



Demand Side Response (DSR)

Demand Side Response is set to become an increasingly crucial aspect of the UK's energy strategy - as businesses work with utilities to minimise energy demand peaks. We explain what DSR is, and how it could affect your business.

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What is DSR?

DSR is when individual firms manage and reduce their electricity demand, at the request of their energy supplier.

The aim of DSR partnerships is to minimise peak electricity demand. By helping utilities reduce this, businesses can stabilise the UK grid and electricity prices, lessen demand peaks and benefit the environment.

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By reducing their requirements for energy, individual firms effectively contribute more power to the grid, leading to the 'virtual power plant' description.

How does DSR management work?

For a stable, reliable grid, and to keep lights on in homes and businesses, demand for power and the power available in the UK should approximately balance.

Conventionally, utilities use peaking power plants to add electricity supply when demand gets too high. Conversely, DSR management uses intelligent, smart grids, which request companies (participating in DSR schemes) to reduce their energy usage when demand is high. This request is sometimes called a dispatch.

The dispatch is often managed by automated systems and software. These shut off lights, pumps or non-essential plant. More powerful DSR systems can, if needed, switch an entire plant, factory or office to backup generation. The more often a utility asks a business to reduce its usage, the more they will pay. Utilities and companies will be in touch electronically throughout an electricity peak, monitoring the stress on the grid and identifying how much demand reduction is needed.

What's the technological story?

Energy efficiency, smart software systems and off-grid backup generation technology are all part of DSR. To work with DSR, businesses need technology that can monitor and automate when, where and how plants use energy; reducing demand when necessary.

In some cases, low carbon, on-site backup generation is involved. When activated, this can completely shut off demand to the grid, running plant from alternative sources until demand peaks lessen.

Is DSR relevant to any particular business sector? DSR is relevant to every business, but especially those with an interest in energy efficiency. It is likely to become more relevant, as utilities seek to grow this new strategy for managing UK power demand.

Who is involved in DSR?

The utility company itself, distribution networks and the business that fulfils the demand reduction request are key partners.

Third party consultancies and companies are involved too; selling, contracting and maintaining the technologies that enable firms to monitor and reduce how much energy they use.

As with any market, various contracts link the players, and set out requirements and responsibilities for reducing demand and associated payments. Business can take as little or as much autonomy for DSR as they choose, or they could contract out all their DSR requirements, for software, operations and payments. The effects of DSR on business DSR potentially allows businesses to save and make money, by interacting smartly with the electricity grid.

Previously, some commentators have argued DSR can damage businesses, through intermittent connections or insufficiently robust systems and payments. For DSR to gain traction, it must become reliable and efficient.

How can businesses get involved with DSR?

Contact your energy provider, or get in touch with a third party consultancy.

Is there any DSR law I must comply with? Ofgem is looking at the rules governing how electricity is bought and delivered, to allow consumers and industry to draw as much benefit as they can from the opportunities of DSR.

What does the future hold?

Depending on how rules and regulations develop, DSR could become commonplace, or even mandatory. It seems likely to become a more prevalent part of the UK's overall electricity management strategy.

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Thinking about implementing DSR?

If you're thinking about implementing DSR and would like some help, guidance or just some pointers, we can help.

Email info@digrenenergy.ie or call us today on: **01-908 1700**