



## **CABINET – 5TH OCTOBER 2022**

**SUBJECT: CWM IFOR SOLAR FARM**

**REPORT BY: CORPORATE DIRECTOR OF EDUCATION AND CORPORATE SERVICES**

### **1. PURPOSE OF REPORT**

1.1 This report seeks Cabinet approval of an Outline Business Case that seeks to develop a Solar Farm at Cwm Ifor in Penyrheol, Caerphilly.

### **2. SUMMARY**

2.1 In June 2021 and following a recommendation from the Regeneration Board, Cabinet agreed to set aside a sum of £483,000 to explore the potential development of a 20MW Solar Farm on some privately owned land at Cwm Ifor, near Penyrheol, Caerphilly.

2.2 The funding was intended to support:

- the novation of a grid connection and initial investigations
- the development of an Outline Business Case (OBC)
- preparation of a planning application (including all supplementary consultant work and reports)
- informal and formal stakeholder engagement
- the development of the necessary procurement documentation
- options for construction
- specific financial modelling
- production of Full Business Case (FBC) and options appraisal.

2.3 The Outline Business Case for the development of the Solar Farm is attached at Appendix 1.

2.4 Should Cabinet be minded to approve the attached Business Case, Officers will move to the next stage of the project, specifically the preparation and submission of the planning application and the progression of a lease agreement with the landowner.

2.5 These are key stages in the development of the Full Business Case which Cabinet will be asked to consider at a future point.

### **3. RECOMMENDATIONS**

3.1 It is recommended that Cabinet:

- a) Approve the outline business case attached at Appendix 1
- b) Agree the submission of the planning application to Planning and Environmental Decisions Wales (PEDW)
- c) Delegate authority to Head of Legal Services in consultation with the Cabinet Member to sign the option agreement and lease with the landowner for the land at the solar farm.
- d) Agree that on approval of the planning application the Council will obtain full costings through a full procurement process to prepare the Full Business Case for consideration by Cabinet

### **4. REASONS FOR THE RECOMMENDATIONS**

4.1 To secure the necessary support from Cabinet to continue the development of the Cwm Ifor Solar Farm and to move from outline business case to the submission of a planning application and on to the development of a full business case, through a full procurement process.

### **5. THE REPORT**

#### The Proposal

- 5.1 The Cwm Ifor Solar Farm proposal seeks to develop a 20MW solar farm in Penyrheol, to the north of Caerphilly town centre. The project has the potential to be the largest public authority owned solar farm in Wales.
- 5.2 It is anticipated that the development will cost between £12-16m, have a lifespan of 35 years and an expected Investment Rate of Return (IRR) of 4.52% annually. This would generate between £669,000PA and £892,000PA during the life of the project, with payback in approximately 18 years although with prices of energy rising so much recently, this could reduce significantly.
- 5.3 The financial modelling undertaken to date is based on 6.1 pence per KWh, however at present the rate is around 12.5 pence per KWh and on this basis the modelled returns could potentially be doubled if that rate continues.
- 5.4 It is estimated that approximately 40 'green jobs' will be created as a result during the lifetime of the scheme and that the life-time CO2 savings would be circa 55,300t CO2 or approximately 1,580 tCO2 /year. This would be enough to power approximately 6000 homes.
- 5.5 The project has been classified as a 'Development of National Significance' meaning that Welsh Government will determine any planning application. The Council will, however, be a consultee.
- 5.6 Should the planning application be successful, the solar farm will be a commercially viable product to sell on the open market. At this point, the Council can either proceed to construction itself or decide not to proceed with the development and potentially sell the project on to a commercial entity.
- 5.7 Any revenues would be generated from the solar farm via a Power Purchase

Agreement.

