

Proposed Equipment

Solar arrays

The solar array is proposed to consist of ground-mounted solar photovoltaic panels with a generating capacity of up to 99.9MW. This will offset the annual energy needs of approximately 32,000 homes and save around 18,750 tonnes of CO₂.



Frames, panels and inverters

The solar panels have the tallest point at approximately three metres tall. The solar panels generate Direct Current (DC) electricity, which is converted to electricity with Alternating Current (AC) for export into the local grid by inverters. Inverter units will be mounted on the rear of the solar panels at intervals.

Buildings

Transformer units will be required to step the voltage up to a suitable export level.

These will be located within the solar farm, close to the internal access tracks. A customer substation building is required to export the energy from the transformers in a single cable to a substation operated by the District Network Operator (DNO).

The DNO substation building is required to meter the production of energy and export it directly to the local grid.

Two substations are required to connect the proposed solar array to the local distribution network. These are positioned to the north of the A427 and will connect into an existing pylon.

All electrical cabling to the substations will be underground and the substation buildings will seek to have a green finish to coordinate with the surroundings.

Energy storage units

The energy storage is proposed to consist of a containerised energy system, containing a heating, ventilation, and liquid cooling unit, a fire suppression system, and a transformer. The energy storage will be able to store up to 100MW of electricity.

Access tracks

It is proposed that access to the site will be from Pipewell Road for construction and operational periods. Within the site, internal access tracks are proposed to allow suitable access throughout the site. These are likely to comprise of the existing tracks around the site and airfield and new gravel tracks.

Security

A deer-style fence will be installed around the perimeter of the development at a height of approximately two metres, consisting of wooden posts supporting traditional wire stock fencing. Suitable mammal gates will be included within the fence line where required, following conclusion of the ecology surveys. There will be inward facing infra-red CCTV along the fence. Palisade fencing will surround the substations.

