

Capital Programme Review 2023-24 Project Appraisal Form

COMMITTEE & BID NUMBER

C&W Bid 10 Playhouse Solar PV

PROJECT TITLE

Playhouse Installation of Solar PV to roofs

ACCOUNTABLE OFFICER

Officer responsible for project planning and delivery of the scheme. Accountable officers are also responsible for post project review.

Ian Dyer / Tony Foxwell

DETAILS OF PROJECT

<p>Project scope, what is included/excluded in the scheme</p>	<p>Scope of Works To supply and fit a solar PV system on the roofs of the Playhouse theatre consisting of 50kwp with SolarEdge optimised panel solution, slight shading managed by optimisers, on roof variesole mounting system, high efficiency JA solar 405w panels, a 40kw inverter, battery storage system Tesvolt TS 72kwh 60KW inverter, including scaffolding and access.</p>
<p>Project outcomes and benefits</p>	<p>Criteria Spend to save scheme with 7 year paypack and this scheme is consistent with the Council's Climate Change Action Plan, subject to affordability, supported by a robust business case and value for money can be demonstrated through a maximum payback period of 10 years.</p> <p>Figures have been calculated with VAT by the supplier/installer and are as follows: Estimated Total Annual output (kwh) = 43,419 Financial benefit - PV and battery System cost (inc VAT) £147,600 Annual electricity savings from using solar power £15,197 Arbitridge difference between offpeak (5p) and peak rates £0.20 Annual electricity savings from battery arbridge £5,256 Smart Export Guarantee - exported energy income £0.05 Total annual Savings and export income £20,453 Total financial Benefit over 25 years £466,140. Total rate of return 13.86% Payback period (yrs) 7.22 Co2 savings per year (tonnes) 21.71</p> <p>Benefits Reduced energy consumption which will mean reduced revenue spend. Reduced carbon emissions Contribute to achieving EEBC 2035 carbon neutral target.</p> <p>Capital members comments Members advised this bid should proceed to final bid stage if it can meet the climate change payback criteria and asked for the following</p>

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	<p>to be addressed: details for payback calculation, whether the site is south facing, whether electricity generated can be pumped to our other locations.</p> <p>Please see Titan Eco proposal with all evidenced information of cost of project and energy generation forecast where at year 8 the system will have generated enough energy to save £136,842.00</p> <p>This is based on electricity costs at 35p a unit for day rate and 15p a unit night rate, which will be much lower than what we expect to pay with the increase in prices, even with the energy price cap.</p> <p>All parts of the roof to be used for solar panels are either South-West or South-East facing. We have been told that we have a convoluted roof with some areas of shading but with quite a large area. To counteract any shading, we can use SolarEdge technology. With SolarEdge each panel has an optimizer, which means that if the panel is shaded it only affects that panel, as opposed to a string inverter where all the panels on that string would be affected. The benefit of this system is that it maximizes generation and minimizes the impact of any shading.</p> <p>The bid includes battery storage, which will enable maximum use of energy generated on site and remove any need to consider exporting to another site which would have a lower financial benefit. In the winter, when solar generation will be significantly lower, the battery will draw energy at a cheap rate over night and use it at peak times and saves more energy and money.</p>
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FINANCIAL SUMMARY

		Cost of Project £	Comments and detail where necessary. Provide appendices where relevant. Examples of business cases spreadsheets can be found in the Finance Handbook
a	Estimated cost of purchase, works and/or equipment	130k	
b	Consultancy or other fees	0	
c	Total Scheme Capital Costs (a+b)	130k	
d	External Funding Identified (e.g. s106, grants etc.) Please give details, including any unsuccessful funding enquiries you may have made.	0	
e	Net Costs to Council (c-d)	130k	

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f	Internal Sources of Capital Funds Identified (e.g. repairs & renewals reserve etc.)	0	
g	Capital Reserves Needed to Finance Bid (e-f)	130k	
h	Annual Ongoing Revenue Additional Savings as a Direct Result of the Project	17k	This equates to payback in 7.6 years if the day rate is 35p a unit. If the rate we are paying is higher the payback will reduce in years.
i	Annual Ongoing Revenue Additional Costs as a Direct Result of the Project	0	

