

Group Power Purchase Agreement for City-based Business

Tuesday, 5 July 2022
The Committee - Pre-Council Discussion Forum

Strategic Alignment - Environmental Leadership

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Public

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EXECUTIVE SUMMARY

This report responds to a decision of Council on 14 June 2022 that the Administration provide advice to the July 2022 meeting of the Council about the potential for a group power purchasing arrangement (PPA) for renewable electricity by city-based businesses.

There is interest from business for a group PPA as demonstrated by feedback during recent climate action plan engagement. Facilitating a group PPA is a lengthy and complex process and would take approximately two years. This is consistent with the time taken to establish the same outcome for Council's own PPA.

It is suggested a group PPA could be progressed in two phases:

1. Approximately 9-12 months involving market research, project scoping, release of an expression of interest for business and stakeholder engagement.
2. Approximately 12-15 months involving development of a procurement plan, tender documents, negotiations and contracts with business participants, industry discussions, procurement, and contract award.

A decision would need to be made based on the outcomes of phase 1 on whether to progress to phase 2 of the process.

The following recommendation will be presented to Council on 12 July 2021 for consideration

That Council

1. Notes the report.
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IMPLICATIONS AND FINANCIALS

City of Adelaide 2020-2024 Strategic Plan	<p>Strategic Alignment – Environmental Leadership</p> <p>Relevant Community Outcomes: One of the world's first carbon neutral cities by 2025, where sustainability is core. A transition to low carbon and circular economies.</p> <p>Relevant Key Actions:</p> <p>4.4 Support our community to transition to a low carbon economy through education, incentives and appropriate infrastructure.</p> <p>4.6 Implement the Carbon Neutral Strategy for the city and achieve carbon neutral certification for our operations.</p>
Policy	<p><i>Carbon Neutral Strategy 2015 – 2025</i></p> <p>Outcome 1 - A carbon neutral city where economic growth and carbon emissions are decoupled.</p>
Consultation	Not as a result of this report
Resource	Not as a result of this report
Risk / Legal / Legislative	Legal advice will need to be sought to inform the process of scoping and seeking expressions of interest for organisations to participate in a group power purchase agreement for renewable electricity.
Opportunities	Facilitation of a group power purchase agreement will provide the opportunity to reduce carbon emissions due to city business electricity use and support business to achieve carbon emission and cost reduction objectives.
21/22 Budget Allocation	Not as a result of this report
Proposed 22/23 Budget Allocation	<p>It is proposed that the scoping and expression of interest phase of the facilitation of a group power purchase agreement for renewable electricity would be completed within the 2022/23 Climate Change Action Initiative Fund budget using existing resources.</p> <p>A budget of \$70,000 for 2022/23 is proposed to support legal and industry advisory support. If there is sufficient interest to proceed to a tender and negotiation phase additional budget for resources may be needed and will be sought within budget processes.</p>
Life of Project, Service, Initiative or (Expectancy of) Asset	It is expected that the process of facilitating establishment of a group power purchase agreement for renewable electricity for city-based business will be a 2 year project for Council.
21/22 Budget Reconsideration (if applicable)	Not as a result of this report
Ongoing Costs (eg maintenance cost)	Not as a result of this report
Other Funding Sources	Not as a result of this report

