
Workshop on District Heating and Cooling

Wednesday, 19 April 2023 (10:00-16:00)

Location: hybrid meeting –hotel Novotel Sarajevo Bristol and Zoom (online)

Introduction

The heating and cooling sector (H&C) represents around 50% of the EU's energy demand. A successful energy transition in the EU and the pathway to net zero by 2050 need to include decarbonization of the H&C sector. Most of the sector's demand comes from space and water heating in buildings (accounting for more than 60%), followed by industry (representing 32% of H&C demand), agriculture and cooling needs in buildings and industry subsectors.

So far, renewable energy deployment in the heating & cooling sector has been relatively slow, accounting for only 23% of the sector's energy consumption. According to IRENA's 1.5 degree scenario, the share of renewable energy in district heating should reach 90% by 2050, growing from 9% in 2018.

The importance of decarbonizing this sector in order to achieve the energy transition is already recognized by the EU, as shown by growing legislation on renewables deployment in H&C, as well as by the inclusion of this sector in the Clean Energy Package, European Green Deal and the 'Fit for 55' package. The Renewable Directive 2018/2001 imposes for the first time an obligation to the H&C sector on increasing the share of renewable energy by 1,3 percentage points each year from 2020 to 2030, while district heating systems will have to either contribute to this goal with 1 percentage point each year or to enable third-parties (energy producers from RES and waste heat and cold) access to the network. Under the 'Fit for 55' package, district heating and cooling systems will have to progressively integrate renewable energy and waste heat or cold so to be fully decarbonized by 2050.

With the adoption of Decarbonisation Road Map for the Contracting Parties of the Energy Community in 2021, and ambitious targets for 2030 in December 2022 by the Ministerial Council, aiming to have 31% of renewables at the level of Energy Community in the total energy consumption, the heating and cooling sector will play significant role in achieving these goals.

While most of the Contracting Parties have reached their RES targets in H&C, these renewables rely on inefficient use of biomass in individual households. In 2021, the share of renewables in most district heating systems in Contracting Parties was negligible; only Bosnia and Herzegovina's share is around 20% due to seven biomass-based district heating plants.

Therefore, further work is needed to accelerate this transformation, namely in district heating and cooling systems, such as addressing technical challenges related to the integration of renewable energy heat sources into new and existing buildings and district heating networks, accelerating the deployment of key enabling technologies and leveraging enabling financing and regulatory conditions.

In Energy Community Contracting Parties, district heating and cooling systems present ageing infrastructure, in increasing need of refurbishment. Moreover, in line with the energy transition, these systems must progress to more efficient systems that rely on renewable heat sources.

The purpose of this workshop is to:

- Underline obligations on DH matters under Energy Community legal framework;
- Underline challenges and opportunities for financing of new and refurbished district H&C projects;
- Highlight specific key enabling technologies to decarbonize district H&C;
- Address technical challenges of integrating renewable energy and energy efficient technologies into new or existing H&C systems and solutions to tackle them.

Agenda

09:30-10:00 - arrival and registration of participants

<i>Time</i>	<i>Topic</i>	<i>Speaker</i>
09:30-10:00	Registration & coffee	
10:00 – 10:10	Welcoming remarks	Naida Taso, Energy Community Secretariat/ Gurbuz Gonul, IRENA/ Admir Softic, MOFTER
Session 1: Heating and cooling in the Energy Community legal framework		
10:10 – 10:20	Presentation: Renewable heating and cooling in the energy transition	Ute Collier, IRENA
10:20 – 10:40	Presentation: Obligations under the Energy Community legal framework and upcoming activities	Biljana Grbić, Energy Community Secretariat
10:40 – 11:30	Tour de table: update on the transposition of Art. 23 and 24 RED II	All Contracting Parties
11:30-12:00	Coffee break	
Session 2: Design and financing of district heating and cooling systems in Southeastern Europe		
12:00 - 12:15	Presentation: Strategic heating and Cooling Planning	Jack Kiruja, IRENA
12:15-12:30	Presentation: Designing modern municipal network systems with renewable energy to achieve district energy decarbonization in Southeastern Europe	Ines Jacob, IRENA
12:30 – 13:30	Panel Discussion: Financing new and refurbished district H&C technologies – challenges and opportunities Q&A with the audience Sli.do	Moderator: Petya Icheva, IRENA Panellists: <ul style="list-style-type: none"> • Greg Gebrail, EBRD • Matija Tadic, KfW • Lena Bratic, USAID • Minela Isakovic, GIZ • Garret Patrick Kelly, 100 Net Zero Emission Cities, Sarajevo

13:30 -
 14:30

Lunch break
Session 3: Efficient and renewable-based district heating and cooling in Energy Community

14:30 – 14:45	Presentation: EU funding for renewables and waste heat integration in district heating: good practices and opportunities from Horizon 2020 and LIFE Clean Energy Transition	Luca Angelino, CINEA
14:45 - 15:00	Presentation: Key enabling technologies: thermal energy storage and heat pumps	Ines Jacob, IRENA
15:00 – 16:00	Scene setting movie for geothermal project Bogatići in Serbia Panel discussion: Integration of renewable heat sources into new and existing district heating and cooling networks – Perspectives from the DH operators and developers on challenges and solutions Q&A with the audience	Moderator: Biljana Grbić, Energy Community Secretariat Panelists: <ul style="list-style-type: none"> • Suljo Sarić, Centralno grijanje Tuzla, Bosnia and Herzegovina • Dejan Jovišević, Ekotoplane Banja Luka, Bosnia and Herzegovina • Ian Muntean, Energy Efficiency Agency, Moldova • Dejan Milenić, Faculty of Mining and Geology, Belgrade, Serbia
16:00	Closing remarks	MOFTER/ Energy Community Secretariat/ IRENA