



*Streamlining Energy Savings Calculations*

# Dialogue Meetings | Bi-annual Summary

## July 2024 to December 2024



Co-funded by the European Union

This project has received funding from the European Union's LIFE programme. Project No. 101167618 — LIFE23-CET-streamSAVEplus

## Disclaimer

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the CINEA. Neither the European Union nor the CINEA can be held responsible for them.

## Keywords

Deep renovations, water systems, monitoring tools and programmes, methodological developments, national context

## Contents:

<b>Introducing the dialogue meetings.....</b>	<b>3</b>
<b>Overview of the activities of the semester .....</b>	<b>3</b>
<b>Summary about Dialogue meeting 1: Assessing energy savings from deep retrofit programmes .....</b>	<b>5</b>
• Objectives of the meeting.....	5
• Speakers and participants.....	5
• Main messages from the meeting .....	5
• Interesting sources to look further .....	6
<b>Summary about Dialogue meeting 2: Assessing energy savings from water conservation measures 7</b>	<b>7</b>
• Objectives of the meeting.....	7
• Speakers and participants.....	7
• Main messages from the meeting .....	8
• Interesting sources to look further .....	8
<b>Feedback from participants .....</b>	<b>9</b>

## Introducing the dialogue meetings

**streamSAVE+** stands for ‘Streamlining Energy Savings Calculations in the EU Member States’. This 36-month project co-funded by the EU-LIFE programme aims to address the gap between trends in energy savings of the Member States and the goals of Article 8 of the Energy Efficiency Directive by assisting national public authorities in the development of new policies, and especially with their energy savings calculations. More specifically, streamSAVE+ builds capacity through the development of an open dialogue that focuses on **streamlining bottom-up calculation methodologies** to estimate energy savings and assess cost effectiveness of technical energy savings actions. The project targets **Priority Actions** with high energy saving potential considered as a priority issue by national public authorities.

The **Dialogue Meetings** gather experts and policy officers from various Member States to share experience and discuss technical and economic issues related to the savings calculations for a given action type or calculation method. The streamSAVE+ team facilitates the exchanges by organising web-meetings and workshops, and summarizing the main lessons learnt from the discussions.

## Overview of the activities of the semester

The table below provides the list of activities organised during the semester July – December 2024.

Note: the minutes of the online meetings and all relevant presentations are available on the [streamSAVE+ platform](#). To get updates about the dialogue meetings and latest streamSAVE+ news, you can subscribe to the [streamSAVE+ newsletter](#). If you would like to receive further information, please contact us: [contact@streamsaveplus.eu](mailto:contact@streamsaveplus.eu)

### List of activities of the semester

Topics	Dates
Assessing energy savings from deep retrofit programmes	22 October 2024
Assessing energy savings from water conservation measures	14 November 2024

The **semester’s figures**:

- ✦ Number of meetings and workshops organised: 2
- ✦ Total number of participants: 101
- ✦ Average number of participants per activity: 50
- ✦ Number of speakers: 9 from 5 countries (Czechia, Croatia, Ireland, Malta and Portugal)

The **semester's Take Away's**:

- There is strong support for **continued peer learning and technical exchange**. The streamSAVE+ Dialogue has proven to be a valuable space to troubleshoot technical issues, share national approaches, and move toward greater harmonization in the calculation of the energy savings.
- **Robust monitoring tools and programmes** such as EMIS in Croatia and AQUA+ in Portugal were praised for their role in collecting, validating, and leveraging performance data. However, challenges remain around data quality, system maintenance, and ensuring that public authorities and end users have the capacity to use these tools effectively.
- **Behavioural change, rebound effects, and user practices** were repeatedly cited as difficult to quantify yet essential for accurate savings estimation. This was especially true in residential retrofits and water-saving interventions, where behavioural shifts may offset or enhance technical savings.
- **Multi-measure retrofit programmes** introduce complexity. When savings from several technologies are bundled into one project, estimating individual impacts becomes difficult. The risk of double counting or inaccurate attribution was identified as a significant issue that needs clearer guidance.
- **Water conservation** was recognized as an underutilized strategy for energy efficiency. Presentations highlighted the strong link between water efficiency and energy savings in hot water use and desalination.
- **Data availability and quality** emerged as a central concern.
- A number of participants expressed interest in more **standardized methods for baseline setting and data collection**. However, **flexibility** to accommodate different national contexts was also considered necessary.

