89.20	236.55	65%	15.59	65%	48.62	58.29	9.98	30,685.10	P95
3	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	92.83	89.95	239.89	64%	15.85	64%	47.66	57.43	9.89	30,941.18	P125
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	84.79	104.38	241.30	67%	14.48	68%	49.97	60.20	10.37	35,906.41	P12
5	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	95.58	88.14	243.89	63%	16.48	63%	47.11	56.49	9.68	30,321.69	P11
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	88.94	101.51	245.14	66%	15.19	66%	48.78	58.77	10.12	34,918.70	P95
7	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	91.78	97.18	245.41	65%	15.67	65%	47.96	57.80	9.95	33,431.57	P95
8	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.79	118.84	245.89	70%	13.44	70%	52.24	62.61	10.72	40,881.54	P12
9	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.64	85.27	247.61	62%	17.17	62%	45.95	55.09	9.44	29,333.98	P11
10	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	101.79	86.02	250.46	61%	17.39	61%	45.09	54.35	9.36	29,590.06	P125
11	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.32	124.82	251.12	70%	13.36	70%	52.37	62.77	10.75	42,938.50	P11
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	99.34	90.19	252.03	62%	17.12	62%	46.03	55.20	9.46	31,024.96	P125

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	118.05	104.38	297.15	66%	20.40	66%	63.77	77.65	13.52	35,906.41	P12	
2	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.46	92.07	298.33	64%	21.85	63%	63.04	75.79	13.02	31,672.81	P12	
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	123.44	101.51	303.10	64%	21.33	64%	62.24	75.80	13.20	34,918.70	P95	
4	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	130.68	89.95	303.40	62%	22.58	62%	60.18	73.31	12.77	30,941.18	P125	
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.78	89.20	304.10	63%	22.76	62%	61.52	73.96	12.71	30,685.10	P95	
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	127.09	97.18	304.75	63%	21.96	63%	61.20	74.54	12.98	33,431.57	P95	
7	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	107.41	131.15	306.57	69%	18.56	69%	66.80	81.31	14.15	45,115.14	P12	
8	EW_3	3.33	48.94	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	113.01	118.84	308.23	67%	20.06	66%	66.05	79.39	13.64	40,881.54	P12	
9	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	118.05	116.20	308.97	66%	20.40	66%	63.77	77.65	13.52	39,973.43	P12	
10	EW_2	2.22	44.00	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	112.22	127.27	310.53	67%	19.39	68%	65.43	79.66	13.87	43,780.71	P10	
11	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	3	17.00	90.00	115.64	121.87	310.87	67%	20.00	67%	64.48	78.48	13.66	41,924.41	P15
12	EW_9	3.53	56.54	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	106.81	137.13	311.58	69%	18.46	69%	66.97	81.52	14.19	47,172.10	P11	

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	88.20	104.38	247.87	67%	15.18	67%	49.33	60.23	10.52	35,906.41	P12
2	EW_26	1.47	14.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	97.45	89.95	248.53	63%	16.78	63%	46.70	57.05	9.97	30,941.18	P125
3	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	93.42	92.07	248.61	65%	16.58	64%	48.64	58.44	10.03	31,672.81	P12
4	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	92.37	101.51	251.84	65%	15.90	65%	48.15	58.80	10.27	34,918.70	P95
5	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	95.07	97.18	251.89	64%	16.36	64%	47.38	57.87	10.11	33,431.57	P95
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.54	89.20	252.44	63%	17.29	62%	47.46	57.02	9.79	30,685.10	P95
7	EW_27	0.70	9.88	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	106.11	86.02	258.72	60%	18.27	60%	44.23	54.07	9.45	29,590.06	P125
8	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	97.30	100.45	258.76	63%	16.75	63%	46.74	57.10	9.98	34,555.29	P11
9	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	102.34	88.14	259.07	61%	18.10	60%	46.06	55.37	9.51	30,321.69	P11
10	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00											



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.89	65.49 €	183.36 €	38%	12.63	40%	9.78	19.53	4.78	37,720.14 €	P12
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.58	62.05 €	188.35 €	34%	13.53	35%	8.72	17.41	4.26	35,743.50 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	56.97	66.11 €	188.82 €	36%	13.15	37%	9.21	18.34	4.48	38,080.52 €	P9
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	58.22	63.75 €	189.19 €	34%	13.44	36%	8.81	17.61	4.31	36,718.71 €	P9
5	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.89	71.67 €	189.55 €	38%	12.63	40%	9.78	19.53	4.78	41,282.10 €	P12
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.69	70.64 €	190.41 €	37%	12.82	39%	9.54	19.07	4.67	40,687.97 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	56.18	69.60 €	190.41 €	37%	12.94	38%	9.40	18.79	4.60	40,092.12 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	54.58	73.66 €	190.41 €	39%	12.55	40%	9.87	19.71	4.82	42,425.14 €	P9
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.84	71.30 €	191.28 €	37%	12.85	39%	9.49	18.99	4.65	41,067.33 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	54.12	79.59 €	195.74 €	39%	12.44	41%	10.01	19.98	4.88	45,843.75 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	53.62	81.60 €	196.60 €	40%	12.32	41%	10.15	20.27	4.95	47,001.75 €	P12
12	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	55.70	82.23 €	202.11 €	37%	12.84	39%	9.60	19.07	4.65	47,362.13 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	35.56	65.49 €	131.45 €	48%	7.02	48%	13.41	18.91	3.76	37,720.14 €	P12
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.56	62.05 €	135.43 €	42%	7.81	42%	11.76	16.61	3.31	35,743.50 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.53	66.11 €	135.88 €	45%	7.43	45%	12.65	17.78	3.53	38,080.52 €	P9
4	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	39.28	63.75 €	136.56 €	43%	7.75	43%	11.96	16.77	3.34	36,718.71 €	P9
5	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	35.56	71.67 €	137.64 €	48%	7.02	48%	13.41	18.91	3.76	41,282.10 €	P12
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.47	69.60 €	139.20 €	45%	7.41	45%	12.65	17.81	3.54	40,092.12 €	P9
7	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	36.88	70.64 €	139.34 €	46%	7.32	46%	12.95	18.15	3.59	40,687.97 €	P9
8	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.45	73.66 €	139.68 €	46%	7.03	48%	13.53	18.98	3.76	42,425.14 €	P9
9	EW_27	0.70	9.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	37.21	71.30 €	140.37 €	46%	7.35	46%	12.74	17.96	3.57	41,067.33 €	P9
10	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	34.40	79.59 €	143.63 €	50%	6.82	50%	13.96	19.58	3.88	45,843.75 €	P12
11	EW_3	3.33	48.94 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	33.74	81.60 €	144.41 €	51%	6.69	51%	14.23	19.96	3.95	47,001.75 €	P12
12	EW_3	3.33	48.94 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	35.75	82.23 €	148.91 €	48%	7.10	48%	13.44	18.80	3.71	47,362.13 €	P9

