

4.3 RENEWABLE ENERGY POWER PURCHASE AGREEMENTS

Responsible Director: Ossie Martinz

RECOMMENDATION

That Council:

1. *Supports a 100% renewable energy target for Council's electricity use through;*

- *commitment to 90% of Council's electricity use to renewable energy power purchase agreement(s) which includes council's large energy sites (54%) and unmetered public lighting (36%)*
- *seeking renewable energy solutions, which may include power purchase agreements, for the remaining small market energy sites (10%).*

2. *Agrees to enter into a tender process to purchase renewable energy via the Local Government Power Purchase Agreement (LGPPA) with other Victoria Councils, in partnership with MAV.*

3. *Agrees to enter into a tender process to purchase renewable energy via the South East Melbourne Renewable Energy Project (SEMREP) led by SECCCA.*

4. *Delegates authority to the Chief Executive Officer to enter into and sign the relevant contract documents for the LGPPA and SEMREP with preferred supplier(s) from December 2020, subject to the final offers being within the agreed favourable Pricing Parameters.*

INTRODUCTION

The purpose of this report is to provide information on the proposed Local Government Power Purchase Agreement (LG PPA) and South East Melbourne Renewable Energy Projects (SEMREP), providing procurement opportunities for renewable energy in partnership with other Victorian Councils. The business cases have returned favourable results and the proposals now has real potential to provide Council with clean energy at a competitive price to cover at least 90% of our energy use.

We seek endorsement from Council to participate in the tender processes and delegate authority for the CEO to execute the contracts provided agreed financial requirements are met.

BACKGROUND

City of Monash is currently participating in two renewable energy procurement market testing projects:

- 1) Local Government Power Purchase Agreement (LGPPA) Project. The LGPPA is a 100% renewable energy procurement option for Victorian Councils and will be available for 39 participating councils, led by

Darebin City Council. The LGPPA may underwrite the development of a new large scale renewable facility, however options to source from existing Victorian facilities will also be considered.

- 2) South East Melbourne (SEMREP) Project is a partnership of eight (8) south east region SECCCA councils including Monash and Frankston. This project will also invite local businesses to participate and seeks to create local social benefits and local energy generation. Monash is involved as this is an opportunity for our large manufacturing sector.

With the support of Council in September 2018, CEO signed authority for City of Monash to participate in the first stage of the procurement process for both renewable energy projects which included business case development informed by the market in terms of model options, indicative pricing, and an understanding of likely providers. Both projects have returned favourably and have real potential to provide Councils with clean energy at a competitive price.

City of Monash currently receives its energy supplies for its large energy market sites and unmetered public lighting from ERM via the MAV bulk procurement contract, which expires in December 2020. Large markets use approximately 54% of councils total electricity consumption and includes 20% GreenPower. Public lighting is 36% of total electricity consumption and the remaining 10% consists of 128 small market sites.

To date Council's primary approach for achieving emissions reduction has been through energy efficient public lighting, energy efficiency in our buildings and installation of rooftop solar photovoltaic (PV) projects. Since 2010-11 we have achieved nearly 25% reduction in emissions.

Whilst these projects have proven effective in reducing Council's energy costs and emissions, increasing our direct investment in renewables electricity sources will have a far greater opportunity to further reduce our emissions for a cost neutral impact or even save money.

As council is aware, energy prices have recently risen sharply and there has been significant instability in the energy market, due to increasing wholesale energy prices and network charges. While the Australian Energy Market Operator (AEMO) has forecast a slight tapering of wholesale energy prices over the coming three-year period, the energy market is displaying unprecedented volatility. Prices spikes are likely as aging coal fired power stations close.

To hedge against this uncertainty and to secure better prices and price assurance, there is a growing need for councils to take control of the supply component of their electricity costs. This control can be attained by purchasing electricity directly from renewable energy facilities, such as solar and wind farms, through long-term Power Purchase Agreements.

An example of this procurement approach is the Melbourne Renewable Energy Project (MREP), a consortium project led by Melbourne City Council, 10 businesses and three other metro councils. From 2019 MREP provides its

project partners with cost competitive 100% renewable energy direct from the Crowlands Windfarm in western Victoria.

