



## Positive Energy District - Sletišťe

### Background

The city of Kladno was built on heavy industry and coal sources. The city grew in the 20th century thanks to mining and the associated employment opportunities. Kladno has been for a long time dependent on its central source of district heating (covering two-thirds of the city's heating needs, with the remaining part covered by decentralized gas boilers). The source itself (Kladno power plant) is operated by a private partner, it is a big enterprise in the field of power production and mining, covering the whole value chain from coal production to selling electricity and heat, thus ensuring the price of fuel control. It is a political priority of the city to keep a stable supply of heat for reasonable prices.

### SPARCS

In 2019 SPARCS came in with a vision of potentially diversifying the heat supply (by potentially feeding heat from new renewable sources to the district heating network or operating RES independently from the central distribution in selected localities where district heating does not have an economic sense) as well as decentralizing power production.

PED was imagined as a testing ground for adding new RES to the city energy mix. After a detailed introduction to the topic and good practice from other partners, it was necessary to get the plans into written form. Several strategic documents were produced, e.g. PED pre-feasibility study, SECAP, SUMP.

The overall goal of the city of Kladno is to increase the self-sufficiency of buildings and related infrastructure. The concept is focused on reducing energy consumption in buildings, increasing the share of renewable energy technology installations (especially through solar power plants), introducing smart elements in management and digitalization, and optimizing the heat supply system. All this is proposed by the city taking into account innovative, smart, and resilient (pro-climate) elements and approaches (e.g. about the PED scheme or energy communities).

### Sletišťe

The PED is a long-term project, its complete implementation may take 5 years with the prospect of phasing over 10 years. However, selected parts of the PED can be implemented within 1-2 years.

Out of 4 options, part of the Rozdělův district called Sletišťe was selected for the implementation of the PED, where, in addition to residential and family houses, there is also a sports complex including a winter stadium.

### City buildings

SECAP 2030 targets: 29% energy savings; 49% CO2 savings. As part of the savings analysis, 23 municipal buildings were mapped. For each building, measures (construction and energy) were proposed. To this, PV installation business plan for the city company was designed.

### Smart metering

Unique software was purchased (energy-saving management in municipal buildings). It includes several smart modules - consumption, audits, facility management, and connection to the stock exchange. The goal is to closely monitor the status of consumption and buildings, solve problems that arise, and save time and resources. Now data collection and testing; then training; live operation and implementation.

And smart platform Invipo consists of the smart installation from the traffic, waste management, etc.

## Replication plans

### Energy Hub

Kladno intends to help its citizens and create a consulting Energy HUB for the public. Citizens could have a chance to consult their projects, such as how to save energy, how to renovate their homes, how the subsidies can be used, and how to install renewables. The city therefore prepared a unique project and applied for a grant to the European LIFE Programme call. Other activities take place.

### Energy Communities

The energy community is becoming a hot topic with many experiments and models.

Kladno is accessing new opportunities thanks to the work in SPARCS, and running a pilot project on the EC will be another one of them.

## SPARCS New Energy Team

Involvement in the SPARCS project kick-started the city's transformation. The transition to a sustainable and resilient energy ecosystem has become one of the city's priorities.

New team, knowledge, innovation, and other preliminary works have been started.

2019



## City vision 2050 Stakeholder Analysis

The city defined its vision and roadmap, how the city should look in the future, and what to achieve, all about the energy and climate goals. The description of the desired future state is thus a central part of the 2050 vision of the city.

Stakeholder analysis that includes more than 20 interviews containing the discussion about Kladno's goals, projects, and PED expectations.

2020



## SECAP

2021

In 2021, the City of Kladno developed a Sustainable Energy and Climate Action Plan (SECAP) for 2030 with a view to 2050. Building on the goals of the Covenant of Mayors, Kladno has voluntarily committed to reduce CO2 emissions from all operations in the city's cadastral territory by at least 40% by 2030 compared to 2019 and to increase resilience to the impacts of climate change

## PED pre-feasibility study Ongoing investments

PED Sletišťe pre-feasibility study has been drafted.

Ongoing investments took place, e.g. the winter stadium should be used as a core excess heat source for PED design. Reconstruction of the stadium was one of the largest investments done in 2022-2023.

The preparation of the Kladno PED continues as there are still several options about the utilization of the heat that can be sent either to new residential housing or other sports facilities.

2022



## PED feasibility study PEB Eco-centre Čabárna

2023

Other PED Sletišťe activities are done incl. preparation of the specific feasibility study. Eco-centre Čabárna is a replication case and a great example of a sustainable building. It also serves as a testing ground for new technologies that the SPARCS Kladno team can turn to and learn from. Kladno received a grant from the EU FUNDS to expand the Centre with a new nature-friendly demonstration building.

## PED pre-realization Other investments

PED Sletišťe should be in the pre-realization phase; several investments should take place (e.g. use of the waste heat, new RES installation, energy communities implementation, ...).

Replication is used in the city. Idea of the "positivity" is spreading among other projects. Construction of heat distribution systems between buildings according to individual stages and, if possible, connection of the entire Sletišťe locality to the district heating.

2024



## Contact

**Michal Koníček**  
Statutory City of Kladno  
náměstí Starosty Pavla 44, 272 52 Kladno  
Mobil: + 420 774 148 250  
E-mail: [michal.konicek@mestokladno.cz](mailto:michal.konicek@mestokladno.cz)

**David Škorňa**  
Statutory City of Kladno  
náměstí Starosty Pavla 44, 272 52 Kladno  
Mobil: + 420 731 628 368  
E-mail: [david.skorna@mestokladno.cz](mailto:david.skorna@mestokladno.cz)

