

APPROVE GRID CONNECTION COSTS FOR ST IVES SMART ENERGY GRID

To: **Environment and Sustainability Committee**

Meeting Date: **9th July 2020**

From: **Steve Cox, Executive Director, Place and Economy**

Electoral division(s): **St Ives South and Needingworth**

Forward Plan ref: **Not Applicable** *Key decision:* **No**

Outcome: **To gain approval to accept a grid connection offer from UK Power Networks for the St Ives Park and Ride smart energy grid.**

Recommendation: **The Committee is being asked to:**

- a) Approve a quote for UK Power Networks to conduct required works to allow the site to import electricity at times of low generation should our option to import electricity via an on-site customer not materialise.**

<i>Officer contact:</i>		<i>Member contacts:</i>	
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1. BACKGROUND

- 1.1 The Smart Energy Grid will combine solar panels installed on carports over the car parking spaces, with battery storage to power the site after dark or when there is insufficient sunlight. The electricity generated will serve all the electricity demand of the site and excess electricity could be sold to local customer(s) directly via a Power Purchase Agreement (PPA). Additional electric vehicle charging points will be added which will also be powered by the low-carbon electricity generated.
- 1.2 The project requires grant funding to be financially viable. An application for grant from the European Regional Development Fund (ERDF) has been made to the Ministry of Housing, Communities & Local Government (MHCLG) and one outstanding condition remains ahead of a full appraisal of the application. The Executive Director of Place and Economy has had regular conversations with MHCLG over the last few months regarding the project and MHCLG has confirmed its continued support for the project.
- 1.3 Since the start of the COVID-19 pandemic, MHCLG staff have stopped assessing grant applications owing to staff being redeployed and have focussed remaining staff on processing grant claims from existing Grant Recipients. At MHCLG's request, potential risks and delays owing to COVID-19 were identified and shared, these are summarised in **Appendix 1**, alongside the wider potential risks and delays.
- 1.4 This project was previously governed by the Commercial and Investment Committee.
- 1.5 In May 2020, Commercial and Investment Committee approved the commencement of minor works on-site so as to retain the planning permission.
- 1.6 The intended outcome of this paper is to secure approval to accept an offer from UK Power Networks to complete the necessary work to connect the project to the electricity grid allowing both import and export of electricity, should the option to connect via one of the Power Purchase Agreement (PPA) customers not materialise.

2. MAIN ISSUES

- 2.1 **Land Title Registration.** MHCLG has identified that registering the land titles which comprise the site is the last condition prior to offering the funding agreement. Their lawyers wish to review the land titles for any conditions which may interfere with building the smart energy grid and will only complete that work once the titles have been registered by the Land Registry. This is normal practice ahead of funding being provided. LGSS Law submitted an application to the Land Registry in December 2019, which was unfortunately rejected as two title deeds were missing. A small amendment was required and the transfer is with the previous landholder for signature. Once this is completed, LGSS Law can resubmit the application to register the Transfer with the Land Registry.
- 2.2 This presents a large risk to the critical path of the project.
- 2.3 For the project, electricity supply will largely be met by electricity generated on-site via the solar modules. However, at times there will be a shortfall in that generation (the shortest days of the year, for example) that will need to be supplemented by grid-supplied electricity.

There are two ways of accomplishing this – via a grid connection owned by a PPA customer or through a direct connection to the grid.

