

# Launch of Landmark Industry Demand Side Response Code for a Voluntary Code Compliance Scheme for DSR Aggregators

Last year, a team comprising Ray O'Connor (partner, Birmingham), John Danahy (partner, London) and Rob Broom (associate, London) advised the Association of Decentralised Energy (ADE) on the establishment of a demand side response (DSR) Code of Conduct (Code) ahead of the launch of a voluntary Code Compliance Scheme (Scheme) called "Flex Assure", for DSR aggregators.

As a relatively new service, DSR has been unregulated, and the Code sets common standards for those who coordinate or "aggregate" demand response from individual consumers and will initially apply to commercial, industrial and public sector energy users. The team also advised on the establishment of a governance structure to administer the compliance scheme for the Code, as well as advising on the Scheme's contractual framework with DSR aggregators (being members of the Scheme).

Flex Assure was formally launched on 15 May 2019 at Ellwood Atfield Gallery in London, attended by key speakers, including James Heapey, MP for Wells and Vice President at the ADE, and various industry representatives. Special mention was given to the team and, in particular, Rob Broom for assisting in putting a Code together that was universally acceptable to more than 18 DSR aggregators. We are planning a further follow-up event at our Manchester office.



## About DSR and DSR Aggregators

Production of electricity and its use must always match every second of the day to keep the National Grid system in balance. Historically, system balance has been ensured by increasing or decreasing generation at a few large power stations. However, with DSR, businesses can reduce their demand on the system or use different kinds of on-site generation to keep the electricity system in balance.

DSR systems curb electricity usage through smart meters and other software or technologies to manage supply and demand issues in energy markets. DSR providers can be paid to change their demand by:

- **Turning down** the use of electricity-consuming devices, such as turning off refrigeration units for a period of time, or using the fridge's insulation to maintain low temperatures
- **Changing when** electricity is used, such as a quarry pausing its rock crushing unit if it has a sufficient supply of stored rock, or
- **Turning on** or increasing production from on-site generation, such as highly efficient combined heat and power (CHP), or by using energy storage

DSR aggregators aggregate DSR capacity over various sites and send instructions and/or remotely control those sites to either ramp up on-site generation or reduce or shut down energy demand on a site. By doing so, they create value by reducing consumption, avoiding peak charges, or providing balancing services. The DSR aggregator typically takes a cut of this value and gives the rest to the site.



Left to right: James Heapey (Member of Parliament for Wells, Somerset, and Vice President at the ADE) and Rob Broom (Squire Patton Boggs).

## The Growing Significance of DSR

The way electricity is generated and used in the UK is changing dramatically: with coal power plants all expected to close by 2025, an ageing nuclear fleet reaching retirement and increasing amounts of renewable generation, such as solar and wind, the UK is also losing significant amounts of generation that might have filled in the capacity gaps. On the horizon, we face new power demands from heat pumps and electric cars. DSR is just one of the means to address this capacity gap and is a market that is expected to grow monumentally in Europe to US\$3.5 billion by 2025 from US\$900 million in 2017.

In terms of capacity, the European Commission estimates the DSR market could reach 160 GW by 2030 from around 20 GW as of 2017. Infrastructure funds and renewables funds are increasingly looking for exposure to DSR <sup>1</sup>.

There is a huge untapped opportunity for businesses to provide DSR services. But, as this is a relatively new and complex market, action is needed to support more participation. The Flex Assure launch in London provided the opportunity to learn about the role of DSR in the energy system, including details on how businesses can use Flex Assure to ensure they are being treated fairly and more easily participate in the DSR market.

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<sup>1</sup> Inframation News, "Energy Outlook: DSR – The second phase of renewables," 23 April 2019