Key Components



How a solar farm works

The illustration (below) is indicative of the components usually found on a solar farm.



The Sun

Harnessing the natural energy from









Switchgear





Transmission Network



Providing clean, green renewable energy to British households and businesses

sunlight

Converts the sun's energy into DC electrical

power

Converts DC electrical power to AC electrical power, ready

for transport

Converts the voltage to the same voltage as the grid connection

Includes circuit breakers and fuses to ensure safe tranmission of electricity

Contains electrical equipment to ensure the solar farm is safely connected to the grid

Solar Electricity Generation



Battery Energy Storage System (BESS)

The BESS plays a crucial role in optimising the solar farm's output. During periods of peak energy demand, the battery energy storage system will step in and supply electricity directly to the grid.

This feature enhances the reliability and stability of the renewable energy generated by the solar farm, making it a dependable and consistent part of the UK's energy supply.



On-site substation

We are proposing to include a single on-site substation in the centre of the site away from sensitive receptors (such as local houses). The substation connects all the electricity being generated across the site and acts as a single point from which electricity is then transmitted to the main grid connection at Drax National Grid Substation via underground cable.

