

Remunicipalisation of local energy

28th February – 1st March 2019

Buhlsche Mühle, Ettlingen (DE)



Target audience: Elected members and municipal technicians

Inspired by remunicipalisation initiatives all over Europe, an increasing number of local authorities are expanding their role, no longer simply acting as planning authorities but becoming operational stakeholders and driving forces for the local energy transition. New integrated municipal companies are increasingly being set up to supply electricity, gas, heating and cooling.

This workshop will allow you to:

- Examine existing (business) models of public ownership of different aspects of energy systems, identify assets, costs and revenue at different scales and in different contexts, drawing on examples from our host in Germany and the rest of Europe.
- Assess whether your public authority has the resources and capacity to set up (or purchase) and successfully manage an energy company.
- Analyse how to regain the ownership of the heat and/or electricity grid.
- Check the limits of transferability of experience and evidence between different EU member states by focussing on lessons learned and common mistakes to avoid.

Allow yourself to be encouraged and inspired to become a proactive municipal actor. Take the opportunity to exchange your ideas with experienced municipal energy service providers and like-minded people.

We will present concrete examples from different EU countries to show how energy supply can be managed or owned by local authorities. We will provide a lot of space for small group work and peer-to-peer exchange.

Please arrive the evening before, because we will start the workshop at 9.00 am. If you would like to participate in the programme development, please send us your suggestions!

This workshop is part of the [HeatNet](#) Project, which is co-funded by the EU Interreg North-West Europe Programme and [mPOWER](#), which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 785171.



Programme

Thursday 28 February

From 8.30	Arrival of participants (coffee / tea)
09.00-09.30	Welcome, presentation of the workshop programme and the workshop objectives, Introduction of participants and speakers <i>Energy Cities Team</i>
09.30-09.40	On the benefits for Ettlingen of their municipal energy company <i>Welcome by Johannes Arnold, Lord Mayor of Ettlingen</i>
09.40-10.10	Short overview on the HeatNet and mPower project <i>Donna Gartland, Executive Energy Planner, CODEMA Dublin's Energy Agency</i> <i>Professor Andrew Cumbers, Adam Smith Business School, University of Glasgow</i>
10.10-10.30	The story of the Stadtwerke Ettlingen (short historical outline) <i>Eberhard Oehler, Managing Director of the Stadtwerke Ettlingen</i>
10.30-11.00	Coffee / tea break
11.00-13.00	The city as an energy supplier <u>Plenary</u> <i>Hans-Martin Friis Møller, CEO of Kalundborg Forsyning, will present their experience</i> Questions and answers <u>Round table discussion</u> <i>4-6* representatives from municipal energy companies will present their experiences at different tables (2*40 min)</i> Participants can assist at two round tables and discuss with the representatives from the municipal companies <u>Key questions:</u> What type of energy carriers are supplied, is there any advantage to be a multi-energy-supply company? What business model do you use? What were your main challenges at the beginning of the process? How many people did you need to start the service (human resources)? Do you own or operate the local grid? Have you carried out an audit or identified your assets?
13.00-14.00	Lunch Buffet

*description of the activities of the municipal energy companies is provided below

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14.00-16.00	<p>The city as an energy producer</p> <p><u>Plenary</u> <i>Herman Eijdemans, Innovation Manager at Mijnwater BV, will present their experience</i></p> <p>Questions and answers</p> <p><u>Round table discussion</u> <i>4-6* representatives from municipal energy companies will present their experiences at different tables (2*40 min)</i></p> <p>Participants can assist at two round tables and discuss with the representatives from the municipal companies</p> <p><u>Key questions:</u> Do you sell your energy mainly to local customers or do you sell it on national energy market? In case you are also an energy supplier to end-users, did you start producing energy before or after setting up an energy supply company? Do you use local energy sources and do you produce different types of energy (heat, cooling energy, electricity) or see advantages to do so (storage, energy coupling)? What is your business model based on?</p>
16.00-16.30	Coffee/tea break
16.30-17.30	<p>Speed-dating, Peer2peer meetings (20 min each) Meet and share experience and knowledge with experienced and inexperienced peers.</p>
17.30-18.00	Summary of the first day, wrap up and outlook for Day 2
19:30	Dinner