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.90	65.49 €	154.06 €	46%	9.45	45%	14.71	21.87	4.52	37,720.14 €	P12
2	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	47.42	66.11 €	159.63 €	43%	9.98	42%	13.74	20.42	4.22	38,080.52 €	P9
3	EW_26	1.47	14.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.26 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.71	62.05 €	159.73 €	40%	10.42	40%	12.78	19.10	3.96	35,743.50 €	P9
4	EW_26	1.47	14.88 €	W_13	1.4	1.43	0.58	184.83 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	44.90	71.67 €	160.25 €	46%	9.45	45%	14.71	21.87	4.52	41,282.10 €	P12
5	EW_27	0.70	9.88 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	49.40	63.75 €	160.77 €	40%	10.35	40%	12.88	19.28	4.00	36,718.71 €	P9
6	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.5																										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	79.93	40.96	182.41	40%	15.03	36%	26.38	30.37	4.97	23,593.02	€	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	81.31	38.95	182.64	39%	15.26	35%	25.72	29.58	4.84	22,435.02	€	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	81.33	39.67	183.32	39%	15.26	36%	25.69	29.57	4.84	22,851.69	€	P5S
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	84.41	34.69	183.48	36%	15.80	33%	24.25	27.79	4.53	19,980.49	€	P6S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.70	37.66	183.55	38%	15.49	35%	25.04	28.78	4.70	21,693.69	€	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.87	37.94	184.19	38%	15.53	34%	24.98	28.68	4.68	21,851.85	€	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	85.80	33.40	184.38	35%	16.03	32%	23.57	26.99	4.39	19,239.16	€	P6S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.97	38.26	184.67	37%	15.55	34%	24.94	28.63	4.67	22,039.92	€	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	84.26	36.65	185.09	36%	15.76	33%	24.30	27.88	4.55	21,110.52	€	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	84.35	36.98	185.58	36%	15.78	33%	24.25	27.83	4.54	21,298.58	€	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	81.21	42.39	185.93	39%	15.25	36%	25.77	29.64	4.85	24,417.55	€	P5S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	80.02	45.04	186.62	40%	15.04	36%	26.34	30.32	4.97	25,941.36	€	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	66.85	34.69	159.11	32%	13.25	27%	16.11	17.87	2.80	19,980.49	€	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	67.76	33.40	159.24	31%	13.40	26%	15.67	17.35	2.71	19,239.16	€	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	64.60	38.95	159.55	34%	12.84	29%	17.15	19.17	3.02	22,435.02	€	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	65.51	37.66	159.68	33%	12.99	28%	16.70	18.65	2.94	21,693.69	€	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	63.60	40.96	159.88	35%	12.66	30%	17.61	19.74	3.13	23,593.02	€	P5S
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	64.51	39.67	160.01	34%	12.81	29%	17.15	19.22	3.05	22,851.69	€	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	65.74	37.94	160.46	33%	13.05	28%	16.63	18.52	2.91	21,851.85	€	P5
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	66.64	36.65	160.59	32%	13.20	27%	16.18	18.00	2.83	21,110.52	€	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	65.81	38.26	160.91	33%	13.06	28%	16.59	18.48	2.91	22,039.92	€	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	66.71	36.98	161.04	32%	13.21	27%	16.14	17.95	2.82	21,298.58	€	P5
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	67.40	36.59	161.57	31%	13.30	27%	15.76	17.56	2.76	21,073.20	€	P6S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	64.53	42.39	162.88	34%	12.83	29%	17.18	19.21	3.04	24,417.55	€	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g [Solar Factor]	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	81.09	40.96	192.91	36%	16.18	32%	21.68	25.80	4.38	23,593.02	€	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.31	38.95	193.45	35%	16.41	31%	21.12	25.09	4.26	22,435.02	€	P5
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	85.06	34.69	193.45	32%	16.91	29%	19.88	23.51	3.97	19,980.49	€	P6S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.31	39.67	193.64	35%	16.40	31%	21.10	25.10	4.26	22,851.69	€	P5S
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	83.53	37.66	193.72	34%	16.62	30%	20.55	24.39	4.13	21,693.69	€	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	86.27	33.40	194.17	31%	17.12	28%	19.31	22.81	3.85	19,239.16	€	P6S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	83.70	37.94	194.35	34%	16.66	30%	20.50	24.30	4.11	21,851.85	€	P5
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	83.78	38.26	194.83	33%	16.67	30%	20.46	24.25	4.10	22,039.92	€	P5
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	84.91	36.65	195.08	33%	16.87	29%	19.93	23.60	3.99	21,110.52	€	P5
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	85.00	36.98	195.55	32%	16.89	29%	19.89	23.55	3.98	21,298.58	€	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	€	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	82.23	42.39	196.29	35								



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	90.87	40.96	197.49	40%	16.61	38%	30.73	35.61	5.88	23,593.02	€	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	92.45	38.95	198.06	39%	16.88	37%	29.98	34.70	5.72	22,435.02	€	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	92.49	39.67	198.77	39%	16.88	37%	29.93	34.68	5.72	22,851.69	€	P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	94.07	37.66	199.34	38%	17.15	36%	29.19	33.77	5.56	21,693.69	€	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	96.02	34.69	199.65	37%	17.50	35%	28.28	32.65	5.36	19,980.49	€	P6S
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	94.25	37.94	199.99	38%	17.19	36%	29.12	33.67	5.54	21,851.85	€	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	94.36	38.26	200.50	38%	17.21	36%	29.07	33.60	5.53	22,039.92	€	P5
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	97.62	33.40	200.91	36%	17.77	34%	27.50	31.72	5.21	19,239.16	€	P6S
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	95.86	36.65	201.26	37%	17.46	35%	28.34	32.74	5.38	21,110.52	€	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	92.35	42.39	201.33	40%	16.86	37%	30.03	34.76	5.73	24,417.55	€	P5S
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	90.97	45.04	201.72	40%	16.62	38%	30.68	35.56	5.87	25,941.36	€	P5S
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	95.97	36.98	201.77	37%	17.48	35%	28.28	32.68	5.37	21,298.58	€	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS	
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	110.36	40.96	222.18	43%	19.18	42%	40.79	48.08	8.08	23,593.02	€	P5S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	112.38	38.95	223.44	42%	19.52	41%	39.82	46.92	7.89	22,435.02	€	P5
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	112.50	39.67	224.31	42%	19.54	41%	39.75	46.85	7.88	22,851.69	€	P5S
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	114.51	37.66	225.55	41%	19.88	40%	38.78	45.69	7.68	21,693.69	€	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	114.66	37.94	226.12	41%	19.92	40%	38.73	45.60	7.66	21,851.85	€	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_17	3.64	54.56	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	110.48	45.04	226.46	43%	19.20	42%	40.73	48.01	8.07	25,941.36	€	P5S
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	116.90	34.69	226.51	40%	20.30	39%	37.65	44.31	7.44	19,980.49	€	P6S
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	112.24	42.39	226.65	42%	19.50	41%	39.89	47.00	7.90	24,417.55	€	P5S
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	114.80	38.26	226.68	41%	19.94	40%	38.66	45.52	7.65	22,039.92	€	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	-	108.72	49.14	227.96	44%	18.93	43%	41.66	49.02	8.23	28,302.02	€	P6
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	116.78	36.65	228.22	40%	20.27	39%	37.69	44.38	7.45	21,110.52	€	P5
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	119.01	33.40	228.60	39%	20.66	38%	36.62	43.10	7.23	19,239.16	€	P6S

