

# EMPOWER

## Interreg Europe



European Union  
European Regional  
Development Fund

## Newsletter #10

August 2022

### More Carbon Reduction by Dynamically Monitoring Energy Efficiency

#### IN THIS EDITION .....

Dear Reader,

welcome to EMPOWER's last Newsletter.

We would like to inform you that the EMPOWER project is coming to an end with the month of August 2022 and that this is the last Newsletter of this project. We would like to thank you for following our activities and the results we achieved together within the whole duration of a project.

In the last project Newsletter, the EMPOWER partners are delighted to present to you the results of their actions in the last year. Despite the dramatic and unprecedented situations (climatic, sanitary and war crises in Ukraine), the partners were able to strengthen their cooperation and join efforts in order to achieve more carbon reduction and to improve low-carbon economy policies with the identification of energy monitoring, smart technology and behaviour change initiatives of good practices and also to identify and reduce energy poverty.

Follow us still on [www.interregeurope.eu/empower](http://www.interregeurope.eu/empower)

We hope you enjoy reading and goodbye!

- EMPOWER achieved results
- EMPOWER Guide to good practices
- Partners & Contacts

#### EMPOWER AT A GLANCE

EMPOWER aims to reduce carbon output by dynamically monitoring energy efficiency in buildings, with special focus on the use of innovative financial instruments.



Read more about EMPOWER at:  
[www.interregeurope.eu/empower](http://www.interregeurope.eu/empower)



## Empower achieved results

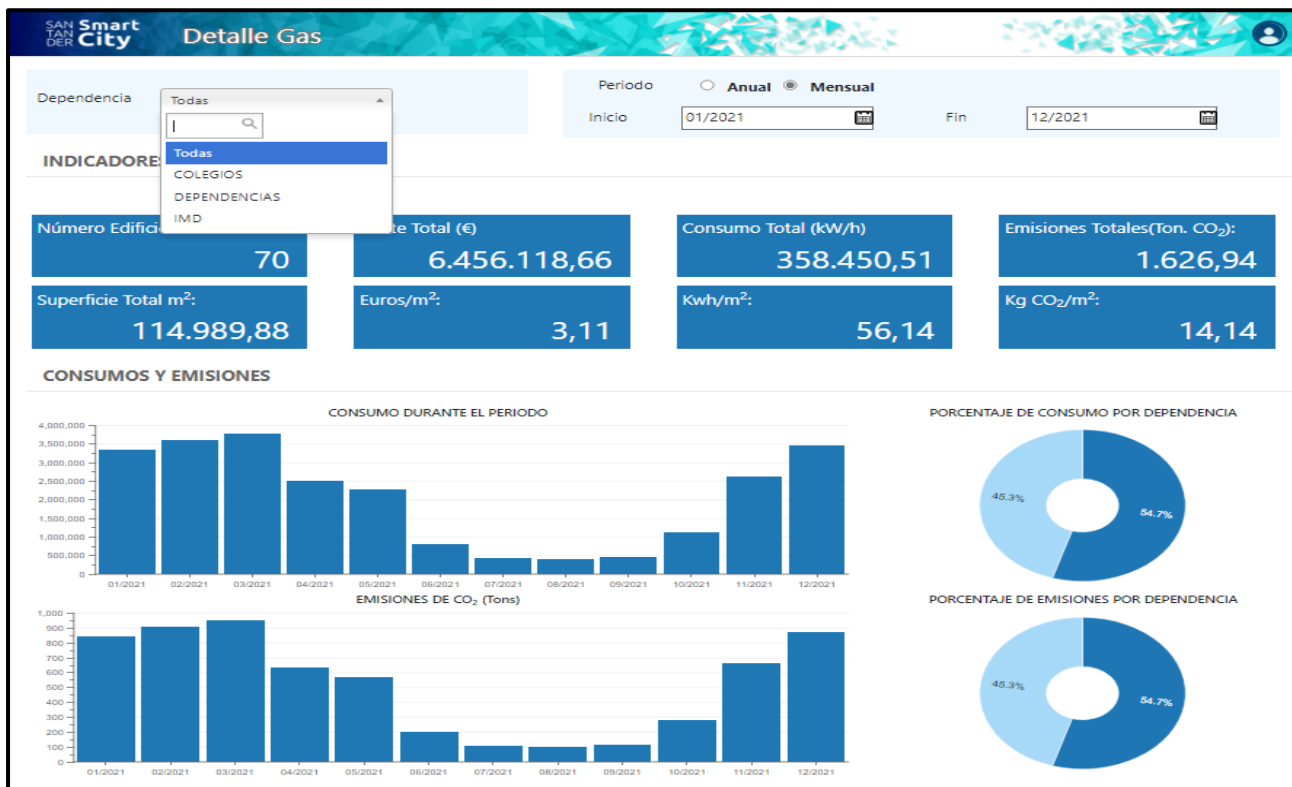
The main objective of the project is to reduce CO<sub>2</sub> emissions from buildings using energy monitoring tools, innovative technology and effective energy management. All partners had aimed to reduce carbon emissions from buildings also addressing the challenge of energy poverty that has been exacerbated by the COVID-19 pandemic. Below you can find some of the achieved results from project partners.

