

**BOROUGH OF TELFORD & WREKIN****CABINET – 18 SEPTEMBER 2014****SOLAR FARM UPDATE****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 commercial approach in order to support its drive to achieve a more sustainable financial position. This is essential to help offset the unprecedented reductions in central government funding experienced by the Council. A key part of this strategy is to develop new income streams, including developing a solar farm in the Borough.
- 1.2 This report gives an update on progress with the solar farm development to date and sets out the next steps for the project, including proposals for the sale of the electricity that will be generated.

**2. RECOMMENDATIONS**

- 2.1 That Cabinet note progress with the project to date as set out in Section 4.2;
- 2.2 That Cabinet agree the next steps in Section 4.3, including the recommendations regarding generation of income in Paragraph 4.3.14;
- 2.3 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 oversee the negotiation of the most economically advantageous income options for the project; and
- 2.4 Cabinet delegate authority to the Assistant Director: Law, Democracy & People Services 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	The financial business case for the solar farm has been updated to reflect the following: <ul style="list-style-type: none"><li>• The capital and operational expenditure as</li></ul>

		<p>per the successful bid</p> <ul style="list-style-type: none"> <li>• Energy generation output as per the successful bid</li> <li>• Current PWLB borrowing rates (annuity over 25 years)</li> <li>• Current Feed In Tariffs rates (valid until the 31<sup>st</sup> December 2014)</li> <li>• Estimated Power Purchase Agreement rates for the sale of energy generated based upon soft market testing</li> <li>• Assumed RPI of 2.5% pa</li> <li>• A contingency of 5% of the base total projected income (indexed by RPI)</li> <li>• The advice of external commercial and technical advisors.</li> </ul> <p>The updated financial model is summarised in Appendix 1 of this report. This demonstrates that over the life of the project (25 years) the solar farm is projected to deliver a net cumulative operating surplus of £4.4m.</p> <p>The figures in Appendix 1 assume that we sell the energy generated via a Power Purchase Agreement (PPA). As detailed within this report other options for the sale of the generated energy will be investigated and modelled in order to provide the most financially beneficial option for the Council.</p> <p>We will continue to provide financial advice and support to the project and during construction and operational stages.</p> <p>JAC 200814</p>
Legal Issues	Yes	<p>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 have required 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. Some of this advice has been provided by the in-house team but as this is a project of a specialist nature external advice has also been and will continue to be required at times.</p>
Other impacts, risks and opportunities	Yes	<p>A project team has identified and managed risks and sought to exploit associated opportunities throughout the project to date.</p>
Impact on specific wards	Yes	<p>The solar farm site is located in Hadley &amp; Leegomery ward.</p>

## **4. INFORMATION**

### **4.1 Background**

- 4.1.1 This project involves the development of a commercial-scale solar farm of approximately 4MW capacity on an 11.7 hectare site at Wheat Leasows. The solar farm will be made up of more than 15,000 solar panels mounted on the ground. The panels will be fitted in rows on racking (see Figure 1 for proposed site layout).
- 4.1.2 The inverters and other equipment used will be housed in 2 buildings on the site. The electricity generated will be transmitted to the grid via an electricity sub-station. To reduce the visual impact of the development and for security purposes, fencing and landscaping will be installed around the site. The proposal is to operate the solar farm for approximately 25 years.
- 4.1.3 The solar farm development is part of the Council's wider energy strategy, which also includes improving energy efficiency and energy generation in Council buildings, promoting the Green Deal, a Government initiative to help local residents and businesses make energy saving improvements, and Business Switch and Save, a scheme to help businesses compare and reduce their energy costs.

### **4.2 Progress Update**

- 4.2.1 On 19 September 2013, Cabinet considered an initial business case for the project. Based on this, Cabinet gave approval for the submission of a planning application to develop a solar farm at Wheat Leasows. Cabinet also gave delegated authority to the Managing Director and lead Cabinet Members to procure the design, build and operate contract for the solar farm.
- 4.2.2 Following this meeting, various pre-planning studies were carried out and a public exhibition was held in January 2014. More than forty people, including local residents and councillors attended the exhibition to give their views - 92% of those who completed feedback forms at the exhibition supported the Council's intention to use renewable energy to provide an income stream to protect front-line services.
- 4.2.3 The feedback from the exhibition and one to one meetings with the residents and school adjacent to the site was used to develop the final plans, which were submitted on 13 February 2014. Full planning permission was granted on 8 May 2014. In addition, a formal grid offer from Western Power Distribution to connect to the grid was received on 6 May 2014 and has now been accepted.
- 4.2.4 A 2-stage restricted procurement process has been carried out. The first stage was to issue a Pre-Qualification Questionnaire (PQQ) on 24 March 2014 inviting contractors to pre-qualify for the second stage of the process.

Twelve companies responded at PQQ stage and the six companies with the highest scores were invited to tender on 5 June 2014.

- 4.2.5 Following evaluation of the tenders in July 2014, the Preferred Bidder was IZEN energy systems NV, a Belgian company with a UK base in Staffordshire.
- 4.2.6 An updated financial model (Appendix 1) has now been prepared, which includes the construction and operation and maintenance costs submitted in the winning tender, the final grid connection offer costs and updated income assumptions (see also Section 4.3).