Table 110- POS of the SFH18 building in all climates

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	€	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	90.00	47.16	92.52	185.35	€	60%	9.91	61%	5.87	9.33	2.02	12,028.14	€	P14
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	90.00	49.58	90.23	188.07	€	59%	10.44	59%	5.68	9.01	1.95	11,730.09	€	P13
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	3	17.00	90.00	50.86	90.23	190.62	€	57%	10.72	58%	5.57	8.85	1.91	11,729.48	€	P14
4	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	90.00	50.62	112.33	€	57%	10.69	58%	5.61	8.88	1.92	14,602.34	€	P13	
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	-	90.00	46.30	122.47	€	61%	9.95	61%	6.07	9.44	2.01	15,920.86	€	P13	
6	EW_28	1.16	12.16	W_14	1.4	1.3	0.58	129.57	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	-	58.22	97.53	€	51%	12.65	50%	5.17	7.89	1.66	12,678.35	€	P13	
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	TR_0	BASE	-	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	99.36	23.46	224.95	€	16%	21.53	15%	1.80	2.54	0.51	3,050.15	€	P14	
8	EW_28	1.16	12.16	W_13	1.4	1.43	0.58	184.83	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	-	58.22	107.14	€	51%	12.65	50%	5.17	7.89	1.66	13,928.63	€	P16	
9	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	-	62.73	97.60	€	47%	13.90	45%	4.97	7.30	1.50	12,687.50	€	P13	
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	0.5	40.00	-	62.45	101.17	€	47%	13.79	46%	4.97	7.34	1.51	13,151.89	€	P13	
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	-	59.52	107.74	€	50%	13.44	47%	5.37	7.72	1.56	14,006.02	€	P13		
12	EW_28	1.16	12.16	W_13																																



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	71.71	92.52 €	223.25 €	62%	13.91	62%	10.54	14.95	2.99	12,028.14 €	P14		
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	76.05	90.23 €	229.10 €	59%	14.77	60%	10.14	14.38	2.87	11,730.09 €	P13		
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	78.54	90.23 €	233.63 €	58%	15.26	59%	9.90	14.06	2.81	11,729.48 €	P14		
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	64.74	122.47 €	243.30 €	65%	12.87	65%	11.38	15.85	3.12	15,920.86 €	P13		
5	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	77.37	112.33 €	253.92 €	59%	15.06	59%	10.03	14.21	2.83	14,602.34 €	P13		
6	EW_28	1.16	12.16 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	84.79	97.53 €	256.87 €	55%	16.97	54%	9.61	13.25	2.59	12,678.35 €	P13		
7	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	69.43	125.16 €	259.42 €	63%	14.32	61%	11.26	15.24	2.93	16,270.84 €	P13
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	77.87	107.74 €	260.87 €	58%	16.34	56%	10.69	14.15	2.67	14,006.02 €	P13		
9	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	61.72	148.85 €	264.41 €	67%	12.31	67%	11.69	16.25	3.19	19,350.55 €	P14		
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	72.56	121.84 €	265.43 €	61%	15.33	58%	11.20	14.84	2.80	15,839.62 €	P14		
11	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	84.79	107.14 €	266.49 €	55%	16.97	54%	9.61	13.25	2.59	13,928.63 €	P16		
12	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	69.52	130.36 €	267.58 €	63%	14.65	60%	11.43	15.23	2.89	16,947.20 €	P15

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	97.69	92.51 €	288.37 €	58%	20.92	57%	11.54	17.38	3.63	12,025.70 €	P14		
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	86.02	122.40 €	296.66 €	63%	18.62	62%	12.63	18.89	3.92	15,912.03 €	P13		
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	103.06	90.16 €	296.68 €	55%	22.06	55%	11.09	16.68	3.48	11,721.26 €	P14		
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	106.05	90.16 €	302.43 €	54%	22.67	54%	10.82	16.29	3.40	11,720.66 €	P13		
5	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	90.20	125.11 €	311.65 €	61%	19.95	59%	12.54	18.35	3.75	16,264.73 €	P13
6	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	82.30	148.78 €	316.03 €	64%	17.88	63%	12.97	19.38	4.02	19,341.72 €	P14		
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	100.84	107.67 €	318.42 €	56%	22.55	54%	11.84	16.97	3.41	13,997.19 €	P13		
8	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	90.57	130.34 €	320.42 €	61%	20.34	58%	12.69	18.30	3.70	16,944.76 €	P15
9	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	94.62	121.80 €	320.70 €	59%	21.29	56%	12.40	17.77	3.58	15,833.51 €	P14
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	104.65	112.26 €	322.16 €	55%	22.42	54%	10.97	16.47	3.43	14,593.51 €	P14		
11	EW_26	1.47	14.88 €	W_8	0.6	1.3	0.26	346.16 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	77.91	170.39 €	325.07 €	66%	16.52	66%	13.08	19.95	4.20	22,150.38 €	P13
12	EW_28	1.16	12.16 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	112.43	97.49 €	326.12 €	51%	24.44	50%	10.53	15.46	3.17	12,673.19 €	P13		

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS		
1	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	113.71	121.80 €	305.48 €	65%	19.42	65%	23.26	27.91	4.78	15,833.51 €	P14		
2	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.29	130.34 €	306.83 €	67%	18.66	67%	23.74	28.48	4.88	16,944.76 €	P15		
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	123.89	107.67 €	307.81 €	62%	21.16	62%	22.16	26.58	4.56	13,997.19 €	P13		
4	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	115.16	125.11 €	311.03 €	65%	19.66	65%	23.10	27.72	4.75	16,264.73 €	P13
5	EW_2	2.22	44.00 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	114.25	133.50 €	318.00 €	65%	19.51	65%	23.20	27.84	4.77	17,354.43 €	P15
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	124.17	122.40 €	322.87 €										



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _w [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.64	92.51 €	305.48 €	59%	22.58	59%	17.73	23.09	4.29	12,025.70 €	P14
2	EW_28	1.16	12.16 €	W_13	1.4	1.43	0.58	184.83 €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	106.82	125.11 €	311.76 €	65%	19.81	64%	20.04	25.53	4.65	16,264.73 €	P135
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.31	122.40 €	313.09 €	63%	20.22	64%	19.34	24.95	4.60	15,912.03 €	P13
4	EW_2	2.22	44.00 €	W_18	2.7	3.5	0.77	62.11 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.02	130.34 €	315.87 €	65%	19.71	65%	20.36	25.77	4.66	16,944.76 €	P15
5	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	110.34	121.80 €	317.14 €	64%	20.75	63%	19.86	25.08	4.53	15,833.51 €	P14
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	134.26	90.16 €	318.05 €	56%	24.16	57%	16.86	21.97	4.09	11,721.26 €	P13
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	119.62	107.67 €	318.84 €	61%	22.43	60%	18.91	23.87	4.31	13,997.19 €	P14
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	138.67	90.16 €	325.62 €	54%	24.96	55%	16.41	21.39	3.98	11,720.66 €	P13
9	EW_2	2.22	44.00 €	W_19	2.7	1.43	0.77	116.17 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.45	133.50 €	326.59 €	64%	20.51	63%	19.90	25.19	4.56	17,354.43 €	P15
10	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	105.84	148.78 €	330.27 €	65%	19.25	65%	19.92	25.66	4.72	19,341.72 €	P14
11	EW_28	1.16	12.16 €	W_15	2.6	3.5	0.77	229.77 €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.31	124.42 €	332.26 €	61%	22.07	60%	18.97	24.04	4.36	16,174.73 €	P14
12	EW_28	1.16	12.16 €	W_14	1.4	1.3	0.58	129.57 €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	NO SHADING ELEMENTS	- €	136.43	97.49 €	332.48 €	55%	24.93	55%	16.86	21.68	3.98	12,673.19 €	P13