### SANTANDER project results

The EMPOWER project has enabled a real breakthrough in the municipal energy domain by the implementation of a cost-effective Energy Monitoring system for public buildings. This system enables to establish and maintain a long-term energy consumption (kWh), energy cost (€) and environmental impact (Ton.CO<sub>2</sub>) for municipal facilities, as well as to make benchmarking among buildings of the same category through KPIs, such as energy consumption per square meter. Thanks to the data granularity, more in-depth monitoring is possible, facilitating the detection of latent unwanted or off-hour consumption.

Furthermore, a more efficient and user-friendly management of electricity and gas invoices has achieved, leaving paper bills behind, facilitating the visualisation of the monthly and annual evolution of the invoices of each individual building and by group of buildings, as well as the comparison of the monthly invoices.

Finally, the historical energy data available in this monitoring system supports improved decision making for future energy efficiency measures. Indeed, the energy performance of a group of 46 municipal buildings on which several energy efficiency measures were carried out has been assessed quantifying the savings achieved in terms of energy consumption and cost, as well as CO<sub>2</sub> emissions, and comparing the actual savings with the estimated ones.



Natural gas dashboard for municipal buildings

## FINAL ACTIVITIES of Regional Agency for Waste & Resource Management (ARRR)

In this last year we have been working on the Energy Manager portal: the data on energy consumption from buildings owned by the region are collected by CET (Consorzio Energia Toscana) and processed by ARRR, which is preparing a portal from which regional administrators can receive information. necessary to elaborate the most appropriate choices to improve energy efficiency. This data processing was also set up thanks to the experience of Empower, from that of Magdeburg to that of Santander. Unfortunately, the new POR FESR of the Tuscany Region has not yet been approved, so the influence of the Empower project will be seen on the political and direction choices only in a few months (hopefully).

Thanks to the Empower project, which has stimulated us in this last year on the examination of new good practices, we have studied together with Casa SpA the work on the behaviour of tenants to fight energy poverty: this experience has opened up a world of relationships for us. At



the Cork and Paris conferences we compared our work with that of our partners on this issue, with really interesting insights, starting with the great work put in place by County Cork.

## MAE project results

The regional policy in Mazovia still needed further improvement due to current pandemic situation and international crisis. Thanks to Project Partners and presented solutions MAE manage to prepare evaluation report of alternative methods of implementing energy monitoring in public buildings based on the MAE experiences of MAE virtual power plant implemented in Wawer district as well as analyze the solutions imported from good practices. This will help to benchmark the most cost-effective ways to monitor energy and support regional government to limit unreasonable expenditures and maximize impacts - energy and money savings





### **Energy renovation of a public Primary school Tabor I Maribor**

ENERGAP helped the Municipality of Maribor in preparing investment documentation for applying the projects under the OP for the Implementation of the EU Cohesion Policy (2014 – 2020). Through energy and financial monitoring, ENERGAP have obtained data on energy use and costs and implemented organizational measures for energy savings. Different municipal departments were also involved in decision-making process. They have provided their experiences and have gained a lot of new knowledge for the preparation of investment documentation in the field of buildings.

**Primary school Tabor I Maribor, Municipality of Maribor was successful using Cohesion funds in the amount of 568.360,75 EUR.**



Primary school Tabor I Maribor

Through the implementation positive environmental and financial results will be achieved:

- CO<sub>2</sub> savings: 55,6 ton per year,
- Energy savings 144 MWh per year and
- Money savings 33.000 EUR per year



## One side of results from EMPOWER in Sweden

Energy Agency for Southeast Sweden has followed up the energy consumption in the public office buildings during the pandemic. Many offices and schools have been closed during the pandemic. Despite this, the energy consumption has not been reduced, only a small reduction of water consumption can be tracked. Our conclusion is that the municipalities missed out an opportunity to save energy, due to structural matters and there is still a lot of energy efficiency to do! On the other hand, the municipalities have participated with great interest in the learning activities organized during Empower. For instance, about smart energy control for district heating, discussions about how to fight energy poverty.