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Friday 1 March

08.30-09.00	Today's meteo, objectives and programme <i>Energy Cities Team</i>
9.00-10.30	The city as an energy service provider <i>Mark Bramah, Consultant at Robin Hood Energy, will present their experiences of service provision.</i> World Café, discussion at round tables with the representatives from the municipal energy companies*, feel free to change between the different tables Key questions will deal with the following potential services: <ul style="list-style-type: none"> • Energy advice • Third party financing • One-stop-shops • Demand response services
10.30-11.00	Coffee / tea break
11.00-12.00	Plenary discussion The energy company as a social and ecological player <i>Panellists: a representative from Ettlingen, Kalundborg, Cadiz, Mijnwater, and Nottingham</i> Key questions: Can a Municipal Energy company play a role in reducing fuel poverty? Can the company facilitating the development of citizen energy communities? Which role can the company play to help achieve the goals of the city's Sustainable Energy and Climate Action Plan?
12.00-12.30	Collection of open questions, next steps
12.30-13.00	Summary and outlook
13.00-14.00	Lunch Buffet

Optional

13.30	Visit of the Albgau indoor swimming pool's heat system (cogen unit), 2 min walking distance and the Energy Advice Mobil (shared with the Epernay, FR)
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Local energy companies presenting their experiences

Activity	Eléctrica de Cádiz	Kalundborg Forsyning	Mijnwater B.V.	Robin Hood Energy	Stadtwerke Ettlingen GmbH (SWE)
Electricity					
Producer	(x)				x
Distribution System Operator (DSO)	x				x
Supplier	x			X	x
Gas					
Producer					
Distribution System Operator (DSO)					x
Supplier				X	x
Heat					
Producer		x	x		x
Distribution System Operator (DSO)		x	x		x
Supplier		x	x		x
Other services					
Energy Efficiency	x	x	x	x	x
e-mobility					x
Water		x			x
Waste treatment		x			
Telecommunication					x

Eléctrica de Cádiz – Cadiz, 120 000 inhabitants, Spain

Eléctrica de Cádiz is both an energy supplier and a distribution system operator. It is the biggest semi-public energy company in Spain: the city of Cadiz owns 55% of shares while the rest belongs to Unicaja (a bank) and Endesa (a major Spanish utility company). In 2015 a new municipal council decided to promote a fair and democratic transition to develop the city. Thanks to the benefits from the municipal company, the city funds activities in four priority fields:

- savings, efficiency and renewable energy in public buildings;
- the fight against energy poverty;
- the promotion of a democratic energy transition;
- and the energy-related job creation.

Under the pressure of its main shareholder, Eléctrica de Cádiz sells only 100% renewable energy since 2017 to 62 000 customers, which represents 195 GWh of electricity consumption per year. This change was implemented without an increase in the electricity price. This renewable energy is mainly bought in the wholesale energy market but the company is investigating the development of solar power plants.

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In 2015 the municipality also launched a working group to fight energy poverty, which includes citizens, NGOs, municipal employees, political organisations and Eléctrica de Cádiz employees. A decision was also made to create a reduced tariff which will benefit around 2,000 households. This action has needed to overcome some policy obstacles and its costs will be equally shared between the company and the city. In addition Eléctrica de Cádiz proposes energy efficiency services.

Kalundborg Forsyning – Kalundborg, 50 000 inhabitants, Denmark

The town of Kalundborg is well known as an example of industrial symbiosis (industrial ecology). The exchange of materials, water, energy and/or by-products between industrial companies as well as local actors allows resources' efficiency and local development. The municipality is a key actor of this ecosystem, facilitating and leading actions. It has set-up a municipal company called Kalundborg Forsyning which employs 80 employees working daily to guarantee the supply of district heating, fresh water, sewage and wastewater treatment in an efficient, reliable and sustainable way. The company is committed to achieve energy savings and reduced its GHG emissions by 12% between 2016 and 2017.

The heat production for the DHC network is mainly provided by a coal-fired CHP plant which is going to be replaced by a biomass-fired CHP in 2019. As of 2017, the municipal utility built a large-scale heat-pump, which transfers heat from the unusually hot industrial wastewater to the district heating network. By doing so, Kalundborg Utility supply district heating with a minimum of negative environmental externalities and can lower the temperature of the effluent. This innovation reduces carbon emissions by 16 000 tonnes yearly and covers 30% of the annual district heating supply. The heat pump is still the biggest in Denmark and produces approximately 80 000 MWh. The utility produces 4-5 times more energy that it uses.