Table 111- POS of the SFH19 building in all climates



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	65.83	65.62	202.81	37%	14.68	35%	2.84	4.11	0.83	7,034.14	P85
2	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_17	1.43	19.85	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	72.00	55.03	202.94	31%	15.82	30%	2.33	3.45	0.71	5,899.20	P75
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	62.15	76.69	205.54	40%	13.89	38%	3.09	4.50	0.92	8,221.10	P65
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	64.01	74.27	207.65	39%	14.27	36%	2.96	4.30	0.88	7,961.49	P7
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	63.12	76.68	208.44	39%	14.10	37%	3.03	4.40	0.90	8,220.54	P7
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	61.72	79.58	208.64	41%	13.81	38%	3.13	4.55	0.93	8,530.60	P65
7	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_17	1.43	19.85	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.47	68.79	209.87	34%	15.09	33%	2.58	3.83	0.79	7,374.27	P75
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	63.39	77.87	210.18	39%	14.16	37%	3.01	4.37	0.89	8,347.95	P85
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	60.44	83.67	210.20	42%	13.54	40%	3.22	4.69	0.96	8,968.89	P65
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	62.69	79.57	210.56	40%	14.02	38%	3.06	4.45	0.90	8,530.04	P7
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_17	1.43	19.85	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.67	70.17	211.64	34%	15.13	33%	2.57	3.80	0.78	7,522.51	P75
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	62.96	80.76	212.28	40%	14.07	37%	3.04	4.42	0.90	8,657.45	P85

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	91.56	65.62	266.70	37%	21.56	36%	3.51	5.78	1.28	7,034.14	P85
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	86.44	76.69	266.86	41%	20.39	39%	3.83	6.33	1.40	8,221.10	P65
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	85.85	79.58	268.56	41%	20.26	39%	3.87	6.39	1.42	8,530.60	P65
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	84.04	83.67	268.80	42%	19.85	41%	3.98	6.58	1.46	8,968.89	P65
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.97	94.74	268.91	46%	18.68	44%	4.28	7.13	1.59	10,155.85	P5
6	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	80.21	92.32	269.05	45%	18.95	43%	4.20	6.99	1.56	9,896.80	P65
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.82	76.68	269.81	40%	20.71	38%	3.74	6.18	1.37	8,220.54	P7
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	89.04	74.27	269.83	39%	20.97	37%	3.66	6.05	1.34	7,961.49	P7
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	78.37	97.62	270.57	46%	18.54	45%	4.32	7.19	1.60	10,465.35	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	87.24	79.57	271.52	40%	20.58	39%	3.78	6.24	1.38	8,530.04	P7
11	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	82.21	90.45	271.59	43%	19.42	42%	4.09	6.78	1.51	9,696.17	P7
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	88.14	77.87	271.66	39%	20.78	38%	3.72	6.14	1.36	8,347.95	P85

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	70.21	76.69	207.05	51%	13.88	49%	6.10	7.78	1.42	8,221.10	P65
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	69.25	79.58	208.32	52%	13.71	49%	6.18	7.89	1.44	8,530.60	P65
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	77.36	65.62	208.78	46%	15.24	44%	5.52	7.02	1.27	7,034.14	P85
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	61.07	94.74	208.98	57%	12.17	55%	6.84	8.76	1.60	10,155.85	P5
5	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	63.13	92.32	210.04	56%	12.54	54%	6.84	8.54	1.56	9,896.80	P65
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	60.09	97.62	210.20	58%	11.99	56%	6.93	8.87	1.62	10,465.35	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	72.16	76.68	210.51	49%	14.25	47%	5.94	7.58	1.38	8,220.54	P7
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	68.21	83.67	210.71	52%	13.53	50%	6.27	8.00	1.46	8,968.89	P65
9	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73																			



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.71	106.14 €	288.27 €	60%	19.26	60%	15.23	18.24	3.12	11,378.13 €	P55
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.83	103.25 €	288.81 €	59%	19.62	59%	15.04	18.01	3.08	11,068.62 €	P55
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.67	97.62 €	289.40 €	58%	20.28	58%	14.69	17.60	3.01	10,465.35 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.75	94.74 €	289.88 €	57%	20.63	57%	14.51	17.38	2.98	10,155.85 €	P5
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	125.04	92.32 €	294.40 €	56%	21.37	56%	14.12	16.92	2.90	9,896.80 €	P65
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.78	106.13 €	294.86 €	59%	19.96	59%	14.86	17.81	3.05	11,377.57 €	P55
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.88	103.25 €	295.38 €	58%	20.32	58%	14.67	17.58	3.01	11,068.06 €	P55
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.71	97.62 €	295.95 €	57%	20.97	57%	14.33	17.17	2.94	10,464.79 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	124.78	94.73 €	296.41 €	56%	21.33	56%	14.15	16.95	2.90	10,155.28 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.09	93.34 €	298.73 €	55%	21.72	55%	13.94	16.70	2.86	10,005.67 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	129.12	90.45 €	299.13 €	54%	22.07	54%	13.76	16.48	2.82	9,696.17 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	127.70	94.72 €	301.10 €	55%	21.82	55%	13.88	16.64	2.85	10,153.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	116.36	106.14 €	300.05 €	60%	20.54	59%	15.37	18.57	3.21	11,378.13 €	P55
2	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	118.53	103.25 €	300.70 €	59%	20.91	59%	15.17	18.33	3.17	11,068.62 €	P55
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.50	97.62 €	301.62 €	58%	21.60	57%	14.82	17.91	3.09	10,465.35 €	P5
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	124.63	94.74 €	302.21 €	57%	21.97	56%	14.64	17.68	3.05	10,155.85 €	P5
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	129.03	92.32 €	306.98 €	55%	22.73	55%	14.25	17.21	2.97	9,896.80 €	P65
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.60	106.13 €	307.06 €	58%	21.28	58%	15.00	18.11	3.13	11,377.57 €	P55
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	122.76	103.25 €	307.70 €	58%	21.65	57%	14.80	17.88	3.09	11,068.06 €	P55
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	126.72	97.62 €	308.59 €	56%	22.34	56%	14.46	17.46	3.01	10,464.79 €	P5
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	128.84	94.73 €	309.17 €	56%	22.71	55%	14.27	17.23	2.97	10,155.28 €	P5
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.18	93.34 €	311.57 €	55%	23.11	54%	14.06	16.98	2.93	10,005.67 €	P5
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	133.25	90.45 €	312.08 €	54%	23.47	53%	13.88	16.76	2.89	9,696.17 €	P5
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	131.80	94.72 €	313.98 €	54%	23.22	54%	14.00	16.91	2.92	10,153.91 €	P5

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.37	94.74 €	249.49 €	58%	16.42	57%	10.79	13.24	2.33	10,155.85 €	P5
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	87.84	97.62 €	249.86 €	59%	16.16	58%	10.92	13.41	2.35	10,465.35 €	P5
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.85	103.25 €	250.38 €	60%	15.61	59%	11.17	13.73	2.41	11,068.62 €	P55
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.30	106.14 €	250.73 €	61%	15.34	60%	11.31	13.89	2.44	11,378.13 €	P55
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.53	92.32 €	252.28 €	57%	16.97	55%	10.51	12.90	2.27	9,896.80 €	P65
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.35	94.73 €	254.52 €	57%	16.95	56%	10.53	12.92	2.27	10,155.28 €	P5
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B 0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	90.83	97.62 €	254.90 €	57%	16.69	56%	10.				



