

FAREHAM

BOROUGH COUNCIL

Report to the Executive for Decision 18 March 2024

Portfolio:	Policy and Resources
Subject:	Renewable Energy Scheme: Hook Recreation Ground Solar Photovoltaic (PV) Development Feasibility
Report of:	Director of Planning and Regeneration
Corporate Priorities:	Respond to Climate Change and Protect the Environment; Promote Economic Development; Responsive, Inclusive, and Innovative Council

Purpose:

To brief the Executive on the potential for a solar photovoltaic (PV) scheme at Hook Recreation Ground and to seek funding for the next feasibility stage of the project.

Executive summary:

Hook Recreation Ground is a former landfill site currently used as an informal recreation ground, mainly by dog walkers and model plane flyers. This report advises the Executive on the potential to develop a 3.5MW solar PV scheme on the site. There are two main benefits of a solar PV scheme:

- **Financial:** From the financial modelling undertaken thus far a solar PV scheme has significant revenue generating potential and could also be used to reduce the Council's electricity bills.
- **Environmental:** The Council would produce renewable electricity. As a minimum it would generate enough electricity to power the Civic Offices, Depot, and Housing communal areas which would in turn reduce the Council's carbon footprint. Renewable electricity would also be returned to the wider electricity network, contributing toward 'greening of the grid.'

Understanding if and when a solar PV scheme could connect into the grid network is essential to progressing to the next feasibility stage of the project and associated business case. The project cannot progress to further stages without securing a viable grid connection, and overall scheme viability would be questionable if this could not be obtained for some time. Accordingly, there is a time imperative to making the grid application.

To make an application for a grid connection and secure the offer should it be received, this report seeks a budget of £130,000. Between £25,000 - £30,000 would be used to make an application and commission associated studies. This is non-

refundable. The remaining £50,000 - £100,000 would be required as a deposit to accept a grid connection if an acceptable offer is received. The money would be refundable if the Council did not proceed with the solar PV scheme. It would not be committed without a further Executive approval.

It is acknowledged this type of development on Hook Recreation Ground would result in the loss of open space, albeit of poor quality. This will be addressed during later stages of the project once the initial feasibility work around a grid connection has been undertaken. The project is dependent on a viable grid connection and therefore, it is not worthwhile undertaking further work until this has been assessed.

Furthermore, development of this type involves risks. This is being carefully considered against the benefits, a process that will continue into the next stages of the project.

Recommendation:

It is recommended that the Executive approves a budget of £130,000 for a grid connection application and for a deposit to secure the connection should an acceptable offer be received.

Reason:

To be able to progress with the next feasibility stage of the project and associated business case.

Cost of proposals:

The budget required to secure a grid connection offer is £130,000, incorporating a £25,000 - £30,000 non-refundable element. If the connection offer was accepted a £50,000 - £100,000 deposit would be required. This would be refundable if the project did not eventually proceed.

There is currently no budget provision for this project. This project is part of the Opportunities Plan as a potential invest to save proposal. The funding for this project will therefore need to be taken from the Council's unallocated General Fund reserves. There are sufficient funds to cover this request. However, use of the reserves for this purpose will reduce the availability to cover future budget shortfalls in the short-term. An estimate of the pay-back period for the whole project is 10.8 years.

Appendices:

A: Plan of Hook Recreation Ground

B: Confidential Appendix*

* Commercially exempt from publication

It is not in the public interest to disclose the contents of Appendix B as doing so could negatively impact the progression of the project.

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Executive Briefing Paper

Date:	18 March 2024
Subject:	Renewable Energy Scheme: Hook Recreation Ground Solar PV Development Feasibility
Briefing by:	Director of Planning and Regeneration
Portfolio:	Policy and Resources

INTRODUCTION AND BACKGROUND

1. This report is intended to brief the Executive on the potential to develop a 3.5MW solar scheme at Hook Recreation Ground. It summarises the business case prepared to date and requests the funding necessary to progress to the next feasibility stage, which is an application for a grid connection. Subsequent Executive decisions will be sought if the Council proceeds beyond a grid application.
2. The project started in 2022 with a desktop-based feasibility study by an external consultant, which identified Hook Recreation Ground as being suitable for a solar PV development. Consultants were then commissioned to prepare a more detailed business case. This advice was then verified by other experts. These reports are provided as confidential Appendix B, and the most 'realistic' business case is summarised in this report. It will be revisited/refined if the Council proceeds to subsequent stages of project. This is essential as the renewable electricity sector is constantly evolving.
3. Development of a solar PV scheme has two main benefits. These are:
 - Financial: From the financial modelling undertaken thus far a solar PV scheme has significant revenue generating potential and could also be used to reduce the Council's electricity bills.
 - Environmental: The Council would produce renewable electricity. As a minimum it would generate enough electricity to power the Civic Offices, Depot, and Housing communal areas which would in turn reduce the Council's carbon footprint. Renewable electricity would also be returned to the wider electricity network, contributing towards the 'greening of the grid.'
4. It is acknowledged that this type of development on the Hook Recreation Ground would result in the loss of open space, albeit of poor quality. Furthermore, development of this type involves risks. This is being carefully considered against the benefits and this process will continue into the next feasibility stages of the project.

