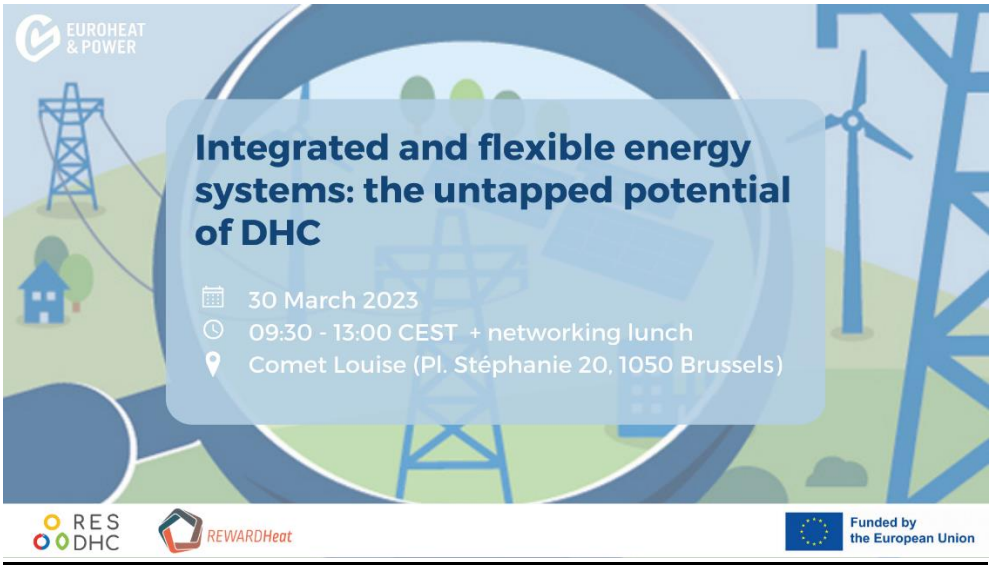

POLICY WORKSHOP : Integrated and flexible energy systems: the untapped potential of DHC

Date: 30 March 2023

Place: Comet Meetings – Louise (Pl. Stéphanie 20, 1050 Brussels)

Time: 09h30-13h00 + networking lunch

Organizers: RES-DHC and REWARDHeat

Context

The ongoing conflict and energy crisis are a reminder of the pressing need to decarbonise our energy systems and ensure energy independence through the integration of renewable energy sources.

Over the last decade, the electricity sector has undergone a remarkable transformation, turning it into the cleanest energy carrier in Europe, with an impressive 37.5% of renewables in gross electricity consumption in 2021. However, the influx of variable renewables such as wind and solar needs to be accompanied by greater system flexibility, to balance the demand and supply in real-time.

Sector integration is the key to enhancing flexibility and enabling a more energy- and cost-efficient energy system. By connecting and combining energy carriers and sectors, including electricity and heat, we can create a more resilient and flexible energy system.

Fortunately, there is already an effective toolbox available for sector integration. District energy networks, when combined with large heat pumps and thermal storage, can absorb substantial amounts of renewable heat and variable green electricity, making them a critical component of our decarbonisation efforts.

The workshop will explore the policy needs to enable system integration beyond the Fit for 55 Package. Through concrete examples of three EU-funded projects, the workshop will show that it is possible to achieve greater flexibility and resilience of energy systems.

Workshop agenda

9:30 – 10 :00	*Welcome coffee and connection*	
10:00 – 11 :30	**Policy session: Integrated and flexible energy systems, the power of heat**	
10:00 – 10:05	Opening remarks	**Aksana Krasatsenka** (Moderator)
10:05 – 10:15	**Keynote speech: 2 years after the System integration strategy - What is required to further advance the integration of electricity and heat?** Europe's sector integration strategy – progress made since 2020 and the current and future ambitions of EU for more integrated energy systems to reach the targets arising from FitFor55, looking beyond the current targets.	**Lelde Kiela -Vilumsone,** Team Leader for End-use sectors, Impacts and Methodologies *(Renewables and Energy System Integration Unit of Directorate for Energy, European Commission)*
10:15 – 10:20	**Pitch speech: Europe's Network Development Plan to 2030 and 2040 and TSOs role in sector integration** Key aspects/objectives of the TYNDP (The 10-year network development plan) focusing on the main challenges related to the transmission and distribution of energy in integrated energy systems and the role of TSOs and DSOs, and their coordination, play in intensifying sector integration in Europe.	**Rodrigo Barbosa** Manager, Long-term planning *(ENTSO-E)*
10:20 – 10:25	**Pitch speech: DHC, the missing link of flexible energy systems: perspective from Fit for 55 and beyond** The role of DHC linking various renewable energy sources and technologies as a key enabler of effective sector integration.	**Pauline Lucas** Policy Director *(Euroheat & Power)*
10 :25 – 10 :30	**Pitch speech: Key solutions for grid balancing, a system approach** Essential innovative solutions and the way they can work together to use the heat grid as a thermal battery, harnessing their potential to absorb and use renewable electricity.	**Raymond C. Decorvet** Senior Account Executive Global Business Development ETES, CO_2 Heat-Pumps & Power Storage (LDES) *(MAN Energy Solutions)*
10:30 – 11:30	**Panel discussion**	All speakers
11:30 – 11:45	*Coffee break*	
11:45 – 13:00	**Innovation session: Innovative DHC and other solutions for sustainable integrated energy systems in Europe - concrete examples**	
11:45 – 12 :00	**REWARDHeat project – Low temperature district heating and waste heat recovery - Albertslund Case (Denmark)** Albertslund's experience on preparing low temperature district heating to make way for more use of waste heat and shunt	**Pernille Salomonsen** Energy & Development Consultant *(Albertslund Forsyning)*

	strategy for enabling low temperature in 1970's network dividing it into small groups.	
12:00 – 12:15	**RES-DHC project – Decarbonisation strategy of a large DH network – Grenoble case (France)** Results of the "REDONNER" study on the definition of a methodology to meet the optimal decarbonation strategy of the second biggest district heating network in France.	**Thibaut Wissocq** Researcher scientist *(CEA)*
12:15 – 12:30	**SENERGY NETS project- Increasing the synergy among different energy networks through multi-energy systems** SENERGY NETS approach to sector integration aiming at demonstrating the technical and economic capability of existing multi-energy systems to decarbonise the heating and cooling, electricity and gas sectors through RES and sector integration focusing on promising infrastructure and business models.	**Guillaume Bardeau** R&D Engineer (Renewable heating & Cooling) *(EIFER)*
12:30 – 13:00	**Discussion and Q/A**	All speakers and attendees
13:00 – 14:00	*Networking lunch*	