### Key Milestones and Works to Date

- 5.8 A Grid connection was secured from Western Power via a novation in April 2020. This connection includes the proposed solar farm site as being last in line for switch off providing additional surety on revenue streams.
- 5.9 Negotiations with the landowner to secure the option agreement and lease on the land have now been concluded and are ready for signing – including retaining CCBC Covenant on the land for the duration.
- 5.10 Initial Land Studies have been completed with no major concerns identified.
- 5.11 A screening request has been submitted to Planning & Environmental Decisions Wales (PEDW) which has identified that the solar farm will require a full Environmental Impact Assessment (EIA) in support of the planning application. The EIA scoping exercise has been submitted to PEDW for consideration.
- 5.12 Technical & Planning Consultants have been secured and are progressing well with the development of the EIA & Planning application.
- 5.13 An extensive desk top study of funding sources has been undertaken and the most appropriate sources to fund the solar farm have been identified. These will now be investigated and modelled further to make recommendations on the options as part of the full business case.
- 5.14 Full engagement with ward members has been ongoing throughout the project. There has been some informal consultation undertaken within the communities closest to the solar farm and Community Councils will also be engaged.
- 5.15 The need for a full EIA to accompany the Planning Application may have affected the original timeline of the project with construction work now unlikely to start on site until April 2024. Cumulative impact between the solar farm and other developments needs to be considered as part of the EIA. An updated project timeline is included in Appendix 2 and this remains under review.

### Risks to Timeline

- 5.16 Potential implication of delays to construction beyond April 2024 include:
  - Connection offer could be withdrawn from WPD in which case the Council would go to the back of the queue for connection, which will take many years. At present the Council is next in line.
  - The Landowner could look for other options with other energy providers.
  - Support could end with WGES before the end of the project.
  - The Council could miss a potential opportunity to fix its energy prices in 2026 when current contracts end.
  - Missing a fantastic opportunity to reach our decarbonisation targets by 2030 and an opportunity to provide green energy.
  - Could lose decanting location, where materials are transferred from larger vehicles to smaller vehicles to access the site.

## Strategic Alignment

- 5.17 The proposal aligns with a number of the Council's strategic aims including:
- The Transformation Strategy states that the Council will endeavour to be more commercial and seek investment opportunities which offer financial benefit and non-financial benefits.
  - The Decarbonisation Strategy sets the aim of the authority being Net Carbon Zero by 2030.
  - The Commercial & Investment Strategy sets out as part of the strategic action plan a commitment to investigate commercial opportunities when presented.
  - The Well Being and Place Shaping Framework and this project is identified as a potential investment under objective WB04.
- 5.18 The project also aligns with the following Welsh Government targets relating to renewable energy:
- Wales to be net zero with respect to carbon emissions by 2050
  - 70% of Wales' electricity consumption to be renewable by 2030
  - 1 GW of electricity generated in Wales to be locally owned by 2030
  - All new renewable energy developments to have an element of local ownership
  - An additional 100 MW+ of public / community sector renewable energy generation to be installed between 2022 and 2026

## Next Steps (Subject to OBC Approval)

- 5.19 Planning Application – Technical consultants have been procured to help finalise designs for the solar farm. Planning consultants have been engaged and have prepared documentation for submission to Welsh Government. The planning consultants will also progress the formal consultation and engagement exercises required to ensure that all statutory requirements are adhered to.
- 5.19 Consultation & Engagement – In line with our commitment to the Consultation and Engagement Framework previously agreed by Cabinet, the project will seek to go beyond the statutory consultation requirements. There will also be a separate work stream for consultation and engagement with residents that may experience some disruption during the construction phase of the project, or that have a visual impact after construction.
- 5.20 Finance Options – The next phase of work will include a focus on potential funding options for the development. The Council will look to partners, community options, including community bonds, National Infrastructure Bank and any other funding streams to leverage in funding to help deliver this project. This workstream will also look at the power purchase agreement and the implications of this on the Council's current energy purchasing and carbon accounting.
- 5.21 Procurement – A project team has been set up, that is working closely with internal procurement and will work with external legal and technical advisers to draw up the suite of documents required to obtain costings for the construction, operations and maintenance contracts for the site for inclusion in the full business case.
- 5.22 Community Benefits – There are a range of potential community benefits that this project could support. Full consultation and engagement will take place with residents near to the solar farm to obtain their views on how they would like the community to

benefit. Attached at Appendix 3 is a snapshot of some of the community benefit schemes that have been used on other renewable projects.

