

EU.BAC SECRETARIAT VISITS DANFOSS PRESS RELEASE

The eu.bac Secretariat recently visited Danfoss headquarters in Nordborg, Denmark, to gain insights into the company's innovative work on decarbonization solutions.



A Showcase of Smart Energy Solutions

We had the opportunity to experience Danfoss' smart and efficient solution applications in a smart shop, data centre, residential buildings, hotel and their expansion valve production facility. It was particularly inspiring to observe sector coupling and grid solutions on such a scale. Thanks to Danfoss's leadership in integrating the energy system, it has been possible for buildings and businesses in Nordborg and Sønderborg to become dynamic hubs of energy production, storage and distribution.

The Smart Store: A Real-World Testing Ground



One of the highlights was the energy-efficient "Smart Store" supermarket near Danfoss' headquarters in Nordborg, Denmark. Opened in 2023, this collaborative project brings together manufacturers, contractors, food retailers, and Danfoss engineers to develop and test new energy-saving technologies and solutions in a real-world supermarket environment. This unique approach allows store managers to focus on their business

while benefiting from significant energy and cost savings. The store utilizes world-class heating, cooling, and automation solutions with **payback times of less than 3-4 years**, demonstrating the strong return on investment offered by these technologies.

Sønderborg: A Model for Carbon Neutrality

Neighbouring the Danfoss's headquarters in Nordborg is the serene city of Sønderborg. Here, it was refreshing to see how the locals enjoy the fruits of an integrated energy system. With the continued support of the Danfoss Foundation, Sønderborg is striving for carbon neutrality by 2029. A local initiative labelled ProjectZero focuses on sustainable growth in the city while creating green jobs and improving the inhabitant's lives.

“ProjectZero is a local solution to a global problem”, explained Brian Seeberg, CEO of the Project. Mr. Seeberg

reiterated how the green transition is about breaking down silos, ultimately leading to advanced cooperation between citizens and the state. eu.bac had the pleasure of seeing the three-step decarbonisation approach of “Reduce-> Reuse-> Renewables” in motion, where the **Energy Efficiency First** principle is taken seriously. Once optimum efficiency is achieved, the local district heating system can reuse excess heat that has already been produced, minimising energy waste in the surrounding areas. Finally, when all other solutions are exhausted, renewables can come in to fill the missing clean energy.



Renovated Housing Project: A Model for EPBD Compliance through staged deep renovation

The visit also included a tour of a renovated housing complex in Sønderborg, showcasing a project highly relevant to eu.bac's mission and the new EPBD. This comprehensive renovation, completed in phases between 2010 and 2021, addressed multiple aspects of building energy performance. The improvements included upgraded radiator systems, the integration of a district heating substation, and an improved building envelope. In 2017, a large-scale solar PV system with battery storage was added, generating a significant portion of the complex's electricity needs. Finally, the project deployed a system utilizing AI for optimized heating control.



This renovated housing project serves as a valuable example of the type of staged deep renovation envisioned by the revised EPBD. By **combining multiple energy-saving measures and smart controls, the project achieved significant reductions in energy consumption.** The project's focus on resident engagement aligns with the EPBD's emphasis on occupant behaviour and awareness. eu.bac will draw on these insights to continue advocating for effective implementation of the EPBD, promoting staged deep renovations and smart technologies as key tools for achieving the EU's decarbonization goals.

eu.bac: Championing Smart Solutions for a Decarbonized Europe

eu.bac left Southern Denmark with added motivation to advocate for smart and integrated solutions and new ideas to support the Member States in implementing the revised EPBD. Lighthouse initiatives such as ProjectZero will be essential to inspire Europe as we march toward our collective decarbonisation goals. It is imperative that we, as an industry, continue to lead by example and provide inspiring case studies to facilitate an ambitious EPBD transposition at the national level in the coming years.

A quote from the founder of Danfoss, the late Mads Clausen, particularly resonated with us:

"If others can do it, so can we. If others can't, we still have a chance."

This sentiment embodies the spirit of innovation and determination that is necessary for Europe's transition to a decarbonised future.