DISCUSSION

In November 2017 Victorian Councils, including Monash, formed an Energy Procurement Working Group for the purpose of developing a renewable energy PPA for all Victorian councils. Monash signed a letters of intent in September 2018 to participate in a business case process, informed by the market in terms of model options, indicative pricing, and an understanding of likely providers.

To minimise risk and maximise our opportunities for Monash, a portfolio approach was taken by participating both in LGPPA and SEMREP market testing and business case development. A minimum load contribution of 20% was required from each participating council. For the business case process Council nominated to:

- LGPPA: 20% of our electricity use from large market sites, and to
- SEMREP: 20% of our electricity use from public lighting.

LGPPA

City of Monash is one of 39 councils participating in the LGPPA business case development where the total contributions was 142 GWh.

Principles and drivers for the LGPPA for councils was to:

- Take action on climate change- by switching to renewable energy
- Deliver financial savings and long-term price certainty- through stabilising energy prices and fixing lower retail prices in a typically volatile electricity market.
- Economies of scale- improving the value proposition through aggregation and working together as a council buyers' group

Energetics was appointed to prepare the business case, an organisation with specialised knowledge of the energy market and extensive experience in developing corporate PPAs. (Attachment 1)

The business case is based on modelling of known energy sector trends, policy announcements of the major political parties and information available through the Australian Energy Market Operator. The business case presents three scenarios, low, mid and high renewable uptake – these vary on the pace of change in shifting away from coal and towards renewables nationwide.

The low scenario is more likely with current federal coalition policies, the mid more likely under an ALP government, the high scenario would require a radical change in policy direction from both parties in the near future and is now considered highly unlikely given the re-election of a Coalition government on 18 May 2019.

There are numerous pricing models offered by retailers for PPAs. The working group agreed to focus on a fixed price option and an option which is partially fixed, and partially re-set every 2-3 years. These options would

limit council's exposure to fluctuations in the wholesale electricity market. The agreement would be between 7-10 years and will provide budget certainty.

Under all models the low and mid renewables scenario show a cost benefit for councils, while the high renewables scenario shows a chance that costs could increase marginally at the latter end of the agreement but the high renewables scenario is very unlikely.

The distribution of final offer to participate in tender (tender package) to all Victorian councils arrived on the 20 June 2019 (Attachment 2 and 3). Councils have until the 9 August to commit to tender which will go out to market in October 2019 for all markets and with fixed firm PPA and partially fixed PPA options. The conclusion of the tender and contracting should happen in January 2020.

MAV have agreed to manage the tender process (as Tender Agent) and ongoing contracts on behalf of participating councils. Landell were engaged to provide procurement and probity advice and have developed recommendations around the governance structure. The working group of participating councils have a proposed set of parameters for the contract.

Market testing indicated that there was strong interest by energy retailers to supply to the LG PPA group, which indicates further opportunity for a favourable and competitive offer.

While we nominated 20% initially, Monash is able to increase our load contribution, given the positive outcomes of the business case. Over 10 of the 39 councils have committed 100 percent of their electricity use. Load flex sharing across the all participating councils will be included in the tender which will further support price certainty for participating councils.

As this project involves more than half the state's councils and is a significant PPA, and officers expect there to be a high public profile for the project. A detailed communications and engagement strategy will be developed as the project progresses. Another 12-15 additional councils are also interested in participating in the next stage.

SEMREP

A total of 50GWh was committed by the eight (8) Councils participating in the South East Melbourne Renewable Energy Project (SEMREP) development. Energetics were also appointed to complete a SEMREP Procurement Models Evaluation Report (Attachment 4). This PPA was of great interest to Monash as it provides an opportunity for us to support and influence our local businesses who have already expressed their interest. This project is also keen to support local community benefits through the procurement.

The result of the study and modelling provide similar **favourable** results to the LGPPA of over the business as usual scenario. They have asked for firm commitments from councils to continue to tender stage. Once confirmed, this will provide a base load to attract interested businesses to participate.

POLICY IMPLICATIONS

Climate Change, energy efficiency and clean energy are key priorities of our Environmental Sustainability Strategy 2016-2026. Procurement of energy from a 100% renewable source will help us to deliver against these priorities.

