

TECHNOLOGY AND UK TARGETS

Solar

Solar farms play a key role in providing the power needed to support the UK's electricity system. In April 2022, the UK government announced a major acceleration of homegrown power in Britain, with ambitious plans to increase the UK's current 14GW of solar capacity by up to five times by 2035, which would mean 70GW of solar capacity. This acceleration will lead to a net zero electricity grid by 2035.

As well as helping to reduce the UK's carbon emissions and tackle climate change, solar power can provide an array of additional benefits to the land, and the surrounding biodiversity. As paneled land is not subject to intensive agricultural practices, such as being drilled/plowed yearly, the soil is able to retain its minerals, improve its quality, with the top soil not eroding away as it otherwise would.

Due to the reduced disturbance from these intensive agricultural practices, wildlife is able to thrive in and around the panels, with a permanent, sheltered habitat in place for the life of the development. This is why solar farms are able to achieve such substantial biodiversity net gains. Additionally, no fertilizers



Battery Storage

With the need to ramp up the deployment of renewable energy generation in the UK to meet key renewable energy targets, it is equally important that battery storage is deployed alongside these technologies.

Safe battery storage technology allows for sites such as this to export energy to the grid at all hours of the day, not just during sunlight hours, when demand may be low during summer months. The ebbs and flows of renewable generation, such as wind and solar, have caused concern that a truly 'all hours' renewable energy grid may not be possible. However, with battery storage built into sites like these, if wind generation is high during a certain time period, the generation during the day from the farm can be stored, and then exported when demand outweighs renewable supply or vice versa. This 'grid balancing' exercise means a 100% renewable energy grid will be achievable, ensuring a balanced, and fully functional energy network.



Targets

On 27 June 2019, the UK became the first major economy to pass laws to end its contribution to global warming by 2050. This would require it 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). Additionally on the 7th April 2022 the UK announced a target for a net zero electricity grid by 2035 and fivefold increase in solar deployment. In order to achieve this, substantial deployment of renewables, and a transition away from carbon intensive sources of energy is required.

