

# CAPITAL INVESTMENT BUSINESS CASE

*Chelson Meadow Community Solar - Construction Loan*



## EXECUTIVE SUMMARY

*The Executive Summary is a short summary of the Business Case and should be the last section you complete, this will enable you to extract or only the key facts from relevant sections i.e. 'project on a page'. The summary is a 'snapshot' of the business case which will need to tell the story and sell the proposal.*

The Council and Plymouth Energy Community have an approved planning application to build a 13MW solar farm on the ex-landfill site at Chelson Meadow.

The solar farm creates the following opportunities for the Council:

- To reduce the Council's carbon emissions by approximately 60%, with 75% of the current electricity need being met by renewable energy.
- To protect the Council against energy price increases and volatility over a 20 year period through a Virtual Power Purchase Agreement with the solar farm.
- To future proof the Council against potential policy and legislative change relating to carbon emissions.
- To create a 50/50 joint venture with Plymouth Energy Community to build, own, and manage the solar farm. This will result in 50% of any surplus income returning to the Council.
- To generate an income over just under £1 million over the life of the solar farm through a lease on the land which will be paid annually.
- To generate an income by offering construction finance and long-term debt to the project. By borrowing at PWLB rates and loaning onwards to the joint venture on commercial terms, the Council's debt margin would be up to c£1.3million over the life of the project.

This business case seeks to secure an agreement to provide £16.3 million from the capital funding programme in order to provide a long term finance loan to a joint venture for the construction of Chelson Meadow solar farm.

## SECTION I: PROJECT DETAIL

<b>Project Value</b> (indicate capital or revenue)	£16,373,236	<b>Contingency</b> (show as £ and % of project value)	5%
<b>Programme</b>	Low Carbon	<b>Directorate</b>	Place
<b>Portfolio Holder</b>	James Stoneman	<b>Service Director</b>	Paul Barnard
<b>Senior Responsible Officer (client)</b>	Kat Deeney	<b>Project Manager</b>	Paul Elliott
<b>Address and Post Code</b>	Ballard House	<b>Ward</b>	Plymstock Radford

**Current Situation:** *(Provide a brief, concise paragraph outlining the current situation and explain the current business need, problem, opportunity or change of circumstances that needs to be resolved)*

The in-principle business case for the construction of the solar farm at Chelson Meadow was approved in October 2022. This set out the 3 key elements in which the Council needs to be involved to make the project viable. These are:

1. Provide a long-term loan to the joint venture to enable construction and subsequent operation of the solar farm.
  - *This enables the Council to make a finance margin – by capturing the value between the rate the Council borrow at, and the increased rate the Council lend to the joint venture at on commercial terms. At current rates the value of this is estimated to be £1.3m over 20 years.*
2. Create a joint venture with Plymouth Energy Community (PEC) to run and manage the solar farm.
  - *This enables the Council to benefit from a share of the surplus generated by the joint venture..*
3. Enter into a Virtual Power Purchase Agreement with Chelson Community Solar.
  - *The solar farm can provide locally generated green power equivalent to 75% of the council's electricity needs. By signing a long-term Virtual Power Purchase Agreement (VPPA) with the joint venture the Council will gain long-term security on energy prices as well as provide security of income for the project – giving additional confidence on the projects ability to repay finance loaned to the project. This provides the Council significant opportunity to hedge against long-term energy price increases as well as reduce its carbon emissions. This could be realised from Q2. 24/5 if construction commences in 2023.*

This business case considers the first point regarding providing a long-term loan to the project.

**Proposal:** *(Provide a brief, concise paragraph outlining your scheme and explain how the business proposal will address the current situation above or take advantage of the business opportunity) and (What would happen if we didn't proceed with this scheme?)*

There is an opportunity for the Council to provide long term finance for the project to enable construction and subsequent operation. Finance agreements must be in place for March 2023 at the very latest in order for construction to commence in 2023. A decision is therefore required as to whether the Council wishes to provide the loan.

The basic principle of the opportunity here is that the Council secures the finance from the PWLB at a rate (currently 5.5%) and then provide onward finance to the JV at a higher rate for the lifetime of the loan. This mechanism enables the solar farm to be built as well as generating an income from the debt margin. The table below sets out how a debt margin of more than £1.3 million could be made on a long-term debt offer over the life of the project.