Elias Kristmansson, Borgholm municipality

The energy poverty issue came as a new phenomenon for the energy and climate advisers in the Swedish municipalities when the energy prices level broke all previous limits in the southern region of Sweden during the spring. We have also discussed a new EPC model, which will be implemented in some of the municipalities, where lighting is one important area. Due to the pandemic most of the activities have been online, which reduces the interactive parts, but increases the numbers of participants at the events. Elias Kristmansson, engineer in Borgholm municipality participated in one of the international workshops says: It was interesting to learn that large parts of Europe are facing the same challenges as we are when it comes to energy efficiency. The knowledge exchange helps us to be a forerunner in developing our properties. It is good to learn about good examples both at regional, national and international level.

## EMPOWER Energy Poverty Guidebook 2022 Adopted by Southern Regional Assembly

In December 2021, the [Southern Regional Assembly](#) in conjunction with our energy poverty consultant the South East Energy Agency (formerly [3 Counties Energy Agency](#)) hosted a peer review of energy poverty good practices. This was followed by an extensive review of over 50 European good practices by the South East Energy Agency and 9 good practices were selected as the most capable of creating real impact on energy poverty throughout Europe.

In March 2022, the Interreg Europe Technical Workshop on Energy Poverty was held in Cork City. The workshop provided a platform to understand the causes of energy poverty, the prevalence of energy poverty across Europe and the need for countries now more than ever, particularly as energy prices are soaring, to seek opportunities to identify and reduce energy poverty.

Dora Biondani from the [Energy Poverty Advisory Hub](#) in Brussels, Dr Niall Dunphy, Director, Cleaner Production Promotion Unit, [University College Cork](#), Ireland and Eileen O'Connor, Assistant Principal Officer in the [Department of the Environment, Climate & Communications](#) provided presentations at this event.



The Energy Poverty Workshop in March 2022, was also an opportunity to hear first-hand from the 9 good practice owners, selected as the most easily transferrable and most impactful good practices for alleviating energy poverty.

Resulting from this event, the South East Energy Agency in conjunction with the Southern Regional Assembly published in the **EMPOWER Energy Poverty Guidebook 2022** – Inspiring Good Practices from Across Europe which is available in full at the following link - <http://www.southernassembly.ie/eu-projects/EMPOWER>.

The EMPOWER Energy Poverty Guidebook 2022 was presented to the elected members at the assembly meeting on 10th June 2022.

Meetings were then held with the Regional Planning team of the Southern Regional Assembly and it was agreed on 27th July 2022 to recommend the incorporation of the Energy Poverty Guidebook 2022 and the good practices contained therein into the Regional Decarbonisation plan. This plan for the Southern Region is outlined in the policy instrument - the [Regional Spatial and Economic Strategy](#) (RSES) under Regional Policy Objective (RPO) 90.

We are delighted to announce that this recommendation was approved by David Kelly, Director of the Southern Regional Assembly on 6th August 2022. This policy improvement will ensure a fair and just transition to protect those most affected by energy poverty in the roll out of the Regional Decarbonisation plan for the Southern Region in Ireland.





## Empower Guide to good practices

### Energy Monitoring Guidebook 2022

The EMPOWER partnership of 9 European regions were working together to share experiences, solutions and good practices to develop and to improve low-carbon economy policies with the identification of energy monitoring, smart technology and behaviour change initiatives.

In May 2022, EMPOWER project partners organized Interreg Europe EMPOWER Peer Review Workshops in Paris, focusing on Energy monitoring.

Energy monitoring - Good Practices Guidebook displays 7 of the good practices relating to Energy Monitoring and how they can be implemented at national, regional and local level to help reduce carbon emissions.



You can access it on the EMPOWER website:

<https://projects2014-2020.interregeurope.eu/empower/news/>

## Partners & Contacts

For further information, please contact the **Project Coordinator and a Communication leader at Energy Agency of Podravje**, Institution for Sustainable Energy Use, Maribor, Slovenia

**Dr Vlasta Krmelj**

[vlasta.krmelj@energap.si](mailto:vlasta.krmelj@energap.si)

 <https://www.facebook.com/Empower0/>

 <https://twitter.com/interregempower>

## Project partners

- Energy Agency of Podravje – Institution for Sustainable Energy Use (SI) – Lead partner
- Southern Regional Assembly (IE)
- Regional Resource Recovery Agency, ARRR (IT)
- Municipality of Lorient (FR)
- Energy Agency for Southeast Sweden (SE)
- Mazovia Energy Agency (MAE) (PL)
- Santander City Council (ES)

