

CAPITAL INVESTMENT BUSINESS CASE

Chelson Meadow Community Solar - Construction finance



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 electricity need being met by renewable energy.
- To reduce the corporate energy costs. Our best current estimate for this is an average annual saving of between £170K and £440K until 2030.
- To guarantee future energy costs over a 15 – 20 year period through a Virtual Power Purchase Agreement with the solar farm.
- 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£1.2million over the life of the project.
- To create a 50/50 joint venture with PEC to build the solar farm. This will result in 50% of the surplus returning to PCC – estimated to be £1.5 million over the life of the project.

This business case seeks to secure an in-principle agreement to provide up to £15.7 million on the capital funding programme for 22/23 to provide a long term finance loan to a joint venture for the construction of Chelson Meadow solar farm.

SECTION I: PROJECT DETAIL

Project Value (indicate capital or revenue)	£15,740,840	Contingency (show as £ and % of project value)	5%
Programme	Low Carbon	Directorate	Place
Portfolio Holder	James Stoneman	Service Director	Paul Barnard
Senior Responsible Officer (client)	Kat Deeney	Project Manager	Paul Elliott
Address and Post Code	Ballard House	Ward	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 current plan is to build the solar farm in summer 2023 in order that the benefits of competitive energy prices are realised as soon as possible, as well as completing the relevant action within the Climate Emergency Action Plan. Because of various planning conditions the construction can only take place over the drier months of the year. To do this, a series of business cases need to be reviewed to determine which of the opportunities the Council wants to consider over this autumn.

The minimum commitment to this project required by the Council is to agree to lease the land to the project – this will be brought forward in a subsequent business case. However, the Council can be involved at a greater level, and subsequently receive far greater benefit from the project if it agrees to:

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 £1.2m 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 - based on current modelling this is estimated to be approximately £3million to be split 50/50 between the council and PEC.*
3. Purchase the electricity generated by the solar farm.
 - *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 Q1. 23/24 at the latest with construction 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 February 2023 at the very latest for a build in 2023, and a decision is required as to whether the Council can issue an in principle agreement on this. If the Council is not interested in providing the finance, the project team will need to look to the commercial market for external finance.

The longer timelines associated with agreeing external finance would mean construction in 2024 rather than 2023, this would be subject to additional costs of approx. £80K and, because of planning conditions, result in a 12month delay in the construction of the solar farm. This in turn means that the realisation of the energy bill savings, carbon savings, and income generation, would not begin until Q1. 24/25 at the earliest.

The basic principle of the opportunity here is that the Council secures the finance from the PWLB at a rate (currently 5.1%) 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 provides an illustration of how a debt margin of more than £1 million could be made on a long-term debt offer over the life of the project.

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

Assumed project cost	£15,740,840
Interest rate paid to PWLB	5.1%
Interest rate paid by JV	6%
PWLB loan term/type	20 years - annuity
Term of JV loan	20 years Year 1 – interest only during construction Year 2 – repay 15% of capital from community share offer
Debt margin made by Council (undiscounted)	£1,275,000

The above captures a plausible illustration of 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.

Currently the finance and energy markets are particularly volatile - fluctuating interest and currency rates, as well as increasing inflation could impact on the cost of this proposal. The business case recognises this and as such seeks an in-principle approval for the loan, it uses the most current information to present an illustration of how the mechanism for providing a loan would work. The precise loan rates and the final decision to lend or not would be made at cabinet in February 2023 once certainty on costs and interest rates was gained.

The above table has been populated with input from external technical experts, who have been in discussion with Council finance colleagues. Expressions of interest were received from contractors which enabled a ceiling build cost with contingency to be calculated at £15.7m. The final cost of construction will be known following a more detailed procurement exercise.

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 5.1%
- The whole loan is offered at 6% to the Joint Venture (rate to be confirmed)
- The first 12 months of the loan to the Joint Venture is interest only. This interest is not paid in year 1, and is instead added to the capital sum and recovered over the remaining loan period

- 15% of the debt is repaid by PEC in year 2 from a community share offer. This is not deducted from the remaining PWLB loan, and instead is a revenue income for the council. PEC have an excellent track of raising finance via this method.

