His Worship the Mayor
Councillors
CITY OF MARION

NOTICE OF
INFRASTRUCTURE AND STRATEGY COMMITTEE MEETING

Notice is hereby given pursuant to the provisions under Section 83 of the Local Government Act 1999 that a General Council meeting will be held

Tuesday 5 June 2018

Commencing at 6.30pm

In the Chamber

Council Administration Centre

245 Sturt Road, Sturt

A copy of the Agenda for this meeting is attached in accordance with Section 83 of the Act.

Meetings of the Council are open to the public and interested members of this community are welcome to attend. Access to the Chamber is via the main entrance to the Administration building on Sturt Road, Sturt.

Adrian Skull
CHIEF EXECUTIVE OFFICER

1 June 2018

CITY OF MARION
INFRASTRUCTURE & STRATEGY COMMITTEE AGENDA
FOR THE MEETING TO BE HELD ON
TUESDAY 5 JUNE 2018
COMMENCING AT 6.30 PM
COUNCIL CHAMBER
245 STURT ROAD, STURT

1. OPEN MEETING

2. KAURNA ACKNOWLEDGEMENT

We acknowledge the Kaurna people, the traditional custodians of this land and pay our respects to their elders past and present.

3. MEMBER'S DECLARATION OF INTEREST (if any)

4. CONFIRMATION OF MINUTES

5. BUSINESS ARISING

6. REPORTS FOR NOTING

6.1 Nil

7. CONFIDENTIAL REPORTS

Nil

8. REPORTS FOR DISCUSSION

9. WORKSHOP

Nil

10. PRESENTATION

Nil

11. ANY OTHER BUSINESS

12. MEETING CLOSURE

The Infrastructure & Strategy Committee meeting shall con clude on or before 9.30 pm unless there is a specific motion adopted at the meeting to continue beyond that time.

13. NEXT MEETING

The next meeting of the Infrastructure & Strategy Committee is scheduled to be held:

Time: 6.30pm
Date: 3 July 2018
Venue: The Council Chamber, Administration Office, 245 Sturt Road, Sturt

MINUTES OF THE INFRASTRUCTURE AND STRATEGY COMMITTEE
HELD AT ADMINISTRATION CENTRE
245 STURT ROAD, STURT
ON TUESDAY 1 MAY 2018

PRESENT

Elected Members

Councillor Tim Pfeiffer, Councillor Nathan Prior, Councillor Tim Gard, and Councillor Bruce Hull

His Worship the Mayor Kris Hanna

Independent Member

Apology

In Attendance

Councillor	Ian Crossland
Councillor	Nick Westwood
Councillor	Raelene Telfer
Councillor	Jason Veliskou
Mr Adrian Skull	Chief Executive Officer
Ms Abby Dickson	General Manager City Development
Mr Tony Lines	General Manager City Services
Mr Vincent Mifsud	General Manager Corporate Services
Ms Fiona Harvey	Manager Innovation and Strategy
Ms Kate McKenzie	Manager Governance
Mr Greg Salmon	Manager City Activation
Ms Carla Zub	Project Manager Strategic Projects
Mr Adam Gray	Smart Cities consultant
Ms Georgie Johnson	Smart Cities Project Officer
Ms Elaine Delgado	Strategy Leader
Mr Roger Grounds	Principal, Wallbridge Gilbert Aztec
Mr Jason Leach	Senior Geotechnical Pavements Engineer, Wallbridge Gilbert Aztec

1. OPEN MEETING

The meeting commenced at 6.32pm.

2. KAURNA ACKNOWLEDGEMENT

We acknowledge the Kaurna people, the traditional custodians of this land and pay our respects to their elders past and present.

3. MEMBERS DECLARATION OF INTEREST

The Chair asked if any Member wished to disclose an interest in relation to any item being considered at the meeting.

- No declarations were made.

4. CONFIRMATION OF MINUTES

Moved Councillor Pfeiffer, Seconded Councillor Gard the minutes of the Infrastructure and Strategy Committee Meeting held on 3 April 2018 be taken as a true and correct record of proceedings.

Carried unanimously

5. BUSINESS ARISING

5.1 Review of the Business Arising from previous meetings of the Infrastructure and Strategy Committee Meetings

- The Business Arising statement was noted.
- It was noted the due date was omitted from the Oaklands Wetland Water Project item

Action: Add the date of 5 June 2018 to the Business Arising item 8.1 Oaklands Wetland Water Project item and include this item on the agenda for the 5 June Infrastructure and Strategy Committee agenda

6. REPORTS FOR NOTING

Nil

7. CONFIDENTIAL REPORTS

7.1 6.38pm BMX Project Progress Report
Report Reference: ISC010518F01

Moved Councillor Gard, Seconded Councillor Hull that the Infrastructure and Strategy Committee:

1. Pursuant to Section 90(2) and (3)(b) and (d) of the *Local Government Act 1999,* the Infrastructure and Strategy Committee orders that all persons present, with the exception of the following persons: Cr Tim Gard, Cr Tim Pfeiffer, Adrian Skull, Vincent Mifsud, Abby Dickson, Tony Lines, Kate McKenzie, Elaine Delgado, Greg Salmon and Carla Zub, be excluded from the meeting as the Committee receives and considers information relating to the BMX Project, upon the basis that it is satisfied that the requirement for the meeting to be conducted in a place open to the public has been outweighed by the need to keep consideration of the matter confidential on the grounds that the report contains information of a commercial nature and would on balance, be contrary to the public interest.

Carried unanimously

6.39pm the meeting went into confidence

Moved Councillor Gard, Seconded Councillor Hull that:

1. In accordance with Section 91(7) and (9) of the Local Government Act 1999 the Committee orders that this report, BMX Project – Progress Report, associated appendices and the minutes arising from this report having been considered in confidence under Section 90(2) and (3)(b)and (d) of the Act, except when required to effect or comply with Council's resolution(s) regarding this matter, be kept confidential and not available for public inspection for a period of 12 months from the date of this meeting. This confidentiality order will be reviewed at the General Council Meeting in December 2018.

Carried unanimously

8.39pm the meeting came out of confidence

8. REPORTS FOR DISCUSSION

8.1 8.40pm Infrastructure Projects progress update
Report Reference: ISC010518R8.1

The Infrastructure projects were reviewed with the following comments made:

Soccer Facilities:
- The artificial soccer pitches have a membrane installed as part of their typical construction detail, this membrane will potentially assist in minimising the soil movement.

Mitchell Park Sports and Community Centre:
- The Office for Recreation and Sport will be liaising with the Minister for Recreation, Sport and Racing to discuss the provision of basketball in southern Adelaide
- The City of West Torrens could be included in a submission to state government re joint funding

Marion Outdoor Pool Upgrade:
- Project is progressing with works to be undertaken during the off-season

Moved Councillor Cr Hull, Seconded Councillor Pfeiffer that the Infrastructure and Strategy Committee:

1. Notes the progress report on key infrastructure projects.

Carried unanimously

9. WORKSHOP

9.1 8.48pm Smart Cities Opportunities
Report Reference: ISC010518R9.1

Ms Harvey introduced the report noting:

- A draft Smart Cities definition is proposed for consideration by Members
- Additional information has been provided on five potential pilot projects to trial over the next 1-2 years

The following comments were raised/noted:

- Consideration should be given to the placement of sensors on existing infrastructure to 'test run' the technology as a mechanism to gather baseline data
- Communications with the community on placement and use of sensors is critical
- It is important that use of technology supports the meeting of community needs through effective problem solving addressing issues such as maintenance and management of footpaths and stormwater
- The focus for use of technology needs to be on improving customer service delivery and business performance
- The number and type of pilot projects could be expanded to assist Elected Members' understanding of the project rankings as the current pilot projects focus on two project types – 1) to address specific problems; 2) open-ended scopes
- There is potential for a precinct approach at sites such as Tonsley and Oaklands where, through the display of live data relating to car parking availability at train stations, technology could support a change in transport choice from use of a private vehicle to electing to park the private vehicle and use public transport
- It is important that Council is prepared and ready to embrace opportunities that are low risk and readily available
- The focus for use of technology should be to improve the efficiency and effectiveness of Council's core business, and build collaborative partnerships
- Use of technology to support revenue raising should not be considered as a primary driver
- Development of a Smart Cities Framework that provides the 'big picture' should be separate from Projects that provide 'detail'

The Priority Scoring System as a tool to evaluate potential projects was supported by Members with the following points raised/noted:

- Council should be a 'fast follower' using technology to identify solutions where there is evidence it has been effective in similar situations
- Include criteria: 'Low risk innovative solutions' and 'cost'

Action: Prepare guiding principles for a Smart Cities approach that reflect:

- **Balanced risk management**
- **Council's support as a 'fast follower' where use of technology is proven to lead to desired outcomes**
- **Council's support to use technology for low risk innovative projects**

The following points were made in discussion with Committee Members and Elected Members on the term 'Smart Cities':

- The value of the term 'Smart Cities' was questioned as it should be embedded in how Council delivers its services to its community through use of technology, rather than projects being specifically labelled 'Smart Cities'