- 2.4 The first option establishes a two-way connection to a customer, allowing the project to sell and purchase electricity. It requires a physical connection to be made to the customer and for there to be sufficient excess capacity within the customer's own grid connection capacity in order to supply the project when needed. This process is only possible with one of the two potential PPA customers and their decision on whether to proceed with a PPA with County Council will be made by the end of June.
- 2.5 At present, the customer's grid connection capacity has sufficient headroom to meet their on-site demands and to supply the park and ride when necessary. Should the company expand production at their site in the future this additional headroom would be required, however, they have committed to increasing their connection capacity to allow for the additional demand created from the expansion of production.
- 2.6 As a contingency, an application was made to UK Power Networks (UKPN) in February 2020 to cover the second option, which would allow us to both import and export electricity from the site, rather than relying on a connection to the PPA customer. A quote for the connection was received in May 2020. For UKPN to complete all required works is estimated to cost £73,120. This is a provisional quote as UKPN was unable to conduct a site visit owing to the COVID-19 pandemic. To accept the quote, payment is due by 5pm on 30 July 2020.
- 2.7 Should the UKPN quote not be accepted, a new application would be required in the future and the cost to connect is likely to increase.
- 2.8 The up-front cost of this option is lower than physically connecting to the grid via a PPA customer (estimated at ~£250,000), however the potential revenues are likely to be lower as they will stem from a combination of selling at a wholesale rate onto the grid, selling electricity to a second PPA customer, expanding the network of electric vehicle chargers and other commercialisation opportunities.
- 2.9 While the preferred option is to connect via the PPA customer's grid connection as it presents a more attractive financial proposition, the alternative was pursued in parallel to manage the risk of a PPA not being agreed.
- 2.10 Distributed generation projects are only allowed one point of connection to the grid. Therefore, should the option to connect directly to the grid be approved, the project would be limited to selling to the second potential PPA customer. Whereas, if the connection were made via one of the customers, it would leave open the option of selling to both potential PPA customers.
- 2.11 Committee's approval is sought to proceed with the grid connection offer through UKPN should the customer decline to proceed with the PPA. In the event a positive decision comes forward, then the delegated approval sought through this paper should not be required.

3. ALIGNMENT WITH CORPORATE PRIORITIES

3.1 A good quality of life for everyone

The project will provide clean renewable energy to power the Park and Ride site's usage, and local customers either directly or via electric vehicle charging, thereby reducing the Council's and Cambridgeshire's carbon footprint, improving air quality and mitigating climate change.

3.2 Thriving places for people to live

As part of the project, a Business Support Programme will be delivered to share the lessons learned in developing and designing a Smart Energy scheme. Twelve hours of business support for a minimum of 40 companies will be delivered and this is costed as part of the overall business case. The expectation is that the support will reduce barriers for other companies to develop complex energy projects like this one.

3.3 The best start for Cambridgeshire's children

There are no significant implications for this priority.

3.4 Net zero carbon emissions for Cambridgeshire by 2050

This project has a positive contribution to achieving net zero carbon emissions in the county by 2050.

4. SIGNIFICANT IMPLICATIONS

4.1 Resource Implications

The cost is described above in paragraph 2.6.

4.2 Procurement/Contractual/Council Contract Procedure Rules Implications

Bouygues Energies & Services were originally procured under a mini-competition run under the Refit 2 Framework. CCC and Bouygues entered into a construction contract in November 2016 prior to its expiration. That contract will be varied to reflect changes since it was agreed and prior to works commencing.

4.3 Statutory, Legal and Risk Implications

Please see Appendix 1. Note that these reflect overall risks to the project, not solely to this decision in relation to the grid connection. No statutory or legal risks have been identified by officers.

4.4 Equality and Diversity Implications

There are no significant implications within this category.

4.5 Engagement and Communications Implications

Local Members, the St Ives Town Council, and the Park and Ride team have been notified as to the status of the project. An article on the project was published in the Town Council publication *The Bridge* in September 2019, and has been posted online at various corporate sites and local newspapers. Public meetings were held in October 2019. Communication with the public and local Members will increase once a Funding Agreement is offered.

4.6 Localism and Local Member Involvement

See paragraph 4.5 above.

4.7 Public Health Implications

There are no significant implications within this category. To the extent the project offsets fossil fuel powered electricity generation or petrol fuel for vehicles, there would be a small improvement in public health.

