

Innovating the future of EV charging

Pixii and Elywhere's groundbreaking partnership

As the world moves towards cleaner and more sustainable energy solutions, the use of electric vehicles (EVs) is gaining popularity. Despite this trend, widespread adoption of EVs is still challenged by inadequate charging infrastructure.

The challenge

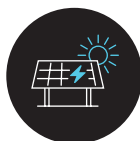
The biggest obstacle to the widespread adoption of EVs is the insufficient grid capacity to support fast charging. The cost and time to upgrade old grid infrastructure to meet the needs of fast charging is a major barrier.

Elywhere is a Norwegian company offering a complete solution with EV fast chargers, energy storage and a total system management, on a fast deployable platform. Circle K piloted one of these systems in July 2022, to demonstrate how these enable them to offer a fast charge service where the grid capacity otherwise would not allow this.

Applications/functions in use:



Peak shaving



PV self consumption



Arbitrage



Flexibility markets

Case details

Objective: Enable fast charging in areas with poor grid - Multiply available power

Client: Elywhere and Circle K

Industry: EV charging

Country: Norway

Background

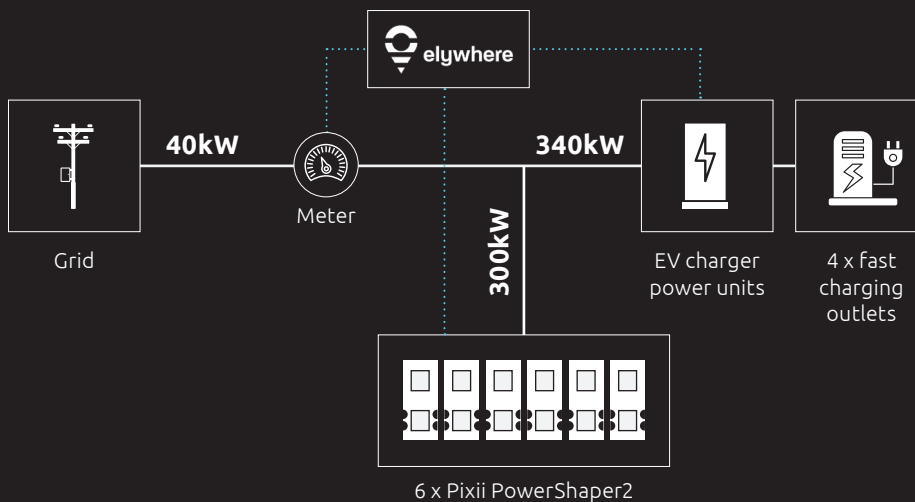
Elywhere is a visionary Norwegian company leading the way in revolutionizing the electric vehicle charging infrastructure.

Their mission is to break down barriers to widespread EV adoption and enable fast charging anywhere.

Their groundbreaking ES300 product offers a smart solution, effectively multiplying the maximum power available for fast charging, contributing to a more sustainable future.

Elywhere's leadership and commitment to environmental responsibility positions them as a key player in the rapidly growing global EV market.

Solution and benefits



The solution

Circle K's Ski pilot project was solved with 6 Pixii Powershaper cabinets, offering 300kW output from a 40kW grid input.

The cabinets were strategically pre-installed on a 400kW EV charging platform, enabling the simultaneous charging of up to 4 vehicles.

All managed seamlessly by the Elywhere site controller.

The Benefits

The Pixii solution can multiply the available power from the grid, enabling fast charging. It's standardized, modular design allows for the cabinets to be proven and tested at the factory, making installation, deployment and even relocation quick and simple, whilst enabling Elywhere to scale easily as demand grows.

EV charging drives traffic and sales. In addition to the charging fees, fast charging gives drivers extra motivation to visit and make purchases while they wait, increasing sales, boosting the stations appeal as the destination of choice, and creating a steady stream of revenue.

It's smart functionality like arbitrage and peak shaving allows for storing of energy during off-peak hours, reducing costs and minimizing demand charges. And with no single point of failure, it is one of the most reliable and robust battery energy storage systems on the market, reducing the need for maintenance.

The Pixii battery energy storage system even enables businesses to participate in the energy flexibility markets, such as the balance market for frequency regulation, allowing them to monetize the system's flexibility for additional revenue streams. With a fleet of sites, this additional revenue can be significant.

The results

The Pixii solution, delivered in partnership with Elywhere, has exceeded expectations since its launch in July 2022. Demand for charging has grown to 60-70 charging sessions per day, with up to 1 megawatt hour per day being sold. This level of performance would have been impossible without battery energy storage.

Circle K are very happy with the results and are now expanding their offering within Norway and into other countries. With the help of Pixii and Elywhere, Circle K are leading the way in revolutionizing the electric vehicle charging infrastructure and making charging an effortless experience anywhere.

Technical overview

Storage system:	Pixii PowerShaper 2
Power:	300kW
Battery:	300kWh LFP
Discharging power:	4 x 150kW
Daily use:	60-70 cars charged
Energy sold:	Up to 1MWh daily
Operating temp:	- 20°C to +50°C

"Pixii is the best solution for Elywhere, offering innovative technology, easy integration of management software, delivered with the highest-quality batteries. Our close partnership and co-operation with Pixii is key for our success."

Kenneth Hauge, CEO

"For Pixii, Elywhere has been a stepping stone into a target market. The grid will be a limiting factor for the electrification of transportation and with Elywhere our solution is demonstrated as the enabler for fast charging – anywhere."

Morten Schøyen, CPO, Pixii AS



The platform is pre-wired before the equipment is mounted on the top of the platform to speed up deployment time



At work in this case: Pixii PowerShaper2, 6 x 50kW modular energy storage with an output of 300kW

Project contacts

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