- The use of the term 'Smart Cities' is likely to be transient
- 'Smart Cities' as a concept is not well understood by the community, therefore it is important that this is taken into consideration in communicating with the community
- A preference for the term 'Innovation' was raised as it has broader application such as in urban design, waste management, etc. rather than the Smart Cities which has a limited focus on technology
- The term 'Smart Cities' links to Council's purpose: 'To improve our residents' quality of life; continuously, smartly and efficiently'
- Identifying and using data to support effective problem solving that is central to a Smart Cities approach is critical
- It is important that lessons learned through innovation projects/approaches are recorded and shared

Actions:

- **Analyse customer data to identify potential problems for consideration of using technology and data focused solutions by the Infrastructure and Strategy Committee**
- **Present the findings of the survey from the leadership team on potential technology and data opportunities to the next Infrastructure and Strategy Committee meeting**

The Mayor invited Mr Gray to provide a summary of comments. These included:

- Advantages of the use of the term 'Smart Cities' are that it:
    - Aligns with state and federal government directions and funding opportunities such as the Smart Cities and Suburbs Program
    - Is the next revolution of the technology transformation
    - Focuses on use of technology to obtain data to improve customer service
- The definition for Smart Cities needs to be meaningful for the City of Marion
- The criteria of 'commerciality' is included in the Priority Scoring System to address the role of Smart Cities in increasing cost efficiencies and commerciality for Council and partners

Moved Councillor Hull, Seconded Councillor Prior that the Infrastructure and Strategy Committee:

1. **Be presented with data re potential problems and opportunities for further discussion to the next Infrastructure and Strategy Committee to be held on 5 June 2018**

2. **Supports the presentation to Council of a grant submission to the second round of the Smart Cities and Suburbs Grants Program**

Carried unanimously

10. PRESENTATION

Nil

11. ANY OTHER BUSINESS

12. MEETING CLOSURE

The meeting was declared closed at 9.00pm.

13. NEXT MEETING

The next meeting of the Infrastructure and Strategy Committee will be held at 6.30pm on Tuesday 5 June 2018 in the Council Chamber, 245 Sturt Road, Sturt.

CONFIRMED

.....
CHAIRPERSON
/ /

CITY OF MARION
BUSINESS ARISING FROM THE INFRASTRUCTURE AND STRATEGY COMMITTEE MEETINGS AS AT 05 JUNE 2018

	Date of Meeting	Item		Responsible	Due Date	Status	Completed / Revised Due Date
1.	6 February 2018	7.2	**Energy Efficiency and Renewable Energy Roadmap** • Provides feedback on the draft Energy Efficiency and Renewable Energy Roadmap (Appendix 2) and the key questions posed for discussion. • Notes that Energy Efficiency and Renewable Energy opportunities will be included in the Committee's 2018 Annual Works Program.	Ann Gibbons	5 June 2018	Report scheduled for 5 June 2018 Committee meeting ISC050618R1	Complete
2.	6 March 2018	8.1	**ICT Digital Transformation Plan Update** • ICT update scheduled for 4 September 2018 to support a discussion on a sequential roadmap that includes a critical path for 3 project classes addressing their purposes and benefits 1) Productivity/Enablers; 2) Regulatory/Legislative/Compliance; 3) IT Asset Renewal	John Deally	4 September 2018		
3.	3 April 2018	8.1	**Oaklands Wetland Water Project** • An analysis of the potential for the installation of solar power in council-owned co-located sites to be presented to Council.	Glynn Ricketts	05 June 2018	Report to 5 June I&S Committee 'Potential installation of solar facilities near Oaklands Wetlands' – further report to General Council in June. An energy consultant has been engaged to investigate the most cost effective solution for installing additional solar power to offset the "black power" used at Oaklands Wetlands, analysis to assess both current and future power demand at the wetlands. Once we have received and reviewed the report it will be presented to Council.	In progress 12 June 2018 (revised date)
4.	3 April 2018	9.1	**Smart Cities Opportunities** • Recommends a report be provided to	Fiona Harvey	May 2018	Report 'Innovative Smart Cities' presented to General Council Meeting 22 May 2018	Complete

	Date of Meeting	Item		Responsible	Due Date	Status	Completed / Revised Due Date
			General Council meeting in May 2018 that includes a basic Smart Cities decision-making framework so Council can consider short-term opportunities for funding in 2018/19.			(GC220518R12)	
5.	3 April 2018	10.1	**Coastal Management Plan** • Outcomes of the Stage 2 data collection and modelling to be presented to the Infrastructure and Strategy Committee in June along with the draft Marion Coastal Management plan. • The Hallett Cove Coastal Processes Study Report by Doug Lord to be distributed to committee members. • Information about the Coastal Management Plan, including a video of the 3D coastal imagery be posted on Council's Facebook page.	Fiona Harvey/ Rebecca Neumann	05 June 2018 May 2018 May 2018	Further information on geomorphology and a final review of risk ratings will be completed by 30 June – anticipate report to be provided to the August ISC Hard copy left in Elected Members' room – emailed to advise 17 April 2018 Copy posted to Christian Reynolds Posted on Facebook 19 April 2018	Revised date August 2018 COMPLETED COMPLETED
6.	1 May 2018	9.1	**Smart Cities Opportunities** • Prepare guiding principles for a Smart Cities approach that reflect: o Balanced risk management o Council's support as a 'fast follower' where use of technology is proven to lead to desired outcomes o Council's support to use technology for low risk innovative projects • Analyse customer data to identify potential problems for consideration of using technology and data focused solutions by the Infrastructure and Strategy Committee • Present the findings of the survey from the leadership team on potential	Fiona Harvey/ Georgie Johnson	05 June 2018	Report being presented to ISC meeting 5 June 2018 entitled 'Innovative Smart Initiatives' ISC050618R3	COMPLETED

	Date of Meeting	Item		Responsible	Due Date	Status	Completed / Revised Due Date
			technology and data opportunities to the next Infrastructure and Strategy Committee meeting				
7.		9.1	**Smart Cities Opportunities** • Be presented with data re potential problems and opportunities for further discussion to the next Infrastructure and Strategy Committee to be held on 5 June 2018 • ISC supports the presentation to Council of a grant submission to the second round of the Smart Cities and Suburbs Grants Program	Fiona Harvey / Georgie Johnson	05 June 2018	Report being presented to ISC meeting 5 June 2018 entitled 'Innovative Smart Initiatives' ISC050618R3	Complete

* Completed items to be removed are shaded

6 February	**6.30 – 9.30**	**Infrastructure & Strategy**
6 March	**6.30 – 9.30**	**Infrastructure & Strategy**
3 April	**6.30 – 9.30**	**Infrastructure & Strategy**
1 May	**6.30 – 9.30**	**Infrastructure & Strategy**
5 June	**6.30 – 9.30**	**Infrastructure & Strategy**
3 July	**6.30 – 9.30**	**Infrastructure & Strategy**
7 August	**6.30 – 9.30**	**Infrastructure & Strategy**
4 September	**6.30 – 9.30**	**Infrastructure & Strategy**
2 October	**6.30 – 9.30**	**Infrastructure & Strategy**
6 November	**6.30 – 9.30**	**Infrastructure & Strategy**
4 December	**6.30 – 9.30**	**Infrastructure & Strategy**

- 1st Tuesday of each month from February – December 2018
- Membership – 5 Elected Members
- Quorum - 4 Committee Members
- Reference Minutes – GC241017R19

Presiding Member – Luke Hutchinson

Expert Member – Christian Reynolds

Members

- Tim Pfeiffer
- Nathan Prior
- Bruce Hull
- Tim Gard

Draft Infrastructure and Strategy Committee Program 2018

Infrastructure & Strategy Committee **Date: Tuesday, 6 February 2018 Time: 6.30pm – 9.30pm** **Venue: Committee Room**				
Topic	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Capella and Nannigai Precinct Plan	Action from 7 Nov 2017 meeting			Carol Hampton
Energy Efficiency and Renewable energy Roadmap	Action from 7 Nov 2017 meeting			Ann Gibbons

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 6 March **Time:** 6.30pm – 9.30pm		**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Infrastructure Project Updates	R	For noting: Progress updates on key infrastructure projects Update on any emerging risks, significant changes			Abby Dickson
Draft Program 2018	R	A draft program of agenda items for the Committee's consideration for 2018			Abby Dickson/ Tony Lines
ICT Digital Transformation Plan Update	R	Six monthly update (refer ISC 1 August 2017)			John Deally

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 3 April **Time:** 6.30pm – 9.30pm		**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Coastal Management Plan	R	Presentation and feedback on development of the Coastal Management Plan		Mark Western, Integrated Coasts	Rebecca Neumann
Smart Cities Pilot Project Opportunities	R	Discussion on the Smart Cities opportunities, with reference to trends nationally and globally			Fiona Harvey

Draft Infrastructure and Strategy Committee Program 2018

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 1 May **Time:** 6.30pm – 9.30pm		**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Infrastructure Projects Update	R	For noting: Progress updates on key infrastructure projects Update on any emerging risks, significant changes			Abby Dickson
Smart Cities Pilot Project Opportunities	R	Discussion on the Smart Cities opportunities, with reference to trends nationally and globally (incl. Roadmap)			Fiona Harvey
BMX Options	R				Greg Salmon

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 5 June **Time:** 6.30pm – 9.30pm		**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Energy Efficiency and Renewable Energy opportunities	R	Progress of the Energy Efficiency and Renewables Roadmap			Ann Gibbons
Potential installation of solar facilities near Oaklands Wetlands	R	Follow on report from I&S Committee April 2018			Glynn Ricketts
Innovative Smart Initiatives	R	To include results of the Innovation Survey (Council resolution GC080518M03)			Georgie Johnson

