

UNLOCKING LOCAL POTENTIAL – DRIVING GLOBAL TRANSITION

In Hesperange (Luxembourg) & online from 28 - 30 September 2022



Climate Alliance



WORKSHOP: THE POTENTIALS OF ENERGY COMMUNITIES IN A FREE EUROPEAN ELECTRICITY MARKET

Wednesday, 28 September (10.30–12.00) (Day 1) | online | in English

Short Description

Energy Communities and Energy Cooperatives are models that embody citizen and community ownership of energy in the urgent transformation towards 100% renewable energy. In this workshop we discuss how municipalities can be part of or set up their energy communities and explore tools to project the demand of household energy consumption. We wish to support mutual learning on the role of municipalities in establishing and contributing/supporting the management of energy communities and energy cooperatives.

How can municipalities participate in energy communities? What are the bottlenecks and solutions? What tools and methods support forecasting energy demand to ensure energy system stability in a municipality? These are the core questions we seek to explore in this workshop with experts from municipalities, energy communities and cooperatives and researchers including energy system modellers.

Background of the Session

In the last few years, new energy and climate policies have been implemented in order to reduce emissions, improve energy efficiency, expand the renewable energy generation capacity and improve the electric system overall.

Energy communities can be instrumental in changing the energy landscape and enabling the clean energy transition at the local and citizen level. In the grassroots, community-based energy projects have rapidly gained momentum with the help of public investment and support schemes, and the awareness of sustainable advantages for local populations. Energy communities have encouraged democratic decision-making and self-sufficiency, social innovation, and collaborative social transformation. Beyond the community-specific lens, energy communities can bring increased flexibility and resilience to the main energy grid, and from an

economic perspective, they can also be seen as socially innovative enterprises, engaging in economic activity that lowers energy costs while providing financial returns to the local community.

Municipalities have a key role when it comes to trust and safety of the local energy network. It is however critical to be able to do precise consumption forecasts in the medium and long term for municipalities to see what policy measures are to be planned to ensure energy safety. Based on a good private and public energy demand forecast, municipalities could be able to know exactly how much energy they have to acquire in the months or years to come.

Against this backdrop, energy communities can take many legal, organisational, and financial forms, subject to local circumstances and needs, while also dependent on the policy and regulatory support available. From a technical standpoint, traditionally energy communities focused only on energy generation, but this is expanding to also include storage, supply, and energy efficiency, while the system can be either centralised, distributed, or decentralised.

From an organisation point of view, energy communities can be created in a top-down or bottom-up approach, with initiatives including communities of place, whose values are shared within a certain landscape, and communities of interest, who come together driven by their shared principles, financial position, and problems. Spatially, energy communities are present in both rural and urban areas, even forming collaborative partnerships. This multidimensional potential has been acknowledged by the European Union. The Clean Energy for All Europeans package (2019) sought to empower citizens and communities to become active participants in the energy transition, promoting prosumers involved in energy generation, consumption, and trading in energy markets. At the moment, the legal framework for energy communities is routed in two definitions given by the Clean Energy for all Europeans Package: Renewable Energy Community (REC) which is contained in Directive (EU) 2018/2001 (the recast Renewable Energy Directive) and Citizen Energy Community (CEC) which is contained in Directive (EU) 2019/944 (recast Electricity Directive).

Objectives

- Highlight the existing and evolving solutions to implement energy communities in a municipality,
- Discuss the role of municipalities and regional authorities in energy communities and cooperatives,
- Explore tools and methods that support policy and investment decisions at local and regional level

WORKSHOP SPEAKERS

- **Øystein Leonardsen**, Senior Advisor, Integrated Urban Renewal, City of Copenhagen, Denmark
- **Jaroslav Klusák**, Head of the Energy Management Department, City of Prague, Director, Prague Energy Community, Chairman of the Association of Energy Managers of Cities and Municipalities, Czech Republic
- **Albert Vendrell Roca**, Head of the Local Energy Management Support, Environmental Services Department, Barcelona Provincial Council, Spain
- Leire Astigarraga & Chris Merveille, Goiener, Cruz E. Borges, University of Deusto, Thomas Nacht 4ward Energy Research GmbH, WHY Project

Programme

10:30: Introduction, Welcome (5 min) Eva Suba, CA

10:35 How do municipalities support energy communities and energy cooperatives and vice-versa? - From foundation to operation

Municipalities: Øystein Leonardsen , City of Copenhagen, Jaroslav Klusák, City of Prague, Albert Vendell Roca, Province of Barcelona(30 min)

10' Q&A

11:15 How do energy cooperatives support energy communities on the regional scale?

Leire Astigarraga Urzelai, Renewable Energy Engineer, Goiener, Spain (10 min)

11:25 Tools to support local and regional energy supply and management decision-making with causal modelling and the WHY Toolkit

Thomas Nacht, Cruz Borges, Researchers and Energy System Modellers, WHY Project (10 min)

10' Q&A

11:45 Open Floor: direct Q&A with Chris Merveille (WHY project)

Additional Information

Copenhagen Energy Community: The first Citizen Energy Community has been formed north of Copenhagen and development projects as FLEX-CEC are starting with support from the Danish Energy Agencies Development and Demonstration Program (EUDP). The aim is to develop new energy communities with sharing local renewable energy and combining minor flexibility offer together for obtaining the minimum volume of 5 MWh, which is the minimum amount for flexible services for sale at the Danish TSO.

Prague Energy Community: <https://english.radio.cz/prague-install-photovoltaics-public-buildings-part-its-climate-plan-8727987>

Barcelona Energy Community: https://www.barcelona.cat/infobarcelona/en/tema/climate-emergency/a-new-energy-community-to-supply-municipal-and-residential-buildings-in-poblenou_1181683.html

Goiener Energy Cooperative: <https://www.goiener.com/es/>

WHY Project: <https://www.climatealliance.org/activities/projects/why.html>