TITLE	**Barkham Solar Farm Update**
FOR CONSIDERATION BY	The Executive on 14 March 2024
WARD	Barkham
LEAD OFFICER	Deputy Chief Executive - Graham Ebers
LEAD MEMBER	Leader of the Council and Executive Member for Housing - Stephen Conway

PURPOSE OF REPORT (INC STRATEGIC OUTCOMES)

The purpose of this report is to provide an update on the Barkham Solar Farm Business Case and progress report following the conclusion of the procurement process.

The delivery of the Barkham Solar Farm is identified as a key priority of the Council's Climate Emergency Action Plan.

The project will also generate a considerable net income for the Council over 25 years which will be introduced into the Council's annual budget using an equalisation reserve.

Climate Emergency Overview & Scrutiny Committee considered this report and its content at their meeting on 29 February 2024. Executive are asked to consider their recommendations on this topic.

RECOMMENDATION

That the Executive

1) Note the update to the Barkham Solar Farm business case and progress report as detailed herein.
2) Considers the recommendations from Climate Emergency Overview & Scrutiny Committee on 29 February 2024

EXECUTIVE SUMMARY

The financial business case for the Barkham Solar Farm was initially considered and approved by Executive in July 2021 and by Full Council in September 2021. At a Special Council Executive meeting on 30 June 2022, both Executive and Council approved the procurement business case for the contractor. In approving the procurement business case the Executive further resolved that an updated business case and progress report will be reported back to the Executive following the conclusion of the procurement process. This report sets out the progress report and an updated business case.

Full planning permission for the project has now been secured and, following extensive and positive engagement with SSEN and National Grid, the Council are now in contract with SSEN for connection to the grid in Summer 2026. A contractor has been appointed

and the project is now progressing through detailed design. Main construction of the solar farm is expected in Spring/Summer 2025, for first operation in 2026.

The current forecasts identify a capital expenditure of £25.18m, and a net income (after running costs and capital financing costs) of £68.52m over the 25 year life of the development (equal to £2.74m per annum on average).

The forecasted net income compares extremely favourably against the £480k per annum identified when the Executive/Council considered/approved the business case in 2021. The forecasted returns also significantly exceed the £200k per annum threshold that allows for delegation of decision making around the final extent and configuration of the Solar Farm to the Deputy Chief Executive (S151 Finance Officer) in conjunction with the Lead Member.

The MTFP currently identifies an equalised net surplus, after capital financing costs, of circa £1m per annum from the Barkham Solar Farm. Based on the current forecasts, the scheme would deliver (and exceed) the current MTFP expectations.

PROGRESS REPORT

In response to the rising concern over the urgent need for action, in 2019 Wokingham Borough Council (WBC) declared a climate emergency. The Council subsequently published its Climate Emergency Action Plan (CEAP), which is subject to ongoing monitoring and review. Renewable energy generation remains a key priority of the CEAP and the Barkham Solar Farm is a specific project/target identified therein.

The financial business case for the Barkham Solar Farm was initially considered and approved by Executive in July 2021 and by Full Council in September 2021. Since that time the industry has experienced considerable inflation in build costs and interest rates have risen. At the same time however there has been an unprecedented rise in energy prices. Whilst it is therefore evident that the solar farm will now cost more to build than was forecasted back in 2021, the forecasted returns to the Council have significantly improved also.

Full planning permission for the project was secured in January 2022 and in May 2022 the Council received a grid connection offer from SSEN for connection to the grid by 2026.

At a Special Council Executive meeting on 30 June 2022, both Executive and Council approved the procurement business case for the contractor and delegated authority to the Director of Resources and Assets, in consultation with the Executive Member for Finance and the Executive Member of Climate Emergency and Residents Services, to implement the strategy. At the meeting the Executive further resolved that an updated business case and progress report will be reported back to the Executive following the conclusion of the procurement process; hence the reporting herein.

