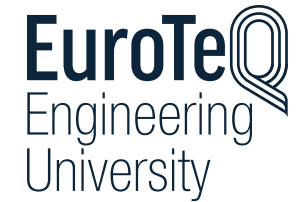




Challenge: Energy Communities



Introduction

“Energy communities“ is an emerging concept that focuses on collective and citizen-driven energy actions that help pave the way for a clean energy transition. Besides mirroring a progressive view on energy distribution and consumption it also presents an opportunity for normal citizens to become more involved in the energy sector. It encourages the transition to renewables, and it also improves the public opinion on renewable energy. Some of the benefits of energy communities are, for example, supporting reliable power supply, deploying renewable technologies, reducing bills, or creating local jobs. Moreover, this initiative is a useful tool in achieving inclusive, just, people-centred, and resilient energy systems.

Who is behind this initiative?

For more than 120 years, **Pražská energetika, a.s. (PRE)**, has been a stable partner in the energy sector. PRE and its subsidiaries form a prosperous corporate group whose mission is to ensure the reliable supply, generation and sales of energy and related services in Prague as well as in the entire Czech Republic. PRE Group consists of more than ten companies. In their activities, all the companies follow strict ethical standards, which primarily include a responsible attitude towards society, the environment, and their own employees. In its business activities, PRE proudly embraces the principles of sustainable development and through its activities, it strives to contribute to the improvement of the standards of living in the region it operates in.

What is the challenge?

To choose a location somewhere in Prague where the team would attempt to implement the “energy community” phenomenon.

Interested student teams are asked to engage in the above area by

- drawing up an energy community in that area based on their own design.
- when choosing the correct location, aspects like accessibility, number of residents, schools, residential buildings, office buildings etc. needs to be taken into consideration.
- in their design, students must include modern technologies from the energy sector such as:
 - EVs (electric vehicles);
 - Chargers (hubs, EVR lamps, others);
 - Heat pumps, air conditioners;
 - Photovoltaics;
 - Others;

The finished project should be an energy community in the distribution area of PRE that reflects the efforts to limit energy consumption and decrease CO2 emissions. Because the challenge this year is called “enhanced connections,” it is desirable for the students to merge the topics of electricity distribution, sustainable planning, and citizen initiatives.

Example of an EC: Klimaan cvso (*Mechelen, Belgium*)

To give an example, we can look at the energy community of Klimaan cvso in the Belgian city of Mechelen. This community has over 1100 members who cooperated on the installation of more than 20 solar panels and who share around 20 electric vehicles. Please find a link for a map of energy communities: https://energy-communities-repository.ec.europa.eu/energy-communities-repository-energy-communities/energy-communities-repository-map_en.

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