

CASE STUDY

HOW WE HELPED LEVELISE REACH A GLOBAL AUDIENCE

INCREASING THE ADOPTION RATE OF DOMESTIC BATTERIES

As part of our commitment to supporting SMEs across the UK to bring to market decarbonisation innovations, Energy Systems Catapult has teamed-up with Levelise through our [Energy Launchpad](#) division to explore the role that domestic batteries can play in optimising energy use across the country.

Energy Systems Catapult's insights into energy usage by UK consumers positioned us perfectly to help Levelise understand the market landscape and connect with potential partners.

Domestic batteries allow consumers to optimise solar PV-generated power and earn income by selling excess energy back to the grid. However, the adoption rates have been low as consumers must cover the upfront cost of the battery before enjoying the long-term benefits.

Levelise developed an innovative home energy management system that links domestic battery systems across several homes to decrease costs.

The Innovation

Founded in March 2017, [Levelise](#) is an Oxford-based technology start-up led by a team of experienced ex-Sharp hardware and software engineers, data scientists, and renewable energy specialists.

Levelise seeks to make home battery systems more cost-effective and affordable by better predicting solar generation and energy consumption. They use Artificial Intelligence to increase the aggregate capacity across a fleet of consumer batteries, also known as a Virtual Power Plant (VPP).

By connecting domestic batteries across several homes, households can participate in network balancing which creates a more flexible grid, reduces the need for network reinforcement, and provides an extra revenue stream for consumers.



ABOUT US

Energy Systems Catapult was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth.

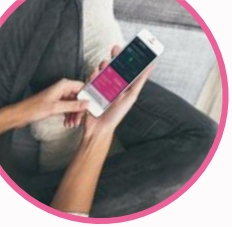
The catapult is an independent, not-for-profit centre of excellence that bridges the gap between industry, government, academia and research.

We take a whole system view of the energy sector, helping us to identify and address innovation priorities and market barriers to decarbonise the energy system at least cost.

LEVELISE SAID:

"Our concept is a complex one that requires a lot of explanation and the Catapult is really good at finding ways to convey the message in a way that the customer understands."

Josh Robson-Hemmings, Chief Engineer and Co-Founder at Levelise.



The Challenge

Managing the increasing demand for electricity, driven by the decarbonisation of heat and transport, is an important challenge facing the energy system.

Energy companies need access to flexible behind-the-meter technology. Digital services and platforms are critical for unlocking the value of decentralised assets (such as solar and batteries) to create a more efficient energy system at a lower cost to consumers.

Levelise's team of hardware and software engineers, data scientists and renewable energy specialists already had a robust technical foundation and a clear vision when they began working with Energy Systems Catapult.

However, VPPs are complex - cutting across systems integration, energy trading, and consumer engagement models. To overcome resource limitations, reach the next stage of development and explore opportunities for market expansion, Levelise needed additional expertise.

Impact

- ▶ Increased Consumer acceptance of novel **domestic energy** services by **refining their pitch** in a service design sprint and validating the proposition through our **Home Truths** consumer panel — delivered by our Consumer Insight team.
- ▶ **Growing team.** Levelise tripled their employees and are now working with thousands of consumers across the UK.
- ▶ **Partnerships and overseas market entry** accelerated through Delta EE's market research.

Get in touch

To find out how we can help you, get in touch via email: energylaunchpad@es.catapult.org.uk.

For more information about Energy Launchpad, [click here](#).



The Solution

Selected as part of the first intake of Energy Systems Catapult's **Energy Launchpad**, innovation support programme, Levelise gained access to value-added expertise and skills.

During the scheme, support is tailored to each SME using Energy Systems Catapult's assets and capabilities. Delivering partner offerings such as business model development, energy system integration assessment, consumer insights guidance, digital fitness, market testing and validation, investor readiness, specialist advice, and identification for acceleration support.

As part of our work with Levelise, our Market Insights team conducted Horizon Scanning on global energy trends and flexibility markets, scoping out future scenarios, and advising on long-term business strategies. Our Delivery Support Network partner, **Delta EE**, undertook a targeted landscaping and partner identification package for two international markets to support overseas export business development.

We also tested the Domestic Energy services proposition with consumers in the target market through the **Home Truths** panel ensuring high customer uptake at launch.

Next Steps

- ▶ **Partnering with Heatrae Sadia** (a BAXI Heating UK group company) on the **User Project**. In this Government-funded trial, Levelise are optimising a virtual community of 350 homes across the country using the energy storage potential of the everyday hot water cylinders.
- ▶ **Horizon scanning** has shown future service development and market timing like the rise of cooling during hot summers. Levelise now have a solid understanding of value streams and barriers to entry.
- ▶ **Expanded to the Australian market** with the launch of a local sales team, which is expected to grow over the coming months.