The Council appointed Bouygues (now Equans) early in 2023. They have initially been appointed on a Pre-construction Services Agreement (PCSA) contract for surveys and design works only. Once completed, it is intended that Employer Requirements will be formulated into agreed Contractor's Proposals and a contract sum agreed upon using an open book tendering process to arrive at a 'best value' proposal for WBC (the Employer). Award of the main JCT Design & Build Contract for the Stage 2 construction will follow.

The project therefore had been progressing in good faith against the grid connection offer received from SSEN. However, in March 2023 SSEN advised WBC that they could now not connect the solar farm to the grid until 2037 due to up-grades to the grid required at transmission level. This put the project at significant risk.

Extensive and positive engagement with SSEN and National Grid followed; culminating in WBC receiving a revised connection offer of August 2026. In January 2024 the Council formally accepted the offer and the connection date is now in contract. The project is therefore once again progressing for delivery in 2026. The agreement to a 2026 connection date mitigates a significant risk to the delivery of the project.

Equans had stood down pending resolution of the connection issue with SSEN and National Grid. They have now remobilised and are in the process of undertaking survey and detailed design work under the Pre-Construction Services Agreement. Planning submissions will follow in due course pursuant to the various planning conditions; with the final contract sum for construction to be agreed between Equans and the Council

towards the end of this year. Main construction of the solar farm is expected in Spring/Summer 2025, for first operation in 2026.

The currently anticipated delivery programme for the project is as follows:

Survey / Design Work	Ongoing
Parish Council and Stakeholder Up-dates	Mar/Apr
Submission to planning – Conditions – First Tranche	Apr/May
Submission to Planning – Conditions – Second Tranche	July
Agree contract sum with Equans and enter into construction contract	By end 2024
Initial Construction Works	Dec/Jan 24/25
Main Construction (2-3 months)	Spring/Summer 25
Off-site Grid Connection Works (SSEN Works) (6-9 months)	Tbc
Grid Connection / First Operation	Summer 26

THE FINANCIAL BUSINESS CASE

The business case has evolved over the life of the project as costs and values have changed.

The original business case for the solar farm was approved by Executive and Council in Summer 2021. An updated financial business case was subsequently presented to, and supported by, the Council's Overview and Scrutiny Management Committee on 5th October 2022.

The table below sets out the historic financial forecasts for the project, as reported in Summer 2021 and October 2022; together with the current (January 2024) financial forecast for the project shown in the right hand column. Note: figures in red/brackets indicate income/surplus, figures in black (without brackets) indicate expenditure:

	Summer 2021 £m	October 2022 £m	January 2024 £m
Capital Expenditure			
Capital cost	20.28	26.85	25.19

General Fund - Income and Expenditure			
Revenue income	(59.37)	(126.50)	(129.17)
Revenue operating expenditure	14.42	19.48	19.01
Revenue operating surplus	**(44.95)**	**(107.02)**	**(110.16)**

Repayment of capital expenditure	20.28	26.85	25.19
Interest costs	12.68	13.01	16.44
Revenue surplus after financing costs	**(11.99)**	**(67.16)**	**(68.52)**
Average surplus per year	*(0.48)*	*(2.69)*	*(2.74)*

A breakdown of the forecasted Capital Costs of the project, together with the General Fund Income and Expenditure forecast, is included at Part 2 of this report.

The Council is advised by LHW Partnership who are a specialist consultant with extensive experience in the delivery of low carbon energy projects. The forecasts presented in the business case therefore have been developed using expert advice, provided by an external consultant with significant experience in this field.

The business case for the project makes assumptions around the export price of the energy and annual fuel price inflation across the 25 years of the project – as is set out in the Part 2 papers. Sensitivity testing around these assumptions is also included in the Part 2 papers.

The returns indicated above compare extremely favourably against the £480k per annum identified when the Executive/Council considered/approved the business case in 2021. The forecasted returns also significantly exceed the £200k per annum threshold that allows for delegation of decision making around the final extent and configuration of the Solar Farm to the Deputy Chief Executive (S151 Finance Officer) in conjunction with the Lead Member, as per the 2021 Executive/Council approvals.