Kalundborg Utility is also exploring the possibility to set up a digestion tank and produce biogas thanks to wastewater.

Mijnwater B.V. – Heerlen, 70 000 inhabitants, The Netherlands

In the twentieth century coal mining was the most important economic activity for the eastern mining region of the Netherlands and Heerlen city in particular. The 'Mijnwaterproject' (mine water project) was 'born' in 2003, when it was found that mine galleries filled with water could be a source of sustainable energy. In 2005, with support from the EU and the governmental agency Agentschap NL, the municipality drilled five wells and built an underground piping system to allow for the water to circulate. In 2008, the first mine water geothermal plant in the world became operational, and the first connections to the Mijnwater grid were established. In order to further develop the project, the independent company Mijnwater B.V. was established in 2013, with the municipality of Heerlen as main shareholder. Since the end of 2018 it is now owned by the Limburgse Energie Fonds (Limburg energy fund of the Limburg province).

The company manages an innovative low-temperature distribution network used to produce, exchange and store energy coming from geothermal source (mine water) and waste heat. This is a fully

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automatically controlled and demand-driven system integrating renewable electricity sources via heat pumps' use. In 2015 in total 500 000 m² floor area (dwellings, offices, elementary schools, supermarkets, a nursery and a sport facility) was provided with mine water, which contributes to a 65% reduction of CO₂ emissions for the heating and cooling of the connected properties. According to Louis Hiddels, the director of Mijnwater B.V., '[the company] has the knowledge to help both current and new districts and neighbourhoods to go gas-free'.

Robin Hood Energy – Nottingham, 330 000 inhabitants, United-Kingdom

Robin Hood Energy is the first public not-for-profit energy company in the UK, launched in 2015 and fully owned by Nottingham City Council. It was set up to tackle fuel poverty and to help provide citizens a cheaper, fairer alternative to the bigger energy companies. It provides special tariffs to residents within the boundaries of the Nottingham City and also delivers a socially orientated pricing structure to the entirety of the UK. The utility sells gas and only green-certified electricity, mainly bought on the wholesale markets. Robin Hood Energy is also a voluntary Feed-in Tariffs (FITs) licensee and offers its customers the opportunity to claim a FITs tariff for the electricity they generate and export back to the grid. In 4 years the company has created more than 200 local jobs.

In addition to this, Robin Hood Energy helps its customers to reduce their energy consumption by offering them energy advice and proposing them to install smart meters. The company also develops other services in partnership with the utility Northern Gas Heating, such as house emergency cover, boiler servicing and replacement.

Stadtwerke Ettlingen GmbH (SWE) – Ettlingen, 40 000 inhabitants, Germany

Stadtwerke Ettlingen is the municipal utility and energy services company of the city of Ettlingen and the region. It is wholly owned by the city of Ettlingen and secures the gas supply of the city of Ettlingen since 1860 and the electricity supply since 1920. Indeed the company is the distribution system operator of the gas and electricity networks. In addition it is also an energy supplier selling heat, gas and electricity. In total around 230 employees are working to deliver goods and services to the Ettlingen city and its region.

Regarding energy production, SWE is very experienced in operating power plants including solar, hydro and highly efficient biomass- and gas-fired CHP plants. Heat generation from CHP plants is injected into the district heating network, supplying more than 150 customers. SWE has also invested in one offshore wind farm in the Baltic Sea.

By 2013, Stadtwerke Ettlingen had already voluntarily committed itself to reducing its energy consumption in the long term and to increasing energy efficiency via a continuous improvement process. It thus helps its customers to reduce their own energy consumption and propose energy efficiency services (energy performance contract, building energy management). The company is also involved in the development of citizen projects and electrical mobility.