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 3 July **Time:** 6.30pm – 9.30pm		**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Capital Construction – Quarterly Update	R	Request from 2 May 2017 meeting	20 mins		Tony Lines
Infrastructure Projects Update	R	For noting: Progress updates on key infrastructure projects Update on any emerging risks, significant changes	20 mins		Abby Dickson

Stormwater	R	Management of stormwater as a key asset; Management of stormwater as a key asset; planning, prioritisation, design and construction	20 mins		Mat Allen
Tonsley Water Agreement	R		30 mins		Glynn Ricketts
Sport and recreation	R	Progress of soccer in Southern Marion	30 mins		Greg Salmon
Funding strategy for 'spade ready' projects	R	Projects ready for implementation; how funding opportunities to be identified/activated; need for a Council public policy statement on how Council funds its projects	20 mins		Vincent Mifsud
Asset optimisation	R	5-10 year plan for ownership, management, divestment and procurement within the context of Council's strategic plans	30 mins		Fiona Harvey

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 7 August **Time:** 6.30pm – 9.30pm	**Venue:** Chamber		
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Community issues and opportunities	R	Ageing population; support for physical and mental health	60 mins	Potential guest speaker	Fiona Harvey/ Liz Byrne
Draft Marion Coastal Management Plan	R	From I&S Committee 3 April 2018 R10.1 Including outcomes of the Stage 2 data collection and modelling	45 mins		Rebecca Neumann
Export Marketing and Economic Development	R	Initiatives to attract new residents, and new business/ commerce/ industry to the City; Existing and potential location of employment land/industrial districts; Council's role in supporting business and partnering with the Southern Adelaide Economic Development Board; Ideas for community energy and technology.	30 mins		Greg Salmon
Development of Council's 4-year Business Plan 2019-2023	R	Initial discussion on key inputs into the development of Council's next 4 year Business Plan including Delivery against Council's strategic directions	30 mins		Fiona Harvey

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 4 September **Time:** 6.30pm – 9.30pm	**Venue:** Chamber		
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
ICT Digital Transformation Plan Update	R	Six monthly update (refer ISC 1 August 2017)			John Deally

Infrastructure Projects Update	R	For noting: Progress updates on key infrastructure projects Update on any emerging risks, significant changes			Abby Dickson
Transport	R	How we move people into, out of, and within the City of Marion - public transport; walking and cycling; use of private vehicles; North-South Corridor issues and opportunities; consideration of Council's role in advocacy for better quality infrastructure.		Potential guest speaker	Mat Allen

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 2 October	**Time:** 6.30pm – 9.30pm	**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**
Oaklands/Marion Cultural Centre Plaza	R	Precinct opportunities			Greg Salmon
Capital Construction – Quarterly Update	R	Request from 2 May 2017 meeting			Tony Lines
Infrastructure Projects Update	R	- Progress updates on key infrastructure projects - Update on any emerging risks, significant changes			Abby Dickson
Infrastructure and Strategy Committee Handover		- Request from March 2018 meeting			

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 6 November	**Time:** 6.30pm – 9.30pm	**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**

Meeting: Infrastructure & Strategy Committee		**Date**: Tuesday 4 December	**Time:** 6.30pm – 9.30pm	**Venue:** Chamber	
Topic	**Type of Report**	**Description**	**Duration**	**External Attendees**	**Staff Responsible**

Draft Infrastructure and Strategy Committee Program 2018

CITY OF MARION
INFRASTRUCTURE & STRATEGY COMMITTEE
5 June 2018

Originating Officer:	**Ann Gibbons, Environmental Sustainability Manager**
Manager:	**Fiona Harvey, Manager Innovation and Strategy**
General Manager:	**Abby Dickson, General Manager City Development**
Subject:	**Energy Efficiency and Renewable Energy Roadmap**
Report Reference:	**ISC050618R01**

REPORT OBJECTIVE

The purpose of this report is to present the Infrastructure and Strategy Committee with a DRAFT Energy Efficiency and Renewable Energy Roadmap for consideration.

RECOMMENDATION	DUE DATES
That the Infrastructure and Strategy Committee:	
1. Considers and provides feedback on the draft Energy Efficiency and Renewable Energy Roadmap (Appendix 1).	**5 June 2018**
2. Notes that the draft Roadmap will be brought to General Council for consideration and endorsement in July 2018.	**10 July 2018**

BACKGROUND

A draft Energy Efficiency and Renewable Energy Roadmap was provided for feedback at the February Infrastructure and Strategy Committee meeting (ISC060218R7.2). In preparing the Roadmap, the Committee agreed on the need to ensure that it:

- Positions the City of Marion so it is has a strong reputation in relation to energy efficiency and renewables; and
- Is the driver in operationalising energy efficiency and renewables transition through addressing issues such as, carbon-neutral policy, procurement policy including for vehicles, and adoption and use of technology.

DISCUSSION

The draft Energy Efficiency and Renewable Energy Roadmap for the City of Marion (Appendix 1) has been updated in response to feedback provided at the 6 February 2018 Infrastructure and Strategy Committee meeting.

The draft Roadmap outlines a set of initiatives, grouped within 4 key themes, aimed at accelerating the uptake of energy efficiency and renewable energy projects in the City of Marion:

1. Efficient Council Operations: Improve energy efficiency and use of renewable energy by Council.
2. Sustainable Businesses: Support uptake of energy efficiency and renewable energy by businesses in Marion.
3. Sustainable Households and Communities: Support fair and equitable access to energy efficiency technologies and renewable energy generation for all households in Marion.
4. Sustainable Mobility and Transport: Support an integrated, socially inclusive, economically viable and environmentally friendly transport and mobility system in Marion.

Budget Implications

- **2018/19 Projects**

The majority of projects that have been identified for delivery during 2018/19 will be implemented using existing resources and budgets. Some, such as the smart sensors on LED street lighting, would require investment, with potential opportunity for grant funding or partnerships.

Many of the actions identified under Action Themes 2, 3 and 4 are not being led by the City of Marion. These actions are being developed by other organisations such as the Southern Adelaide Economic Development Board or Southern Region Waste Resource Authority. The City of Marion may choose to financially contribute to the projects, but primarily they will be funded through other mechanisms and at the discretion of the relevant action owner.

As projects are further developed, any additional funding requirements will be brought to Council for consideration.

- **Towards 2027 (Medium – Long Term)**

Further detail and budget requirements for projects after June 2019 will considered through the annual business planning process.

NEXT STEPS

Feedback from the I&S Committee will be incorporated into the Roadmap, which will then be presented to Council for adoption. If adopted, actions identified for delivery during 2018/19 will be included in relevant work plans for implementation.

Annual reporting on measures for each of the Action areas will commence from June 2019.

SPEAKER

Ann Gibbons, Environmental Sustainability Manager

ATTACHMENTS

1. DRAFT Energy Efficiency and Renewable Energy Roadmap

Energy Efficiency and Renewable Energy Roadmap for the City of Marion

DRAFT

CONTENTS

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 Roadmap for energy efficiency and renewable energy sets the agenda for the City of Marion for the next ten years. It provides short and long-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 Roadmap takes in to consideration the current state of rapid transition being experienced by the energy sector and identifies strategic steps to address specific issues confronting the City of Marion.

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

A key priority of the Road Map is to explore the potential to establish further partnerships where Marion can play a range of leading, supporting, and advocating 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).

CITY OF MARION 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 – VN1)
- Deliver sustainable street lighting priorities. (Valuing Nature – VN2)
- 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 – I1 & I2)
- Investigate 'Smart City' technology and infrastructure opportunities (Innovative – I7)
- Implement the priority actions of the Southern Adelaide Economic Development Board. (Prosperous – P7)

OUTCOMES

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

1. The City of Marion is demonstrating leading practice in energy efficiency and renewable energy in its own operations;
2. There is active community participation and investment in energy efficiency and renewable energy initiatives;
3. Local businesses and householders feel well informed and supported to take action;
4. There is strong collaboration with regional partners and others to deliver strategic energy efficiency and renewable energy initiatives across southern Adelaide;
5. 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 both Council's operations and in the wider community.

Theme 1 includes initiatives that will improve the energy efficiency of Council's internal operations.

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 partnerships.

1. Efficient Council Operations: Improve energy efficiency and use of renewable energy by Council.
2. Sustainable Businesses: Support uptake of energy efficiency and renewable energy by businesses in Marion.
3. Sustainable Households and Communities: Support fair and equitable access to energy efficiency technologies and renewable energy generation for all households in Marion.
4. Sustainable Mobility and Transport: Support an integrated, socially inclusive, economically viable 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. There is also an ongoing commitment to reducing energy use, 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 energy efficiency and renewable energy transition of Council's operations, 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

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

Assisting 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 and community energy hubs.

The Southern Adelaide Economic Development Plan (SAEDP) identifies the establishment of two Community Energy Hubs 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.

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.

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

1. Community Energy Hubs (SAEDB Priority 5.3)
2. Tonsley Precinct
3. Large-scale Renewable Energy

ACTION THEME 3: Sustainable Households and Communities

Support 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. Assisting 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.