*Table 1 – illustration of income through providing finance to the project*

Project cost	£16,373,236
Interest rate paid to PWLB	5.5%
Interest rate paid by JV	6.1%
PWLB loan term/type	20 years – annuity
Term of JV loan	20 years Year 1 – interest only during construction 15% Repaid by community share offer
Debt margin made by Council	£1,370,000

The above illustrates the income potential from the Council providing long-term finance to the scheme. It is worth noting that the Council have previously provided finance in a similar way to Plymouth Energy Community, which enabled the successful construction and completion of the solar farm at Ernesettle.

The above table has been populated with input from external technical experts, who have been in discussion with Council finance colleagues. Following a tender evaluation exercise a ceiling build cost of £16.3 (including contingency) has been calculated.

The loan will be structured in such a way that benefits the project, but also works within the financial mechanisms of PCC. The key points below illustrate this:

- The council can borrow from the PWLB at 5.5%
- The whole loan is offered at 6.1% to the Joint Venture.
- The first 12 months of the loan to the Joint Venture is interest only.
- 15% of the debt is repaid by PEC from a community share offer. PEC have an excellent track of raising finance via this method.

The preferred contractor has provided a construction programme which sees the commissioning of the site in July 2024 and uses a split construction phase over 15 months. The logic here is to complete as much of the works in the summer/autumn of 2023 including civils, structure install and below ground cabling. This is to avoid heavy ground works during the wettest months – and to comply with planning environmental planning conditions. Remobilisation then commences in April 2024 with the solar farm operational by 12<sup>th</sup> July 2024.

If this business case is taken in isolation, it is forecast to provide a debt margin income of £1.3m over the lifetime of the 20 year loan. However, as referenced above, the Council can achieve a far greater return and maximum benefit if this business case by entering into the land lease, the joint venture, and the power purchase agreement.

The provision of a loan on this basis is bound by financial legislative controls. The principal on being that the loan rate to CCS needs to reflect current market conditions. Finance colleagues have had significant input into this discussion and are comfortable that a loan rate of 6.1% is an acceptable rate to reflect the current market rate.

This business case seeks a commitment from the Council to provide a loan to Chelson Community Solar. The decision to sign the loan agreement will be delegated to the S151 officer and only occur on completion of the following:

- the submission of a detailed final report which includes the forecast net present value of each year in regards to the VPPA. This will provide increased confidence in the joint venture's ability to make the repayments.

- A risk workshop with Ernst and Young to ensure the Council is fully sighted on the potential risks and mitigation surrounding the agreement before signing.
- Receiving legal advice that the loan is compliant with subsidy control law (state aid).

The paper is being brought forward on the basis this is a loan on market terms but advice is being sought to confirm this and ensure compliance with subsidy control rules. Any decision to grant the loan will be subject to ensuring that the loan will be in compliance with subsidy control rules.

The above points will demonstrate the Council has undertaken significant due diligence on its decision regarding the loan.

Milestones and Date:		
Contract Award Date	Start On Site Date	Completion Date
March 2023	April 2023	July 2024

## SECTION 2: PROJECT RISK, OUTCOMES AND BENEFITS

**Risk Register:** *The Risk Register/Risk Log is a master document created during the early stages of a project. It includes information about each identified risk, level of risk, who owns it and what measures are in place to mitigate the risks (cut and paste more boxes if required).*

Potential Risks Identified		Likelihood	Impact	Overall Rating
<b>Risk</b>	Increasing Construction costs over 15-month period	Medium	High	Medium
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• Detailed illustrative cost breakdown of materials / equipment already provided by preferred contractor.</li> <li>• Use of QS to develop upper cost estimate for construction.</li> <li>• Contingency included within loan ask to cover unforeseen circumstances.</li> </ul>	Low	Low	Low
<b>Calculated risk value in £ (Extent of financial risk)</b>	£0 (covered in contingency)			
<b>Risk</b>	Timely construction.	Medium	High	Medium
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• Initial review carried out of construction partner programme for viability.</li> <li>• Programme workshop with expert consultant partners to refine programme for deliverability early in construction partner appointment process</li> </ul>	Low	Low	Low

