

National Grid brings forward new technology with Enhanced Frequency Response contracts

Sub-second frequency response contracts awarded to eight providers. Battery storage to be used for balancing services at grid scale for the first time. Use of new technology will result in over £200m of savings

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National Grid is responsible for managing energy supply and demand across Great Britain and to do this system frequency must be maintained at 50Hz. The fast changing energy landscape and increasing amount of renewable generation on the system that results in frequency volatility has required National Grid to develop new and innovative ways to manage frequency to ensure that energy keeps flowing to where it is needed.

The Enhanced Frequency Response tender has been developed to bring forward new technologies that support the decarbonisation of the energy industry by providing a fast response solution to system volatility. Previously the fastest frequency response was delivered in under ten seconds, however, a new class of technology means this response can now happen in under a second.

This enhanced ability to control variations in frequency almost immediately will result in reduced costs of approximately 200 million pounds and streamline services to make them as efficient as possible meaning reduced costs for the end consumer.

Bids have been received from 37 providers, the majority of which are from battery assets and of these eight have been accepted, the details of which can be found on the [National Grid website](#). Of the 64 unique sites taking part, 61 are for battery assets, 2 from demand reduction and one from thermal generation. Contracts have been awarded on a four year term giving providers the certainty that they need to develop this technology.

Cardi O'Hara, Director of UK System Operator, National Grid said: 'We are constantly looking to the future to understand how we can make the most of the energy available to us. This project is at the very core of our Power Responsive work, to balance the Grid by the most efficient means possible, saving money and energy.'

'These awards show that we can work with industry to bring forward new technology and I believe storage has much to contribute to the flexible energy system of tomorrow. This is the beginning of an exciting new chapter for the industry.'

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Notes for editors

Notes to Editors:

National Grid is pivotal to the energy systems in the UK and the north eastern United States. We aim to serve customers well and efficiently, supporting the communities in which we operate and making possible the energy systems of the future.

National Grid in the UK:

- We own and operate the electricity transmission network in England and Wales, with day-to-day responsibility for balancing supply and demand. We also operate, but do not own, the Scottish networks. Our networks comprise approximately 7,200 kilometres (4,474 miles) of overhead line, 1,500 kilometres (932 miles) of underground cable and 342 substations.
- We own and operate the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,660 kilometres (4,760 miles) of high-pressure pipe and 618 above-ground installations.
- As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it is produced to where it is consumed. From April 2019, Electricity System Operator (ESO) is a new standalone business within National Grid, legally separate from all other parts of the National Grid Group. This will provide the right environment to deliver a balanced and impartial ESO that can realise real benefits for consumers as we transition to a more decentralised, decarbonised electricity system.
- Other UK activities mainly relate to businesses operating in competitive markets outside of our core regulated businesses, including interconnectors, gas metering activities and a liquefied natural gas (LNG) importation terminal – all of which are now part of National Grid Ventures. National Grid Property is responsible for the management, clean-up and disposal of surplus sites in the UK. Most of these are former gas works.

Find out more about the energy challenge and how National Grid is helping find solutions to some of the challenges we face at <https://www.nationalgrid.com/group/news>

National Grid undertakes no obligation to update any of the information contained in this release, which speaks only as at the date of this release, unless required by law or regulation.

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