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 will help us to achieve this:

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

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

ACTION THEME 4: Sustainable Mobility and Transport

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

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 Marion. The challenge to reduce emissions from the transport sector is significant due to its complexity. The 30-Year Plan for Greater Adelaide 2017 Update[2] 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 years[3].

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 support uptake of more efficient and active transport options. Three areas of focus will help us to develop an integrated, socially inclusive, and environmentally friendly transport and mobility system in Marion:

1. Mobility and Transport
2. Public electric vehicle 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 targets will also be progressively introduced and monitored to assess performance and outcomes focused on the key themes and actions within this roadmap.

Proposed measures are included in the DRAFT Roadmap and summarised below:

Action Theme 1: Efficient council Operations

- Energy, cost and emissions reductions resulting from energy efficiency and renewable energy actions.
- Best practice energy efficiency standards for building construction and major upgrade projects embedded in City of Marion processes.

Action Theme 2: Sustainable Business

- Number of businesses in Marion accessing Building Upgrade Finance (BUF).
- Energy and emissions reduction resulting from energy efficiency and renewable energy actions implemented by businesses in Marion using 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 these measures will commence from the end of June 2019.

ENERGY EFFICIENCY AND RENEWABLE ENERGY ROADMAP

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

Action Theme	Initiatives	Current Actions	2018/19 Projects	Towards 2027 (Medium – Long Term)
Action Theme 1: **Efficient Council Operations** <u>Measuring Success:</u> • Emissions reduction resulting from energy efficiency and renewable energy actions • Best practice energy efficiency standards for building construction and major upgrade projects embedded in City of Marion processes	Initiative 1.1 – Efficient Council Buildings	• 375kW of solar installed on 10 Council operated buildings • Energy efficiency upgrades completed at 8 Council operated buildings • Finance mechanism for energy efficiency and renewable energy on leased facilities has been developed • Energy efficiency and solar reviews completed on 6 leased sporting and recreation facilities • Commitment to install solar panels on new Edwardstown Facility	• Develop environmental Sustainability Design (ESD) Framework to incorporate ESD principles (including energy efficiency and renewable energy) into all Council buildings	• Embed ESD Framework in to Council operations
	Initiative 1.2 – Efficient Fleet	• Fleet Optimisation Review	• New Fleet Policy to guide Council's approach to provision of light and heavy vehicles that are efficient and fit for purpose • Trial use of EV passenger vehicles as pool vehicles as they are changed over • Encourage staff to use technologies such as video conferencing to reduce business vehicle use	• Investigate and trial alternative fuel options for light and heavy plant vehicles
	Initiative 1.3 – Sustainable Streetlighting	• LED Streetlighting Project to be completed by December 2018	• Investigate 'smart' sensors for streetlighting to enable greater lighting control and save energy	• LED public lighting for lighting not included in LED Streetlighting Project (e.g. reserves)
	Initiative 1.4 – Energy Behaviour Change	• Green @ Work team delivering energy efficiency staff initiatives	• City Switch Green Office program – free trial at City Services and Administration Building to improve office waste and energy efficiency through staff engagement and benchmarking activities	• Provide ongoing advice and support for staff to encourage energy efficient behaviours at work (pending outcome of City Switch Green Office program trial)
	Initiative 1.5 – Benchmarking and Reporting	• Carbon inventory of Council's operations (2014/15; 2015/16; 2016/17)	• Develop 2017/18 carbon inventory of Council's operations	• City Switch Green Office program trial, include more council-operated sites to the program (pending outcome of free trial)
	Initiative 1.6 – Other energy efficiency and renewable energy actions	•	•	• Trial solar-powered 'Smart Bins' in key areas of the city

Action Theme	Initiatives	Current Actions	2018/19 Projects	Towards 2027 (Medium – Long Term)
Action Theme 2: **Sustainable Business** <u>Measuring Success:</u> • Number of businesses in Marion accessing Building Upgrade Finance (BUF) • Emissions reduction resulting from energy efficiency and renewable energy actions implemented by businesses in Marion using BUF	Initiative 2.1 – Community Energy Hubs (SAEDB Priority 5.3)	• SAEDB Economic Development Plan for Southern Adelaide: Priority 5c Community Energy Hubs – initial scoping underway • Building Upgrade Finance (BUF) mechanism in place to support energy efficiency and renewable energy improvements on commercial and industrial buildings	• Further develop SAEDB Community Energy Hubs priority that include: - Active promotion of the BUF mechanism - Develop an Energy Smart Businesses program to assist local businesses to identify energy efficiency and renewable energy opportunities.	• Deliver agreed SAEDB Community Energy Hub priorities • City Switch Green Office program for commercial building owners and tenants in Marion (pending outcome of free trial on Council buildings)
	Initiative 2.2 – Tonsley Precinct	•	• Support and promote innovative energy solutions at Tonsley	• Further develop Tonsley as an efficient 'green' energy precinct and Smart City hub
	Initiative 2.3 – Large-scale renewable energy	• SRWRA investigations into renewable energy options for Pedlar Creek facility to complement the 100kW PV system already installed at the site • SAEDB Economic Development Plan for Southern Adelaide: Priority 5c Community Energy Hubs – includes consideration of large-scale renewables	•	•

Action Theme	Initiatives	Current Actions	2018/19 Projects	Towards 2027 (Medium – Long Term)
Action Theme 3: **Sustainable Households and Communities** <u>Measuring Success:</u> • Number of people attending energy efficiency and renewable energy workshops and presentations	Initiative 3.1 – Community Education and Awareness	• Energy efficiency and renewable energy information and links provided to community via City of Marion website • Partnering with others to deliver community energy efficiency and renewable energy information sessions (e.g. Australian Solar Council, Resilient South, Living Smart, etc.) • 1 Million Women partnership – development of free app to encourage users to make lifestyle choices to cut carbon pollution in their everyday lives.	• Investigate options to support residential building owners and tenants to increase uptake of energy efficiency and renewable energy technologies (possible link with Community Grants Program) • Partner with 1 Million Women to launch the app in Marion	• Climate Ready Schools program (partnership with NRM & Red Cross)
	Initiative 3.2 –Planning and Partnerships	•	• Actively support the Adelaide Living Laboratories / CRC for Low Carbon Living demonstration project at Tonsley • Foster university research partnerships that focus on energy efficiency and renewable energy outcomes	• Promote energy efficiency, the use of renewable energy sources and neighbourhood level alternative energy supplies and storage in new developments to reduce energy costs and carbon footprint.
	Initiative 3.3 – Community-owned Renewable Energy	• Community-owned renewable energy discussion at the July 2017 Common Thread event by Heather Smith from Changing Weather (this links with the SAEDB Priority 5 Community Energy Hubs)	• Continue to gauge community interest in developing a community-owned renewable energy project.	• Development of community-owned renewable energy projects (if sufficient community interest)

Action Theme	Initiatives	Current Actions	2018/19 Projects	Towards 2027 (Medium – Long Term)
Action Theme 4: **Sustainable Mobility and Transport** <u>Measuring Success:</u> • Number of public electric vehicle recharging stations across the city	Initiative 4.1 – Mobility and Transport	• SAEDB Economic Development Plan (Priority 3) – integrated regional approach to transport infrastructure and public transport services (e.g. autonomous and electric vehicles, car share schemes and public electric car charge points) • Southern Adelaide Economic Development Plan Priority 5.1 – Smart Region Strategy (electric vehicles, car-sharing schemes and autonomous vehicles). • Flinders – Tonsley Precinct Integrated Transport and Parking Strategy (Renewal SA, Flinders University and the Cities of Marion and Mitcham)	• Support and promote sustainable transport and mobility outcomes at Oaklands • Support and promote sustainable transport and mobility outcomes at Flinders – Tonsley Precinct	• Test programs to influence and support personal mobility choices and reduce single-occupancy vehicle use
	Initiative 4.2 – Public electric vehicle recharging infrastructure	• $30k contribution to public EV recharging station at Tonsley	• Council-wide electric vehicle charging infrastructure – partner with service providers and regional partners to build a network or recharging stations to support the increased uptake of electric vehicles in South Australia.	• Increased public EV (car and bike) recharging infrastructure, particularly in new higher-density developments, large public and private car parks, activity centres and employment centres.
	Initiative 4.3 – Walking and Cycling Infrastructure	• City of Marion Walking and Cycling Guidelines review	• Implement agreed recommendations from the Walking and Cycling Guidelines	• Include options for ‘smart’ solutions that provide cyclists with ‘intelligent’ assistance, resulting in better safety, convenience and fun on any trail or bike path

CITY OF MARION
INFRASTRUCTURE & STRATEGY COMMITTEE
5 JUNE 2018

Originating Officer:	**Glynn Ricketts, Water Resources Officer**
Manager:	**Mat Allen, Manager Engineering and Engineering Services**
General Manager:	**Tony Lines, General Manager City Services**
Subject:	**Solar Offset Opportunities for Oaklands Wetlands**
Report Reference:	**ISC050618R02**

REPORT OBJECTIVE

The purpose of this report is to provide the Infrastructure & Strategy Committee with details regarding the installation of additional solar power generation at a Council owned facility to offset black power use at Oaklands Wetlands.