THE SITE AND SOLAR PV SCHEME

5. Hook Recreation Ground is in the ward of Warsash and is a former landfill site which ceased operation in 1979 and was capped in 1999. It is currently used as an informal recreation ground, mainly by dog walkers and model plane flyers. The site sees relatively low usage and there are currently no formal lettings. A Streetscene Service storage depot, serving the Western Wards, is located on the site and would be unaffected by the solar PV scheme.
6. Hook Recreation Ground extends to approximately 28 acres, and 12 acres would be required for the solar PV scheme (see plan at Appendix A). Of this approximately 11 acres is currently usable open space which would be lost. Surrounding the open space is woodland which would not be directly affected and where there are informal footpaths. They are of low quality but could be enhanced to help mitigate the loss of open space.
7. A solar PV scheme comprising approximately 8400 panels is being considered and 'deer fencing' would surround it (denoted by the purple line on the plan at Appendix A). This type of fencing is common for solar PV scheme and is designed to stop deer from entering the site. More substantial 'security' fencing may be required, which would add to the cost included in the current financial modelling. However, this would not significantly change the financial return.

BUSINESS CASE

Owner/Operating Options and Financial Considerations

8. There are several different operating and ownership options available, each having their own risk/reward profile. Definitive detail cannot be available until market testing which can only occur after both planning permission and connection details have been achieved.
9. Further business case modelling will be considered and presented to the Executive, following confirmation that an acceptable grid connection can be secured. As noted, a grid connection is needed regardless of ownership/operating arrangements. There is a time imperative associated with understanding if a grid connection can be obtained as a significant delay in securing the connection would affect viability.
10. For the current business case it is assumed the Council would own the solar farm development and appoint a consultant to deal with day-to-day operations. The main assumptions behind the business case are set out below along with the key financial indicators.

Key Assumptions

- FBC develops the scheme.
- 3rd party undertake day to day operations.
- Development costs £4.02m.
- Solar Farm has a 35-year lifespan.
- 17% of electricity used by the Council.
- 83% of electricity sold back to the grid.

Financial Indicators

- Payback period 10.8 years.
- The project would generate significant annual revenues with these increasing year on year.
- If 100% of the electricity was sold to the grid, the net benefit to the Council over the first 5 years would be approximately £300,000 and would be expected to increase in subsequent years as electricity inflation tends to outpace general inflation over long periods.
- There is a strong likelihood that at least 17% of the electricity can be used by the Council in parts of its estate, with the residual 83% being sold to the grid. The 5-year net benefit to the Council would then increase to approximately £525,000. This is because the Council, rather than the energy company, would benefit from the profit margin on this 17% usage.

As can be seen above the financial business case is strong as the payback period is significantly shorter than the lifespan of the project. Profits received beyond the payback period would be returned to the general fund.

11. It should be noted that forecasting of this type is dependent upon multiple variables and becomes more volatile in later years. The financial modelling completed to date is however, considered to be the most realistic it can be at this stage and follows advice from a series of consultants. It will be revisited/refined if the Council proceeds to subsequent stages of the project and undertakes further due diligence.

Environmental Considerations

12. The project has several environmental benefits. For the Council itself the financial modelling assumes 17% of the electricity generated by the solar farm would be used by the Civic Offices, Depot, and Housing communal areas. Assuming the Council retains the Renewable Energy Guarantees of Origin (REGO) certificates the renewably generated electricity used at these sites should result in an estimated 66% reduction in its net scope 2 carbon emissions (based on 2022/23 figures). A larger carbon reduction could be achieved if more Council sites used the renewably generated electricity. The potential for this needs to be considered in the context of the existing contractual arrangements for electricity supply at these sites.
13. It must be noted that the value of the carbon emissions reduction is affected by greening of the grid. As the National Grid has increasing levels of renewable generation the carbon benefit of producing renewable electricity reduces. The Government has a target for the electricity network to be 100% renewable by 2035. If achieved the 'carbon accounting' benefit of the solar PV scheme would be nil.
14. The financial modelling also assumes approximately 83% of the electricity produced would be sold back to the grid. This would be enough to power an estimated 1,440 households a year with renewable energy. It would also contribute to the Government's target of 70GW solar generating capacity by 2035 and 'greening of the grid'. This is considered to be a significant benefit to the Council and contribution to sustainability.

