National Grid’s electricity control room has this week introduced a new ‘Distributed Resource’ Desk that enables power system engineers to give instructions much faster to smaller generators, battery storage operators, and demand side response providers - in the first 24 hours of operation, the number of bids and offers accepted by the control room from these aggregated providers was 87MWh, up 113% on average.

As the Electricity System Operator (ESO) the control room receives bids and offers daily from generators detailing the amount of power they can provide, the time they can provide it, and at what price. The control room accept or reject these bids based on what is needed to manage the network, while always opting for least cost, where it can.

Last year the system operator reached a significant milestone when it opened up the GB Balancing Mechanism Market, to enable small generators, battery storage and demand side response providers to compete with larger power plants to offer power and services to the grid.

Aggregators such as Limejump and Flexitricity act on behalf of several energy providers whose power in isolation is small but in total (or aggregated) meets the requirement for entry into the GB Balancing Mechanism Market. In combination, these providers have 52 Megawatts (MW) of power available within the GB Balancing Mechanism Market.

Staff managing the distributed resource desk focus entirely on optimising the use of these new assets and help them develop their capabilities to keep facilitating the growth of the market. By April 2019, National Grid expects market growth in this area will be up 179% to 145MWs, made up of batteries, combined heat and power, demand side response and gas reciprocating engines (heat power).

Claire Spedding, Balancing Programme Director, for National Grid Electricity System Operator said:

“I am delighted that, after facilitating the access of a number of new parties into the Balancing Mechanism Market last year, we are now able to take this next exciting step forwards. Putting a dedicated ‘Distributed Resource’ desk into the control room means we can create expertise in really understanding how these assets can contribute to balancing the nation’s electricity system.”

This development comes at a time when National Grid is in the final stages of preparations for transitioning to a legally separate system operator from 1 April 2019. Through legal separation, it is creating a trusted, impartial Electricity System Operator (ESO) that will make it easier for a wider range and variety of customers to connect to the network. During this transition, it’s critical that the ESO business continues to operate the electricity system safely and securely.

Claire added, “Who would think that a community energy scheme with a back-up generator in the North East, or a battery in the East Midlands could be helping you make a cup of tea when you get home from work in Reading?”
Notes for editors

The first industry market providers to enter the GB Balancing Mechanism Market were Limejump and Flexitricity who both joined in the latter half of 2018.

Working with National Grid to facilitate their entry, Limejump entered the Balancing Mechanism market by providing collective power from several batteries and other generation assets, while Flexitricity entered the market by aggregating the power from Combined Heat and Power (CHP) plants and Demand Side Response. This includes the CHP plant which is at the heart of Gateshead Council’s award-winning District Energy Scheme.

National Grid Control Room Statistics

1. The average absolute daily accepted bid and offers volume for Aggregated BMUs in the past 28 days is ~ 41 MWhs
2. Day 1 daily absolute accepted bid and offer volume for Aggregated BMU’s is 87MWh up 113% on the average
3. Day 2 daily absolute accepted bid and offer volume for aggregated BMU’S is 46MWh up 11% on the average
4. Day 1 utilisation was the second highest daily total.

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.