SURVEY REPORT

Electricity Procurement and Management in the Victorian Local Government Sector

January 2018
Introduction

Background

This report provides a summary of the results from a survey of Victorian councils, conducted October – December 2017. The intent of the survey is to:

• quantify electricity consumption by contract type across all Victorian councils.

• determine the extent to which Victorian councils have installed solar PV on their own facilities to inform future bulk buy initiatives.

• collect information on the preferences of councils for developing new retail electricity procurement, investment and contracting models.
## Question 1

**Council name – 52 of 79 councils responded to the survey**

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Question 2

Annual electricity consumption – sector wide

- 515GWh annual demand
- 41% Large Market
- 38% Public Lighting
- 18% Small Market
- 10 councils buy accredited GreenPower (3.6% of total demand)
- 390MW capacity required for the sector to move to 100% renewable
Question 3

Does your council currently purchase GreenPower?

- Over time, councils have redirected their spending from GreenPower to energy efficiency and on-site solar.
- GreenPower costs have now doubled. Councils could secure a better price by purchasing renewable energy certificates (LGCs) through a long term off take agreement.
Question 4

Does your council have a renewable energy target?

Just eight councils have explicit targets for renewable energy generation or consumption.

Most councils have emissions reduction targets, some of which refer to renewable energy.
Question 5 and 6

What is the total installed capacity (kW) of solar PV systems on council facilities?

![Graph showing installed capacity kW](image)

Installed capacity kW (assumes no installed capacity on councils who did not respond to the survey)
Question 5 and 6

What is the total installed capacity (kW) of solar PV systems on council facilities?

- Victorian councils generate ~2.4% of their annual electricity needs with on-site solar.
- Covering all suitable roof space with solar could increase this to 25% and save councils a total of $11.7M per year in avoided electricity costs.

51MW of rooftop solar potential

$75M investment in asset renewal

Return on investment ~6.5yrs
Question 5 and 6

What is the total installed capacity (kW) of solar PV systems on council facilities?

Range of annual savings potentials through on site generation ($/yr)
### Question 7

Is your council seeking to change the way it currently procures retail electricity for cost or other reasons?

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<th>Unsure - 36%</th>
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Question 8

What is your preferred economic structure?

Buy & invest - 42%
- Banyule
- Bass Coast
- Benalla
- Bendigo
- Boroondara
- Cardinia
- Casey
- Glen Eira
- Glenelg
- Hobsons Bay
- Knox
- Latrobe
- Maroondah
- Moira
- Moonee Valley
- Mount Alexander
- Shepparton
- South Gippsland
- Stonnington
- Whitehorse

Buy - 17%
- Bayside
- Darebin
- Frankston
- Mansfield
- Moreland
- Sthn Gramps
- Wyndham

Invest - 2%
- Yarra Ranges

Unsure - 38%
- Ararat
- Ballarat
- Brimbank
- Buloke
- Campaspe
- Dandenong
- Greater Geelong
- Hume
- Kingston
- Macedon Ranges
- Manningham
- Maribyrnong
- Mildura
- Murrindindi
- Pyrenees
- Swan Hill
- Wangaratta
- Whittlesea
Question 9

Does the arrangement need to reduce emissions?

Yes – 64%
- Ararat
- Ballarat
- Banyule
- Bass Coast
- Bayside
- Benalla
- Bendigo
- Brimbank
- Buloke
- Cardinia
- Casey
- Darebin
- Hobsons Bay
- Kingston
- Macedon Ranges
- Maribyrnong
- Moira
- Moonee Valley
- Moreland
- Mount Alexander
- Murrindindi
- Port Phillip
- Pyrenees
- Shepparton
- South Gippsland
- Sthn Gramps
- Wangaratta
- Whitehorse
- Whittlesea

No – 11%
- Greater Geelong
- Latrobe
- Mansfield
- Swan Hill
- Yarra Ranges

Partly – 15%
- Boroondara
- Dandenong
- Frankston
- Glen Eira
- Glenelg
- Mildura
- Stonnington

Unsure - 10%
- Campaspe
- Hume
- Knox
- Manningham
- Maroondah
Question 10

Does the generation source need to be new or existing?