	<ul style="list-style-type: none"> <li>Split construction period increases ability to absorb any slippage in construction works and allows for parts ordering delays</li> <li>Beginning parts ordering early in spring 2023</li> <li>Using established project team including owners engineer and contract PM support to manage efficient schedule</li> </ul>				
<b>Calculated risk value in £ (Extent of financial risk)</b>		£0			
<b>Risk</b>	Joint Venture defaults on payments – the business case for the solar farm does not stack up and its income is insufficient to meet its costs		Medium	High	Medium
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>Solar farms are a tried and tested technology with known and predictable performance.</li> <li>The financial model to assess viability of the business case has been developed and tested by an experienced team.</li> <li>The option for the Council to sign up to a Virtual Power Purchase agreement with the joint venture provides in-house certainty over the ability for the joint venture to repay.</li> <li>The council is an equal shareholder in the joint venture with an inherent ability to manage project performance alongside PECC who are experienced in solar farm performance management</li> <li>PECC resourced appropriately to carry out day to day management of solar farm asset once constructed</li> <li>EPC Wrap construction contract ensures performance of solar farm with warranties and damages requirements on construction partner if needed</li> <li>Procure sufficiently well-resourced O&amp;M contract to keep solar farm in good repair</li> <li>Have a sufficiently well resourced team to secure the best prices for power sale from the solar farm</li> </ul>		Low	Low	Low
<b>Calculated risk value in £ (Extent of financial risk)</b>		£0			
<b>Risk</b>	Planning conditions are not able to be discharged and construction spend (loan financed) has already begun		Low	Medium	Medium
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>Planning conditions are deemed to be achievable by the project team.</li> <li>Early engagement with planning team</li> <li>Appointment of expert ecologist support</li> <li>Re-engagement of flood risk specialist</li> <li>EPC contractor made accountable for relevant planning conditions.</li> <li>Sufficient project team resource allocated to planning team condition discharge</li> <li>Active engagement with Environment Agency – early engagement in foundation testing approach</li> </ul>		Low	Low	Low
<b>Calculated risk value in £ (Extent of financial risk)</b>		£1.5million			

<b>Risk</b>	Council do not sign VPPA	Medium	Medium	Medium
<b>Mitigation</b>	<p><b>Plan A</b></p> <ul style="list-style-type: none"> <li>Using Ernst&amp;Young as expert consultancy support to design VPPA process that works for the council.</li> <li>Ensure reconciliation mechanism design allows council to manage risks of power purchase in an acceptable way.</li> <li>Use of QS to develop upper cost estimate for construction allowing the creation of an upper cost estimate for the required strike price</li> <li>Shared open book workstream to establish required strike price.</li> </ul> <p><b>Plan B</b></p> <ul style="list-style-type: none"> <li>Seek alternative power sale agreement from the market.</li> <li>Keep strike process as low as possible by keeping loan and construction costs low</li> </ul>	Low	Medium	Medium
<b>Calculated risk value in £</b>		£0		
<b>(Extent of financial risk)</b>				
<b>Risk</b>	CLP Envirogas do not sign tripartite agreement stopping project progression	Medium	High	Medium
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>Extensive process of establishing agreement starting with HoT based understood CLP requirements</li> <li>Taking liability from CLP from impact of installing solar farm on land where they already hold a business tenancy (i.e. any harm CLP cause the solar farm will be recovered from the councils share of the profit share agreement with CLP)</li> <li>Proactive partnership working with CLP during project design stage</li> </ul>	Low	High	Medium

### Outcomes and Benefits

#### List the outcomes and benefits expected from this project.

(An **outcome** is the result of the change derived from using the project's deliverables. This section should describe the anticipated outcome)

(A **benefit** is the measurable improvement resulting from an outcome that is perceived as an advantage. Benefits are the expected value to be delivered by the project, measurable whenever possible)

#### Financial outcomes and benefits:

- Long term loan generates debt margin of £1.3 m generated for the council

#### Non-financial outcomes and benefits:

- Unlocks the ability for the Joint Venture to
- 3,300 t/CO2 saved per year of operation



Construction costs	0	0	12,500,000	3,873,256					16,373,256
<b>Total capital spend</b>									

**Provide details of proposed funding: *Funding to match with Project Value***

<b>Breakdown of proposed funding</b>	<b>Prev. Yr. £</b>	<b>22/23 £</b>	<b>23/24 £</b>	<b>24/25 £</b>	<b>25/26 £</b>	<b>26/27 £</b>	<b>Future Yrs. £</b>	<b>Total £</b>
As above								
<b>Total funding</b>								

