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interconnect

Partners involved



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Ghent Pilot Nieuwe Dokken

FINANCING



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Location



Objectives

The Nieuwe Dokken residents will all be making use of the energy services provided by DuCoop, as well as kept informed on the energy performance of the services. Additionally, residents will have access to their own electricity, heat and water demand data, allowing them to frequently track their own consumption.

Our objectives are to:

→ Offer residents energy (electricity, heat) and water (treatment) services.

→ Offer residents a visualization platform for data monitoring: users can read their energy and water data and act upon it.

→ Align the DuCoop asset portfolio using a smart Energy Management System, including storage and demand-side management.

→ Optimise the consumption of local renewable energy and waste heat.

→ Provide grid services (flexibility) to DSO and TSO.

→ Measure energy-awareness in an urban energy community.

Technologies & Infrastructures

De Nieuwe Dokken is a city district that consists of a kindergarten, sport infrastructure, a city administration building and over 400 apartments, complemented with a park. The following technologies will be installed:

District heating network

That distributes heat originating from different sources, being the waste heat from a nearby company, the heat from the wastewater produced by building residents (recovered using the heat pump) and biogas, produced by treating the biological waste generated on-site.



Heat pump

That transfers the heat available in the wastewater to the district heating network, and will in the future possibly be used to 'charge' the district heating network with that same heat when electricity prices are low.



Charging infrastructure

The charging infrastructure at De Nieuwe Dokken consists of 8 currently active charging points, with 32 installed, and >32 planned for future development phases.



PV panel

The solar panel installation currently includes 234 panels and delivers 76 kWp. In future building phases, this will be extended with 200 kWp.



Battery

The battery used has a storage capacity of 240kWh and will serve to store excess solar energy (mostly in summer) and charge when grid prices are low compared to expected prices (mostly in winter).



Energy management platform

To efficiently align the different technologies, an energy management platform is under development throughout the course of the InterConnect project. The aim here is to minimize costs for DuCoop by using either locally produced energy or cheap energy from the grid as source.