## Summary about Dialogue meeting 1: Assessing energy savings from deep retrofit programmes

(see also the [proceedings](#))

### ✦ Objectives of the meeting

This first dialogue meeting of streamSAVE Plus discussed how energy savings from deep retrofits of buildings can be assessed. Examples from the Czech Republic, Croatia and Ireland, covering non-residential, public and residential buildings showed a diversity of approaches, each with pros and cons. In particular the presentations detailed:

- National approaches to quantifying energy savings from deep renovations, with examples from Ireland, Croatia, Ireland and Czechia;
- Methodological developments in monitoring and evaluating energy savings in public and non-residential buildings, using tools such as Croatia's EMIS, the Czech Republic's sector-specific frameworks, and the Irish Building Energy Rating scheme;
- Challenges like establishing reliable baselines, avoiding double-counting, and properly attributing energy savings across multiple measures.

These examples showed that the design of the scheme and the use of online platforms enable data collection and monitoring of energy savings in a systematic way.

### ✦ Speakers and participants

- Miroslav Honzík (Czech Ministry of Industry and Trade, **Czechia**) and Jiří Karásek (SEVEN, Czechia): *Support of energy savings in the Framework of OP TAC 2021 – 2027 Czech programme for non-residential buildings*;
  - Valentina Madžarević (APN, **Croatia**) and Vanja Hartman (EIHP, Croatia): *Energy Management Information System (EMIS): Monitoring and reporting on energy consumption and savings in renovated public buildings in Croatia through EMIS System*;
  - James Palmer (SEAI, **Ireland**): *Monitoring of energy savings from domestic deep retrofit: Ireland's EEOS*.
- **49** participants from **18** countries.

### ✦ Main messages from the meeting

- Presentations emphasized that quantifying energy savings from deep renovation requires consistent baselines, high-quality data, and long-term monitoring infrastructure.
- Presentations emphasized the need for harmonised methodologies that still allow for local adaptation, especially when baselines, climatic conditions, and user behaviour differ across Member States
- The importance of robust baseline definition was a recurring theme. Several Member States noted difficulties in collecting or standardizing historical energy consumption data, which complicates the verification of retrofit impacts.

- The Czech Republic shared updates on its revised support scheme for non-residential buildings, which includes new calculation parameters. However, open questions remain about how to align financial incentives with observed energy performance outcomes.
- Croatia’s EMIS platform was presented as a digital tool for tracking energy consumption and savings in public building renovations. While its structured approach to monitoring was highlighted, participants also raised concerns about data gaps and long-term system maintenance.
- Ireland’s experience with residential deep retrofits drew attention to challenges in double accounting or energy poverty.
- Participants noted that technical exchanges and methodological dialogue, such as those hosted through StreamSAVE+, can support peer learning and help clarify complex reporting requirements.
- Technical challenges remain, especially around:
  - Accounting for user behaviour and rebound effect;
  - Avoiding double counting in multi-measure retrofit programmes.
- Participants agreed on the need for:
  - More context-specific assumptions that remain methodologically sound;
  - Improved capacity building at the national and municipal level;
  - Stronger integration of the different approaches.

### Interesting sources to look further

Reference	Why it is interesting
EMIS (Energy Management Information System), Croatia <a href="https://www.emis.hr">https://www.emis.hr</a>	Demonstrates how digital tools can monitor energy consumption in public buildings and support policy evaluation and retrofitting strategies. Used extensively in Croatia’s public sector energy renovation programme.
Czech OP TAC Programme (no public link available)	Supports deep retrofits in non-residential sectors, with updated evaluation protocols and sector-specific adaptation.
SEAI Methodology on Deep Retrofits in Ireland James Palmer, SEAI presentation in Dialogue Meeting 1. No public URL, but see: <a href="https://www.seai.ie/">https://www.seai.ie/</a>	The methodology outlines baseline setting, behavioral factors, and savings attribution in domestic energy retrofits, useful for replication and policy learning.

## Summary about Dialogue meeting 2: Assessing energy savings from water conservation measures

(see also the [proceedings](#))

### ✦ Objectives of the meeting

The second dialogue meeting of streamSAVE Plus discussed energy savings from water conservation measures. Water services require energy, from intake to wastewater treatment. Water conservation measures thus represent a significant energy savings potential. This meeting discussed scopes of energy consumption, data sources, examples of water conservation measures and how the related energy savings can be assessed.

In particular the presentations detailed:

- different national approaches to quantifying energy savings from water-related measures;
- tools, methodologies, and case studies that highlight how water savings contribute to final and primary energy savings;
- examples of national programs that integrate hot water consumption and desalination energy demands into energy accounting frameworks;
- methodological challenges, such as baselining, behavioural variability, and attributing savings to water conservation;

These examples facilitated cross-country knowledge exchange to strengthen the integration of water-energy nexus considerations into energy efficiency policies.

