

TECHNOLOGY AND UK TARGETS

Solar

Solar farms play a key role in providing the power needed to support the UK's electricity system. In May 2020, along with other forms of solar power, solar farms 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 tackle climate change, solar power can provide an array of additional benefits to the land, and the surrounding biodiversity. As paneled land isn't 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 would be used on the ground, further improving ground, and water quality.

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 is 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 become 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 emission 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).

In order to achieve this, substantial deployment of renewables, and a transition away from dirty sources of energy is required.