DISCUSSION

1. Power Purchase Agreements (PPAs) are a contract between an electricity buyer and an electricity generator. PPAs can take several forms, providing participating parties with certainty about price over a long period.
2. PPAs can incorporate the procurement of renewable energy and renewable energy certificates to meet an organisations corporate carbon emissions and energy cost reduction objectives.
3. Under certain models a PPA can support the development of new renewable generation that would not otherwise be constructed under existing market conditions.
4. PPA's can also support network and grid stability in South Australia. A battery can be included in a PPA to sure up 'baseload' power, increase local grid reliability and increase revenue from the renewable energy plant.
5. Corporate PPAs have grown in popularity considerably in recent years. The Business Renewables Centre of Australia (BRCA) has estimated that there have been at least 110 Corporate PPAs negotiated, contracting over 4 GW of renewable energy generation, between 2017 and 2021.
6. There was interest expressed by a number of businesses during recent climate action plan engagement that Council facilitate a mechanism for city businesses to collectively purchase renewable electricity (e.g. through a power purchase agreement or other platform) and hence an action is proposed to progress this work in the draft Climate Action Plan 2022-2025 (to be considered at the August Council meeting).
7. As an example, the City of Melbourne has facilitated two group PPAs:
 - 7.1. Melbourne Renewable Energy Project (MREP) One, was established in 2017 and involved 14 partners including multiple local governments and business. The contract resulted in establishment of a new 80 MW wind farm at Crowlands, near Ararat. MREP One members committed to purchase 88 GWh of electricity per year from the wind farm under a long-term power purchase agreement.
 - 7.2. MREP Two was completed in 2020 and includes seven large energy user partners who committed to purchase 110 GWh of renewable electricity over 10 years. The purchased wind power is produced primarily by the Yaloak South Wind Farm near Ballan, with the remaining energy coming from other wind farm projects in regional Victoria.
 - 7.3. Refer here for further information about MREP One and Two. [Link 1 - <https://www.melbourne.vic.gov.au/business/sustainable-business/mrep/Pages/melbourne-renewable-energy-project.aspx>]
8. The City of Adelaide's (CoA's) corporate PPA has been in effect since July 2020. It incorporates the purchase of 100% renewable electricity, including 25% supply from two South Australian solar farms commissioned directly as a result of the PPA agreement, with the remaining renewable electricity supply from Clements Gap wind farm, South Australia. The model incorporates a wholesale electricity supply component that operates in parallel to the renewable electricity supply. The renewable electricity generation was selected to align with the City of Adelaide's electricity demand profile and provides a fixed price hedge against future price rises.
9. Establishment of the PPA was a lengthy and complex process that involved a series of steps from initial analysis of the CoA's electricity demand profile and the market conditions and opportunities through to an expression of interest and tender process. The CoA engaged specialist legal and energy market advisory services that were critical to the process.
10. The CoA's PPA has demonstrated strong financial outcomes to date, with the past 12 months of the contract providing 100% renewable electricity at an estimated 37% below the annual energy cost of the previous contract, which did not incorporate renewable electricity.
11. Factors that influence the suitability of participating in a PPA and the model adopted, include:
 - 11.1. The size of the participants and electricity demand – for example, the MREP Renewable Energy Procurement Guide outlines that a minimum of approximately 25-50 GWh of annual consumption would be required to support an off-take agreement (agreement to purchase future supply), with a generator and attract sufficient market interest to ensure a competitive procurement process. The City of Adelaide's PPA was based on electricity consumption across all sites of approximately 20 GWh per annum. The City of Adelaide total commercial electricity use is 625 GW per annum.
 - 11.2. The electricity demand profile of participating organisations – PPAs are typically more suited to organisations with stable and consistent electricity demand profiles as opposed to variable and frequently changing electricity demand.

11.3. Organisational objectives and requirements:

- 11.3.1. Sustainability – a PPA can include a variety of approaches for incorporating renewable energy generation, such as direct offtake from a renewable energy generator or separate procurement of renewable energy certificates.
 - 11.3.2. Economic and community development – there is potential to incorporate specific requirements for the development of new generation or incorporation of other value adds associated with local content requirements.
 - 11.3.3. Financial – participating organisations will need to determine their financial objectives and how these relate to other considerations, such as risk and sustainability objectives.
 - 11.3.4. Risk – the risk appetite will influence the model, and terms and conditions, of a PPA. For example, a PPA can incorporate direct ownership of renewable generation assets or off-take agreements from new or existing generators (directly or indirectly via a retailer). Additionally, counter party, partner and contract risks will be part of PPA considerations.
12. Understanding and balancing the requirements of participants in a group buy PPA is a complex and time-consuming process that requires strong governance arrangements and significant specialist input and advice, such as legal, risk, procurement, contract and energy advisory services.
 13. Dependent on the level of interest, a group PPA could require participants beyond the City of Adelaide's boundaries to achieve the required minimum level of participation and electricity demand to make the PPA process viable.
 14. The level of interest in participating in a PPA could reduce as the South Australian electricity grid approaches a 100% renewable supply. South Australia's aspiration is to reach net 100% renewable generation by 2030 but this is expected to occur earlier. Therefore, from a carbon emission saving perspective, this opportunity is most effective for implementation before 2025.
 15. The business case and uptake will also be significantly driven by future National Electricity Market (NEM) electricity price forecasts, and the high market uncertainty in future wholesale and retail electricity prices is expected to remain for the next few years.
 16. It is proposed the process for facilitating a group PPA would be progressed in two phases:
 - 16.1. Phase 1 would involve market research, project scoping, release of an expression of interest for business and organisations to respond to and engagement with regulators and industry bodies. This process would take approximately 9-12 months and determine if there was sufficient interest to proceed with the next phase. A budget for legal and industry advisory support for this process from the 2022/23 Climate Change Action Initiative Fund is proposed. A decision would need to be made at the end of this phase by Council whether to proceed to the next phase.
 - 16.2. Phase 2 would involve development of a procurement plan, tender documents, negotiations and contracts with business participants, industry discussions, release the tenders, tender information sessions, tender evaluation and award the contract. This process would take approximately 12-15 months and would require a full-time dedicated staff member to facilitate. A resourcing plan and budget for this phase would be developed during phase 1.

DATA AND SUPPORTING INFORMATION

Link 1 – Melbourne Renewable Energy Project One and Two

ATTACHMENTS

Nil

- END OF REPORT -