The MTFP currently identifies an equalised net surplus, after capital financing costs, of circa £1m per annum from the Barkham Solar Farm. Based on the current forecasts, the scheme would deliver (and exceed) the current MTFP expectations.

Additionality

Whilst business rates are included in the business case as a project expenditure, the forecast does not record any of the revenue that WBC will receive corporately through the retention of business rates payable by the Solar Farm. WBC could retain up to 100% of business rates paid against renewable energy projects; in which case the Solar Farm could potentially generate circa £2m of additional revenue to the Council over the 25 years of the facility.

In addition, for the purposes of the business case, it has been assumed that all electricity generated will be exported directly to the grid via an electricity supplier under a Power Purchase Agreement. The forecasts, at this time, do not seek to take into account further additionality as may be achievable through ‘sleeving’ the electricity output through a licenced supplier direct to WBC’s operational portfolio. This would allow WBC to regulate its own energy prices to a greater or lesser degree. Where the solar farm equates to 73% of WBC’s overall corporate Energy consumption, and with the recently experienced hike in energy prices, this has potential to capture significant operational savings to the Council.

These opportunities will be explored and progressed in greater detail with the relevant Members as the scheme progresses through to delivery. The ultimate decision on what WBC do with the electricity will be partly dependant on government and grid developments on energy pricing over the coming year(s). LHW and WBC officers will review this as it develops; with a view to making decisions at the relevant juncture. The Council will need to be guided by the best 'payback' opportunity in this regard.

NON-FINANCIAL BENEFITS OF THE SOLAR FARM

The past few years have shown how reliant the UK remains on imported fossil fuels, with costs soaring due to disruption from the war in Ukraine and increased demand from other countries. By generating renewable energy locally and putting it back into the grid, schemes like this have a significant part to play in securing sustainable power supplies, stabilising the costs of energy, and helping protect residents from further cost of living crisis in the longer term.

Contribution to CEAP targets

Target 2.1.1 - Deliver the installation of a solar farm in Barkham with the capacity to generate in excess of 29 MWp of energy.
The Barkham Solar Farm is an integral part of the CEAP; comprising a specific target therein estimated to contribute a carbon saving of 6,121 tCO2e.

In addition to delivering against target 2.1.1 of the plan, the project will also contribute towards the Council meeting the following CEAP targets:

Target 1A.4.5 - Develop the Local Cycling and Walking Infrastructure Plan (LCWIP) to be Borough wide and implement 50% LCWIP by 2030.
The Solar Farm project will provide a new Greenway from the southern boundary (linking into the existing Greenway running along the northern boundary of California Country Park) up to the northern boundary of the site. This section of Greenway will be the first segment of a new Greenway Route identified in the LCWIP and intended in time to connect the Arborfield SDL into Barkham and then beyond into Wokingham as part of the Council's Local Cycling and Walking Infrastructure Plan.

Target 4.1.2 - Deliver small-scale woodland planting on council estate in existing parks and opens spaces sites to improve carbon capture and biodiversity net gain.
The Barkham Solar Farm project includes a 2.66ha band of woodland planting along the southern boundary of the site which will include the planting of circa 5,800 new trees in the 2024/25 planting season. The Solar Farm woodland planting will be a continuation of (and in addition to) the 7.7ha of tree planting (approximately 7,000 new trees) proposed under the Covid Memorial Woodland project on the adjacent site (see Executive resolution of 21/03/23).

In addition, new tree planting has already been provided at the site in the form of a new fruit tree nursery and further tree planting will be brought forward as part of the wider Solar Farm landscaping proposals – final details of which will need to be developed over the coming months and submitted for approval under the conditions of the planning permission.

In terms of the fruit tree nursery already planted, the Council worked with Freely Fruity (a local charity) to identify and provide the land on the site, secure the necessary consents and enter into lease. Freely Fruity supports community groups, schools, Town and Parish council's, etc, in providing free fruit, vegetables and more recently have been donating fruit trees across the borough to deliver new community orchards. The trees they have planted are contributing to the council's tree planting target and all food grown on site is donated to local food banks and other charities.

