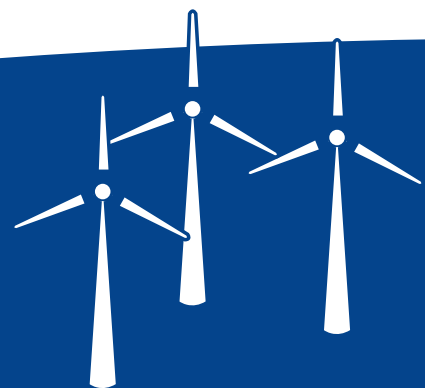


Case Study

How DSO **Varberg Energi** is piloting a city-wide virtual power plant that citizens can join through an app

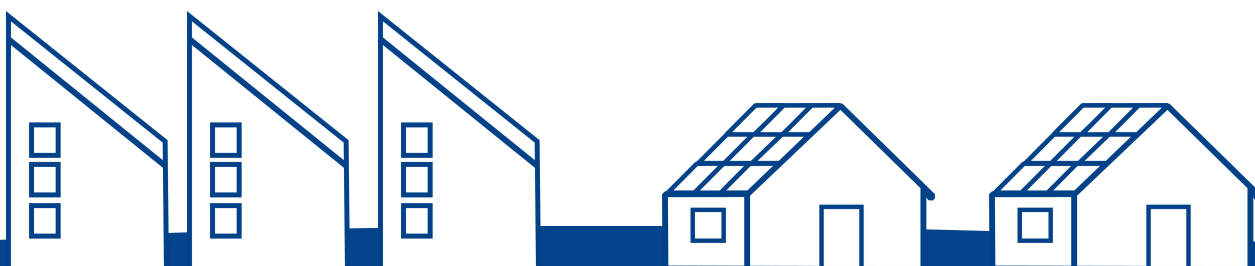
*With funding from the European Union through the COPPER initiative, the Distribution System Operator (DSO) **Varberg Energi** will pilot an 85 MW virtual power plant called Nätflex, capable of balancing renewable loads for a town of 35,000 while providing an income to energy customers who provide flexibility services*



CHALLENGE

As a Distribution System Operator (DSO), Varberg Energi is responsible for ensuring that the local grid can deliver reliable power supply to all homes and businesses. Flexibility is key to this service, and by 2026, Varberg Energi will have plugged in 85MW of flexible charging stations, batteries at grid level and in homes, as well flexible power providers producers include wind farms and solar power plants.

But to make it possible and convenient for private customers, Varberg Energie need a system to make it easy and attractive for their energy customers to offer their solar panels and household batteries to provide flexibility services.



APPROACH

Working with greentech provider FerroAmp, Varberg Energi will pilot a virtual power plant that will make it easy for private energy customers to connect their assets up to the local grid and earn an income from providing flexibility services, being paid to store and dispatch energy when needed.

The Nätflex system, which allows energy customers using Ferroamp's balancing software Energy Hub to control how their assets interact with the virtual power plant through an app. This will allow customers to contribute to a healthy local grid and earn an income with just a few taps on their phone.

85MW

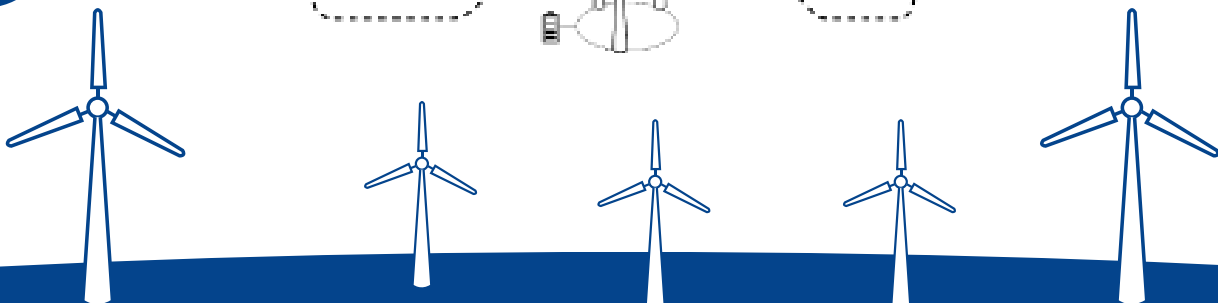
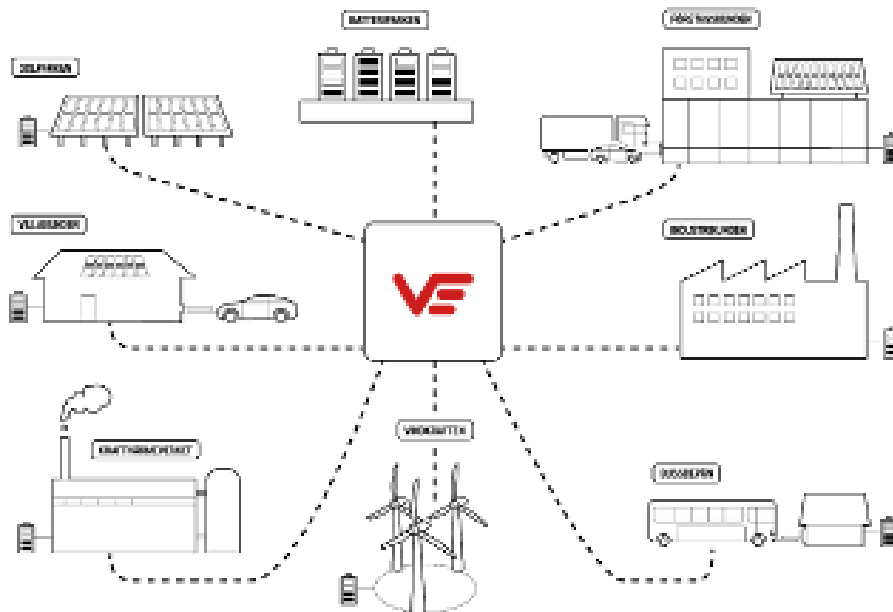
Target capacity plugged into the virtual power plant by 2026

1000

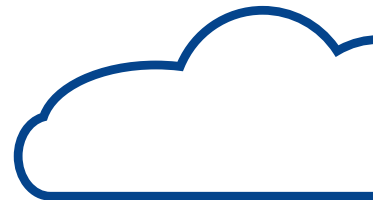
Customers with Ferroamp system

28MW

Installed to date



OBJECTIVES



Prepare a virtual power plant at city-wide scale

Through COPPER, Varberg Energi will expand its virtual power plant to private customers through Nätflex, connecting generating assets from batteries to wind turbines into an intelligently-controlled power plant.



Enable citizen participation in flexibility incentives

Nätflex will allow private energy customers to provide flexibility services to the grid and earn an income in the process, keeping the local grid healthy and democratising the rewards for flexibility.



Develop a new way of working between DSOs and cities

As a publically-owned DSO, Varberg Energi will work closely with the municipality to ensure the power plant works towards the city's strategic energy objectives.



With a lot of flexible resources, we want to be able to stable the electricity system and increase the amount of renewable electricity production in the existing system.



Henrik Näsström

Chief Marketing Officer, Varberg Energi

Learn more by contacting contact@coppercities.eu