Guidance from Councils procurement policy will be used to support this long term procurement initiative.

External Legal Counsel, Energy Advisory and Probity Advisory experts were appointed to oversee the development of the business case in both projects.

SOCIAL IMPLICATIONS

An investment into purchasing electricity sources from renewables will show our community that we are committed to reducing our greenhouse emissions and decarbonising our electricity use and our municipality.

Being part of a 39 plus council collaborative purchasing agreement will also have a significant positive impact on investment in renewables and further support access for the our community and businesses in Victoria.

HUMAN RIGHTS CONSIDERATIONS

Climate change is real and is already having a significant impact on our community with extreme weather including floods, fires and heat waves.

Investing in renewables is an effective and cost effective approach for City of Monash to provide leadership in our municipality and take action to minimise our contribution to climate change for our community.

FINANCIAL IMPLICATIONS

The current cost of electricity and street lighting on all Council sites is approximately \$1.99 million per annum. Of this, approximately \$908K relates to electricity usage and the rest on fixed costs. Fixed costs are regulated and are outside the scope of the PPA procurement process.

The table below shows the likely cost outcomes of the LGPPA over 10 years under a low, mid and high scenario to highlight potential savings. The scenarios vary according to the level of long-term investment and national policy in renewable energy and a shift away from coal. The scenarios of low, mid and high are based on the same price forecasts for each of the models.

Net Present Cost for the lifetime of the project (10 years, 21% of our annual electricity energy use) for MARC and Civic Centre Precinct only

Model/ Scenario	Business as usual	100 % Renewable - Fixed firm PPA	100% renewable source - Partially fixed firm PPA
Low Renewables	\$1,825,347	\$1,478,007	\$ 1,330,861
Mid Renewables	\$1,646,754	\$1,467,694	\$ 1,294,899
High Renewables	\$1,359,328	\$1,447,579	\$ 1,237,018

Model definitions:

- 'Business as usual' –current retail arrangements, with long-term forecasts for changes in wholesale electricity prices.
- 'Fixed firm PPA' – a fixed price for a period of seven to ten years. The business case recommends a reset after seven years.

- 'Partially fixed firm' – a portion of the price is fixed over ten years; a portion is reset every two to three years.

The cost outcomes (of moving to the LGPPA when compared to staying with the current retail arrangements) could provide up to 27% saving (\$492,843) over the ten year period under the various scenarios. Only the fixed firm PPA under a high renewables scenario results in an additional cost of 6.5%, but we still have the opportunity to negotiate at 7-10 years to minimise this impact.

Due to the favourable results of the business case, the proposal is to commit our electricity load from all our large sites (54%) to LGPPA and all our unmetered electricity (36%) to SEMREP. **This 90% load commitment could increase these savings more than 3 fold over 10 years to in excess of \$1.3M for large sites and \$844K for public lighting.**

In addition to this, contributing the whole of large market (12 sites) or public lighting (5 sites) to individual agreements would reduce time and costs in our internal administrative/contract management processes. The long term contracts also provide budget certainty for our Utility costs.

Should financial requirements be satisfied, of some or all of Council's remaining electricity use sites (10%), these being 128 small market sites, could be considered to be included into the PPAs or other renewable energy solutions such as customised solar installations. **This would bring Councils commitment to renewable energy up to 100%.**

It will cost \$25,000 ex GST (regardless of load contribution) for Council to participate in the LGPPA tender, as the councils collectively decided to pay for the tender process up front rather than build into contract over a number of years. This will save overall tender costs and provide more control over the process. This could be funded through Sustainability strategy budget. There would be a similar level of costs, and savings, to participate in the SEMREP tender.

Council will only be committed to signing the tender if the final results show favourable costs savings as per the business cases.

CONCLUSION

The Local Government Power Purchase Agreement represents a great opportunity for Council to be involved in a significant state-wide project with other councils, whilst delivering on sustainability for Monash. The business cases show that the arrangements are estimated to be cost favourable to Council; and this would also provide greater budget certainty and mitigate the risk of market volatility. It is recommended that Council:

That Council:

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