EU grants DKK 20.5m for new climate demonstration project in Sonderborg

Sonderborg Cooperative Housing Association (SAB) will be the Danish focal point for a new EU project focusing on the integrated energy system. New tools will integrate energy systems locally - and save energy and money for residents.

By ProjectZero

Europe's eyes will rest on Sonderborg when housing association SAB becomes the centre of a new EU demo project over the next four years. Here, six Danish partners will test new digital solutions and techniques for regulating district heating in the homes themselves and locally in the district heating network, as well as connecting energy systems to save energy and reduce heat loss in the pipes, for the benefit of the climate.

The demonstration project is part of a new large EU-funded project, called ARV, where 35 partners from seven countries will develop and demonstrate energy and climate-friendly solutions in local urban communities, for the benefit of future generations. The project has received the EU Commission's commitment of 20 million euros (approximately 150 million Danish kroner) from the EU Green Deal, where ARV won in fierce competition with 115 other applications. It is expected that the ARV project will make a significant contribution to the EU's target of reducing energy in buildings by 50-55%, without compromising comfort.

The ARV demonstration project fits perfectly into Sonderborg's ambitions to link the energy systems together. It will also put housing associations at the forefront of climate change, says Mayor Erik Lauritzen:

"EU projects have for many years brought us valuable knowledge, international relations, strong university and partner competences and economics to realize the ProjectZero vision. I am sure that this project will be no exception. The Sonderborg area's many leading companies within green technologies and energy efficient solutions mean that many solutions are being tested in the area to reduce CO2 emissions. This is to our benefit, but also globally, because integrated energy systems make efficient use of the planet's limited resources."

Vivian Engelbredt, President of Sønderborg Cooperative Housing Association, also welcomes the new EU project:

"At Sønderborg Cooperative Housing Association, we have engaged residents in making energy renovations, installing solar cells on the roof, establishing green ambassadors and project development with other housing associations, to fully support ProjectZero's climate goals" says Vivian Engelbredt, and continues:

"The new ARV project focuses on developing and demonstrating new energy-saving heating automation in the homes in SAB's settlement Kløvermarken/ Hvedemarken as well as demonstrating new small heat pumps in the engineering rooms that can reduce the return temperature to district heating. I welcome the project and the cooperation with the project partners. I hope that the test results can lead to new effective solutions that can also be used in other housing departments." Vivian Engelbredt, President of Sønderborg Cooperative Housing Association

DTU is the project's Danish university partner

DTU Byg and DTU Compute are experts in the use of data from sensors and artificial intelligence to optimize energy consumption in buildings and take advantage of the flexibility of the energy grid. In ARV, DTU, together with the other partners, will use digital solutions to predict the temperature requirements of the local district heating network based on expected consumption in the buildings. Likewise, the local weather forecast will be used to bring flexibility into play in the energy systems.

And the ARV project will be an important element in DTU's continued development of leading digital green solutions, says Professor Henrik Madsen:

"Digital solutions are the key to efficient and scalable technological solutions, which, following development and testing in Sønderborg with their ProjectZero CO_2 vision in 2029, will be replicated in other smart cities and regions around the world. Thus, the cooperation under the ARV project will contribute to increased green growth in Denmark and accelerate the green transition globally".

Center Denmark in Fredericia will have a key role in ARV as a European digitisation hub. The partners from Norway, the Netherlands, the Czech Republic, Italy, Spain and Denmark have each designated a demonstration city with a project to collect energy data from. All data will be collected and handled on Center Denmark's digital platform, where the partners will have access to each other's data.

"New solutions in the green transition, and in ARV, will be data driven, and it is our role to ensure easy access to this data. Through digital solutions, we will accelerate the green transition towards 100% renewable energy and the achievement of climate goals. And we see the ARV project as an opportunity for Center Denmark to become a leading EU digitization hub for data management through smart, scalable, climate-friendly solutions," says CEO Søren Skov Bording.

13. oktober 2021

- ARV has 35 partners in seven countries; Denmark, Norway, The Netherlands, Italy, Czech Republic, Belgium and Spain. NTNU, The Technical and Science University of Norway, is leading the project.
- The ARV project starts on 1 January 2022 and ends at the end of 2025.
- ARV establishes six demo projects in six cities to explore how to create climate-positive circular communities for the benefit of the climate and current and future generations.
- Through innovative digital tools and the use of data, ARV will link residents' participation, buildings and energy systems to take advantage of the flexibility of the energy system.
- ARV will also develop and test energy-efficient and circular solutions for and in the construction industry, and provide proposals for guidelines and policy frameworks that will accelerate energy renovations.
- ARV will work with circular economy through automated use of lifecycle analysis, LCA, digital logbooks and material banks.
- Solutions must be easy to understand and use for all stakeholders, from manufacturers to end users, and solutions must be scalable so that they can be used elsewhere.
- Denmark participates with six partners; Sønderborg Municipality represented by climate partner ProjectZero, SAB - Sønderborg Cooperative Housing Association, Danfoss A/S, IT company ENFOR in Holte, EU Digital Innovation Hub - Center Denmark in Fredericia and DTU with the departments DTU Compute and DTU Byg.
- The ARV project has been promised €20 million in funding from the EU's Green Deal, approximately DKK 150 million – of which around DKK 21.5 million goes to the Danish partners.
- The ARV project is named after the Norwegian word 'heritage', which has the same meaning as in Denmark.
- The project starts on 1 January 2022 and ends at the end of 2025.

ProjectZero

ProjectZero is a public-private partnership that catalyzes and facilitates Sønderborg's ambitious climate ambition to become carbon neutral by 2029 through the transformation of the energy system, while creating new skills and green jobs.

Sønderborg Cooperative Housing Association

Sønderborg Cooperative Housing Association (SAB) is a non-profit, independent and private social housing company owned by its residents (tenants).

Danfoss A/S

Danfoss is headquartered in Sønderborg and is Denmark's largest privately owned industrial company with 38,000 employees serving customers in more than 100 countries.

DTU

DTU Byg and DTU Compute are experts in the use of data from sensors and artificial intelligence to optimize energy consumption in buildings and take advantage of the flexibility of the energy grid.

Enfor

IT company ENFOR in Holte is the market leader in energy forecasting and optimization solutions for the energy sector.

EU Digital Innovation Hub (EUDIH) – run by Center Denmark in Fredericia

EUDIH is an independent organisation working to promote the development of digitally integrated energy systems to facilitate society's transition to 100% renewable energy and reduce environmental impact through digitisation and sector coupling.

TemplateTags() in code (Designs/ProjectZero/_parsed/pdf.parsed.cshtml). Remove before going live...