

Enzen collaborates with EDF to decarbonise UK networks through innovative heat pump trial

The new cross-sector consortium, sponsored by the UK Government, will investigate the feasibility of an innovative methodology for co-ordinating high-density domestic heat pump deployment that will deliver more affordable and sustainable domestic energy.

Solihull, 25 August 2022. Enzen, the global knowledge enterprise specialising in energy and water, is collaborating with utilities multinational EDF to accelerate the use of low-carbon technologies in the UK.

Project Gaia will see Enzen deploy its deep domain knowledge of electricity networks to help determine the commercial viability of deploying heat pumps in high-density areas, as part of the UK Government's net zero strategy.

Sponsored by the Department for Business, Energy and Industrial Strategy (BEIS) and funded through its Net Zero Innovation Portfolio (NZIP), the Project Gaia consortium also comprises Devon County Council, Kensa Utilities, University College London, the University of Sheffield and EDF group company consultancy Urbanomy.

In 2020, the UK Government set a goal of installing up to 600,000 heat pumps per year by 2028 as a greener alternative to traditional gas boilers. To accelerate their use, BEIS has launched Stream 1, Phase 1 of its Heat Pump Ready Programme, which will fund eleven different projects across the UK to develop new methodologies for the coordination of high-density domestic heat pump deployment.

One of these is Project Gaia, led by EDF's Research and Development team and taking place in Newton Abbot, Devon. Running through August and September, the first phase of the project will focus on pre-deployment analysis. Enzen will collaborate with the region's electricity network Western Power Distribution (WPD) to analyse network data and determine the necessary reinforcements and associated costs on WPD's network so it can accommodate the heat pumps.

Should the project be successful, Phase 2 of the programme will see the trial of the innovative methodology for the coordination of high-density heat pump deployment and will involve Kensa's Shared Ground Loop Array. This new decentralised approach to district heating is designed to deliver



more affordable, sustainable energy to domestic consumers. The solution works by transferring heat energy from boreholes in the ground through communal ambient loops which feeds energy to each individual heat pump in each dwelling, providing independent and controllable domestic heat on demand.

Sanjay Neogi, CEO of Enzen UK and Europe, said: "Enzen is proud to be using its network analysis knowledge in this exciting new cross-sector collaboration. The UK's drive to net zero will require creativity, collaboration and innovative solutions. Project Gaia is an excellent example of this. We look forward to enabling EDF and the rest of the consortium to learn how the UK can maximise the potential of domestic heat pumps and accelerate the decarbonisation of the country's energy networks."

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About Enzen

Enzen is a global, professional, knowledge enterprise that focuses on gaining, refining and sharing expertise in the energy and utility sector. It provides strategic advisory and execution of outcome-driven solutions to over 250+ leading businesses, governments, non-governmental organisations, and not-for-profits.

Enzen aspires to make energy and water accessible, affordable and sustainable for all through innovative models, technology and applications. We work with customers across the value chain to deliver sustainable and lasting improvements to their efficiency and performance, increasing their value to their customers and owners.

Our goal is to support large consumers of energy and water and improve the sustainability of resources by increasing efficiency and optimising existing operations. Besides this, we develop the commercially successful use of renewable resources to deliver a transformative advantage for our customers.

Enzen is unique in providing a wide range of strategic advisory, engineering services and solutions from end-to-end for the power, water, gas and renewable energy sectors, supported by our specialised and unique Centres of Excellence. It's this focus on sector expertise, experience, insights and learning that means we define our employees as 'knowledge practitioners'.

The business, founded in 2006, has grown to over 4,000 knowledge practitioners and developed across the globe. Enzen now has a presence in Australia, Africa, India, Portugal, Spain, Turkey, the UK and the US and is working on projects in more than 44 countries. Visit enzen.com.



About BEIS (Department for Business, Energy and Industrial Strategy)

This funding has been made available from the government's £1 billion Net Zero Innovation Portfolio (NZIP) which provides funding for low-carbon technologies and systems. Decreasing the costs of decarbonisation, the NZIP will help enable the UK to end its contribution to climate change.

About the Heat Pump Ready Programme

Funded through the NZIP, the Heat Pump Ready Programme supports the development of innovative solutions across the heat pump sector. Heat pumps are a key solution for decarbonising homes and will be critical for meeting the UK's commitment to achieve Net Zero by 2050.

The Heat Pump Ready Programme stream 1 phase 1 supports the deployment of heat pumps through the development and trial of innovative solutions and methodologies for the optimised deployment of domestic heat pumps, at high-density, in the UK.

Heat Pump Ready is being delivered in 3 Streams:

- Stream 1: a 2 phase SBRI competition with up to £30m available to design and demonstrate innovative, optimised solutions and methodologies which deliver more cost-effective and high-density deployment of domestic heatsupport pumps.
- Stream 2: up to £25m available through a grant funding competition to support the development of tools, technology and processes to overcome specific barriers to domestic heat pump deployment in the UK.
- Stream 3: up to £5m contract to facilitate learning and collaboration within and outside the programme, undertaking research and evaluation activities, and disseminating knowledge, evidence, and lessons to key heat pump stakeholders.

https://www.gov.uk/government/publications/heat-pump-ready-programme

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