
Municipality of Gierałtowiec [PL].

Summary Roadmap



PUBLnEf has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No 695923

Coal- mining municipality Energy Cluster, Poland

ROADMAP SUMMARY DOCUMENT

Released by KAPE

In November 2017

With the support of OO ESV, CIEMAT

Disclaimer: The sole responsibility for the content of this document lies with the authors. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Background

The Ministry of Energy in Poland introduced the concept of Energy Clusters according to the RES Amendment Act.

Energy Clusters are civil law agreements between different entities including local governments, which aim at becoming energy efficient regions through a more effective use of local renewable energy sources. Energy clusters cover the area of one district or five municipalities.

The formation of energy clusters provides the opportunity to group local entities acting in a common interest in order to improve local energy safety and quality as well as reduce energy costs for the region.

As the concept is of interest to numerous Polish municipalities and the regulations outlined in the RES Act do not include a clear description of the cluster formation process a pilot project defining the steps of such a process is necessary.

In order to create such an opportunity within the Publnef project, KAPE contacted the Gierałtowiec municipality, offering support in becoming the first successful energy cluster in Poland. Gierałtowiec is a municipality of the Silesia Voivodeship, with a large mining area (4 mines). The energy efficiency policy of this municipality is based on The Low Emission Economy Plan. Other documents supporting the implementation of policies on energy efficiency in the region include:

- The program of Environmental Protection of the Gierałtowiec Municipality until 2015 with a perspective until 2019;
- Assumptions for the heat, electricity and gaseous fuels supply plan;
- The “Śląskie 2020” Śląskie Voivodeship Development Strategy;
- Regional innovation strategy of the Silesia Voivodeship;
- Low emission reduction – Śląskie voivodeship’s resolutions
- Electromobility strategy

What is more, several ways of financing investments based on the region’s energy efficiency policy are available. These include: the municipality’s own funds, commercial loans, preferential loans with redemption possibilities (mainly WFOŚiGW/NFOŚiGW), investments implemented under the Public-Private Partnership Act, investments implemented in the ESCO system and grants: European funds - Structural Funds.

Objectives

According to the aforementioned strategy documents the energy efficiency policy of the municipality focuses on:

According to the aforementioned strategy documents the energy efficiency policy of the municipality focuses on:

At national level:

- Reduction CO₂ according to 3x20 targets;
- Increase of energy security;
- Tackling energy poverty;

At regional level:

- reduction of low emission,
- improvement of competitiveness and innovation of the local economy;
- increasing the awareness of the local community's prosumers;
- optimization of local energy mix;
- developing of local energy production and reducing their dependency on external support mechanisms;
- optimization of local distribution network operation through intelligent energy sources management and popularization of RES, energy storage and prosumers systems;

At local level:

- ensuring of energy self-sufficiency of the municipality based on methane from mines and agricultural resources (biogas)
- testing of products and solutions within e-mobility
- transformation of the mining municipality into a "green" municipality

These objectives are compatible with the energy cluster idea. Due to that KAPE signed an agreement on cooperation with the Gierałtowiec Municipality to create **guidelines on how to proceed in order to become a successful energy cluster**.

The content of the roadmap will include:

- The revision of potential cluster participants and possible investments;
- The description of the participants' roles, possible benefits and risks;
- A technical and economic analysis of the cluster, taking into account the multi-profiled energy production and consumption; available financing models and different network configuration solutions;
- The concept of the Gierałtowiec energy cluster – recommendations;
- An attachment:
 - ➔ Template of energy cluster's agreement

The baseline may be evaluated by the following indicators:

- The level of satisfying the energy needs of the cluster's participants
- Energy share from RES, CHP, waste energy recovery
- System Average Interruption Duration Index (SAIDI)

Target groups

- Gierałtowiec Municipality's public authority representatives: Mayor of the municipality: Mr Joachim Bargiel; Main Energy Specialist of the Municipality: Mr Tomasz Gajewski;
- The Renewable Sources Department of the Ministry of Energy;
- The National Fund of Environmental Protection and Water Management (financing institution);
- 3000 of households of Gierałtowiec municipality;
- Local energy companies;
- All types of local energy consumers (schools, kindergartens, swimming pools, municipal health centers) , and prosumers;

Actions taken until now:

- Emails, phone calls and face to face meetings with: the Public Authorities of Gierałtowiec, NFOŚiGW, the Ministry of Energy, and the Institute of Projects and Analyses.
- On the 13th of March the Municipality of Gierałtowiec undersigned the Cooperation Agreement between KAPE and Gierałtowiec.
- May2017: identification of potential energy cluster members; 3 teleconferences with IPA; meeting with JSW (the largest producer of high-quality hard coking coal and a major producer of coke in the EU – and discussion on cooperation within the energy cluster Gierałtowiec);
- June 2017: letter of intent undersigned by members of Energy Cluster of Gierałtowiec (29th of June); 12th of June – meeting organized in Gierałtowiec;
- July 2017: Energy Cluster of Gierałtowiec included in the Ministry's list of energy clusters; gathering letters of intent from new members of energy cluster;
- October 2107: the civil agreement undersigned by all members of energy cluster Gierałtowiec; creation of statute and strategy of energy cluster Gierałtowiec; meeting organized in Gierałtowiec with members of energy cluster – presentation of the strategy and discussion; meeting (physical/teleconferences) on developing the energy cluster Gierałtowiec into wider cluster involving other neighborhood municipalities;
- November 2017: meeting organized in Gierałtowiec - discussion on energy cluster Gierałtowiec development;

Learning from others

Possible good practices to adapt:

- “Biomass District Heating – Tralee” (Ville de Poissy, France)
- “Facilitation of Energy Project Investment in Local Authorities” (Galway County Council (Ireland);

- “Installation of renewable energy systems in the public and residential buildings” (Niepołomice, Polska);
- “Establishing a team responsible for the implementation and monitoring of the “Low carbon economy plan for the City of Opole””
- “NEWLIGHT: a potential solution for up-scaling investments in Energy Efficiency and Renewables”

Replication potential

The energy cluster pilot project will be replicated among other Polish municipalities.

Due to the concept’s novelty, unprecise explanations of the national public authorities and a wide interest among municipalities the idea of energy cluster formation is now broadly discussed with all stakeholders on the local, regional and national level in Poland. The pilot energy cluster will provide solutions for numerous issues that the cluster’s participants may face during its creation. This will allow for a more efficient implementation of the idea in the future.



Visit the website

<http://publnef-project.eu>

In partnership with:

JIN, CRES, KAPE, CIEMAT, CEI, ABEA, OÖ ESV,

ENEA, FEDARENE, Energy Cities TEA, ARENE, AEEPM