Life ReHABITA

Extract of the project data from the LIFE KPI Webtool

Deliverable D1.2: Extract of the project data from the LIFE KPI webtool

Author: EuroVértice

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Review: -

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1. Extract from the KPI webtool

LIFE CET Indicators	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
1. Primary Energy Savings (GWh/year)	0,182	1,202	0,882	0,181	0,626	**3,073**	**21,584**
Residential buildings	*0,182*	*1,202*	*0,882*	*0,181*	*0,626*	*3,073*	*21,584*
2. Final Energy Savings (GWh/year)	0,096	0,660	0,744	0,164	0,480	**2,144**	**15,060**
Residential buildings	*0,096*	*0,660*	*0,744*	*0,164*	*0,480*	*2,144*	*15,060*
3. Renewable Energy Generation (GWh/year)	0	0	0	0	0	**0**	**0**
Residential buildings	*0*	*0*	*0*	*0*	*0*	*0*	*0*
4. GHG emissions (tCO2eq/year)	19,68	240,42	16,15	3,77	199,56	**479,58**	**2877,48**
Residential buildings	*19,68*	*240,42*	*16,15*	*3,77*	*199,56*	*479,58*	*2877,48*
5. Investments in sustainable energy (mEUR)	2,05	1,55	1,55	0,8	0,83	**6,78**	**40,68**
Residential buildings	*2*	*1,5*	*1,5*	*0,75*	*0,78*	*6,53*	*39,18*
Other public assets/investments	*0,05*	*0,05*	*0,05*	*0,05*	*0,05*	*0,25*	*1,5*
6. Legislation & policy (No. documents)	1	1	1	1	1	**5**	**20**
7. Market introduction (No. products/processes/methods)	N/A	N/A	N/A	N/A	N/A	**1**	**1**
8. Implementation sites (No. real-life sites)	1	1	1	1	1	**20**	**100**
9. Skills (No. of people trained)	20	20	20	20	20	**400**	**2000**
10. Communication (No. of people)	19500	1500	10000	12200	18300	**61500**	**61500**
11. Employment (FTE)	N/A	N/A	N/A	N/A	N/A	**7,5**	**15**

1.1   KPI 1 – Primary Energy Savings

Primary energy savings are calculated from Final energy savings (see section 1.2).

Conversion factor from electricity from the grid has been obtained from the Annex IV of the Energy Efficiency Directive, where the value as of January 2024 was 1.9. This value only applies for Lorca (Spain), as dwellings only consume electricity from the grid and have no additional heating systems.

Conversion factor for countries with electricity and heating has been calculated based on the latest data published in Eurostat[1] for complete energy balances:

	Primary energy consumption (PEC2020-2030) Year 2021	Final energy consumption (FEC2020-2030) Year 2021	Conversion factor (PEC2020-2030)/(FEC2020-2030) Year 2021
Bulgaria	18 565.682	10 197.429	1.821
Croatia	8 265.079	6 969.966	1.186
Latvia	4 466.727	4 057.443	1.101
Romania	33 089.660	25 372.688	1.304

Applying those conversion factors to the Final Energy Savings, we have estimated the Primary Energy Savings expected by the project:

KPI 1 – Primary Energy Savings	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Total Final Energy Savings (MWh/year)	96	660	744	164	480	**2 144**	**15 060**

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[1] https://ec.europa.eu/eurostat/databrowser/view/NRG_BAL_C__custom_6200326/bookmark/table?lang=en&bookmarkId=dea184ea-4883-453d-ba24-71e960a4f161

KPI 1 – Primary Energy Savings	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Conversion factor	1.9	1.821	1.186	1.101	1.304	-	-
Primary Energy Savings (MWh/year)	**182.4**	**1 202**	**882**	**181**	**626**	**3 073**	**21 584**

1.2   KPI 2 – Final Energy Savings

During the project, 500 dwellings will be renovated to improve their energy performance; that is, 100 dwellings per country. In addition, the ReHabita Offices will continue the support given to citizens and beyond 5 years it is anticipated that 3 000 dwellings will be renovated (around 600 dwellings per country).

In order to calculate the energy savings for the families whose houses will be renovated, the municipal social services have provided information on the average energy consumption of vulnerable families for both electricity and heating supply. Based on these data, the poor insulation of the dwellings in the target neighbourhoods, and the experience of the project partners in energy renovation projects, the percentages of expected energy savings have been defined for both electricity and heating consumption.

1.2.1 Electricity savings

Final Energy Savings - Electricity	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Dwellings to be renovated	100	100	100	100	100	500	3 000
Average electricity consumption per vulnerable household (MWh/year)	2.4	6.0	2.4	1.2	3.0	3.0	3.0
Electricity consumption of the dwellings to be renovated (MWh/year)	240	600	240	120	300	1 500	9 000

Final Energy Savings - Electricity	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Expected electricity consumption savings achieved by the project (%)	40%	10%	10%	10%	40%	22%	22%
Expected electricity savings achieved by the project (MWh/year)	**96**	**60**	**24**	**12**	**120**	**312**	**1 980**

1.2.2 Heating savings

Final Energy Savings - Heating	Lorca (Spain)*	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Dwellings to be renovated	100	100	100	100	100	500	3 000
Average heating consumption per vulnerable household (MWh/year)	0	12	12	7.6	12	10.9	10.9
Heating consumption of the dwellings to be renovated (MWh/year)	0	1 200	1 200	760	1 200	4 360	26 160
Expected heating consumption savings achieved by the project (%)	0	50%	60%	20%	30%	40%	40%
Expected heating savings achieved by the project (MWh/year)	**0**	**600**	**720**	**152**	**360**	**1 832**	**13 080**

*As Lorca buildings do not have heating systems, there are no indicators for this municipality.