OTHER CONSIDERATIONS

15. Aside from the financial and environmental considerations presented above, there are a variety of matters to address before a solar PV scheme could proceed on the site. The most significant is the loss of a public open space albeit Hook Recreation Ground is currently considered to be of low quality and underused. This along with any visual impact of the scheme needs to be compared against the benefits which have been outlined.
16. The Council would need to address these matters through the statutory processes associated with a change in the use of public open space and as part of the planning process. Examples of the type of matters which will need to be dealt with are noted below. This is not intended to be an exhaustive list.
 - Appropriate consultation required under the Local Government Act 1972.
 - Equalities Impact Assessment.
 - Technical planning studies, including any Environmental Impact Assessment and/or Habitat Regulations Assessments required.
17. As to timing they would be addressed once the viability of a grid connection has been understood. If a viable grid connection cannot be obtained the project could not move forward anyway and this type of consultation and/or assessment would not be needed.
18. Historically, there has also been some negative press associated with the development of solar PV schemes by local authorities. Thus far officers have sought to mitigate risk by appointing industry experts and ensuring the proposed scheme is commensurate with the Councils wider financial position. The eventual level of risk to the Council will largely be dependent on the ownership/operating model adopted. This is not decided, and it may be that the Council decides to transfer the risk to a third party if it is too high.

FUTURE STEPS AND REQUIREMENT FOR GRID CONNECTION

19. Delivering a solar PV scheme is complex and a headline summary of the next steps (along with indicative timescales) is presented in 3 stages below:

Stage 1 (Summer 2024): Subject to Executive approval a grid connection application would be submitted. The project cannot progress without a grid connection and viability would be questionable if this could not be obtained for some time. Stage 2 and the timescales beyond assume an acceptable grid connection can be obtained and that an early connection date is available.

Stage 2 (2025 - 2026): From the date a grid connection offer is accepted, planning permission must be obtained within 24 months. At this stage of the project Executive approval would need to be sought for a budget to progress through planning. A business case review would also take place at this time.

Stage 3 (2026 – 2029): Once a grid connection and planning permission have been secured a decision would then be required on the operating model to be adopted. At this stage further Executive approval would need to be sought to decide how the project should progress. The project would then take an estimated three years to develop. This is the early earliest project completion date.

20. The Executive is being asked to approve funding for Stage 1. There are multiple parts to this Stage and the Council would first appoint a consultant to submit an application to SSEN. This would cost approximately £5,000 which is non-refundable. SSEN would provide a distribution grid offer within 65 working days. The Council would then have 1-3 months to accept this offer and place a deposit estimated at between £50,000 - £100,000. This would be refundable if the Council subsequently decided not to proceed with the project. If the Council did decide to proceed, these monies would be deducted from the eventual grid connection cost.
21. If a deposit is placed there may in turn be the need for a Transmission Network Impact Assessment (TIA). This assessment would consider the impact of project further upstream at the point where the electricity network connects with the National Grid. SSEN and National Grid would decide if a TIA were required. This would cost approximately £20,000 - £25,000 and is non-refundable. The TIA would take around 9 months to complete and at the end of the assessment, FBC would receive a revised grid connection offer. A decision may be required at this stage if the findings from the TIA present significant delays to the project.
22. The timescales from submitting the initial application to SSEN to receiving a final grid connection offer (assuming a TIA is required) is approximately 12 months. This reduces to approximately 3 months if a TIA is not needed.

CURRENT FINANCIAL CONSIDERATIONS

23. For the scheme to be able to progress a budget of £130,000 is sought to make a grid connection application and secure the offer received if it is acceptable. Up to £25,000 - £30,000 would be non-refundable with the remaining £100,000 required to place a deposit to secure an offer going forward. This would be refunded if the project did not go ahead at a later stage. If the Council did decide to proceed these monies would be deducted from eventual grid connection cost.

SUMMARY

24. The current business case for a solar PV scheme development on Council owned land has been presented. The current business case suggests a good financial return and presents environmental benefits. These benefits have been considered against the negative aspects of the project and on balance officers currently feel it is appropriate to proceed to the next stage. Accordingly, this report seeks approval of a budget so that a grid connection offer can be obtained and secured. If an acceptable grid connection can be secured more feasibility work can then be undertaken before a final decision is made on the project.

Enquiries:

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