### **4.3 Next Steps**

- 4.3.1 Work is due to commence on site mid-September 2014. The installation is scheduled to be completed by December 2014. A key task during this period will be overseeing works on site and ensuring that equipment is independently tested before the site is commissioned. A clerk of works has been identified to ensure that works on site are carried out to the required standard.
- 4.3.2 The other key priority is to agree the best income options for the project. There are two main income streams:
  - Income from Government financial incentives for the generation of electricity; and
  - Income from the sale of electricity generated.
- 4.3.3 In terms of income for the generation of electricity, there are two options – the Feed in Tariff (FiT) generation tariff or Renewable Obligation Certificates (ROC). To receive either FiT or ROC payments, the system has to be commissioned and registered with OFGEM (Office of the Gas and Electricity Markets). Once registered, the rate is set and paid for the next 20 years, and each year the rate is increased in line with the Retail Price Index (RPI).
- 4.3.4 The FiT is the simpler of the 2 schemes. The FiT generation tariff is paid for generating the energy, regardless of how that energy is then used. The generation tariff varies depending on the capacity of the installation. The generation tariff for this project is currently 6.38p per kWh (for installations registered by 31 December 2014). It is possible to pre-register with OFGEM in order to ‘lock-in’ current tariffs, provided an installation is then commissioned within a 6 month period. We would receive 100% of the FiT.
- 4.3.5 ROCs are aimed at larger operations and are more complex to administer. Certificates are issued for each MW of power generated (currently 1.4 ROCs for each MW). Currently, if we chose ROCs, we would receive 6.48p per kWh. Although this is slightly higher than the FiT, we would not receive 100% of the income (as 5 % would typically be paid in administration charges). In addition, 10% of the ROC price is variable, which makes income projections from ROCs more uncertain than for FiT.

4.3.6 We have discussed these options with our external advisors, who have suggested that we would get a comparable level of income from both options, but that the FiT is simpler and more predictable. As pre-registering for the FiT is free and does not bind us to pursuing this option, we have already commenced this process, which needs to be completed prior to completion of construction. An updated financial model is shown in Appendix 1. This includes an assumption that part of the income from the solar farm will come from the FiT generation tariff.

4.3.7 Regarding the income from the sale of the electricity, there are again two main options:

- Export to the grid and claim the Feed in Tariff (FiT) export tariff for putting the power generated into the grid; or
- Sell wholesale through a Power Purchase Agreement (PPA), basically a contract between the Council as the generator and a customer where electricity is sold wholesale in a single block. There are a variety of Power Purchase Agreements that could be considered, as discussed in Paragraph 4.3.9-4.3.13 below.

(Note: we have also previously considered and ruled out the option of a private wire. This would involve laying a cable between the generating station and a nearby user, whereby the user uses the power and pays directly for it. However, there are no users close enough to the site that would use sufficient amounts of power to make this option commercially viable).

4.3.8 The FiT export tariff is again the simplest option and would provide a guaranteed level of income for 20 years (currently 4.77p per kWh for installations registered by 31 December 2014).

4.3.9 There are a wide variety of Power Purchase Agreements (PPAs) that could be entered into. PPAs can be for any term, from a short term of 1-3 years, right through to a longer term of 10-15 years. The price will be dependent on the length of the arrangement. PPAs can be fixed or variable.

4.3.10 Unlike the FiT export tariff, the prices of Power Purchase Agreements are linked to the wholesale electricity market and are therefore more difficult to predict. Our external advisors have recently carried out some soft market testing re: PPA prices for this project, which have been used to update the financial model at Appendix 1. If we chose the PPA option, we would need to go out to the market for up to date prices by the end of September 2014.

4.3.11 Another variation is a netting PPA. This is a more complex agreement between the Council and our current electricity supplier.

4.3.12 Prices for a netting PPA would be higher than for a 'standard' PPA. Initial discussions with our supplier suggest that we could achieve the mid-point of the bid offer spread price (the difference between the immediate sale and purchase price). We are currently awaiting confirmation from our supplier about whether they would be interested in entering into a netting agreement with us for this project.

4.3.13 We have discussed these options with our external advisors, who have suggested that we should continue to pursue the option of a netting PPA with our current supplier at this stage. However, if we are not able to progress this, our reserve option should be to go out to the market to secure the most economically advantageous fixed-price PPA for 1-3 years. This recommendation is based on the fact that current prices for PPAs are higher than the export tariff. It should be noted, however, that we would be able to opt back in to the FiT export tariff once a year, therefore we would have the option at the end of any PPA agreement to review our options and if at any point, the export tariff delivered a higher income (for example if electricity prices started to fall), we could elect to opt back into the FiT export tariff. For modelling purposes, the updated financial model in Appendix 1 includes an assumption that part of the income from the solar farm will come from a fixed-price PPA.

4.3.14 In summary, it is recommended that we:

- Pre-register for the Feed in Tariff (FiT) generation tariff; and
- Investigate the option of a netting agreement with our current supplier, however if this is not possible go out to the market to negotiate the most economically advantageous Power Purchase Agreement.

## **5. PREVIOUS MINUTES**

5.1 CB 30 – 19 September 2013

## **6. BACKGROUND PAPERS**

6.1 None.

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