RECOMMENDATION

That the Infrastructure and Strategy Committee:	**DUE DATES**
1. Notes the report and supporting documentation;	**5 June 2018**
2. Endorses that a report be presented to Council seeking funding for installation of an additional X kW of solar panels, with the feed in tariff (FiT) that determines the payback period to be confirmed.	**5 June 2018**

BACKGROUND

At the 3 April 2018 I&S Committee meeting there was an action item that came out of the Oaklands Wetland Water Project Presentation:

An analysis of the potential for the installation of solar power in council-owned co-located sites to be presented to Council.

This action item originated from an Elected Member question regarding the use of black power only at Oaklands Wetlands and the potential to offset black power usage by solar generation. An analysis of this opportunity is presented below.

ANALYSIS

A business case has been prepared investigating high level costs and savings of additional solar opportunities (Appendix 1). The business case builds on the extensive work undertaken during the development and approval of Marion's Energy Efficient Council Buildings Project (Report Reference: GC240516R14). The business case assumes what Council understands is a worst case feed in tariff (FiT) of 2.2 cents/kW, and will be updated once a FiT rate from Origin is confirmed.

The desk top study investigated several options, namely:

- Augment the existing 60 kW solar array at City Services by an additional 10 kW, noting that for schemes under 100 kW, small scale generation certificates are granted to offset capital costs. The payback period assuming the worst case FiT is 6.5 years ($1,850 ongoing savings per annum).
- Augment the existing 60 kW solar array at City Services by an additional 36 kW, noting that for schemes under 100 kW, small scale generation certificates are granted to offset capital costs. The payback period assuming the worst case FiT is 7.7 years ($5,650 ongoing savings per annum).
- Install a system on the Marion Leisure Fitness Centre (MLFC) roof. This would require a roof structural engineering report for load safety design, and is being worked through with Land and Property and lessees. It would not be cost-effective to place a dedicated system of the MLFC roof and connect to Oaklands to offset Oaklands consumption.
- Install 5 kW system at Oaklands wetlands buildings. There is not suitable space at Oaklands for any viable rooftop solar system, and this option has been discounted.
- Floating and carpark solar arrays at Oaklands Wetlands. These options were discounted based upon the following criteria: high cost of solar mounting infrastructure; increased maintenance obligations; system security and cost premium due to specialist installer capability.

The connection of separate sites to aggregate / balance electrical loads and achieve higher rates of solar self-consumption is not a viable option when compared with rooftop mounted solar. The cost of establishment outweighs the benefit.

Under Marion's Energy Efficient Council Buildings Project, the initial eight considered sites had an average payback period of 6.1 years, with the longest approved payback period being 7.1 years (at Cove Civic Centre). The shortest rejected payback period was 8.2 years for the Administration building expanded system.

It is proposed that capital costs be funded from Council's Asset Sustainability Reserve – Energy Efficiency Fund, funding specifically set aside to fund infrastructure that creates renewable energy.

CONCLUSION

A range of options were considered to generate additional solar power over and above the existing and future power generation under the Energy Efficient Council Buildings Project. The most cost effective way to offset Oaklands black power usage is to reduce power consumption at other Marion sites.

The costs and benefits of these options have been based on an assumed FiT rate which needs to be confirmed.

APPENDICES

Appendix 1: Draft Solar Power System Business Case Assessment

City of Marion

Oaklands Wetland and Reserve Offset

Solar Power System Business Case Assessment

31 May 2018

Contents

Document Control

Version	Issue	Date	Author	Checked
1	Draft	23/05/2018	Matthew Varvounis	Jake Bugden
2	Final Draft	29/05/2018	Matthew Varvounis	Jake Bugden
3	Final	31/05/2018	Matthew Varvounis	Jake Bugden

1 Background

The City of Marion's Water Resources department is seeking to offset its electricity costs from the Oaklands Wetland and Reserve site at 237 Oaklands Road Marion SA 5043. This report provides a high-level business case assessment for offsetting these costs through the supply and installation of solar power systems across City of Marion facilities.

2 Selection of Sites for Assessment

Upon consultation with the City of Marion (Council), we have targeted the Marion City Services Depot and the Oaklands Wetland and Reserve.

The details for these proposed systems are as follows:

Table 1 - Summary of proposed systems

Building	**City Services Depot**	**Oaklands Wetland and Reserve**
Solar system mounting	Roof-mounted	Roof-mounted
Existing site solar capacity	60kW roof mounted system	No existing solar
Proposed new capacity	Up to 40 kW	5 kW

This assessment is a desktop analysis only, designed to identify high-level cost and savings estimates to assess the suitability of the business case for the Council.

3 Summary

Table 2 summarises the options for solar power systems for the City Services Depot and the Oaklands Wetlands and Reserve.

Table 2 - Proposed solar power system cost and savings estimates summary

	City Services Depot	City Services Depot	Oaklands Wetland and Reserve
Proposed solar power system size, kW	10.0	36.54	5.0
Energy generation, kWh p.a.	14,500	52,900	7,200
Export, %	46%	56%	11%
Energy self-consumed, kWh p.a.	7,900	23,250	6,450
Cost estimate, $ (excl. GST)	$12,000	$43,395*	$7,250
Cost saving (incl. FiT), $ p.a. (excl. GST)	$1,850	$5,650	$1,500
Simple payback, years (incl. FiT)	6.5	7.7	4.8
Cost saving (excl. FiT), $ p.a. (excl. GST)	$1,700	$5,000	$1,450
Simple payback, years (excl. FiT)	7.0	8.7	4.9

*Denotes the cost includes the prime cost of $1,800 for structural engineering report.

As requested by Council, the proposed maximum sized City Services Depot system in Table 2 has been based on sizing and cost estimates provided in a quotation from Suntrix received on 25 May 2018. All system generation, self-consumption and export rates have been modelled independently.

4 Solar power system assessment

4.1 City Services Depot

This site has potential for further solar deployment on the roof areas. The current 60 kW system can be seen in Figure 1.

Figure 1 - Existing solar power system on the City Services Depot

The existing 60 kW solar power system was installed in 2017. The original system was designed to minimise the level of export to the grid. The value of the system is highest when the generated electricity from the solar power system reduces the import from the grid, rather than export electricity to the grid for the solar Feed-in Tariff which is typically lower than the kWh energy rates. The business case for the original 60 kW system calculated an export of between 15-20%. This report assesses the impact of additional solar power **after** the effect of the original system on the site's load, rather than how the system performs as a combined solar power system.

The site has a number of characteristics that make it suitable for solar power systems. These include:

- Adequate North, East and West facing roof sections on both the administration and workshop building roofs.
- A 7-day load to enable reasonable solar generation self-consumption, with particularly high site load on weekdays.

Possible shading obstacles on the roofs include:

- The West face of the administration building which would require setbacks from the tree-line to avoid significant effects from shading.

Other site complications:

- The Council has indicated that the distribution board used where the existing 60 kW system is connected may not suitable for additional solar power system connections. It has been raised that the size of the sub-mains cable may not large enough to allow the additional solar to comply with the Australian Standards for voltage rise for an embedded generation system.
- Connection into a separate distribution board will require an additional set of secondary protection relays (i.e. network protection unit) to ensure the additional solar system complies with the SA Power Networks conditions of connection.
- The Council have received a quotation from Suntrix (25 May 2018). This quotation has included cost estimates and some investigation into the optimal system configuration for connection into different distribution boards to ensure the system complies with the Australian and SAPN standards.

As requested, the analysis has focussed on an additional system size of up to 40 kW such that the site's total system size will not exceed the Clean Energy Regulator's 100 kW power output rating threshold for a small generation unit. Some indicative locations for additional panel layouts have been shown in Figure 2.

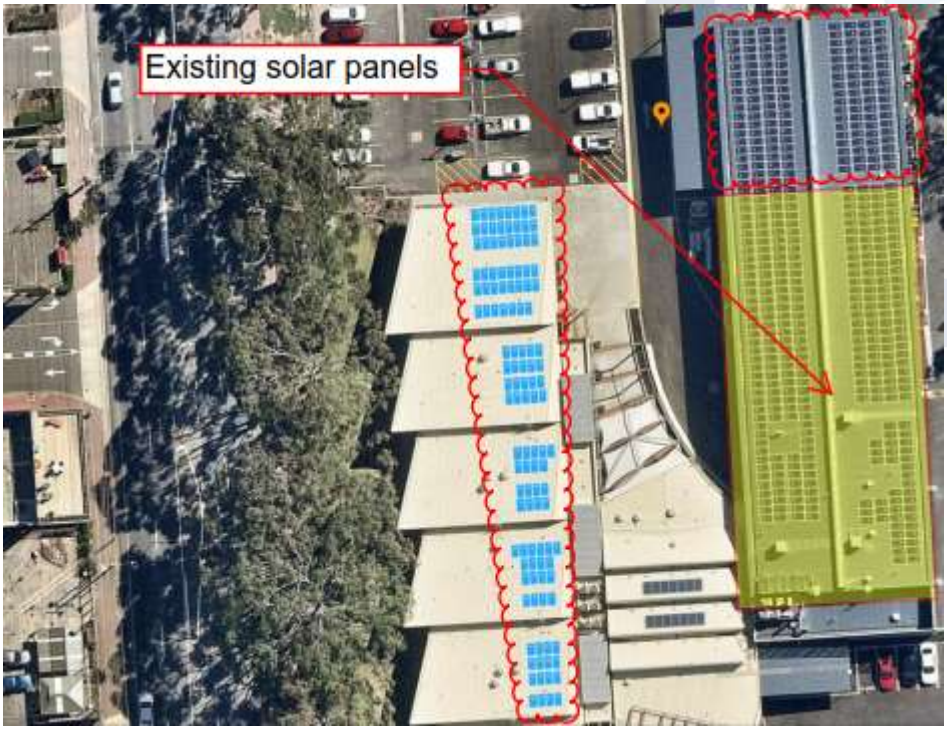

Figure 2 - Indicative layouts for additional solar panels on the City Services depot roof areas

The recommended system size will produce Small-scale Generation Certificates, which can be used to discount the upfront cost of the solar power system. As noted previously, the modelled system size is 36.54 kW based on the quotation received from Suntrix (25 May 2018).

