

Botley West Solar Farm

Open Floor Hearings, 13-14 May 2025

Principal Issue: Assessment of Alternatives

In their "Assessment of Alternatives" the Applicant has only considered two options:

- Building the 800 MW(e) Botley West Solar Farm
- A "Do nothing" strategy

Their approach does not justify the construction of a solar farm of this size on high grade agricultural land in this location when other options are available to provide an equivalent amount of zero carbon generation capacity.

The strategy of developing large solar farms must be questioned and this inquiry should consider one where smaller solar power stations are constructed on lower grade land as part of a distributed generation system.

When the electricity generation was nationalised there were a large number of small power stations spread across the country linked by local grids that largely remain intact. These power stations were often located in towns, remote from fuel sources and from the late 1950's onwards these were replaced by large generating plant, coal fired stations in the Midlands and North of England close to coalfields and oil fired plant in the south close to refineries. Generation was linked to demand centres by the 400kV national grid which supplied the local area grid network.

The intention was that grid flows would be balanced by generation in the north and south of the country but the rise in the price of oil from 1970 onwards resulted in the oil stations operating with very low load factors, the bulk of the generation being from the large coal fired units. Grid stability was often an issue.

Renewable technologies, especially the development of solar power, now provide scope for a more flexible approach. No longer do we need to have localised large power generating facilities since the energy source for solar power is independent of geography. The technology is modular and can therefore be distributed on smaller sites close to demand centres, possibly on brownfield land whose previous industrial use required good grid connections to either local or national grids.

A distributed renewable generation system has a number of significant advantages over one where there is highly localised generation.

1. Smaller scale solar generating sites can be connected to either local or national grid networks but being spread geographically they would be closer to demand centres and transmission power losses minimised
2. Land use issues would be reduced through the use of less productive and scenically sensitive land
3. Planning issues around the construction of new national grid infrastructure would be reduced through strengthening the existing local grid networks
4. The grid system would be more secure, an unplanned outage from a smaller generating unit having a far lower impact on grid stability than the loss of output from a large solar plant. For example, the sudden loss of 400MW from Botley West due to the failure of a generation transformer would have a far greater impact than the loss of 100MW from a smaller site. It also takes many months to replace a large power transformer
5. Recent events at Heathrow Airport have demonstrated the problems that can arise when a crucial component of energy infrastructure fails
6. Large solar power plants occupy large areas of land which are difficult to protect rendering them vulnerable to external influences
7. Small solar power projects encourage community involvement, giving opportunities for investment to stakeholders such as local residents, councils etc
8. By developing a standard set of contracts and specifications, the modular nature of solar power technology could result the construction times of smaller generation units being broadly similar to large sites with the added benefit of reducing local disruption during construction

As someone with over 30 years experience in the power industry occupying senior roles in power plant operations and maintenance, corporate strategy, environmental policy and with extensive experience in developing international power projects it is my firm belief that there is a case for the inquiry to consider the option of approving the development of a smaller solar farm on the Botley West site.

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