

Energy efficiency and renewable energy

A Plan for the City of Marion

(10 July 2018)









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Introduction

The energy efficiency and renewable sector is changing very rapidly, with a diverse range of individuals, public and private organisations all leading initiatives.

This Plan for energy efficiency and renewable energy sets the agenda for the City of Marion for the next ten years. It provides short and longer-term actions that will improve the energy efficiency of Council's operations and reduce our overall carbon footprint. It will also support our community to become more energy efficient and increase the uptake of renewable energy.

The development of this Plan takes into consideration the current state of the energy sector and takes strategic steps to address specific issues facing the City of Marion.

The Plan outlines a set of initiatives, grouped within four (4) key themes, aimed at accelerating the uptake of energy efficiency and renewable energy in both Councils operations and in the wider Marion community.

A key priority of the Plan is to explore the potential to establish further partnerships where Marion can play a range of leading, supporting, and advocacy roles.

This provides a good opportunity for City of Marion to collaborate with partners to pursue our priority initiatives. Partnerships have already been formalised to progress some initiatives, most notably the Southern Adelaide Economic Development Board (SAEDB).

Strategic directions

The City of Marion's Community Vision: Towards 2040 establishes the shared values and aspirations that will guide how our City develops.

The Strategic Plan 2017 – 2027 states that:

- We will operate more efficiently and sustainably in terms of energy and water use, using the best technologies and methods to be as self-sufficient as possible. (Valuing Nature – VN3)
- We will encourage our community to be careful in their energy and water consumption. (Valuing Nature – VN6)
- We will encourage, where economically feasible, the provision of the daily needs of residents within a short walk or bike ride (Connected – CN2)

The 3-Year Business Plan 2016 – 2019 commitments include:

- Significantly increase the energy efficiency across our council facilities. (Valuing Nature)
- Deliver sustainable street lighting priorities. (Valuing Nature)
- Deliver a solar panel network at key council sites across the City and expand the solar panel network to maximise the use of renewable energy at council facilities. (Innovative)
- Investigate 'Smart City' technology and infrastructure opportunities (Innovative)
- Implement the priority actions of the Southern Adelaide Economic Development Board. (Prosperous)

Outcomes

The following outcomes support achievement of energy efficiency and renewable energy objectives set by Council:

- The City of Marion is demonstrating leading practice in energy efficiency and renewable energy in its own operations;
- There is active community participation and investment in energy efficiency and renewable energy initiatives;
- Local businesses and householders feel well informed and supported to take action:
- There is strong collaboration with regional partners and others to deliver strategic energy efficiency and renewable energy initiatives across southern Adelaide;
- Energy efficiency and renewable energy solutions are integrated, accessible to all, environmentally responsible and innovative.

Action Themes

The Action Themes focus effort to achieve the energy efficiency and renewable energy outcomes in to councils operations and in the wider community.

Theme 1 includes initiatives that will improve the energy efficiency of council's internal operations with a focus on actions over which Council has a high level of control.

Themes 2, 3 and 4 include actions aimed at increased energy performance of businesses and households and more sustainable mobility options in Marion. To develop and deliver these actions, Council will need to collaborate with other organisations and establish key strategic partnerships. While Council may have a strong advocacy or partnership role, primary responsibility for delivery of many of these actions rests with other organisations.

- Efficient Council Operations: Improve energy efficiency and use of renewable energy by Council.
- **Sustainable Businesses:** Encourage uptake of energy efficiency and renewable energy by businesses in Marion with the view to decarbonising the local economy.
- **Sustainable Households and Communities:** Encourage fair and equitable access to energy efficiency technologies and renewable energy generation for all households in Marion.
- **Sustainable Mobility and Transport:** Encourage an integrated, socially inclusive, and environmentally friendly transport and mobility system in Marion.

Action Theme 1:

Efficient Council Operations

Improve energy efficiency and use of renewable energy by Council

Improving energy efficiency of Council's buildings, fleet, facilities and operations will result in long-term financial savings and reduce Council's carbon footprint.

Over the past 2-3 years Council's energy efficiency and renewable energy effort has focussed on Council owned buildings and areas where Council has some level of operational control. We have now explored most of the cost effective options. An approach for future energy efficiency and renewable energy works on leased facilities has also been developed.

A number of opportunities have been identified that will support Council's continued efforts to improve energy efficiency and reduce reliance on the national electricity grid. An ongoing commitment to reducing local carbon emissions, building resilience to climate change and publicly tracking and reporting on progress.

With any of these options, Council will need to consider the outcomes it is seeking to effect and how these outcomes align with the 10-Year Strategic Plan and 3-Year Business Plan.

To support the operationalisation of energy efficiency and renewables transition, we will focus on the following priority areas:

- 1. Efficient council buildings
- **2.** Efficient fleet
- **3.** Sustainable streetlighting
- **4.** Energy behaviour change
- **5.** Benchmarking and reporting
- **6.** Other energy efficiency and renewable energy actions



Action Theme 2:

Sustainable Business



Encourage uptake of energy efficiency and renewable energy by businesses in Marion

Encouraging local businesses to save energy and use alternate power sources will have long-term economic and environmental benefits for our region.

The Southern Adelaide Economic Development Board (SAEDB)¹ has developed an Economic Plan for Southern Adelaide that seeks a regionally coordinated approach to increasing the economic and life quality of Adelaide's South. Building on the region's competitive strengths and supporting innovation and diversification in the local economy, Priority 5 of the Plan includes projects focussed on energy and the circular economy.