<b>Which external funding sources been explored</b>	As per the collaboration agreement between Plymouth Energy Community and Plymouth City Council the first source of funding to be explored for the construction was the Council. Should the Council decide not to provide the loan the external funding could be sought – though this would not be a guaranteed funding route and result in significant delays to the construction of the solar farm.
<b>Are there any bidding constraints and/or any restrictions or conditions attached to your funding</b>	No
<b>Tax and VAT implications</b>	None expected but to be confirmed with finance colleagues
<b>Tax and VAT reviewed by</b>	

**REVENUE COSTS AND IMPLICATIONS**

***Cost of Developing the Capital Project (To be incurred at risk to Service area)***

<b>Total Cost of developing the project</b>	£640,000
<b>Revenue cost code for the development costs</b>	
<b>Revenue costs incurred for developing the project are to be included in the capital total, some of the expenditure could be capitalised if it meets the criteria</b>	Y
<b>Budget Managers Name</b>	Paul Elliott

***Ongoing Revenue Implications for Service Area***

	<b>Prev. Yr. £</b>	<b>22/23 £</b>	<b>23/24 £</b>	<b>24/25 £</b>	<b>25/26 £</b>	<b>26/27 £</b>	<b>Future Yrs. £</b>
<b>Service area revenue cost</b>							

<b>Other</b> (eg: maintenance, utilities, etc)							
<b>Loan repayment</b> (terms agreed with Treasury Management)		0	1,360,594	1,360,594	1,360,594	1,360,594	1,360,594
<b>Total Revenue Cost (A)</b>		0	1,360,594	1,360,594	1,360,594	1,360,594	1,360,594
<b>Service area revenue benefits/savings</b>							
<b>Annual revenue income</b> (eg: rents, etc)		0	1,472,104	1,472,104	1,472,104	1,472,104	1,472,104
<b>Total Revenue Income (B)</b> (debt margin and land rent)		0	1,472,104	1,472,104	1,472,104	1,472,104	1,472,104
<b>Service area net (benefit) cost (B-A)</b>			111,510	111,510	111,510	111,510	111,510
<b>Has the revenue cost been budgeted for or would this make a revenue pressure</b>	Revenue to be included in the capital total so no pressure overall.						
<b>Which cost centre would the revenue pressure be shown</b>	n/a		<b>Has this been reviewed by the budget manager</b>			Y	
<b>Name of budget manager</b>	Wendy Eldridge						
<b>Loan value</b>	£16,373,236	<b>Interest Rate</b>	5.5%	<b>Term Years</b>	20	<b>Annual Repayment</b>	£1,360,594
<b>Revenue code for annual repayments</b>	tbc						
<b>Service area or corporate borrowing</b>	Service						
<b>Revenue implications reviewed by</b>	Wendy Eldridge						

**Version Control:** (The version control table must be updated and signed off each time a change is made to the document to provide an audit trail for the revision and update of draft and final versions)

Author of Business Case	Date	Document Version	Reviewed By	Date
Paul Elliott	07/10/2022	v 1.0		13/10/2022
	00/00/2022	v 2.0		00/00/2022

## SECTION 6: RECOMMENDATION AND ENDORSEMENT

### Recommended Decision

It is recommended that Cabinet:

- Approves the business case.

- Approves the principal of a £16,373,236 loan to Chelson Meadow Community Solar and delegates the authority for agreeing the final terms of the agreement to the S151 officer in consultation with the monitoring officer subject to the following:
  1. The Leader approving the additional capital allocation of £15,953,326 into the existing budget line of £420,000
  2. Officers receiving legal advice that the loan is in compliance with subsidy control rules
  3. the loan agreement providing for a legal charge/s to deliver such security as the Council shall determine) on the basis set out in the report.
  
- Note that the S151 will sign the loan agreement subject to it not being signed as a deed. Where it is a deed it will be signed by the Monitoring Officer or other authorised signatory.

<b>Cllr James Stoneman – Climate Change and Governance</b>		<b>Strategic Director : Anthony Payne</b>	
<b>Either email dated:</b>	20/02/23	<b>Either email dated:</b>	14/02/2023
<b>Or signed:</b>		<b>Signed:</b>	
<b>Date:</b>		<b>Date:</b>	