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Practical Information

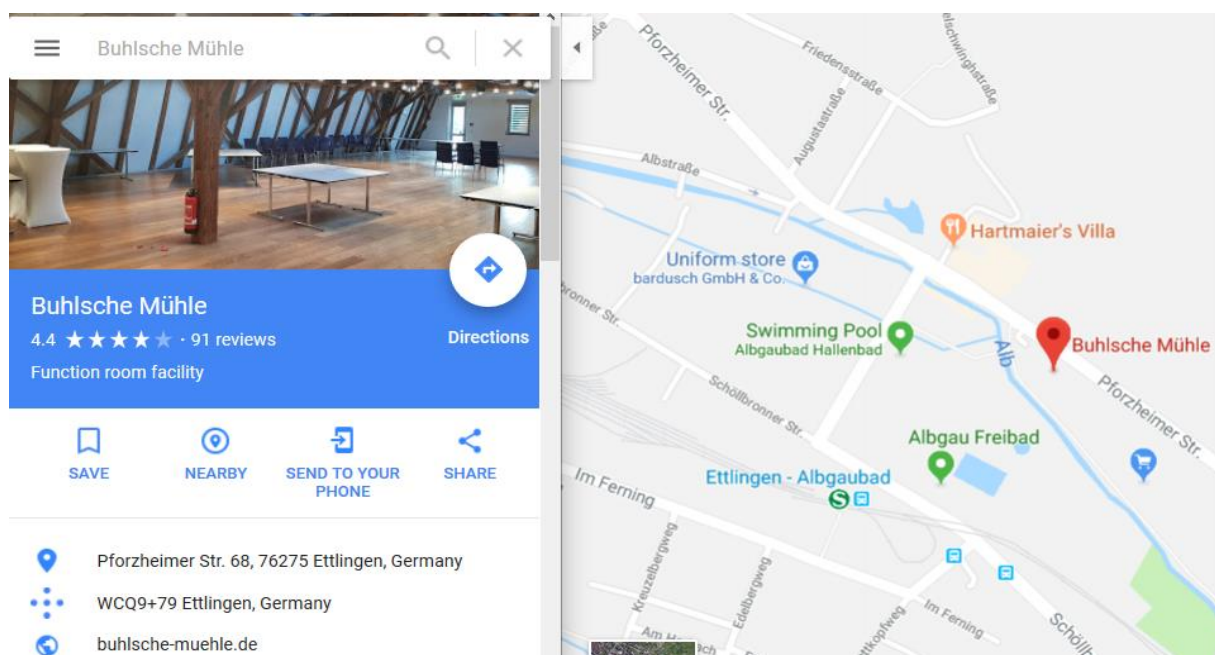
Conference venue

Buhlsche Mühle
Tagungszentrum Ettlingen
Pforzheimer Straße 68
76275 Ettlingen, Germany

[See website of the venue](#) (in German)



[See on a map](#)



Travel to Ettlingen:

By plane: Nearest and well connected airport is Frankfurt/Main. Take a train from the Frankfurt Airport (long distance station/Fernbahnhof) to Karlsruhe Train Station (Karlsruhe Hbf). There is at least one train per hour, the trip takes 1h 05 min.

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By Train: Ettlingen is located in the Karlsruhe area. Karlsruhe main station is very well connected to the train network in Germany.

From Karlsruhe main station to Ettlingen

Tram/Stadtbahn line S1 or S11 - Direction: "Ittersbach/Bad Herrenalb".

Get off at the Station: "Albgaubad Ettlingen".

Duration of the trip: approx. 20 min.

On Friday, 1 March, there will be a Shuttle service to Karlsruhe main station organised at 13:30 and 14:30 (about 15 min driving time).

Costs

Participation in the training and the study visit are **free of charge**.

Registration

The registration is mandatory as there is only a limited number of 50 places available for the workshop. Please, register only when you are sure to be able to participate and inform the organisers as soon as possible if you decide not to attend. Once registered you will receive a formal confirmation within 2 weeks.

Link to the registration: <https://docs.google.com/forms/d/1chmw-vn647qi6-WK1lAdnYOKpDQCFpzip9AMq0TFvg/edit?ts=5c3dff72>

Working language: English (partly translation from German to English)

Hotels

There are a number of hotels available. Please note that it is up to each participant to book their own hotel.

Below are some links:

<https://www.accorhotels.com/gb/hotel-8068-ibis-styles-karlsruhe-ettlingen/index.shtml>

<http://www.hotelwatthalden.de/>

<https://www.stadthotel-engel.de/> .

Contact: peter.schilken@energy-cities.eu

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