The Southern Adelaide Economic Development Plan (SAEDP) identifies improving the energy performance of businesses across the southern Adelaide region as a priority to support the creation of jobs, reduce power costs for businesses and community, and reduce reliance on the national electricity grid. A project to progress this initiative is a priority action for the SAEDB during 2018.

Large-scale renewable energy opportunities are also being progressed by the Southern Region Waste Resources Authority (SRWRA) at the Pedlar Creek landfill site. SRWRA is a regional subsidiary of the cities of Marion, Onkaparinga and Holdfast Bay.

The following initiatives will complement the SAEDB priorities with a specific focus on energy efficiency and renewable energy.

- 1. Southern Energy Project (SAEDB Priority 5.3)
- **2.** Efficient Precincts

Southern Adelaide Economic Development Board (http://southernadelaide.com.au/site/main)

Action Theme 3:

Sustainable Households and Communities



Encourage fair and equitable access to energy efficiency technologies and renewable energy generation for all households in Marion

Electricity prices are continuing to rise placing increasing financial pressure on households. Encouraging our residential community to save energy and use alternate power sources will have long-term financial, social and environmental benefits for our region.

Community education and capacity building sessions with a focus on energy efficiency and renewable energy delivered in collaboration with our regional partners as part of Resilient South will help to build awareness of available energy saving options.

Working in partnership with organisations such as the Smart Energy Council to deliver community information sessions on household energy efficiency and renewable energy and battery storage options.

A renewable energy power station could also be developed through a community energy project or cooperative approach. Careful consideration is required of the role of Local Government in supporting the construction of a renewable energy power station.

To ease this financial pressure on Marion households, council could deliver a range of programs aimed at the residential sector to ease this pressure, in particular, programs targeting vulnerable households. Three focus areas may help us to achieve this:

- 1. Community Education and Awareness
- 2. Planning and Partnerships
- **3.** Community-owned Renewable Energy

Action Theme 4:

Sustainable Mobility and Transport



Encourage an integrated, socially inclusive, economically viable and environmentally friendly transport and mobility system in Marion

The City of Marion's road network is increasingly congested because of population growth and low-density development structured on car-based transport. This is driving the need for more sustainable transport options and alternative ways for people, services and goods to move across, in and out of the City.

On-road transportation accounts for around 26% of carbon emissions in the City of Marion. The challenge to reduce emissions from the transport sector is significant due to its complexity. The 30-Year Plan for Greater Adelaide 2017 Update² promotes walking and cycling as sustainable transport modes along with improved access to public transport.

Walking and cycling is central to supporting active living and healthy lifestyles. As well as improving health and wellbeing, walking and cycling supports environmental sustainability, safe communities, vibrant economies and reduces traffic congestion. Providing safe and convenient streets that support a network of walking and cycling paths to key destinations across the council is one way to encourage people to walk and cycle more.

New technologies are having an impact on the transport sector in Australia. This includes recent developments in the sharing economy such as car share and ride share, vehicle technologies, increased use of online shopping, home delivery and remote working, contactless payment options for public transport, the concept of Mobility as a Service (MaaS) rather than transport ownership and the likely advent of autonomous vehicles within the next few years³.

An approach that gives priority to walking, cycling, public transport, shared and light electric vehicles can support a range of community benefits including increased safety, improved air quality and more accessible travel options.

There are a number of actions that Council can take to encourage uptake of more efficient and active transport options. Three areas of focus may help us to develop an integrated, socially inclusive, and environmentally friendly transport and mobility system in Marion:

- **1.** Mobility and Transport
- 2. Electric vehicles and public recharging infrastructure
- **3.** Walking and Cycling Infrastructure

² The 30-Year Plan for Greater Adelaide 2017 Update (https://livingadelaide.sa.gov.au/)

³ Flinders – Tonsley Precinct Integrated Transport and Parking Strategy Final report (Feb 2018) prepared by GTA Consultants for Renewal SA with Flinders University and the Cities of Marion and Mitcham

Measuring Success

The City of Marion has adopted a suite of high-level community indicators, aligned to its 2017-2027 Strategic Plan. These indicators track progress on the key goals within the plan, over a long-term timeframe.

Two indicators directly relate to renewables and energy efficiency:

- % of council owned/leased facilities utilizing energy efficiency/renewables measures
- Technology improvements in council infrastructure

Aligned to the high-level community indicators, a suite of measures and indicators will also be progressively introduced and monitored to assess performance and outcomes focused on the key themes and actions within this Plan.

Action Theme 1 has a focus on delivering energy efficiency and renewable energy actions within Council's operations. As this is an area where Council has a high level of operational control, data will be more readily available to measure the success of these actions.

Action Theme 1: Efficient Council Operations

- Cost, energy and emissions reduction resulting from energy efficiency and renewable energy actions.
- For Action Themes 2, 3 and 4, a series of indicators will be developed to assist Council to determine if the proposed actions are having an impact in the community. Because Council has less control over these actions and outcomes, these indicators will be more about awareness and behaviour change rather than measurement of actual cost and energy savings or emissions reductions.

Some initial proposed indicators include:

Action Theme 2: Sustainable Business

• Number of businesses in Marion accessing Building Upgrade Finance (BUF)

Action Theme 3: Sustainable Households and Communities

• Number of people attending energy efficiency and renewable energy workshops and presentations

Action Theme 4: Sustainable Mobility and Transport

• Number of public electric vehicle recharging stations across the city.

Annual reporting on delivery of the actions identified in the Plan along with the measures and indicators will commence from the end of June 2019. Additional measures and indicators may be identified as the Plan is delivered.