## **Conclusion**

- 5.23 This proposal has the potential to develop the largest public authority owned solar farm in Wales and the Outline Business Case indicates the possibility of bringing additional revenue, jobs and community benefits to Caerphilly, as well as making a significant contribution to the Council's decarbonisation targets.
- 5.24 In order to progress from Outline Business Case to Full Business Case for Cabinet consideration, the next steps of the project will require a planning application to be submitted, a lease agreement signed and further works undertaken to refine the financial and resource modelling, associated project timelines, procurement process and an options appraisal.
- 5.25 As well as the potential benefits that this development could provide, the investment made to date would also be largely recoverable should Cabinet ultimately determine not to proceed as the developer.

## **6. ASSUMPTIONS**

- 6.1 This report assumes that the identified project will be developed further and, where applicable and desirable, will be reviewed in detail as part of the full business case for final determination.
- 6.2 All financial information is based on assumptions. Further assumptions are detailed in the outline business case (appendix 1).
- 6.3 The development & construction costs within the initial model are based on WGES standard assumptions for previous similar projects supported by WGES. The model has been updated as more detail has been confirmed.

## **7. SUMMARY OF INTEGRATED IMPACT ASSESSMENT**

- 7.1 This proposal and the associated community benefits have the opportunity to make significant positive impacts across a number of key areas as identified within the IAA; collaboration, employment, low carbon, education, long term thinking. The challenge will be as officers develop the full business case to ensure that those benefits are achievable and aligned to the priorities of both the WG, legislation, corporate priorities and the needs and wants of the community.

**[Click Here Link For Full Integrated Impact Assessment](#)**

## **8. FINANCIAL IMPLICATIONS**

- 8.1 Cabinet has previously agreed to allocate a total of £483,000 development funding to the Cwm Ifor Solar Farm project, to take forward the proposal as outlined in the summary above.
- 8.2 A revaluation of the projected cost of project development has taken place and it is expected the expected costs of completing this stage of the project are likely to be in

the region of £391,663 including the costs for full EIA screening. Therefore, no additional funding is required at this stage.

- 8.3 The overall costs of the project are currently estimated to be in the region of £12 – 16 million depending on preferred option and would look to provide 4.52% IRR, based on the current energy price projections.
- 8.4 It is important to note that there are some potential fluctuations in costs. Some project costs have increased since the last outline business case due to a number of factors including Covid, issues in Ukraine and Brexit whilst technology improvements mean that panel sizes and therefore land requirements could reduce costs.
- 8.5 It should also be noted that energy prices have also increased significantly. The current financial modelling is based on 6.1 pence per KWh, however current prices of 12.5 pence per KWh are being achieved. Should prices remain at current levels the predicted income from the project will be double that set out in this outline business case. All financial models and assumptions will be further clarified as part of the full business case and sensitivity testing is continuing.
- 8.6 It is anticipated that this project will be funded via a variety of financial sources and those options and implications will be explored as part of the next phase of work. There are borrowing options available to the Council, as well as looking to the National Infrastructure Bank and Community Bonds. The current financial model assumes Public Works Loan Board borrowing based on our existing terms. Any changes to this will be factored into the updated financial model forming part of the full business case. However, sensitivity testing is being carried out using various funding options. There is currently grant funding available for this project.

## **9. PERSONNEL IMPLICATIONS**

- 9.1 No personnel implications have been identified at this stage of the project.

## **10. CONSULTATIONS**

- 10.1 Some consultation has already taken place with ward members and the community in order to gain the views initial views in relation to reducing the potential impact for residents and on identifying appropriate community benefits.
- 10.2 Engagement has been positive so far with residents generally pleased with the project, but representations made to date have highlighted the need to ensure, biodiversity is not adversely affected as well as some questions regarding the visual impact and disruption of the project. Work is already underway to demonstrate how we will mitigate against these impacts on the community and how we intend to support local biodiversity.

## **11. STATUTORY POWER**

- 11.1 Local Governments Act 1998 and 2003

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Appendices:  
Appendix 1 Outline Business Case  
Appendix 2 Project Timeline  
Appendix 3 Example Community Benefits