If this business case is taken in isolation, it is forecast to provide a debt margin income of £1.275m 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 - along with those for the land lease, the joint venture, and the power purchase agreement - are all agreed. The expected lifetime income if all are approved is approximately £3.75m - with an additional energy saving between £170K and £420K annually. The table below summarises these on an annual basis where relevant, or over the life of the project where this is more appropriate

Source of Income	Annual Value (Averaged out over lifetime)
Land lease	£33,000
Energy Bill Saving	£170,000 (low estimate out to 2030)
Annual Total	£203,000

Source of Income	Whole Project Value
Debt margin	£1.275million
Joint venture – council share of predicted surplus	£1.528million
Project Total	£2.8million

Development Costs

To date the project has incurred the following development costs – with PEC providing the majority of the funding

Description	Already paid		Committed (but unpaid)	
	PEC	Council	PEC	Council
RCEF Stage 1 - Feasibility	£40,000			
PEC RCEF Stage 1 Match	£3,656			
RCEF Stage 2 - Planning development	£93,437			
PEC RCEF Stage 2 Match	£40,637			
PEC grid connection commitment	£39,370			
PCC Planning spend + Legals to planning		£22,983		
Project Management time - planning to Oct	£3,500			
Development activities - planning to construction finance				£76,863
Total by area	£ 220,600	£22,983	£ -	£76,863

Included within the total ask for £15,740,840 is a request for an additional £320,000 of development funding to be released now in order to progress to the construction phase. This £320,000 is required for the following:

- £120,000 for grid connection works
- £26,060 for project management
- £37,000 for technical expert input into design

- £20,000 for financial model audit
- £92,000 for legal work associated with the construction partner, land lease, PPA, finance and creation of the joint venture
- £25,000 for commercial support

The development funding will be incorporated within the total project funding with £15,740,840 financed by securing a long-term debt.

A risk needs to be recognised that if from this feasibility works that the project does not progress then all feasibility costs up to £320,000 cannot be capitalised and therefore would fall as a revenue pressure.

Milestones and Date:		
Contract Award Date	Start On Site Date	Completion Date
January 2023	July 2023	December 2023

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
Risk	Interest Rates continue to rise and project becomes unviable.	Medium	High	Medium
Mitigation	Final decision to lend will only be made once viable rate has been secured	Low	Low	Low
Calculated risk value in £ (Extent of financial risk)	£0			
Risk	Timely construction – without construction finance in place and a construction partner in place by January 2023 the project will unlikely be able to be constructed in summer 2023.	Medium	High	Medium
Mitigation	Governance arrangements in place, and business cases structured and planned for CMT and cabinet meetings. Resource in place to run timely procurement of construction partner	Low	Low	Low
Calculated risk value in £ (Extent of financial risk)	£0			

Risk	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
Mitigation	Solar farms are a tried and tested technology with known and predictable performance. The financial model to assess viability of the business case has been developed and tested by an experienced team. Power prices are increasing and there are long-term national commitments to the role low carbon power has to play in supplying electricity in a resilient and sustainable way. The Council also have the opportunity to set up a Joint Venture with a partner experienced in developing and managing a solar farm.	Low	Low	Low
Calculated risk value in £ (Extent of financial risk)	£0			
Risk	Joint Venture creation not approved.	Medium	High	Medium
Mitigation	Solar farm can still be built by PEC, with the loan going to them rather than the joint venture.	Low	Low	Low
Calculated risk value in £ (Extent of financial risk)	£0			
Risk	Increasing construction costs .	Medium	High	Medium
Mitigation	The project team have engaged widely with partners with relevant experience and the construction market to follow market movements in price. The construction cost reflected through this business case reflects the top end of outline prices provided for this site in the last 4 weeks. Increases in construction costs can also be offset by increases in the price received for power sales. The financial modelling for the project to date has considered wholesale energy market price predictions and how these relate to the energy price needs of the solar farm for viability. This is captured in the expected energy bills savings for the Council which is set against our most expensive expected construction costs.	Medium	Low	Low
Calculated risk value in £ (Extent of financial risk)	£0			

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:	Non-financial outcomes and benefits:
<ul style="list-style-type: none"> • £80K saving on project development costs from not having to seek external borrowing • Long term loan generates debt margin of £1.25 m generated for the council • Construction possible in 2023 (instead of 2024) resulting in: <ul style="list-style-type: none"> ○ Carbon savings ○ Energy bill savings for the Council should the Council decide to purchase the power from the site at a time when power prices are particularly high 	<ul style="list-style-type: none"> • Time freed up for project team with no need to seek external finance <p>Meeting a commitment on the Climate Emergency Action plan 1 year sooner</p>

