

**BOROUGH OF TELFORD & WREKIN**

**CABINET – 19 SEPTEMBER 2013**

**SOLAR FARM**

**REPORT OF THE MANAGING DIRECTOR**

**LEAD CABINET MEMBERS – CLLRS BILL McCLEMENTS & SHAUN DAVIES**

**1. SUMMARY**

- 1.1 The Council has made a clear commitment to move towards a more sustainable financial position to help offset reductions in central government funding. A key part of this strategy is to identify new income streams.
- 1.2 As part of this, the Council has considered a range of energy generation opportunities and solar power has been identified as a key opportunity in the Borough.
- 1.3 This report sets out an initial business case for the development of a solar farm in the Borough and the next steps to progress this project.

**2. RECOMMENDATIONS**

- 2.1 That Cabinet approves the submission of a planning application to develop a solar farm on land at Wheat Leasows; and**
- 2.2 Subject to planning permission being granted, that Cabinet delegates authority to the Managing Director in consultation with the Cabinet Member for Finance and Enterprise and the Cabinet Member for Neighbourhood Services & Employment and Skills, to procure the design, build and operation contract(s) for the solar farm; and**
- 2.3 Cabinet delegate authority to the Assistant Director: Law, Democracy & Public Protection to execute all legal documentation necessary to give effect to the recommendations contained within the report.**

**3. SUMMARY IMPACT ASSESSMENT**

Community Impact	Yes	This initiative contributes to a number of the Council's priorities, including protecting and creating jobs as a Business Supporting, Business Winning Council. It also contributes to a key objective of reducing reliance on central government funding.
Financial & Value for Money Impact	Yes	An initial financial viability business case has been developed and is summarised in Appendix 2b, which also shows the key assumptions used. The business case indicates that one 5WM Solar farm could generate a cumulative net profit of between £2.8m and £8.3m during the 25 year life

		of the project, dependent upon the assumed annual percentage increase in energy prices. Further feasibility work is now required and £50k has been allocated from the Invest to Save fund to allow the initial work to be undertaken. Planning fees and associated consultant costs estimated at £50k will also be incurred, which may be abortive if satisfactory planning approval is not obtained. Financial advice and support will be provided to the project as required.
Legal Issues	Yes	The Council has the power to generate and sell electricity as described in this report by virtue of the Local Government (Miscellaneous Provisions) Act 1976 (as amended in 2010). A number of legal issues will require advice throughout the duration of this project including procurement advice regarding the appointment of a contractor, contractual advice related to all contracts required to deliver the project and property and planning advice related to the site proposed. Some of this advice can be provided by the in-house team but as this is a project of a specialist nature external advice will also be required at times.
Other impacts, risks and opportunities	Yes	A project team will ensure risks are identified and managed and associated opportunities and linkages are exploited. Further details of risks and benefits are set out in section 4.2.
Impact on specific wards	Yes	The potential site identified is located in Hadley & Leegomery ward.

## **4. INFORMATION**

### **4.1 Introduction**

4.1.1 This report sets out an initial business case for the development of a solar farm in the Borough.

4.1.2 This proposed development is part of the Council's wider energy strategy, which also includes:

- Improving energy efficiency and energy generation in Council buildings – this has included replacing gas boilers with biomass boilers at schools and leisure centres and installing web-based building management systems in new and refurbished buildings to give far greater control of heating and ventilation. The Wellington Civic and Leisure Centre is believed to be the first building in the country to make use of ground source heat (pipes buried in the ground that extract heat), photo voltaic (roof-mounted solar panels) and solex power (solar heating system). We are also looking to include similar features in the

Hub at Southwater and retrofit some of our existing buildings where appropriate;

- Promoting the Green Deal, a Government initiative to help local residents and businesses make energy saving improvements – we have recently launched an 8-year Telford Energy Savers programme in partnership with Carillion;
- Investigating other ways in which the Council can help businesses with their energy costs.

## **4.2 Solar Farms – Business Case**

### **a) Outline Proposal**

4.2.1 The proposal is to develop a commercial-scale solar farm of approximately 5MW capacity on Council-owned land in the Borough.

4.2.2 A solar farm is made up of a large number of solar panels mounted on the ground. The panels are fitted in rows on racking (see Figure 1). Each panel typically measures 1.6m x 1m.

4.2.3 The panels absorb light and convert it into electricity. The inverters and other equipment used are housed in a building which is usually located in the centre of the site. The electricity generated is transmitted to the grid via an electricity sub-station. Fencing and/or natural barriers (hedges etc) are installed around the site.

**Figure 1 – UK Solar Farm**



4.2.4 Solar farms are normally operated for 20-25 years, after which they are either decommissioned or panels are replaced.