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	125.96	79.58	294.40	71%	22.78	69%	27.53	32.73	5.56	8,530.60	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.06	76.69	294.86	70%	23.13	69%	27.34	32.51	5.52	8,221.10	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.69	93.34	304.46	71%	22.39	70%	27.73	32.98	5.60	10,005.67	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	125.80	90.45	304.94	71%	22.74	70%	27.54	32.75	5.56	9,696.17	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	121.39	97.62	305.00	72%	21.99	71%	27.93	33.22	5.64	10,465.35	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.51	94.74	305.48	71%	22.35	70%	27.74	33.00	5.60	10,155.85	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	123.84	94.72	306.08	71%	22.41	70%	27.72	32.96	5.60	10,153.91	P5
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	125.94	91.83	306.56	71%	22.77	69%	27.52	32.73	5.56	9,844.41	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	133.73	79.57	306.99	69%	24.11	68%	26.83	31.90	5.42	8,530.04	P7
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	135.82	76.68	307.44	69%	24.46	67%	26.64	31.68	5.38	8,220.54	P7
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	127.89	92.32	310.06	70%	23.09	69%	27.34	32.53	5.52	9,896.80	P6S
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.36	106.14	310.21	72%	21.64	71%	28.11	33.44	5.68	11,378.13	P5S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.62	76.69	244.20	71%	17.77	69%	21.24	25.22	4.28	8,221.10	P6S
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	96.02	79.58	244.53	71%	17.50	70%	21.38	25.39	4.31	8,530.60	P6S
3	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	103.49	76.68	253.69	69%	18.77	67%	20.71	24.59	4.17	8,220.54	P7
4	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	101.90	79.57	254.03	69%	18.50	68%	20.86	24.76	4.20	8,530.04	P7
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	95.86	90.45	255.06	71%	17.46	70%	21.39	25.41	4.31	9,696.17	P5
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.25	93.34	255.39	72%	17.19	70%	21.54	25.58	4.34	10,005.67	P5
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.07	94.74	256.41	72%	17.15	70%	21.55	25.60	4.34	10,155.85	P5
8	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	106.80	74.27	256.54	68%	19.33	66%	20.41	24.24	4.11	7,961.49	P7
9	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	95.97	91.83	256.63	71%	17.48	70%	21.38	25.40	4.31	9,844.41	P5
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	92.45	97.62	256.74	72%	16.88	71%	21.70	25.78	4.37	10,465.35	P5
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	94.36	94.72	256.96	72%	17.21	70%	21.53	25.57	4.34	10,153.91	P5
12	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	97.41	92.32	259.31	71%	17.71	69%	21.24	25.24	4.28	9,896.80	P6S

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.90	79.58	271.40	72%	20.30	72%	27.75	33.02	5.61	8,530.60	P6S
2	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.01	76.69	271.88	72%	20.66	72%	27.56	32.80	5.57	8,221.10	P6S
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	114.66	93.34	281.52	73%	19.92	73%	27.95	33.26	5.65	10,005.67	P5
4	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.78	90.45	282.02	73%	20.27	72%	27.76	33.04	5.61	9,696.17	P5
5	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	112.38	97.62	282.11	74%	19.52	73%	28.16	33.51	5.69	10,465.35	P5
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	114.51	94.74	282.63	73%	19.88	73%	27.96	33.28	5.66	10,155.85	P5
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	114.80	94.72	283.14	73%	19.94	73%	27.94	33.25	5.65	10,153.91	P5
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.92	91.83	283.64	72%	20.30	72%	27.75	33.02	5.61	9,844.41	P5
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	124.60	79.57	283.80	71%	21.61	70%	27.06	32.20	5.47	8,530.04	P7
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	126.70	76.68	284.26	70%	21.97	70%	26.87	31.97	5.43	8,220.54	P7
11	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	118.92	92.32	287.25	72%	20.63	72%	27.56	32.81	5.58	9,896.80	P6
12	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	110.36	106.14	287.36	74%	19.18	74%</					



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.78	51.17 €	176.75 €	37%	13.35	40%	3.90	6.46	1.43	8,187.25 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.31	55.43 €	178.32 €	38%	13.06	41%	4.07	6.69	1.48	8,868.43 €	P1
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	65.11	65.62 €	185.01 €	41%	12.70	43%	4.64	7.21	1.54	10,499.28 €	P1
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.71	68.85 €	185.79 €	42%	12.44	44%	4.81	7.43	1.58	11,016.46 €	P1
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	63.55	69.88 €	186.38 €	42%	12.40	44%	4.81	7.45	1.59	11,180.46 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	67.09	63.48 €	186.53 €	42%	13.09	41%	4.41	6.89	1.47	10,156.24 €	P15
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	62.15	73.11 €	187.15 €	44%	12.13	46%	4.99	7.68	1.63	11,697.64 €	P1
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.04	62.92 €	187.05 €	38%	13.25	41%	4.28	6.74	1.45	10,066.41 €	P1
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	66.48	67.17 €	188.81 €	40%	12.94	42%	4.45	6.99	1.50	10,747.59 €	P1
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	70.02	60.77 €	188.95 €	36%	13.64	39%	4.05	6.42	1.39	9,723.37 €	P15
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	69.70	65.62 €	193.34 €	37%	13.59	39%	4.10	6.47	1.39	10,498.47 €	P1
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	68.28	68.85 €	194.08 €	38%	13.33	40%	4.27	6.70	1.44	11,015.65 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	84.40	51.17 €	211.04 €	34%	17.03	36%	4.08	6.92	1.56	8,187.25 €	P1
2	EW_0	BASE	- €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.94	55.43 €	212.54 €	35%	16.74	37%	4.24	7.15	1.60	8,868.43 €	P1
3	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.57	65.62 €	214.82 €	39%	15.91	41%	5.02	8.01	1.74	10,499.28 €	P1
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	76.21	68.85 €	215.63 €	40%	15.65	42%	5.19	8.23	1.78	11,016.46 €	P1
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	76.05	69.88 €	216.23 €	40%	15.61	42%	5.20	8.25	1.79	11,180.46 €	P1
6	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	79.49	63.48 €	216.28 €	38%	16.29	39%	4.81	7.70	1.68	10,156.24 €	P15
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	74.67	73.11 €	217.01 €	41%	15.35	43%	5.36	8.47	1.83	11,697.64 €	P1
8	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.42	62.92 €	217.20 €	37%	16.45	39%	4.68	7.55	1.65	10,066.41 €	P1
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	78.90	67.17 €	218.61 €	38%	16.15	40%	4.85	7.80	1.70	10,747.59 €	P1
10	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.33	60.77 €	218.62 €	35%	16.83	37%	4.46	7.25	1.59	9,723.37 €	P15
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	82.01	65.62 €	222.99 €	36%	16.78	37%	4.51	7.30	1.60	10,498.47 €	P1
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	80.63	68.85 €	223.78 €	37%	16.52	38%	4.68	7.52	1.64	11,015.65 €	P1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.50	66.34 €	242.39 €	50%	18.84	49%	8.07	13.14	2.89	10,615.07 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	93.26	49.24 €	244.04 €	44%	20.84	43%	7.01	11.58	2.57	7,878.38 €	P35
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.31	63.63 €	248.78 €	47%	19.81	46%	7.53	12.37	2.73	10,181.39 €	P2
4	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	92.86	56.75 €	250.47 €	44%	20.73	44%	7.02	11.64	2.58	9,080.59 €	P2
5	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	91.39	59.46 €	250.51 €	45%	20.44	45%	7.20	11.88	2.63	9,513.46 €	P35
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.93	62.69 €	250.99 €	46%	20.15	45%	7.36	12.11	2.68	10,030.64 €	P35
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.40	66.68 €	252.01 €	47%	19.83	46%	7.52	12.35	2.73	10,668.59 €	P25
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.40	69.58 €	254.91 €	47%	19.83	46%	7.52	12.35	2.73	11,132.25 €	P4
9	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	89.79	67.03 €	254.97 €	46%	20.11	45%	7.37	12.13	2.68	10,724.89 €	P35
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	88.31	70.26 €	255.41 €	47%	19.81	46%	7.53	12.37	2.73	11,242.07 €	P35
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.28	79.01 €	256.43 €	49%	18.99						