Table 3 provides an estimate of costs and savings that the site could expect from installing an additional 36.54 kW solar power system. Note that energy savings (kWh and $) are annual.

Table 3 - Cost and savings estimate for 36.54 kW solar power system, City Services Depot

Proposed solar power system size, kW	36.54	Below site STC threshold
Energy generation, kWh p.a.	52,900	Conservative generation estimate
Export, %	56%	Based on conservative generation estimate
Energy self-consumed, kWh p.a.	23,250	Based on conservative generation estimate
Cost saving, $ p.a. (excl. GST)	$5,650	Based on average tariff (of peak and off-peak)
Cost estimate, $ (excl. GST)	$43,395*	Based on Suntrix quotation (25 May 2018)
Simple payback, years	7.7	By calculation

*Denotes the cost includes the prime cost of $1,800 for structural engineering report.

Table 4 provides an estimate of costs and savings for a smaller system that will reduce the percentage of export and the sensitivity of simple payback to the solar Feed-in Tariff (FiT) by installing an additional 10 kW solar power system. Note that energy savings (kWh and $) are annual.

Table 4 - Cost and savings estimate for 10.0 kW solar power system, City Services Depot

Proposed solar power system size, kW	10.0	Below site STC threshold
Energy generation, kWh p.a.	14,500	Conservative generation estimate
Export, %	46%	Based on conservative generation estimate
Energy self-consumed, kWh p.a.	7,900	Based on conservative generation estimate
Cost saving, $ p.a. (excl. GST)	$1,850	Based on average tariff (of peak and off-peak)
Cost estimate, $ (excl. GST)	$12,000	Based on previous project experience
Simple payback, years	6.5	By calculation

For both calculations:

- This doesn't include any potential benefit from a reduction in network demand costs.
- Cost estimate is net of small generation certificates (STC's) and is the total capital cost of the installation including labour and project management costs if Council were to undertake the administration of the project.
- As nominated by Suntrix, the cost estimate provided for the 36.54 kW system does not allow for the upgrade to existing electrical infrastructure, secure storage of goods and equipment on site during the project or modification to roof structure as directed by the structural engineers to facilitate the installation of solar.
- Based on historic half-hour interval data for 12-months beginning 1 May 2017 and conservative solar generation forecasts for Adelaide (nominally a specific yield of 1,450 kWh/kW).

The following assumptions relating to Tariffs have been made with respect to Table 3:

- Peak volume rate of 23.7 c/kWh and off-peak volume rate of 16.1 c/kWh.
- Average tariff of 21.5 c/kWh (used for calculations).
- No annual electricity tariff escalation.
- Assumed FiT of 2.2 c/kWh. If this is not possible the simple payback period changes to:

- 8.7-years and the annual cost saving reduces to approximately $5,000 p.a. for the 36.54 kW system
- 7-years and the annual cost saving reduces to $1,700 p.a. for the 10 kW system.

The major whole of life costs for the solar power system are summarised below with typical costs provided:

- Operation and Maintenance (O&M): O&M costs would be estimated at $400 in year-1 with a typical escalation rate between 2.5-3.5% p.a.
- Inverter Replacement: An inverter is typically replaced after 15-years and in the current market would cost approximately:
  - $11,000 for the 36.54 kW system
  - $3,500 for the 10 kW system
- The panel degradation would occur over the 25-year warranted life of the modules where panel performance would be expected to reduce between 0.7-1% p.a.

We note that the City Services Depot roofs are relatively new and appear to be in good condition with no significant signs of degradation. The quotation provided by Suntrix (25 May 2018) is inclusive of an $1,800 prime cost for structural engineering services of Crackerjack Consulting to assess the adequacy of the existing roof structure for additional solar power systems.

Given the high export and resultant long simple paybacks, the additional solar power system does not appear to be the most economical proposition. We would recommend Council looks to alternative sites prior to deploying additional solar power systems on the City Services Depot.

4.2 Oaklands Wetland and Reserve

Council's Water Resources department may choose to deploy solar power systems on their own assets rather than the other Council owned and operated buildings to avoid issues of governance with solar power systems on non Water Resources buildings. An analysis has been conducted to investigate the optimal system size for the Oaklands Wetland and Reserve.

This analysis does not seek to identify any one particular Water Resources department asset on which a roof-mounted solar power system could be deployed. The purpose of the analysis is to provide a high-level estimate to enable Council to seek a suitable roof-area for this system. Ideal candidates would be existing structures with little/no shading obstructions within close proximity to electrical distribution boards with accessible and structurally sound roof area.

Based on interval data and using simple-payback and an export limit of 15% as a limit, a 5 kW solar power system would be the ideal solution for the electricity connection. Ideally, any solar power system would connect into the main distribution board for the NMI to minimise any additional electrical infrastructure upgrade works.

Table 5 provides an estimate of costs and savings that the site could expect from installing a 5 kW solar power system. Note that energy savings (kWh and $) are annual.

Table 5 - Cost and savings estimate for 5 kW solar power system, Oaklands Wetland and Reserve

Proposed solar power system size, kW	5	Below site STC threshold
Energy generation, kWh p.a.	7,200	Conservative generation estimate
Export, %	11%	Based on conservative generation estimate
Energy self-consumed, kWh p.a.	6,450	Based on conservative generation estimate
Cost saving, $ p.a. (excl. GST)	$1,500	Based on average tariff (of peak and off-peak)
Cost estimate, $ (excl. GST)	$7,250	Based on previous project experience
Simple payback, years	4.8	By calculation

- Note this doesn't include any potential benefit from a reduction in network demand costs.
- Cost estimate is net of small generation certificates (STC's) and is the total capital cost of the installation including labour and project management costs if Council were to undertake the administration of the project.
- Cost estimate does not allow for any upgrade works to existing electrical infrastructure.

- Based on historic half-hour interval data for 12-months beginning 1 May 2017 and conservative solar generation forecasts for Adelaide (nominally a specific yield of 1,450 kWh/kW).

The following assumptions relating to Tariffs have been made with respect to the table

- Peak volume rate of 25.3 c/kWh and off-peak volume rate of 17.6 c/kWh.
- Average tariff of 23.1 c/kWh (used for calculations).
- No annual electricity tariff escalation.
- A FiT of 5c/kWh can be negotiated with the retailer. If this is not possible the simple payback period changes to 4.9-years and the annual cost saving reduces to approximately $1,450 p.a.

We note that the current FiT available to Council for this site (and other small market Council sites with annual consumption less than 160 MWh p.a.) is 11.6 c/kWh. A more conservative 5 c/kWh has been used as history would suggest the current FiT rate will likely not remain this high.

The major whole of life costs for the solar power system are summarised below with typical costs provided:

- Operation and Maintenance (O&M): O&M costs would be estimated at $50 in year-1 with a typical escalation rate between 2.5-3.5% p.a.
- Inverter Replacement: An inverter is typically replaced after 15-years and would cost approximately $2,000 (in the current market) for the system.
- The panel degradation would occur over the 25-year warranted life of the modules where panel performance would be expected to reduce between 0.7-1% p.a.

Given the relative cost per kW is higher for small-scale installations, we would recommend Council looks to alternative sites to take advantage of the economies of scale with respect to larger systems costing less on a cost per installed kW basis.

5 Alternative solutions

The Council have expressed an interest in investigating other methods for offsetting the electricity costs of the Oaklands Wetland and Reserve site. These include:

- Floating solar (see Figure 3)
- Carport solar (see Figure 4)
- Cross-connection of sites to increase existing solar power self-consumption

Figure 3 - Floating solar for the Jamestown wastewater treatment plant

Figure 4 - Street view of Northam Boulevard Shopping Centre carpark solar (Western Australia)-

The floating and carport solar initiatives should be considered only if there is no capacity to install additional roof-mounted solar power systems. While they add can provide some additional benefit such as reduced evaporation of water (floating solar) and shading amenity for patrons (carport

solar) the business case for such renewable energy projects are worse compared with roof-mounted solar. This is due to:

- High cost of additional solar mounting infrastructure
- Increased maintenance obligations
- System security
- Cost premium due to more specialised installer capability
- Very expensive for small sized systems (i.e. systems sizes recommended for Oaklands Wetland and Reserve)
- Technology risk due to less maturity of systems in the market (particularly with respect to floating solar).

These costs, both on a capital and operating basis mean the payback on the investment will be worse compared with rooftop solar. We would therefore recommend only investigating these alternatives if the option to install rooftop solar across Council owned and operated buildings has been exhausted.