Other (Non-specific CEAP) Benefits

Through grassland enhancement and woodland creation, as well as hedgerow improvements and new hedgerow planting, the project will provide a significant uplift in biodiversity at the site. A Biodiversity Net Gain Assessment submitted at the time of the planning application indicated potential for an uplift in area based habitat units of 162% and in hedgerow units of 63%; which is well in excess of the 10% biodiversity net gain generally expected with major planning applications. Final details of the biodiversity net gain at the site will be measured and recorded in due course following the finalisation and approvals of the detailed design of the landscaping proposals.

In addition to the above, prior to the commencement of construction an Employment Skills Plan will be developed with the contractor and in consultation with the Council's Economic Development Team. The intention of this plan will be to explore how the project can provide opportunities for local employment, training, apprenticeship, and/or other vocational initiatives to develop local employability skills.

KEY PROJECT RISKS

Grid Connection:
The delivery of the project and the commencement of operation of the solar farm (and the revenue to the Council thereafter) is subject to the scheme connecting into grid. At this time the Council has entered into a contract to connect to the grid in 2026. The Council are however beholden to SSEN for delivery of the connection. The project team will continue to work proactively with SSEN to facilitate this connection date – and explore opportunities to potentially bring that date forward if achievable.

Inflating Costs:
The business case has been informed by market experts and a prudent approach to pricing has been taken at this stage. Final construction costs will not however be fixed until the construction contract is awarded towards the end of this year.

Fluctuating Energy Prices/Revenues:
Electricity prices will be influenced by government and grid developments on energy pricing over the coming years. The approach to energy prices adopted within the financial forecasting – as is set out in Part 2 – has therefore been prudent.

Sensitivity testing around the assumed electricity export prices and annual fuel inflation across the 25 years has been included in the Part 2 papers. Whilst the financial information looks extremely positive, it nevertheless remains that a number of risks sit outside of WBC's control. The Council therefore remain prudent in the assumption of circa £1m per annum currently included within the MTFP.

FINANCIAL IMPLICATIONS OF THE RECOMMENDATION

The Council faces unprecedented financial pressures as a result of; the longer term impact of the COVID-19 crisis, Brexit, the war in Ukraine and the general economic climate of rising prices and the increasing cost of debt. It is therefore imperative that Council resources are optimised and are focused on the vulnerable and on its highest priorities.

	How much will it Cost/ (Save)	Is there sufficient funding – if not quantify the Shortfall	Revenue or Capital?
Current Financial Year (Year 1)	£285k	Yes	Capital
Next Financial Year (Year 2)	£2m	Yes	Capital
Following Financial Year (Year 3)	£18m	Yes	Capital

Other Financial Information
The financial business case for the solar farm was considered and approved by Executive in July 2021 and by Full Council in September 2021. The MTFP identifies an equalised net surplus, after capital financing costs, of circa £1m per annum from the Barkham Solar Farm. The project is forecasted to exceed this provision.

Legal Implications arising from the Recommendation(s)
None

Stakeholder Considerations and Consultation
The project has been subject to extensive stakeholder consultation as part of the planning process. Further engagement with stakeholders will occur, including setting up a community liaison group, as the scheme progresses through to delivery.

Public Sector Equality Duty
An Equality Impact Assessment has been undertaken. The Initial Impact Assessment did not identify any potentially negative impacts upon persons with protected characteristics

Climate Emergency – *This Council has declared a climate emergency and is committed to playing as full a role as possible – leading by example as well as by exhortation – in achieving a carbon neutral Wokingham Borough by 2030*
Generation of renewable energy through investment in solar farms is identified as a key priority under the Climate Emergency Action Plan (CEAP). The delivery of the Barkham Solar Farm is a specific target identified therein.

Reasons for considering the report in Closed Session
By Virtue of Paragraph 3 of Part 1 of Schedule 12A of the Local Government Act 1972: Information relating to the financial or business affairs of any particular person (including the authority holding that information).

List of Background Papers
PART 2 – Barkham Solar Farm Capital Cost PART 2 – Solar Farm General Fund Income and Expenditure PART 2 – Notes and Assumptions

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