Engineering Solutions and Energy

Demand Side Response

Case Study

Demand Side Response

Unlocking smart grid revenue. ESE can bring new revenues to your business while reducing carbon emissions utilising under used assets

Demand Side Response is a source of reserve energy generation and balancing services for National Grid and is utilised to address a range of problems that affect the UK electricity distribution network.

Demand response provides an opportunity for Industrial and Commercial consumers to play a significant role in the security of the UK energy supply by harnessing their ability to generate, reduce or shift their electricity usage during peak periods and receive financial incentives.

As the UK's supply margins have diminished to their tightest levels in almost a decade, the National Grid needs to secure reserve supplies, they are doing this via Demand Side Response Services.

ESE are UK leading power engineers, bringing a no risk revenue stream to your business while offering a massive reduction in carbon footprint from reducing grid demand on power stations.

THE BRITISH ASSESSMENT BUREAU ISO9001

Power & Tech empowered by Achilles Registered

Contact us

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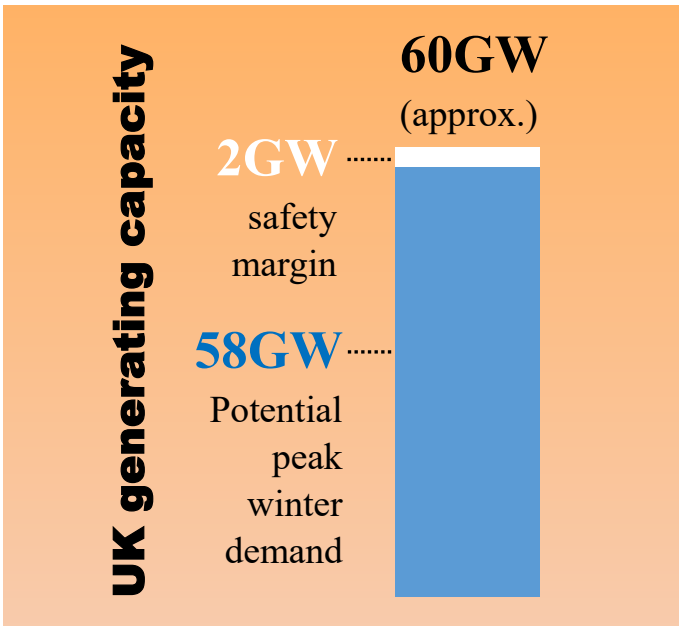
Demand Side Response



Client:
Major European Conference Centre

Market:
Conference Industry

Project:
To provide reserve energy to National Grid, assisting in the UK capacity shortage, but ensuring it is supplied within the constraints of normal business operations and generate new revenues from the existing assets on site.

Package:
The two on-site standby diesel generators, which are capable of up to 6MW of electrical output, can power the entire site in a power cut. They are also used occasionally to reduce peak demand during major events.

Revenue:

£100,000.00 +/annum

Key Facts:

Up to 6MW of electricity generation can be turned on automatically for short periods.

Standby diesel generators provide reserve services to National Grid when idle.

Reduces national carbon dioxide emission levels.

Six figure revenues earned every year using existing assets.

Technical Solution:

The site's existing package was utilised.

A power failure during a major event would not be acceptable to the conference centre's customers. Standby generators are complex assets, and their reliability is vital to the site's operations.

We worked together to overcome limitations on the site's connection to the local distribution network, allowing the generation plant to run at full power in parallel with the grid. This provides an ideal on-load test and exercise regime, and gives the site's operators early warning of any faults which could affect supply security.

Every megawatt capacity connected to the smart grid is a megawatt that does not have to be held in reserve elsewhere.

This reduces the need to keep gas and coal stations on hot standby or running inefficiently at part load — reducing emissions by between 300 to 750 tonnes of CO_2 per megawatt per annum.

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