The electrical cross-connection of separate sites has been considered by Council. With respect to solar power, the benefit of cross-connection is that the generated electricity can be supplied from one site to another through an electrical cable. This minimises the export of electricity to the grid and maximises the value of the solar power system's generated electricity. This is particularly useful if a site with consistently high-load but little available roof area can be connected to a site with excess roof area. We believe electrical cross-connection of sites to achieve higher rates of solar self-consumption on existing (or future) solar power systems is not a viable option. The cost of negotiations with SA Power Networks, professional fees for a detailed design and installation of the electrical infrastructure would be large and should not be considered unless there are much broader benefits to both sites beyond higher solar self-consumption rates. While cross-connection reduces the existing solar systems' export to the grid, there is only a small tariff arbitrage to reduce energy costs. Furthermore, cross-connection for new rooftop solar power still requires the capital cost of installing the solar power system. Due to the significant cost impositions, we do not recommend any electrical connection of Council sites to offset electricity consumption at the Oaklands Wetland and Reserve.

6 Assumptions and Disclaimer

6.1 Assumptions

Unless noted otherwise all listed projects are included in cost and savings estimates. For each system, separate tables of likely costs and savings are provided. These tables include:

- For solar power, the proposed system size(s).
- Expected annual electricity savings in kWh.
- Expected annual energy cost savings in dollars based on current electricity pricing.
- The estimated one-off project cost in dollars.
- The simple payback (in years), which is a simple measure of the project viability and is calculated by dividing the capital cost by the annual energy cost saving.

GST is excluded from all costs and savings unless stated otherwise.

The tariffs in Table 6 and Table 7 have been used in the calculation of cost savings.

Table 6 - Tariffs used in calculations, City Services Depot

Peak volume charges	23.7 c/kWh
Off-Peak volume charges	16.1 c/kWh
Average tariff	21.5 c/kWh
Feed-in tariff	2.2 c/kWh

Table 7 - Tariffs used in calculations, Oaklands Wetland and Reserve

Peak volume charges	25.3 c/kWh
Off-Peak volume charges	17.6 c/kWh
Average tariff	23.1 c/kWh
Feed-in tariff	5 c/kWh

6.2 Disclaimer

This business case assessment provides an assessment of renewable energy opportunities. The opportunities identified in this report are only relevant for this specific site. Further investigation and detailed design are required prior to implementation.

The solar self-consumption and export rates have been calculated based on half-hourly interval data provided by Origin Energy. These rates reflect the performance of the system based on historical site load and may not necessarily reflect the future rates if usage of the site or performance of the existing solar power system change significantly. Council should consider this prior to the implementation of new solar power systems.

As requested by Council, The Energy Project have used cost estimates for the City Services Depot system based on the quotation received from the Suntrix (25 May 2018). Council should review the quotation in detail prior to the engagement of the contractor to ensure they are satisfied with the conditions of the quotation, particularly with respect to the nominated scope of works, assumptions and exclusions. The Energy Project have not reviewed this quotation in detail on behalf of the Council and are not liable for the terms and conditions of the quotation which the Council may be held to.

The estimates of energy savings and implementation costs in this report are based on design, supervision and implementation by competent companies and personnel with relevant energy experience. The Energy Project will not be liable for the results of using inexperienced companies or individuals for these tasks.

CITY OF MARION
INFRASTRUCTURE & STRATEGY COMMITTEE
5 June 2018

Originating Officer:	**Georgie Johnson, Smart Cities Project Officer**
Manager:	**Fiona Harvey, Manager Innovation and Strategy**
General Manager:	**Abby Dickson, General Manager City Development**
Subject:	**Innovative Smart Initiatives update**
Report Reference:	**ISC050618R03**

REPORT OBJECTIVE

To provide the Infrastructure and Strategy Committee (ISC) with two key data sets in relation to innovative smart initiatives to identify priority areas for further analysis on technological solutions and opportunities:

- A summary of Customer requests and problem areas based on our Customer Events
- Staff feedback identifying data and technology that could support improved service delivery and community outcomes.

To discuss and seek the feedback of the ISC about a potential Wi-Fi Pilot Project partnership opportunity with Uniti Wireless.

RECOMMENDATIONS	DUE DATES
That the Infrastructure and Strategy Committee:	
1. Notes that Council adopted the Innovative Smart Initiatives decision-making matrix for assessing projects on 18 May (Appendix 1).	**5 June 2018**
2. Provides feedback on the proposed problem areas and opportunities, summarised in Appendix 2 and 3, for further consideration of potential priority innovative smart technology trial projects.	**5 June 2018**
3. Provides feedback on a potential Wi-Fi Pilot Project opportunity.	**5 June 2018**
4. Notes a report on the proposed Smart Cities and Suburbs Funding bid(s) will be brought to Council on 26 June 2018.	**26 June 2018**

BACKGROUND

The City of Marion has committed to improving our residents' quality of life; continuously, smartly and efficiently. A range of Innovative 'smart' opportunities are prioritised through the goals and actions in the Strategic Plan 2017-2027 and the 3-Year Business Plan 2016-2019, particularly in areas relating to using technologies to improve efficiency and service delivery, operating more sustainably, sharing information and connecting with our community, and using data to provide evidence and support decision making.

Given the rapidly growing and evolving nature of the opportunities associated with data and technology, Council has recently adopted a decision-making matrix with criteria (Appendix 1) to support the assessment of potential projects. The criteria is aligned to the City of Marion's strategic priorities and applies a 'smart' lens.

ANALYSIS

Following on from discussions at the 3 April and 1 May ISC meetings, two actions were proposed to collect information on potential areas of focus for the application of smart, innovative technology:

1. Undertake a review of key customer data to understand the priority 'problem' areas based on customer events raised.
2. Undertake an innovation survey of the Leadership Team (in response to a Motion with Notice at the 8 May General Council meeting GC080518M03) to understand what data or technology could help improve service delivery

Customer Data

A review of customer event data was undertaken to identify opportunities to improve service delivery and community outcomes.

In the year from May 2017 to April 2018 there were over 60,000 customer events raised. Over 50,000 (83%) events were reviewed identifying the top 30 event groups. Of these, approximately 43,400 events were raised in response to customer interactions while 6,600 were raised to manage internal processes and workflows (and are not considered further in this report).

The customer interaction events provide us with good insight into customer problems and concerns, their preferences for communication and service delivery, and their information needs. A summary of the top 10 event categories is attached in Appendix 2.

Staff Data

The Leadership team were surveyed using the following two questions:

- What information/data from your Customers (internal & external) would be useful in improving the services your team delivers?
- How could better technology/data help improve service delivery in your area?

A summary of responses is attached in Appendix 3.

Current improvements

Throughout 2017/18, there have been a number of improvements aligned with data and technology including:

- In April, the new website went live, resulting in a significant improvement in our community engagement, including the 7 Days in Marion interactive Map for visitors.
- New digital solutions for various services including: On-line booking system, updating Marion Cultural Centre ticketing system, Dogs and Cats online portal, On-line tracking of Development Applications, Electronic bill delivery to customers, Customer event lodgement enhancement, Council Agendas and Minutes software.

- The introduction of tough tablets for field operators to work more efficiently in the field, and dashboard reporting to provide better oversight of the performance of the teams, including GPS fleet tracking expansion.
- Implementation of Interactive Voice Response (IVR) – to improve the Customer Experience when calling Customer Services.
- Trial of a project and portfolio management system, which is scheduled to be fully implemented in FY2018/19, pending budget approval in the 2018/19 Annual Business Plan. It will significantly improve all aspects of project/portfolio delivery, including two key areas identified by staff survey through improved reporting and duplication of tasks across many systems.
- Aerometrix 3D mapping of the coastline – highly accurate and interactive digital imagery, to allow monitoring of coastal change and sea level rise to inform the coastal management plan.
- Fibre connectivity to key sites, supporting free and accessible internet at public libraries and key sites.
- Ongoing partnerships and enhanced programming with technology focus: Living Laboratory for Ageing Well (Tonsley), Adult Education program, Tonsley Innovation Ecosystem Yellow Pages and Show and Share sessions, SEED education program – Space for exploring everything digital, Digital literacy awareness training for staff.
- Partnering with Flinders University, State Government and Industry partners to establish a solar garage at Tonsley for publically accessible electric vehicle recharging.
- The Southern Adelaide Economic Development Board's priority areas for the region. Priority 5 – Smart Region – with a focus on progressing Community Energy Hubs.
- Airborne Thermal Imagery developed for Resilient South provided high-resolution thermal infrared imagery of the council area to enable mapping of surface temperatures and identification of urban heat islands.
- A Business Systems Fitness Review to assess all core business systems to understand their current effectiveness and their ability to meet the organisation's needs into the future. This project will continue into 2018/19.

A number of other data and technology-focused initiatives have been proposed for 2018/19 including the transformation of the Asset Management System integrated with GIS (mapping), the establishment of a data warehouse to support dashboard metrics reporting, monitoring usage of playgrounds and urban activation precincts using sensor/IoT technology.

Some of these initiatives will address a number of the areas/themes identified through the analysis of customer events, and the feedback provided through the survey. However, there is opportunity to consider other potential priority areas where further research could be undertaken to determine whether technology solutions could address these problems or opportunities. Given the pace of evolution in the digital/technology sector, there are new solutions being developed and tested over very short timeframes so ongoing scanning of the sector and discussions with key stakeholders is critical before a 'solution' is proposed.