1.2.3 Total Final Energy Savings

KPI 2 – Final Energy Savings	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Electricity - Expected energy savings achieved by the project (MWh/year)	96	60	24	12	120	312	1980
Heating - Expected energy savings achieved by the project (MWh/year)	0	600	720	152	360	1 832	13 080
Final Energy Savings (MWh/year)	**96**	**660**	**744**	**164**	**480**	**2 144**	**15 060**

1.3   KPI 3 – Renewable Energy Generation

The LIFE ReHABITA project does not foresee the generation of renewable energy.

KPI 3 – Renewable Energy Generation	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Expected renewable energy generated during the project (MWh/year)	**0**	**0**	**0**	**0**	**0**	**0**	**0**

1.4   KPI 4 – GHG Emissions

To calculate this KPI we have applied official conversion factors to both electricity and heating savings.

For electricity, we have used the latest data of the greenhouse gas emission intensity of electricity generation published by the Energy Agency of Europe[2].

For heating, the most common fuel used in Romania is coal, in Croatia and Latvia is wood, and in Bulgary they usually have mixed systems of wood (25%) and coal (75%).

The conversion factors have been obtained from the Spanish Regulation on Thermal Installations in Buildings (RITE)[3], being 0.472 tCO2/MWh for coal and 0.018 tCO2/MWh for wood.

KPI 4 – GHG Emissions	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Electricity - Expected energy savings achieved by the project (MWh/year)	96	60	24	12	120	312	1 980
Conversion factor for electricity (tCO2eq/MWh, 2022)	0.205	0.422	0.133	0.086	0.247	-	-
GHG emissions savings for electricity (tCO2eq/MWh)	19.68	25.32	3.19	1.03	29.64	78.86	473.18
Heating - Expected energy savings achieved by the project (MWh/year)	0	600	720	152	360	1 832	13 080

[2] https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emission-intensity-of-1

[3] https://www.miteco.gob.es/content/dam/miteco/es/energia/files-1/Eficiencia/RITE/documentosreconocidosrite/Otros%20documentos/Factores_emision_CO2.pdf

KPI 4 – GHG Emissions	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Conversion factor for heating (tCO2eq/MWh)	N/A	0.359	0.018	0.018	0.472	-	-
GHG emissions savings for heating (tCO2eq)	0	215.10	12.96	2.74	169.92	400.72	2 404.30
Total GHG emissions savings (tCO2eq/year)	**19.68**	**240.42**	**16.15**	**3.77**	**199.56**	**479.58**	**2 877.48**

1.5 KPI 5 – Investments in sustainable energy

The average cost of a home renovation has been estimated in each municipality based on the previous knowledge of the local project beneficiaries.

Besides the renovation costs of the 500 dwellings, it is expected that each municipality implement a climate shelter as part of their SECAPs, with an estimated cost of 50 000 €.

KPI 5 – Investments in sustainable energy	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of dwellings to be renovated	100	100	100	100	100	500	3 000
Average cost of a home renovation (€)	20 000	15 000	15 000	7 500	7 800		
Total renovation costs (M €)	2.0	1.5	1.5	0.75	0.78	6.53	39.18
Climate shelter costs (M €)	0.05	0.05	0.05	0.05	0.05	0.25	1.5
Investment in sustainable energy triggered by the project (M€)	**2.05**	**1.55**	**1.55**	**0.8**	**0.83**	**6.78**	**40.68**

1.6   KPI 6 – Legislation & policy

During the project implementation, the 5 project municipalities will implement local policies to address energy poverty in their territories.

In addition, it is expected that the 15 replicating municipalities implement also local policies based on the project recommendations.

KPI 6 – Legislation & policy	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of local policies implemented	1	1	1	1	1	5	20

1.7   KPI 7 – Market introduction

The LIFE ReHABITA project will develop a methodology for the creation of a roadmap to fight energy poverty. Technical partners will thus be able to replicate this methodology in other municipalities of their clientele.

KPI 7 – Market introduction	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of products, processes and methods launched into the market by the project	N/A	N/A	N/A	N/A	N/A	1	1

1.8   KPI 8 - Implementation sites

The LIFE ReHABITA project will be implemented in the 5 project municipalities and in the 15 replication sites.

5 years beyond, it is expected that at least 100 municipalities will benefit from the experiences of the project, replicating part of its activities in their territories.

KPI 8 – Implementation sites	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of the project implementation sites	1	1	1	1	1	20	100

1.9   KPI 9 – Skills

During the LIFE ReHABITA project, it is expected that at least 20 stakeholders per municipality (including the replication sites) increase their knowledge on energy poverty and take an active role in the development of the energy poverty roadmaps in their territories.

5 years beyond the end of the project, it is also expected that 20 stakeholders increase their skills on energy issues in the 100 replicating municipalities.

KPI 9 – Skills	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of stakeholders trained	20	20	20	20	20	400	2 000

1.10 KPI 10 – Communication

Only taking into account the followers of the different social media channels of the project partners (LinkedIn and Facebook), the LIFE ReHABITA will reach 61 500 profiles.

KPI 10 – Communication	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of stakeholders reached through media	19 500	1 500	10 000	12 200	18 300	61 500	61 500

1.11 KPI 11 – Employment

The project beneficiaries will spend a total of 368 PM to implement all the project activities foreseen. As the project will last for 4 years, this can be translated in 7.5 FTE.

5 years beyond it is expected that this indicator will double its value.

KPI 11 – Employment	Lorca (Spain)	Plovdiv (Bulgaria)	Gospic (Croatia)	Saldus (Latvia)	Ploiesti (Romania)	Project end value	5 years beyond
Number of FTE created	N/A	N/A	N/A	N/A	N/A	7.5	15