Year	2023/24 £
Spend Profile of Scheme – please identify which year (s) the scheme spend will fall into	2023

REVENUE IMPACT

Can Revenue Implications be funded from the Committee Base Budget? – Please give details	N/A
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ENVIRONMENTAL IMPACT

Does the scheme meet any of the Council's Climate Change Action Plan targets, and if so, which ones?	We will be making savings per year (tonnes) 21.71 (Co2). This would reduce the Councils overall carbon emissions from energy use by 3%. This would contribute to achieving the EEBC 2035 carbon neutral target. Under climate change action plan, aligns with specific action to install solar PV on council operated assets
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FOUR YEAR PLAN 2020/24

Is this investment linked to EEBC's Key Themes? If so, say which ones and evidence how. How does project fit within service objectives?	Green & vibrant - Work with partners to reduce our impact on the environment and move closer to becoming carbon neutral.
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TIMESCALES

What is the proposed timetable for completion of the project? Give estimated start and finish dates for each stage of the project. These dates will be used as milestones during quarterly budget monitoring to assess performance of project delivery.

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		Target Start Date	Target Finish Date
1	Design & Planning	April 2023	
2	Further Approvals Needed	N/A	
3	Tendering (if necessary)	June 2023	
4	Project start date	1 st August 2023	
5	Project Finish Date	31 st August 2023	

BASELINE CRITERIA

All capital schemes are assessed against criteria set by the Capital Member Group annually. Bids should meet at least one of these criteria. State which capital criteria(s) for assessing bids are met and why. Leave blank any which are not met.

Spend to Save schemes should meet the following criteria:

- Payback of the amount capital invested within the project within 5 years (10 years for renewable energy projects).
- The return required on capital employed should be linked to the potential cost of borrowing (MRP) rather than potential loss of investment income.
- Risk of not achieving return on investment is low.
- Clear definition of financial cost/benefits of the scheme.

Members may consider schemes with longer paybacks on major spend to save projects going forward, especially those that incur borrowing.

Is there a guarantee of the scheme being fully externally funded and is it classed as a high priority? Please give details of funding streams, including any restrictions on the funding.	no
Is the Scheme a Spend to Save Project? Will investment improve service efficiency including cost savings or income generation? What is the payback in years?	Yes payback with 7.6 years as evidenced in proposal by Titan Eco.

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Is it mandatory for the Council to provide the scheme? Is investment required to meet Health and Safety or other legislative requirements? If so state which requirements.	No
Is this project the minimum scheme required to continue to deliver the services of the Council? - Is investment required for the business continuity of the Council? If so, say how.	No

ASSET MANAGEMENT PLAN

Is investment identified in the Council's Asset Management Plan?	No
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PRIORITISATION

State which **one** of the four prioritisation categories are met and why.

1	Investment essential to meet statutory obligation.	
2	Investment Important to achieve Key Priorities.	Green & vibrant - Work with partners to reduce our impact on the environment and move closer to becoming carbon neutral.
3	Investment important to secure service continuity and improvement.	
4	Investment will assist but is not required to meet one of the baseline criteria.	

RISKS ASSOCIATED WITH SCHEME

1	Outline the risks of delivering this project to timetable and budget. (Please do not include risks to the service or asset if project is not approved.)	The major risk currently is inflated prices due to higher material and labour cost. If the increase too much in a year, then the budget will be insufficient to enough to carry out the works.
2	Are there any risks relating to the availability of resources internally to deliver this	no

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	project	
3	Consequences of not undertaking this project	We will end up paying considerable amounts for the purchase of electricity.
4	Alternative Solutions (Other solutions considered – cost and implications)	None

Is consultation required for this project? Please give details of the who with and when by.	N/A
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Ward(s) affected by the scheme	Epsom
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Accountable Officer Responsible for Delivery of the Scheme

Name and Signature

Whole life revenue costs of capital project

Where savings or budget virements are being used to part fund a project, the relevant budget manager must sign the appraisal form.

Accountable Officers for the revenue implications of the project

Project Manager Name and Signature Date

Revenue Budget Holder Name and Signature Date

Service Accountant Name and Signature Date

Director Name and Signature Date