Implications	Officer Clearance
Have the resource implications been cleared by Finance?	Yes Name of Financial Officer: Ellie Tod
Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the LGSS Head of Procurement?	Yes Name of Officer: Gus DeSilva
Has the impact on statutory, legal and risk implications been cleared by LGSS Law?	Yes Name of Legal Officer: Fiona McMillan
Have the equality and diversity implications been cleared by your Service Contact?	Yes Name of Officer: Elsa Evans
Have any engagement and communication implications been cleared by Communications?	Yes Name of Officer: Eleanor Bell
Have any localism and Local Member involvement issues been cleared by your Service Contact?	Yes Name of Officer: Emma Fitch
Have any Public Health implications been cleared by Public Health?	Yes Name of Officer: Iain Green

Source Documents	Location
1. Smart Energy Grid Demonstrator Project, St Ives Park and Ride – Outline Business Case, paper to 16 September 2016 Assets and Investment Committee 2. Smart Energy Grid – Update on European Regional Development Funding and Risks, paper to 15 September 2017 Commercial and Investment Committee 3. Smart Energy Grid – Business Case and European Regional Development Fund Update, paper to 15 December 2017 Commercial and Investment Committee 4. Progress and Risk Update for St Ives Smart Energy Grid project Member briefing note, June 2018 5. Progress and Risk Update for the St Ives Smart Energy Grid project, 13 December 2018 6. Notice to Proceed for St Ives Smart Energy Grid, paper to 13 September 2019 Commercial and Investment Committee 7. Minor Works for St Ives Smart Energy Grid, paper to 22 May 2020 Commercial and Investment Committee	1. https://tinyurl.com/yxaytd88 2. https://tinyurl.com/y3d25zgw 3. https://tinyurl.com/yyc46odl 4. Available upon request 5. Available upon request 6. https://tinyurl.com/yyjy5o5e 7. https://tinyurl.com/y8lvlrkx

Appendix 1. Project Risks and Mitigation Strategies

Causes	Impacts	Probability (1-5)	Impact (1-5)	Risk Score	Mitigation Strategy	Residual Risk		
						Likelihood	Impact	Risk Score
COVID-19 related								
Supply chain disruptions are likely across all types of equipment – battery storage, solar modules, electric vehicle chargers, cabling, etc.	Project delay, increased cost of construction	3	2	6	Monitor the market regularly through subcontractors and normal channels	3	1	3
The GBP loses value against other foreign currencies – Purchasing abroad becomes more expensive (PV panels, inverters and equipment)	Project costs increase	3	2	6	Make batch purchases for more than one clean energy project	2	1	2
Restriction on working practices for staff on site	Social distancing rules may hamper safe working practices	3	2	6	Perform a thorough risk assessment and on-site induction before work commences	2	2	4
MHCLG have reduced staff working on ERDF projects to a minimum, focussing on processing claims, rather than on negotiating new Funding Agreements	Once the land titles are provided, entering into a Funding Agreement could still be delayed.	3	3	9	The Project Team is focussing on preparing as much as possible pending MHCLG staff returning to normal duties.	2	2	4
Infection or redeployment of key staff from CCC, Bouygues or subcontractors	Project delay	2	3	6	Key project staff are shielded from redeployment and follow government guidelines to	1	3	3

					protect themselves from the virus.			
Non-COVID related								
Fail to secure agreement from MHCLG on ERDF funding	Project cessation	4	4	16	Explore other funding routes	3	2	6
The new immigration policy intended to come into effect early next year relating to low paid workers. The installation staff are often hired from outside the UK and typically make less than the threshold declared.	An increase in staffing costs is expected.	4	2	8	Where possible, hire staff from within the UK	3	1	3
The Project Team are unable to negotiate satisfactory PPAs with customers.	Projected revenues suffer	4	3	12	The business case is revised to export electricity to the grid, examine the expansion of electric vehicle chargers on-site, as well as other commercialisation strategies, as a means of replacing revenue from the PPA customer.	3	2	6
The revised Investment Grade Proposal exceeds the approved costs and/or the investment parameters.	Project costs increase	3	4	12	Appropriate scrutiny will be applied to the business case inputs to confirm that costs are appropriate. Should the cost or	3	3	9

					investment parameters be exceeded but the project is still sound, a paper will be brought forward to Committee for direction.			
Further delays in negotiating either the PPA or the Funding Agreement, or securing the land title result in the quotes forming the business case to expire.	- Another round of tendering will be required, further delaying the project. - Internal costs to manage the project continue to increase	4	2	8	Until a Letter of Intent is received from MHCLG - Retendering will be delayed - All non-essential work on revising the Full Application for funding, varying the construction contract and finalising the IGP is put on hold	3	2	6