Low Carbon	
What is the anticipated impact of the proposal on carbon emissions	Saving of 3,300 t/CO2 per year
How does it contribute to the Council becoming Carbon neutral by 2030	If the Council choose to purchase the power from the solar farm 75% of the council's current electricity demand will be met by renewables. Overall this will reduce the Council's CO2 emissions by up to 60%.
Have you engaged with Procurement Service?	
Yes	
Procurement route options considered for goods, services or works	The initial procurement will be carried out by Plymouth Energy Community on behalf of the project team. If the Council approves the creation of the joint venture then then the JV will be the 'employer' for the appointed consultant . If approved the JV will be established by the appointment of the contract.
Procurements Recommended route.	External procurement
Who is your Procurement Lead?	External procurement
Is this business case a purchase of a commercial property	
No	
If yes then provide evidence to show that it is not 'primarily for yield'	N/A
Which Members have you engaged with and how have they been consulted (<i>including the Leader, Portfolio Holders and Ward Members</i>)	<p>Planning committee briefed and consulted.</p> <p>Site visit and briefings for Environment portfolio holder.</p> <p>Action in the Climate Emergency Action Plan.</p>

SECTION 4: FINANCIAL ASSESSMENT

FINANCIAL ASSESSMENT: *In this section the robustness of the proposals should be set out in financial terms. The Project Manager will need to work closely with the capital and revenue finance teams to ensure that these sections demonstrate the affordability of the proposals to the Council as a whole. Exact amounts only throughout the paper - not to be rounded.*

CAPITAL COSTS AND FINANCING								
Breakdown of project costs including fees surveys and contingency	Prev. Yr.	22/23	23/24	24/25	25/26	26/27	Future Yrs.	Total
	£	£	£	£	£	£	£	£
Construction costs		3,748,720	11,992,130					
Total capital spend		3,748,720	11,992,130					

Provide details of proposed funding: Funding to match with Project Value								
Breakdown of proposed funding	Prev. Yr.	22/23	23/24	24/25	25/26	26/27	Future Yrs.	Total
	£	£	£	£	£	£	£	£
As above								
Total funding								

Which external funding sources been explored	The project received £130k from the Renewable Community Energy Fund (RCEF) for initial development costs. No further funding is available. Plymouth Energy Community have also committed additional development funding to the project.
Are there any bidding constraints and/or any restrictions or conditions attached to your funding	No
Tax and VAT implications	None expected but to be confirmed with finance colleagues
Tax and VAT reviewed by	

REVENUE COSTS AND IMPLICATIONS	
Cost of Developing the Capital Project (To be incurred at risk to Service area)	
Total Cost of developing the project	£640,000 (made up of £320k spent/committed to date and a further ask for £320k as part of this business case)
Revenue cost code for the development costs	
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	Y
Budget Managers Name	Paul Elliott

Ongoing Revenue Implications for Service Area

	Prev. Yr. £	22/23 £	23/24 £	24/25 £	25/26 £	26/27 £	Future Yrs. £
Service area revenue cost							
Other (eg: maintenance, utilities, etc)							
Loan repayment (terms agreed with Treasury Management)		212,303	1,273,817	1,273,817	1,273,817	1,273,817	1,273,817
Total Revenue Cost (A)		212,303	1,273,817	1,273,817	1,273,817	1,273,817	1,273,817
Service area revenue benefits/savings							
Annual revenue income (eg: rents, etc)		0	2,608,083	1,316,744	1,316,744	1,316,744	1,316,744
Total Revenue Income (B) (debt margin and land rent)		0	2,608,083	1,316,744	1,316,744	1,316,744	1,316,744
Service area net (benefit) cost (B-A)		-212,303	1,334,265	42,926	42,926	42,926	42,926
Has the revenue cost been budgeted for or would this make a revenue pressure	Revenue to be included in the capital total so no pressure overall.						
Which cost centre would the revenue pressure be shown	n/a		Has this been reviewed by the budget manager			Y	
Name of budget manager							
Loan value	£15,740,000	Interest Rate	5.1%	Term Years	20	Annual Repayment	£1,273,817
Revenue code for annual repayments							
Service area or corporate borrowing							
Revenue implications reviewed by							

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 the Leader of the Council:

- Note the full Business Case
- Approve the capital allocation of £320,000 for development works, as set out in the business case to inform future reports and final approval of the Business Case.
- Note that the final Business Case will be brought back to by March 2023 for a final decision on whether to proceed with the Project.

Cllr James Stoneman		Paul Barnard	
Either email dated:	<i>Date 18/10/2022</i>	Either email dated:	<i>Date 18/10/2022</i>
Or signed:		Signed:	
Date:		Date:	
		Service Director	
		Either email dated:	<i>date</i>
		Signed:	
		Date:	