

TECHNOLOGY AND UK TARGETS

Solar

Solar parks can help produce the power needed to support the UK's electricity system. In May 2020, along with other forms of solar power, solar parks helped the UK meet more than 11% of its entire electricity demand, and contributed to a record period of coal-free generation.

As well as helping to reduce the UK's carbon emissions, and so address climate change, solar power can deliver local environmental benefits. The work carried out as part of the installation and management of a solar park can increase biodiversity on site, support water management and flood prevention, and regulate soil quality.

Battery Storage

With the increasing deployment of renewable energy generation, such as solar and wind power, it is of paramount importance to maintain a reliable and resilient electricity network and manage the fluctuations between supply and demand.

Whilst this transition is necessary in delivering against the UK's de-carbonisation targets, renewable energy resources rely on the sun and wind as renewable "fuel" to generate electricity. Therefore, during potential periods when the sun doesn't shine or the wind drops, flexible and fast responding technology can act quickly and support the network.

Targets

On 27 June 2019, the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. The target will require the UK to bring all greenhouse gas emissions to 'net zero' by 2050, compared with the previous target set within the Climate Change Act (2008) of at least an 80% reduction of emissions by 2050 (against the 1990 baseline).

The UK's emissions were 44% below 1990 levels in 2018. The UK has continued to put clean growth at the heart of its Industrial Strategy.

The 'Net Zero Technical Report', prepared by the Committee on Climate Change ('CCC') in May 2019, confirms that 'reducing electricity emissions close to zero will require a sustained and increased deployment of renewables... and the de-carbonisation of back-up generation'. The report notes that renewables are cheaper than alternative forms of power generation and can be deployed at scale to meet increased electricity demand in 2050, and CCC consider deep de-carbonisation of electricity to be a 'Core measure'.

Key benefits

- Clean and renewable energy source
- Positive contribution to UK and international targets for net carbon neutrality
- An opportunity to improve the biodiversity of the site through measures such as including 5 acres of wild-flower meadows and over 1 km of hedgerow planting
- Energy storage supports the integration of more renewables and supports the drive to de-carbonisation
- An opportunity for rural diversification without preventing pastoral agriculture
- An opportunity to help achieve a biodiversity net gain in excess of 30%