4.2.5 An initial investigation into suitable land owned by the Council has identified a 12.2 hectare potential site at Wheat Leasows (see Appendix 1). This site is

owned by the Council and is currently used as agricultural land. It is subject to a joint development with HCA (Homes & Communities Agency).

## b) Rationale

4.2.6 The main reasons for developing a solar farm are:

- **Financial benefit** – generation of renewable energy would provide an income stream for the Council (see Appendix 2) that could potentially be off-set against the Council's energy costs. Income would be generated from day 1 and would be guaranteed by the Government for a 20 year period through the Feed in Tariff (FIT) or Renewable Obligation Certificate (ROC) schemes (unlike other commercial projects where we would have to build and maintain a market share).
- **Environmental benefit** – we would show community leadership by helping to deliver legally-binding national targets to reduce greenhouse gas emissions and to generate more electricity from renewable energy. A 5MW capacity solar farm is likely to save more than 2,300 tonnes of CO<sub>2</sub> and to generate enough electricity to power more than 1,000 homes. Solar farms are generally considered to have less environmental impact than other forms of renewable energy, such as wind power.
- **Economic & community benefit** –there could be wider economic benefits, for example use of local suppliers during the construction phase. There are currently no other publicly operated solar farms in the West Midlands, therefore there is an opportunity to include educational activities as part of the scheme.

## c) Risks

4.2.7 The main risks associated with this project are:

- **Grid Connection** – we would be dependent on the local Distribution Network Operator (Western Power Distribution - WPD) re: cost and speed of the grid connection. Initial connection cost estimates from WPD for the Wheat Leasows site are relatively low, although further work is needed to finalise these.
- **Planning** – getting planning consent is another major area of risk. We have appointed a planning consultant to co-ordinate the planning process (subject to Cabinet approval). We have also developed a

communication and engagement plan to ensure that we involve the community in the project (see Section d) below).

- **Financial** – the business case cannot be finalised until quite late into the process and there are a number of aspects re: both costs and income that are subject to change. These include the cost of panels and Feed In Tariff (FIT) rates which will vary depending on how many solar farms are built across the country in future. Even small changes, for example in the price of panels or the FIT rates, would have a big impact on the business case due to the scale of the project. To ensure that our business case is as robust as possible, we have taken external financial advice.
- **Construction and Operating Issues** – there are a wide range of risks associated with the construction and operation of a solar farm, as this would be a large and complex project to deliver. These include flooding/weather damage, panel failure, contractor insolvency etc. The project team has developed and will continue to update a risk register to ensure that risks are identified and managed.
- **Legal/Regulatory** – the local authority is permitted to produce and sell electricity by the provision of solar technology, however, specific external legal and tax advice will be required. Separate accounting records must be kept in relation to income and expenditure for this project. Advice will be given by Legal Services, in conjunction with external solicitors, regarding the project; in particular the procurement of a contractor, any agreements that will be required to become operational and any land and planning issues that may arise.

#### **d) Impact on Stakeholders**

4.2.8 The Wheat Leasows site is currently farmed under an agricultural tenancy and we would need to give 12 months notice to the farmer if we proceed with this site (agreement in principle with the farmer has been reached). There are also a number of residential properties near to this site and the HLC Queensway School. The land at Wheat Leasows is subject to a joint development with HCA who have given verbal approval to the project.

4.2.9 In addition to neighbouring properties and statutory agencies, there is likely to be an interest in this project from the wider community, for example from local environmental groups.

4.2.10 It is important that we communicate and engage effectively with all these groups. We have developed a communication and engagement plan for the project, which has two main phases:

- Phase 1 – direct contact with those living or working in the vicinity of potential sites, relevant Town and Parish Councils and ward members. We have contacted relevant Town and Parish Councils, ward members and the occupiers of nearby properties in advance of the Cabinet report being published;
- Phase 2 – communication and engagement with the wider community on specific proposals and formal consultation as part of the planning process.

4.2.11 We will use a range of methods to communicate and engage with the community including dedicated Web-pages and a public exhibition.

### **4.3 NEXT STEPS**

4.3.1 The key next steps to progress the solar farm project are:

- Seek Cabinet approval to proceed with the project;
- Subject to Cabinet approval:
  - Carry out pre-planning assessments, prepare and submit a planning application;
  - Develop outline technical design.
- Deliver the communication and engagement plan, including formal consultation as part of the planning process;
- Develop a procurement plan and specification for a solar farm;
- Carry out initial legal work;
- Continue to update the financial model with a particular focus on:
  - Finalising connection cost estimates from WPD;
  - Reviewing other financial assumptions and investigating other income options.

### **5. PREVIOUS MINUTES**

5.1 None.

### **6. BACKGROUND PAPERS**

6.1 None.

**Report prepared by Fliss Mercer, Policy Manager, Tel: (01952) 380136.  
Financial model prepared by Julia Copus, Finance Manager, Tel: (01952) 383775.**