

RHC ETIP Expert Group Poland

Details

- Date: 24 June 2025
- Time: 11:00-12:30
- Format: Online meeting

Participants

- Lucia Torlai (Solar Heat Europe / RHC ETIP Secretariat)
- Andrej Misec (EUREC / RHC ETIP Secretariat)
- Elisabetta Tillier (EHPA / RHC ETIP Secretariat)
- Jakub Koczorowski (Vice President, PortPC Heat pumps)
- Arkadiusz Biedulski (President of the Board of G-Term Geotermia Stargard,)
- Marek Hajto (BoD member, Polish Geothermal Society)
- Bartolomiej Ciapała (University of Krakow, and BoD member, Polish Geothermal Society)
- Janusz Staroscik (President of the Polish Association of Producers and Importers of heating appliances)
- Cezary Molski (Mazowiecka Agencja Energetyczna- MAE)
- Aleksandra Kasztelewicz (Geothermal Polish Society)
- Klaudia Wasilewska (Mazowiecka Agencja Energetyczna- MAE)
- Krzysztof Biernat (Łukasiewicz – PIMOT)
- Anna Sitarska (Mazowiecka Agencja Energetyczna- MAE)
- Karol Pierzchała (Mineral and Energy Economy Research Institute)

Summary

Introduction

- Lucia Torlai presented RHC ETIP and its work to promote renewable heating and cooling (RHC) solutions at EU and national level, particularly on research and innovation.
- Lucia Torlai then explained the threefold purpose of the meeting:
 - Connect with national stakeholders working on RHC and foster cooperation among the various solutions.

- Bring together national experts from the different RHC solutions to discuss the state of the art, market trends, main bottlenecks, policy and financing needs (particularly for R&I), and identify common challenges and solutions.
- Gather information and insights to substantiate RHC ETIP activities, starting from the upcoming online national roundtable.
- Lucia Torlai presented the Regional Roundtable event on RHC in Central and Eastern Europe (CEE) organised on 21st May 2025 by Solar Heat Europe and EHPA under the RHC-ETIP platform. This Experts discussion meeting was structured as a follow-up of such roundtable, to gather the insights from Polish experts in a closed discussion setting.

Discussion

Lucia Torlai opened the discussion introducing three guiding questions:

- What are the main **challenges for the uptake** of RHC solutions in Poland (both common and technology-specific ones)?
- What are the **Research and Innovation priorities** for RHC in Poland —both technological (e.g., integration, storage, efficiency) and non-technological (e.g., regulation, market uptake)?
- What are the **regulatory and financing needs** to accelerate the uptake of RHC solutions in buildings and industry in Poland?

The expert discussion highlighted some recurring themes relevant to the development and implementation of Renewable Heating and Cooling (RHC) solutions in Poland :

Key Challenges and Barriers

Experts identified a widespread lack of public awareness regarding the benefits of renewable heating and cooling technologies. Many Polish citizens perceive renewable energy as costlier, without recognising the long-term energy savings and environmental benefits. This misperception hampers broader societal support for RHC solutions.

A critical structural issue is the absence of a clear, integrated national strategy for RHC that includes all technologies—not only photovoltaics and wind, but also solar thermal, shallow and deep geothermal, and heat pumps. Furthermore, the government lacks a central ministry dedicated to energy efficiency, which weakens regulatory consistency and the coordination needed for effective implementation.

There is also a significant skills gap, particularly in the electrification of heating systems. Both public officials and industry professionals require extensive training to implement and manage RHC technologies effectively.

Financial constraints represent a major hurdle, especially for deep geothermal projects, which involve high upfront capital expenditure. While some national subsidies have supported the sector since 2016, these are not enough to scale it sustainably. Meanwhile, shallow geothermal and heat pump projects suffer from slow, non-digital permitting processes that delay deployment.

Finally, poorly designed subsidies risk distorting the market. Incentive structures must mature the market rather than suppress quality and long-term investment, particularly by domestic players competing with foreign providers.

Research and Innovation Priorities

The group highlighted the need for integrated RHC systems tailored to local conditions. Research should focus on the interoperability of different technologies, ensuring they can work together efficiently in diverse heating and cooling scenarios.

Automated control systems are another priority, particularly those using intelligent algorithms that respond to variables like weather, electricity prices, and user behaviour. Digitalisation of systems and processes is seen as a necessary enabler of these innovations.

A more supportive environment for R&D investment is needed. Companies must be assured that investment in higher quality and innovation will result in reliable income streams. Currently, the risk of inadequate return limits private sector involvement in R&D.

Regulatory and Financial Frameworks

The experts emphasised the lack of a central legislative framework guiding Poland's energy transition, especially for heating and cooling. A unified law is needed to provide a clear roadmap and reduce administrative complexity.

Heat pricing also needs reform. Unlike electricity, there are no consistent tariff models for heating. A centralised support scheme for geothermal energy, including an equalisation mechanism, would help local authorities invest in deep geothermal by reducing financial risk.

While there are multiple financial programs for buildings and tax incentives, these are fragmented. The group highlighted inefficiencies in the use of funds from the EU Emissions Trading System (ETS), which could be more strategically directed to support regional and national transitions.

Finally, smaller cities struggle with underfunded district heating systems, and would benefit from dedicated financing mechanisms to modernise infrastructure.

Conclusion

The expert group called for a coordinated national strategy, improved public awareness, targeted R&D, and a robust regulatory and financial framework to overcome the current barriers to

Renewable Heating and Cooling in Poland. The integration of multiple technologies, coupled with smart incentives and focused investment, will be key to ensuring a sustainable and scalable energy transition.