### ✦ Speakers and participants

- Hugo Jacque (University College of Dublin, **Ireland**): *Evaluating water-related energy savings within buildings: insights from research studies*;
  - Patrícia Malta Dias (ADENE, **Portugal**): *Contribution of water efficiency in buildings to primary energy savings: example of the AQUA+ programme in Portugal, and Water Energy Nexus Working Group of the ENR network*;
  - Manuel Sapiano (Malta's Energy and Water Agency, **Malta**): *Malta's Experience with Water Conservation and Related Energy Savings*;
  - Stefan Cachia (Malta's Water Services Corporation, Malta): *Calculation methods on energy savings: water conservation measures in the context of Art.8 of the EED*.
- 52 participants from 17 countries.

### ✦ Main messages from the meeting

- Presentations and discussions emphasized that water-related measures, such as reductions in hot water usage or improved water efficiency in buildings, may contribute to measurable energy savings.
- The AQUA+ programme in Portugal was introduced as a voluntary labeling scheme for water efficiency in buildings. While it does not currently quantify energy impacts, participants discussed how such tools could indirectly support energy savings if integrated into broader efficiency strategies.
- The presentation from Malta highlighted the specific case of water desalination, which accounts for a significant share of electricity consumption. The case illustrated how water-saving measures can have a direct impact on energy demand, particularly in systems with high water-related energy use.
- Discussion raised questions around how to define baselines for water-related energy savings, especially in the absence of detailed consumption data.
- There was strong consensus that water-energy nexus measures, such as hot water efficiency and reduced leakage in public water systems, offer substantial energy savings and should be more consistently integrated into national policies.
- However, participants acknowledged that technical challenges remain, especially around:
  - Disaggregating hot vs. cold water use
  - Estimating energy intensity per cubic meter
- The meetings reaffirmed the importance of top-down and bottom-up methodologies, each with trade-offs:
  - Top-down methods offer simplicity and scalability but often lack precision.
  - Bottom-up methods offer detail but require better data and can be more complex to implement.

### ✦ Interesting sources to look further

Reference	Why it is interesting
AQUA+ Programme – Portugal <a href="https://www.aqua-add.eu">https://www.aqua-add.eu</a>	Provides a building-level framework for water efficiency, with potential for integration into energy policy.
<b>Further readings</b>	
Cabrera, D. J., Njem Njem, H., Bertholet, J.-L., Patel, M. K. (2023). Simple solutions first - Energy savings for domestic hot water through flow restrictors. <i>Energy Efficiency</i> , 17(1), 1.	
Faia, V., Newton, F., Dias, P. Simões, M. (2023). Water-Energy Nexus: Contribution of water efficiency in buildings to primary energy savings. Proceedings of the CEES 2023 conference. Available at: <a href="https://www.cees2023.uc.pt/projectos/cees2023/index.php?module=atas">https://www.cees2023.uc.pt/projectos/cees2023/index.php?module=atas</a>	
Faia, V., Newton, F., Dias, P. Simões, M. (2023). Water-Energy Nexus: Contribution of water efficiency in buildings to primary energy savings. Proceedings of the CEES 2023 conference. Available at: <a href="https://www.cees2023.uc.pt/projectos/cees2023/index.php?module=atas">https://www.cees2023.uc.pt/projectos/cees2023/index.php?module=atas</a>	
Sapiano, M. (2022). “Energy and Water” links in the provision of Water Services - Case Study: Malta. Presentation at the Concerted Action EED, March 2022.	

## Feedback from participants

A short feedback survey is carried out after each Dialogue meeting. This section summarizes the responses to the feedback surveys completed between July and December 2024.

The short survey includes both generic questions that are repeated and particular questions regarding each Dialogue meeting.

Results of the two general questions on the overall organization of the meeting are following:

How do you rate the overall meeting organization?



■ Good ■ Very Good

Did the meeting reached your objectives?



■ Yes, completely ■ Yes, fairly well ■ Partly

In the 1<sup>st</sup> Dialogue meeting, participants confirmed that they increased their knowledge about:

- General issues about energy savings calculations (67% of respondents);
- Data sources, collection or monitoring (37% of respondents);
- How to assess energy savings from deep retrofits (41% of respondents);
- Programmes for deep retrofits in other countries (48% of respondents).

In the open questions, they confirmed that they had learnt a lot about new programs and data calculations, and that it was interesting to hear about other countries' experiences. They also stated that more time and funding will be required to accurately monitor and assess energy savings.

In the 2<sup>nd</sup> Dialogue, participants confirmed that they increased their knowledge about:

- How to assess energy savings from water conservation measures (61% of respondents);
- Experience from other countries (78% of respondents);
- Data sources, collection or monitoring (26% of respondents);
- General issues about energy savings calculations (52% of respondents).

During the open questions, they acknowledged learning about the "Water-Energy Nexus" issue.

In the final question, a majority of participants stated that they would like to attend another dialogue meeting.