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SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	71.69	66.34 €	191.58 €	55%	13.29	55%	10.55	14.01	2.65	10,615.07 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.15	49.24 €	195.41 €	47%	15.51	48%	8.95	12.02	2.30	7,878.38 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.96	63.63 €	199.29 €	51%	14.40	52%	9.73	13.01	2.47	10,181.39 €	P2
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	81.95	59.46 €	201.91 €	49%	15.12	49%	9.23	12.37	2.36	9,513.46 €	P3S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	80.04	62.69 €	201.95 €	50%	14.78	51%	9.48	12.68	2.41	10,030.64 €	P3S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.92	56.75 €	202.32 €	47%	15.45	48%	8.96	12.06	2.31	9,080.59 €	P2
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.08	66.68 €	202.54 €	51%	14.42	52%	9.72	12.99	2.47	10,668.59 €	P2S
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	78.08	69.58 €	205.44 €	51%	14.42	52%	9.72	12.99	2.47	11,132.25 €	P4
9	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	96.79	40.49 €	205.64 €	39%	17.51	41%	7.14	10.00	1.98	6,478.63 €	P2S
10	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	79.89	67.03 €	205.90 €	50%	14.74	51%	9.48	12.70	2.42	10,724.89 €	P3S
11	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.96	70.26 €	205.92 €	51%	14.40	52%	9.73	13.01	2.47	11,242.07 €	P4
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.96	71.72 €	207.38 €	51%	14.40	52%	9.73	13.01	2.47	11,475.29 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	101.71	66.34 €	247.89 €	50%	19.29	50%	12.32	16.20	3.04	10,615.07 €	P4
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.68	49.24 €	258.21 €	42%	22.20	42%	10.31	13.65	2.57	7,878.38 €	P3S
3	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.77	63.63 €	258.92 €	46%	20.75	46%	11.29	14.91	2.81	10,181.39 €	P2
4	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.92	66.68 €	262.22 €	46%	20.78	46%	11.28	14.89	2.80	10,668.59 €	P2S
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.27	62.69 €	262.35 €	45%	21.21	45%	10.99	14.51	2.73	10,030.64 €	P3S
6	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	114.70	59.46 €	263.26 €	43%	21.65	43%	10.68	14.12	2.66	9,513.46 €	P3S
7	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	117.29	56.75 €	264.86 €	42%	22.11	42%	10.34	13.71	2.59	9,080.59 €	P2
8	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.92	69.58 €	265.12 €	46%	20.78	46%	11.28	14.89	2.80	11,132.25 €	P4
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.77	70.26 €	265.55 €	46%	20.75	46%	11.29	14.91	2.81	11,242.07 €	P3S
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	104.43	79.01 €	266.24 €	49%	19.90	48%	12.06	15.77	2.94	12,641.48 €	P4S
11	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_13	1.43	25.87 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	112.23	67.03 €	266.51 €	45%	21.19	45%	10.98	14.52	2.74	10,724.89 €	P3S
12	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.77	71.72 €	267.01 €	46%	20.75	46%	11.29	14.91	2.81	11,475.29 €	P4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€m ²)	Life Cycle Cost (€m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	109.78	66.34 €	245.02 €	54%	18.90	54%	16.74	20.48	3.58	10,615.07 €	P4
2	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.51	63.63 €	259.76 €	49%	20.75	50%	15.31	18.76	3.29	10,181.39 €	P2
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_16	2.42	43.36 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	111.85	79.01 €	261.49 €	53%	19.31	53%	16.50	20.15	3.52	12,641.48 €	P4S
4	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	NO REDUCTION	- €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	130.76	49.24 €	262.11 €	45%	22.52	45%	13.95	17.12	3.01	7,878.38 €	P3S
5	EW_27	0.70	9.88 €	W_21	BASE	BASE	BASE	- €	B_17	1.43	19.85 €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.70	66.68 €	263.11 €	49%	20.78	50%	15.29	18.73	3.28	10,668.59 €	P2S
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_8	0.93	10.73 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	123.69	62.69 €	264.05 €	48%	21.30	48%	14.89	18.26	3.20	10,030.64 €	P3S
7	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	120.70	69.58 €	266.01 €	49%	20.78	50%	15.2				



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS			
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	158.65	66.34	323.10	50%	27.15	50%	21.00	25.41	4.39	10,615.07	€	P4
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	162.95	70.26	338.00	49%	28.34	48%	20.75	24.72	4.20	11,242.07	€	P4
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 16	2.42	43.36	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	160.55	79.01	339.08	49%	27.50	50%	20.77	25.10	4.34	12,641.48	€	P4
4	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	171.97	63.63	341.95	46%	29.43	46%	19.22	23.27	4.03	10,181.39	€	P2
5	EW_27	0.70	9.88	W_21	BASE	BASE	BASE	-	€	B 17	1.43	19.85	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	172.20	66.68	345.37	46%	29.47	46%	19.19	23.24	4.02	10,668.59	€	P2
6	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	167.43	67.04	345.61	47%	29.50	46%	20.44	24.00	4.02	10,725.70	€	P4
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	175.90	62.69	347.42	45%	30.11	45%	18.70	22.65	3.92	10,030.64	€	P3
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	172.20	69.58	348.27	46%	29.47	46%	19.19	23.24	4.02	11,132.25	€	P4
9	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 13	1.43	25.87	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	171.97	70.26	348.58	46%	29.43	46%	19.22	23.27	4.03	11,242.07	€	P3
10	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 8	0.93	10.73	NO REDUCTION	-	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	184.95	49.24	348.64	42%	31.66	42%	17.49	21.20	3.67	7,878.38	€	P3
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	171.97	71.72	350.04	46%	29.43	46%	19.22	23.27	4.03	11,475.29	€	P4
12	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 8	0.93	10.73	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS	-	179.90	59.46	350.67	43%	30.80	44%	18.17	22.01	3.81	9,513.46	€	P3

Table 113- POS of the SFH21 building in all climates

This last POS is for MFH1 where the climates W1S2, W2S2, W2S3 and W3S2 are avoid because they were calculated previously and they are the POS13, POS14, POS15 and POS16 respectively.