New - 25%
- Ararat
- Banyule
- Bayside
- Benalla
- Bendigo
- Boroondara
- Brimbank
- Moonee Valley
- Moreland
- Mount Alexander
- Port Phillip

Existing - 0%

No pref 36%
- Bass Coast
- Campaspe
- Cardinia
- Casey
- Glenelg
- Greater Geelong
- Hobsons Bay
- Knox
- Mansfield
- Maribyrnong
- Mildura
- Moira
- Murrindindi
- Pyrenees
- South Gippsland
- Sthn Gramps
- Swan Hill

Unsure - 38%
- Ballarat
- Buloke
- Dandenong
- Darebin
- Frankston
- Glen Eira
- Hume
- Kingston
- Latrobe
- Macedon Ranges
- Manningham
- Maroondah
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**Question 11**

Does the project need to deliver local economic development outcomes?

<table>
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<th>Yes – 25%</th>
<th>Nice to have – 72%</th>
<th>Not important – 2%</th>
<th>No pref - 0%</th>
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- **Hume**

- **Manningham**
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- **Wyndham**
Question 12

Would you be willing to participate in a local government energy contract working group, meeting quarterly over the next 18 months?

Yes – 25%
- Banyule
- Bass Coast
- Bendigo
- Boroondara
- Brimbank
- Cardinia
- Darebin
- Frankston
- Glen Eira
- Hobsons Bay
- Hume
- Manningham
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- Moonee Valley
- Mount Alexander
- Port Phillip
- Shepparton
- Sthn Gramps
- Swan Hill
- Whitehorse
- Whittlesea
- Yarra Ranges

Informed 72%
- Ararat
- Baw Baw
- Bayside
- Benalla
- Buloke
- Campaspe
- Dandenong
- Glenelg
- Greater Geelong
- Kingston
- Knox
- Latrobe
- Macedon Ranges
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- Melton
- Monash
- Moreland
- Murrindindi
- Pyrenees
- South Gippsland
- Stonnington
- Wangaratta
- Wyndham

No – 2%
- Casey
- Gannawarra
- Wodonga
Recommendations

Immediate

• Many councils are still ‘unsure’ of their preferences for procuring and managing their electricity needs. One of the goals of the working group should be to assist these councils to confirm their preferences and adopt appropriate response initiatives.

• The working group should provide a forum for councils with similar preferences to collaborate on projects, and capture economies of scale and implementation efficiencies.
Recommendations

Short term

• Councils already committed to purchasing on-bill GreenPower should pursue a separate procurement process to establish a long term offtake agreement with an existing generator from July 2018.

• Preliminary market engagement indicates that councils could secure certificates for ~$30, instead of the $90-$65 range provided by retailers through current retail arrangements.

• There are a number of new renewable energy generators in Victoria with uncontracted loads, which could provide certificates from tangible projects for which councils can clearly communicate their support.
Recommendations

Short to medium term

• There are clear collaborative procurement opportunities for scaling up behind-the-meter solar on council facilities, particularly on large market sites.

• The working group should map and align the respective asset renewal and capital works budgets of relevant councils, and develop coordinated procurement and implementation plans.

• Councils should consider approaching the Municipal Association of Victoria (MAV) to manage the procurement process. This should be conducted in tranches to ensure the solar PV sector has capacity to respond appropriately.
Recommendations

Medium to long term

- There are 9 mid-large scale offsite solar projects being scoped by councils across the state, including Yarra Ranges, South Gippsland, Geelong, Kingston, Baw Baw, Bass Coast, Wodonga, Brimbank and Nillumbik.
- The working group should undertake a ‘stocktake’ of these projects, map out their generation capacity and assess the ability of other councils to co-invest in (or buy from) these projects.
- This work could also be supported by New Energy Jobs Fund grant, which could assist in identifying additional sites for mid-large scale generation projects.
- Councils should consider undertaking joint procurement when selecting suppliers for council owned solar farms to capture benefits of scale.
Recommendations

Longer term

• Councils should begin working now to establish a long term PPA from 2020/21, to coincide with the end of existing retail arrangements.
• This time line is consistent with the experience of the Melbourne Renewable Energy Project (MREP) which was developed over multiple years.
• Councils can leverage the learnings and contractual arrangements from MREP to fast track the next joint PPA procurement process.
Assumptions & Limitations

• Quantitative estimates for total electricity demand across the sector are extrapolated from the 52 responses received. Average figures for metro and rural councils are applied to councils who did not respond.

• On site solar potential is estimated using 3.6 sun hrs/day, installations costs $1.49/MW, savings of $0.175/kWh derived from blended large market and small market tariff and existing penetration rate.

• Maximum rooftop potential ranges between 5%-25%, based on the findings of current and planned projects across three councils utilising all available roof space. This range is consistent with the diversity in building stock portfolios across the sector, particularly between rural and metro councils.