Proposed Expansion to the Duns Tew Energy Park 2019

We are all becoming more and more aware of the climate change crisis, and see more and more regularly on the news the impacts this brings. Weather extremes are becoming more frequent and impact many communities around the globe, including closer to home where extreme rainfall and flash flooding are becoming the norm.

Mainstream news reports have made us more aware of our electricity use and generation, both nationally and local. The government's commitment to a net zero-carbon target by 2050 shows a clear path of travel for the UK that will see increased low-carbon decentralised generation, such as the proposed extended energy park.

Site
The site was chosen as it is most likely to have the least visual impact for most dwellings within a 3km radius. As it is at the bottom of the valley and close to the Oxford–Banbury road, distant views can be protected and, with appropriate screening, views from the A4260 can be mitigated. There are no SSSIs in the vicinity.

Finding access points to the local network with availability for additional capacity is not easy. The connection to the grid at the current park has sufficient capacity to take the proposed additional power generated.

Community Engagement
Two public consultations took place recently in Deddington and Duns Tew, as well as an earlier Open Farm Sunday. Another Deddington consultation is planned now that residents are more aware of the issues involved.

Screening
Lengthy consultation has taken place with the landowner nearest to the proposed expansion. Considerable effort has been made to accommodate their views and design the extension in a way that has the least possible visual impact. Extra planting at the neighbour's property will help with screening.

The proposed new woodland will extend along Deddington Brook and then up towards Hill Farm, and over time will screen the A4260 fully. In the early years existing hedgerows will be allowed to grow up and managed at 4m high to provide screening.

Ecological Gain
Four acres have been set aside for fallow border grassland around the park to encourage

native plant species, and support habitats for wildflowers, insects, ground-nesting birds, bees and other pollinators.

Eleven acres of new wet woodland along Deddington Brook will create a new wildlife corridor between new and existing local woodland. This will also contribute to carbon reduction.

The park will be protected by deer fencing and grazed by sheep, and bees will also be kept within the solar array. Gaps in existing native hedgerows will be filled and replanted where necessary.

Construction Management
The proposed access is from the A4260 about 1.1km north of the North Aston turn. Temporary signage will be installed on the A4260 to route construction traffic to the new access road. Drivers will be advised there is no access via North Aston Road or Middle Barton Road.

Key Components
9MW solar farm, creating 10,790 MWh electricity per annum, powering 2,850 homes with renewable electricity.

37 acres within agriculturally fenced boundary.

27,188 south-facing PV panels, 2.2m high and 0.8m above the ground, allowing sheep to graze around.

The park substation already in situ is owned by Scottish and Southern Electricity (SSE) the local District Network Operator (DNO), so no further significant infrastructure work is required to connect the new solar park, and no new substation.

The project has the potential for battery storage, as the park also has a large incoming power connection. Batteries could be used for storing power when there is too much on the local network, helping provide local grid stability and rapid response to fluctuations in local demand.

This is the next step in renewable power generation where local power can be generated, stored and distributed locally, lowering energy costs and providing a more stable energy network.

The park is monitored 24/7 via infra-red cctv cameras.

Decommissioning
The energy park is seeking permission to generate power for 40 years. Once the solar farm stops operating it will be decommissioned, and module, plant and equipment removed for recycling and the land returned to mixed agricultural use.

Planning
A planning application will be submitted this autumn and, if granted, construction will begin early spring 2020.

National and Local Importance
The UK has set an ambitious target to reach carbon zero by 2050 to help reverse climate change and protect our planet for future generations. Increasing solar energy generation at Duns Tew will contribute to the long-term national commitment to end reliance on fossil fuels and develop alternative, sustainable sources of energy.

Low Carbon Hub Community Ownership
Oxford-based Low Carbon Hub has first and immediate refusal to buy the site as soon as constructed and connected. After two years the installers do a final due diligence check and, if the plant is working properly, they receive their final construction payment.

Low Carbon Hub
Low Carbon Hub has 38 renewable energy installations including a £4 million hydroelectricity scheme at Sandford-on-Thames. It is confident of raising between £5 and £6m to purchase Duns Tew Energy Park, making it their largest investment to date and their first ground-mounted solar array.

Investment
The project will be bought with money raised by Low Carbon Hub through community bond offerings. The bond offers a target return on investments of 5% per annum, with an investment range between £250 and £100,000. The investment works on a co-operative basis of one share one vote regardless of the size of the investment. Investments in community energy are not subject to inheritance tax as the money invested does not appreciate over time, so there is no tax on the money when the investment is returned as there is no capital appreciation.

Supporting Local Community Projects
Low Carbon Hub is a not-for-profit organisation: after operational costs are deducted, all remaining annual revenue is profit ploughed back into local community energy projects. The local community would have the opportunity to invest in the project as individuals or as a village through a Community Interest Company (CIC). The CIC would be able to apply annually to carry out local low-carbon projects such as carrying out energy efficiency audits, or improvements for the elderly. All are aimed at aimed at decarbonising Oxfordshire and making the country more energy self-sufficient.