

Developing solar farms on WCC land – October 2015 update

Developing positive local policy

WCC's positive approach to renewable energy is set out in its Corporate Plan and in the Worcestershire Partnership's Climate Change Strategy. A draft WCC Renewable Energy Strategy is due to be adopted in 2015. This strategy sets out the council's intention to identify viable renewable energy schemes on its land, and to explore joint opportunities with partners.

Successful WCC energy projects to date

WCC has invested in renewable energy on its estate by installing biomass boilers (including at County Hall) and solar panels on WCC buildings. WCC receives payments for energy generated by these schemes, making them attractive investments. The solar panels on the Wildwood building, for example, will pay for themselves in seven years, after which WCC will continue to receive payments for the remaining thirteen years of the index-linked tariff period. Solar panels have been installed on all viable WCC corporate sites, including Kidderminster and Redditch libraries and Stourport civic centre. For technical reasons, no further opportunities are currently available on WCC buildings (the County Hall roof, for example, is not strong enough to support solar panels). WCC has also provided £700,000 in low-cost loans to allow 43 schools to install solar panels and keep the feed in tariff payments themselves. This saves £95,000 and 190 tonnes of CO₂ per year, with an average payback of under 7 years. These schemes have generated positive publicity for WCC and the schools, who benefit from the free electricity.

Investigating large-scale opportunities

The renewable energy developments outlined above are small scale. Officers have investigated whether any larger solar farms could be developed on WCC land to increase the financial and environmental benefits¹. All WCC landholdings, including former landfill sites and tenanted farmland, have been evaluated. No opportunities to develop profitable solar farms have currently been identified. The main barriers, and the steps being taken to overcome these, are:

- Lack of capacity in the electricity distribution network

Schemes tend to need grid connections to be financially viable, but the grid was never designed to carry electricity 'upstream'. Rapid growth in renewables means that, in almost all areas of the county, the grid cannot accommodate extra generation within safe limits. This will be the case even after grid upgrades in 2016, and is a nationwide problem. Where capacity exists, connection costs can be high; grid costs of £102k for a solar farm at the old Quantry Lane landfill site, for example, render the scheme unviable.

 - **WCC officers continue to liaise with Western Power Distribution.**
 - **WCC's Cabinet Member and Worcester's MP have lobbied WPD to express concern.**
- Capital costs are too high on landfill sites

On closed landfill sites, the protective surface layer cannot be penetrated, meaning that development is more expensive than for greenfield sites.

 - **WCC officers will monitor viability as capital costs continue to fall and as industry experience of working on these challenging sites develops.**
- Planning constraints

Planning permission is an uncertainty anywhere, but some sites are riskier than others. Madeley landfill site, for example, is in the green belt. The planning system also discourages development on the highest-quality farmland, but establishing this quality requires costly, site-specific assessment. Any planning application would also require

¹ Other technologies, including hydro, anaerobic digestion and wind, are currently ruled out for technical or political reasons.

extensive supporting evidence, and could cost around £30k. There is currently insufficient confidence of approval on any WCC site to justify this expenditure.

- **WCC planning officers monitoring changes to planning policy and guidance.**

➤ Community sensitivities

Solar farms could be a concern to local residents. This is especially the case if there have already been controversial developments in the immediate area.

- **WCC's Renewable Energy Research Paper will help to communicate the benefits of renewable energy, which should improve understanding and reduce concerns.**

➤ Tenanted farmland

If WCC developed projects on tenanted farmland, the exact share of risks/liabilities would need to be agreed. A major difficulty in developing tenanted farmland is maintaining community relations. Land on WCC farms would ideally only be used for energy generation before a new tenancy had begun, as this would avoid the need to reach agreement with incumbent tenants. Failure to deal with tenants sensitively could damage community relations and potentially cause reputational damage to WCC.

- **Proposals on tenanted farms must first be discussed with WCC's Land Agents.**

➤ National political direction

The Government has stressed its opposition to solar development on farmland and the August announcement proposed tariff cuts makes any future development highly risky and jeopardises our strategy of investing in renewable energy. Furthermore, achieving planning permission may be more difficult if policy and guidance is revised.

- **WCC continuing to heavily promote the installation of solar panels to schools to try to increase uptake before potential tariff reductions.**
- **WCC officers continue to monitor changes to planning policy and guidance.**

Other options considered

n.b. Due to the grid issues noted above, these considerations are largely academic at the current time, but provide a useful comparison when looking at investment options.

- The county council could invest in non-WCC renewable schemes in the county and elsewhere. These options will be considered with partners.
- WCC land could be leased to a solar developer, with rental income typically being between £1,000 – £2,000/acre per annum. Over the typical 20 year tariff period, a 30 acre scheme could therefore provide a total rental income of around £900,000. WCC would receive no saving from the use of electricity or income from sales and tariffs, and would lose the income from agricultural tenants over this period.

Next steps

Alongside the actions set out under each barrier to investment above, WCC will:

- Adopt Renewable Energy Strategy and Research Paper to set context for future projects.
- Explore opportunities to invest in schemes not on WCC land, either alone or in partnership with communities, the county-wide Place Partnership, and others.
- Continue liaison with local authorities to inform opportunities/share best practice. Build on discussions with Norfolk, Cornwall, Warwickshire, Glos, and Telford & Wrekin.
- Keep business cases under review and continue to seek further opportunities.