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS					
1	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	56.87	10.72	125.10	9%	12.22	7%	6.08	7.73	1.41	15,442.16	€	P14				
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	50.76	30.41	131.30	18%	10.77	18%	10.79	16.53	3.49	43,796.93	€	P14		
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	50.76	30.42	131.30	18%	10.79	18%	10.79	16.53	3.49	43,799.55	€	P13		
4	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS COVER 50%	90.00	50.99	30.74	131.97	18%	10.81	18%	10.51	16.20	3.44	44,266.79	€	P14		
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	3	17.00	NO SHADING ELEMENTS	-	56.64	19.95	133.94	9%	12.18	8%	6.34	8.06	1.46	28,731.40	€	P13		
6	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	51.14	41.59	142.34	18%	10.75	18%	9.81	15.99	3.51	59,891.35	€	P13			
7	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	50.66	43.79	144.53	19%	10.76	18%	10.94	16.68	3.51	63,056.06	€	P13		
8	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	45.90	52.24	144.83	26%	9.89	25%	16.36	23.54	4.75	75,230.32	€	P13
9	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	47.52	50.74	146.03	24%	10.18	23%	14.43	21.19	4.34	73,067.52	€	P14	
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	3	17.00	NO SHADING ELEMENTS	-	56.13	33.79	146.83	10%	12.08	8%	6.88	8.80	1.61	48,661.96	€	P13			
11	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	3	17.00	NO SHADING ELEMENTS	-	55.31	35.36	146.88	11%	11.92	10%	7.71	9.98	1.84	50,911.85	€	P13		
12	EW_27	0.70	9.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	49.03	51.77	149.89	21%	10.48	21%	12.91	19.02	3.91	74,552.14	€	P14	

W0S3

SOLUTIONS	External Wall	ΔThermal Resistance [m²K/W]	Cost (€/m² wall)	Glazings	U _a [W/m²K]	U _i [W/m²K]	g [Solar Factor]	Cost (€/m² window)	Slabs on the ground/external	ΔThermal Resistance [m²K/W]	Cost (€/m² slab)	Roof	ΔThermal Resistance [m²K/W]	Cost (€/m² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m² windows)	Primary Energy Consumption (kWh/m²)	Initial Investment (€)	Life Cycle Cost (€/m²)	Primary Energy Savings %	CO ₂ Emissions (kg/m²)	CO ₂ Savings %	Total Final Energy Savings per Year (MWh)	Total Primary Energy Savings per Year (MWh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS				
1	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	62.73	52.24	186.28	33%	14.35	34%	25.11	44.99	10.43	75,230.32	€	P13		
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	73.23	30.41	186.59	22%	16.72	23%	16.24	29.86	7.02	43,796.93	€	P14	
3	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	73.23	30.42	186.59	22%	16.72	23%	16.24	29.86	7.02	43,799.55	€	P13	
4	EW_28	1.16	12.16	W_18	2.7	3.5	0.77	62.11	B 0	BASE	-	TR 4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	NO SHADING ELEMENTS COVER 50%	90.00	73.69	30.74	187.83	22%	16.82	22%	15.82	29.20	6.88	44,266.79	€	P14	
5	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	NO IMPROVEMENT	-	€	NO IMPROVEMENT	-	€	85.06	10.72	194.43	9%	19.69	9%	8.16	12.83	2.75	15,442.16	€	P14		
6	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	61.42	66.33	197.63	35%	14.06	35%	26.23	46.87	10.86	95,515.96	€	P14		
7	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	69.32	47.89	198.15	26%	16.10	25%	21.24	35.49	7.92	68,966.32	€	P13		
8	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B 0	BASE	-	TR 0	BASE	-	50% REDUCTIONS + WINDOWS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	68.75	50.74	198.27	27%	15.80	27%	20.60	36.31	8.35	73,067.52	€	P14
9	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	NO IMPROVEMENT	-	€	3	17.00	SHADING ELEMENTS COVER 50%	90.00	73.03	43.79	199.60	22%	16.69	23%	16.44	30.15	7.08	63,056.06	€	P13	
10	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	€	B 0	BASE	-	FR 2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	64.63	62.70	200.71	31%	14.78									



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	74.18	52.24 €	204.68 €	42%	16.30	40%	51.19	75.99	15.70	75,230.32 €	P13
2	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	71.87	66.33 €	214.42 €	43%	15.84	42%	53.50	79.31	16.36	95,515.96 €	P14
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	80.77	47.89 €	216.55 €	36%	18.05	34%	47.31	66.50	13.18	68,966.32 €	P13
4	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	77.66	54.17 €	216.99 €	39%	17.42	36%	50.46	70.97	14.08	78,006.26 €	P14
5	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	92.47	30.41 €	217.60 €	27%	20.00	26%	32.95	49.65	10.37	43,796.93 €	P14
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	92.47	30.42 €	217.60 €	27%	20.00	26%	32.95	49.65	10.37	43,796.93 €	P14
7	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	93.37	30.74 €	219.56 €	26%	20.18	26%	32.00	48.36	10.12	44,266.79 €	P14
8	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	77.34	62.70 €	221.15 €	39%	16.94	38%	48.03	71.43	14.77	90,285.95 €	P14
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	72.13	75.11 €	223.68 €	43%	15.89	42%	53.25	78.94	16.29	108,157.91 €	P14
10	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	85.26	50.74 €	224.58 €	33%	18.58	32%	40.39	60.03	12.41	73,067.52 €	P14
11	EW_26	1.47	14.88 €	W_8	0.6	1.3	0.26	346.16 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	73.26	77.89 €	228.56 €	42%	16.11	41%	52.08	77.31	15.97	112,168.10 €	P14
12	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	91.98	43.79 €	230.14 €	28%	19.91	27%	33.50	50.35	10.49	63,056.06 €	P13

W1S4

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	75.68	54.17 €	179.05 €	53%	13.22	52%	105.83	124.39	20.85	78,006.26 €	P14
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	79.24	52.24 €	181.41 €	51%	13.67	51%	100.46	119.26	20.21	75,230.32 €	P13
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	81.08	47.89 €	181.60 €	50%	14.15	49%	99.40	116.61	19.51	68,966.32 €	P13
4	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	75.29	66.33 €	189.09 €	54%	12.99	53%	105.21	124.95	21.19	95,515.96 €	P14
5	EW_28	1.16	12.16 €	W_15	2.6	3.5	0.77	229.77 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	84.35	59.56 €	198.49 €	48%	14.71	47%	95.41	111.90	18.71	85,763.64 €	P14
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.80	75.11 €	199.07 €	53%	13.12	53%	104.88	124.22	21.00	108,157.91 €	P14
7	EW_28	1.16	12.16 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	0.5	40.00 €	SHADING ELEMENTS COVER 50%	90.00 €	84.38	62.70 €	200.26 €	48%	14.55	47%	94.34	111.86	18.93	90,285.95 €	P14
8	EW_26	1.47	14.88 €	W_8	0.6	1.3	0.26	346.16 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	77.84	77.89 €	204.73 €	52%	13.42	52%	102.10	121.27	20.57	112,168.10 €	P14
9	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	108.86	30.41 €	207.14 €	33%	18.69	33%	64.59	76.61	12.97	43,796.93 €	P14
10	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	108.86	30.42 €	207.14 €	33%	18.69	33%	64.59	76.61	12.97	43,796.93 €	P14
11	EW_28	1.16	12.16 €	W_18	2.7	3.5	0.77	62.11 €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	NO IMPROVEMENT	- €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	110.45	30.74 €	210.01 €	32%	18.96	32%	62.65	74.31	12.59	44,266.79 €	P14
12	EW_26	1.47	14.88 €	W_14	1.4	1.3	0.58	129.57 €	B_0	BASE	- €	TR_0	BASE	- €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	99.91	50.74 €	212.30 €	38%	17.08	38%	74.85	89.49	15.29	73,067.52 €	P14

W2S0

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _e [W/m ² K]	U _i [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	TR_4	3.75	37.29 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	74.57	54.17 €	176.27 €	54%	12.92	53%	106.69	126.12	21.28	78,006.26 €	P14
2	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	NO SHADING ELEMENTS	- €	79.96	47.89 €	178.79 €	51%	13.85	50%	100.27	118.37	19.94	68,966.32 €	P13
3	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	78.66	52.24 €	179.93 €	51%	13.51	51%	101.02	120.23	20.44	75,230.32 €	P13
4	EW_2	2.22	44.00 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTIONS + WINDOWS	15.27 €	0.42	2,095.39 €	3	17.00 €	SHADING ELEMENTS COVER 50%	90.00 €	74.71	66.33 €	187.62 €	54%	12.83	54%	105.76	125.91	21.41	95,515.96 €	P14
5	EW_28	1.16	12.16 €	W_15	2.6	3.5	0.77	229.77 €	B_0	BASE	- €	FR_3	2.35	28.78 €	50% REDUCTION CONTOURS	15.26 €	0.42	2,095.39 €	NO IMPROVEMENT	- €	NO SHADING ELEMENTS	- €	83.24	59.56 €	195.71 €	49%	14.41	48%	96.27	113.63	19.14	85,763.64 €	P14
6	EW_26	1.47	14.88 €	W_21	BASE	BASE	BASE	- €	B_0	BASE	- €	FR_2	1.47	24.49 €	50% REDUCTION CONTOURS	15.26 €	0.24	5,245.29 €	NO IMPROVEMENT	- €	SHADING ELEMENTS COVER 50%	90.00 €	75.11	75.11 €	197.33 €	54%	12.93						



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement n. 785072

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	124.63	54.17	264.74	51%	22.32	49%	157.48	184.40	30.79	78,006.26	P15
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	128.29	52.24	265.33	49%	22.56	48%	150.60	179.14	30.43	75,230.32	P16
3	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	122.43	66.33	269.85	52%	21.55	51%	157.58	187.57	31.89	95,515.96	P15
4	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.03	62.20	278.37	49%	22.91	48%	153.45	179.50	29.93	89,570.49	P15
5	EW_2	2.22	44.00	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	128.03	63.98	280.15	49%	22.91	48%	153.45	179.50	29.93	92,130.83	P15
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.24	5,245.29	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	123.16	75.11	280.68	51%	21.77	50%	157.35	186.53	31.57	108,157.91	P15
7	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	135.90	62.70	288.33	46%	23.89	45%	141.61	168.17	28.52	90,285.95	P15
8	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	131.28	70.72	292.38	48%	23.49	46%	149.73	174.83	29.09	101,830.61	P15
9	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	132.29	78.69	298.42	48%	23.27	47%	145.91	173.38	29.41	113,314.24	P15
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_0	BASE	-	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	159.21	50.74	311.84	37%	27.63	37%	111.95	134.61	23.13	73,067.52	P15
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	3	17.00	SHADING ELEMENTS COVER 50%	90.00	173.07	30.41	315.41	32%	30.17	31%	96.36	114.66	19.48	43,796.93	P16
12	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	159.21	59.53	320.63	37%	27.63	37%	111.95	134.61	23.13	85,724.86	P15

W3S1

SOLUTIONS	External Wall	ΔThermal Resistance [m ² K/W]	Cost (€/m ² wall)	Glazings	U _g [W/m ² K]	U _f [W/m ² K]	g (Solar Factor)	Cost (€/m ² window)	Slabs on the ground/external	ΔThermal Resistance [m ² K/W]	Cost (€/m ² slab)	Roof	ΔThermal Resistance [m ² K/W]	Cost (€/m ² roof)	Thermal Bridge Reduction	Cost (€/m ² contours)	Ventilation (Ren/h)	Cost (€/Dwelling)	Air Tightness (n50)	Cost (€/m ² contours)	Shading Elements on Windows (Solar Factor)	Cost (€/m ² windows)	Primary Energy Consumption (kWh/m ²)	Initial Investment (€/m ²)	Life Cycle Cost (€/m ²)	Primary Energy Savings %	CO ₂ Emissions (kg/m ²)	CO ₂ Savings %	Total Final Energy Savings per Year (Mwh)	Total Primary Energy Savings per Year (Mwh)	Total CO ₂ Savings per Year (Tn)	Total Cost	POS
1	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	B_0	BASE	-	TR_4	3.75	37.29	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	116.63	54.17	244.98	53%	20.19	52%	159.54	188.71	31.86	78,006.26	P15
2	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	122.71	52.24	251.52	50%	21.08	50%	151.22	179.95	30.58	75,230.32	P16
3	EW_2	2.22	44.00	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	SHADING ELEMENTS COVER 50%	90.00	116.95	66.33	256.28	53%	20.09	53%	158.14	188.25	32.00	95,515.96	P15
4	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.96	62.20	258.45	52%	20.76	51%	155.55	183.90	31.03	89,570.49	P15
5	EW_2	2.22	44.00	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	NO SHADING ELEMENTS	-	119.96	63.98	260.23	52%	20.76	51%	155.55	183.90	31.03	92,130.83	P15
6	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTION CONTOURS	15.26	0.24	5,245.29	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	117.06	75.11	265.62	53%	20.15	52%	158.27	188.08	31.91	108,157.91	P15
7	EW_2	2.22	44.00	W_18	2.7	3.5	0.77	62.11	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	3	17.00	NO SHADING ELEMENTS	-	123.05	70.72	272.07	50%	21.31	50%	151.93	179.46	30.25	101,830.61	P15
8	EW_28	1.16	12.16	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	130.12	62.70	274.04	47%	22.35	47%	142.35	169.27	28.74	90,285.95	P15
9	EW_26	1.47	14.88	W_19	2.7	1.43	0.77	116.17	B_0	BASE	-	FR_2	1.47	24.49	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	0.5	40.00	SHADING ELEMENTS COVER 50%	90.00	126.57	78.69	284.27	49%	21.74	49%	146.62	174.39	29.62	113,314.24	P15
10	EW_26	1.47	14.88	W_14	1.4	1.3	0.58	129.57	B_0	BASE	-	TR_0	BASE	-	50% REDUCTION CONTOURS	15.26	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	155.21	50.74	301.58	37%	26.52	37%	111.98	133.14	22.74	73,067.52	P15
11	EW_26	1.47	14.88	W_21	BASE	BASE	BASE	-	B_0	BASE	-	FR_3	2.35	28.78	50% REDUCTION CONTOURS	15.26	NO IMPROVEMENT	-	3	17.00	SHADING ELEMENTS COVER 50%	90.00	167.65	30.41	302.00	32%	28.72	32%	96.89	115.24	19.57	43,796.93	P16
12	EW_26	1.47	14.88	W_13	1.4	1.43	0.58	184.83	B_0	BASE	-	TR_0	BASE	-	50% REDUCTIONS + WINDOWS	15.27	0.42	2,095.39	NO IMPROVEMENT	-	SHADING ELEMENTS COVER 50%	90.00	155.21	59.53	310.37	37%	26.52	37%	111.98	133.14	22.74	85,724.86	P15

W4S0

Table 114- POS of the MFH1 building in all remaining climates