Smart Cities and Suburbs Funding

Round 2 of the Smart Cities and Suburbs Grant funding is now open and closes on 2 July 2018. This funding round has $22m available, for projects of at least $500k ($250k minimum grant funding, with 50:50 matched funding required). The funding application documentation focuses on delivering tangible community, economic, social and environmental outcomes, with a very strong focus on partnerships.

Priority areas for the funding are:

- Smart Infrastructure
- Smart Precincts
- Smart Services and Communities
- Smart Planning and Design

Two applications are proposed:

1) application focusing on the *'Smart Precincts'* priority area, using the Oaklands precinct as a model to develop a scalable and replicable precinct approach that can be applied in areas such as Edwardstown, Hallett Cove and Tonsley precincts.

Opportunities could include:

- PC Cells in LED Lighting – enhanced asset management services (outages, dimming, operation, and maintenance etc.), data collection capacity and management
- Parking Sensors – communicate carparks availability, time limit, and park type.
- People Counting – monitor usage, movement, dwelling times
- Wayfinding - communicate locations, public transport information, events in area
- Public Transport - communicate public transport timetable, bus and train
- Notifications - events in the area, hours of retail facilities, council services and information
- Open Data – to support and inform decision making for businesses
- Dwyer Reserve upgrade including technology (USB plugs, charging station, solar panels, Wi-Fi)
- Connectivity through to Marion Cultural Centre, State Aquatic and Leisure Centre and Westfield Marion.

2) A re-submission of the revised Round 1 application for the *'Smart Infrastructure'* priority area for the rollout of smart PE cells in the LED lighting currently being installed across the City.

Both funding bids will require a communications network, data storage and management framework to support their implementation.

The committee's feedback is sought regarding the approach to the Smart Cities and Suburbs funding applications.

Potential Pilot Wi-Fi Project

Uniti Wireless, an Adelaide based company Internet Service Provider (ISP) with a carrier license, recently approached the City of Marion to explore a partnership opportunity in regards to a Pilot Wi-Fi Project in a trial area in Marion. This opportunity:

- would be at no cost to Council -> Uniti will totally fund this network;
- would enable residents in the trial area to access high speed internet connectivity at affordable rates;
- could provide free public W-Fi in designated or broader areas as desired by Council at no cost to Council;
- could link-in with parts of our remaining LED rollout project;

- can incorporate the inclusion of smart technologies with the LED roll-out, future proofing the area; and
- could look to potentially utilise some council infrastructure in order to enhance the pilot projects success and capacity.

Campbelltown City Council are well advanced in considering a Wi-Fi partnership opportunity with Uniti Wireless. Campbelltown is taking a report to Council at their meeting on the same night of this ISC meeting – a copy of their report is attached as Appendix 4.

The ISC's feedback is sought in regards to this partnership opportunity.

NEXT STEPS

If supported, the priority in the immediate term will be to develop the Smart Cities and Suburbs Grant proposal(s) for submission by 2 July 2018.

Over the short term (3-6 months), it is proposed that further analysis is done on priority areas identified through the information presented in Appendices 2 and 3. Potential pilot projects could be presented to the Committee, with assessment against the prioritisation matrix, for consideration of funding (if required) and resourcing.

In parallel an 'innovative smart' roadmap/framework including guiding principles, the prioritisation criteria, internal governance and areas of focus is being developed for presentation to the ISC.

SPEAKER
Fiona Harvey, Manager Innovation and Strategy

APPENDICES
Appendix 1: Innovative Smart Initiatives Priority Scoring System
Appendix 2: Customer Event Data Summary
Appendix 3: Staff Technology and Data Survey Summary
Appendix 4: City of Campbelltown Wireless Internet Report

Innovative Smart Initiatives - Priority Scoring System

NB: All projects should deliver good value by achieving the maximum amount of increased amenity for residents through improved service delivery opportunities.

	Priority Scoring System Criteria	Scoring / Weighting				Comments
1.	**Benefit to customer experience or business performance**				**Score**	
	Consider: • How many people are likely to experience an increased level of mobility, health & wellbeing as a result of the project occurring? • Will the project greatly improve neighbourhood accessibility and amenity? • What level of potential economic benefit does the project have? • What opportunity exists for creativity and activation through the project? • Is there connection to Infrastructure Investment in surrounding area? • Will the project lead to greater patronage of the targeted precinct? • Does the project promote regulatory reform?	0	⟷	7		*A higher score is given to projects able to demonstrate* • *Direct community benefits* • *Defined Economic Benefit* • *Improved patronage within the City*
2.	**Strategic Alignment**					
	Connection to: • City of Marion Community Vision, Towards 2040 • City of Marion Strategic Plan 2017-2027 • City of Marion Business Plan 2016-2019 • South Australia's Strategic Plan • The 30-Year Plan for Greater Adelaide • Southern Adelaide Economic Development Board Strategic Plan	0	⟷	7		*A higher score is given to projects that can demonstrate external strategic alignment. i.e.: with priorities of SRWRA, Resilient South, etc.*
3.	**Value**					
	Consider: • Is there an opportunity for the proposed project to be carried out in conjunction with necessary, or otherwise budgeted, works? • Will service delivery improvements be possible as a direct benefit creating opportunities for savings in the medium to longer term? • Will the project be eligible for external funding including grant opportunities? • Will this project lead to increased cost efficiencies or commerciality for council/partners • Number of other regional initiatives the project aligns with? • Are there opportunities to develop external partnerships? • Are the resources available within existing capacity? • Is there an opportunity to leverage capacity through partnerships?	0	⟷	7		*A higher score is given to projects that can demonstrate* • *grant funding opportunities* • *Collaborative Partnerships including linkages to other funded projects* • *Connection to Federal and State Government Infrastructure Investment* • *cost efficiencies, savings and service delivery improvements*
4.	**Environmental Benefits**					
	Consider: • What level of opportunity exists for the project to contribute to minimising waste and pollution by avoiding, reducing, reusing and recycling? • Does the project present opportunities to actively monitor the benefits of climate change mitigation & adaptation initiatives, for example: reduced urban heat, increased urban greening and tree canopy cover, or reduced energy/water consumption? • To what extent can the project assist in climate change mitigation & adaptation?	0	⟷	4		*A higher score is allocated to projects than demonstrate a quantitative environmental outcomes, e.g.* • *Reduce tonnes of waste* • *Reduce greenhouse gas emissions* • *Reduce litres of mains water* • *Increase % canopy cover*
	TOTAL					**/ 25**

Project Priority – High >15; Medium 10-15, Low <10

Customer Event Analysis **Appendix 2**

The top 10 community categories represent ~70% of all Customer Events raised across the organisation

Customer Event Category	Subcategories
23% Hard Waste (13,902)	• General items • Tip ticket • White Goods / Mattress / Ensemble base only
13% Rates (8,538)	• Change of name / address / ownership / deceased estate • Conveyancer / Rates Search enquiries • Questions regarding debt recovery/fines/fine remissions • Copy of Rates Notice
10% Planning and assessment applications (5,809)	• DA Tracker & Enquiry related to the progress of an application • Do I need approval for....? • Subdivision Enquiry
5% Waste and Recycling (2,9711)	• New bin delivery - Garbage, recycling, green waste • Missing / Stolen • Kitchen caddy
4% Street trees (2,459)	• Pruning • General inspection • Fallen trees/branches
3% Infrastructure (2,007)	• Inspection - Development Assessment • Driveway permits / applications • Correspondence
3% Footpaths (1,813)	• Inspected - Council to fix • General Enquiries / Inspection Required
3% Dogs (1,640)	• Not re-registered - Deceased • Wandering • Lost • Attack/Harassment
3% Expiation Notices (1,620)	• Payment arrangements & overdue fines • Appeals – Parking
2% Reserves/Ovals, Maintenance (1,191)	• Irrigation • Rubbish • Fencing

Information/Data	Service Area	Potential Solution (where known)
All customer information and interactions accessible in one place, to improve understanding of community segments eg business, non-English speaking background residents.	Customer Experience Tailored service delivery Improved records management	Customer relationship management system/portal
Analysing customer interactions, (event system requests, social media, feedback on plans, projects, policies, information requests) how and why our customers are contacting us.	Customer Experience Community Engagement	
A centralised database of all properties and records of owners and tenants for accurate service history of the facility.	City Property	Facilities management solution
Process or system to improve management of purchasing, inventory, servicing and incident repairs of fleet.	Fleet Asset Management	Fleet management solution
Provision of accessible information to the community using mapping to show activities, services and projects in real-time across the City. eg tree data, flood mapping, thermal imagery, coastal data, capital works	Many services and functions	Online Mapping System
Real time tracking of numbers of development applications and time to conclude	Development and Regulatory Services	Online forms/applications portal.
Real-time financial data to support budget/staffing decisions	Finance and Payroll	Finance/Payroll System
The ability to better manage and report on projects including risks, budgets, project progress.	Many teams/services Project Management Office	Project Management System
Having technology/ICT support to work across all locations and out in the field reducing double handling of administration/records management.	Engineering & Infrastructure	Mobility, enabled through an asset management and GIS system
Real-time data monitoring of community facilities and assets eg usage, movement, dwell times in buildings and reserves, playgrounds, roads,	Open Space Recreation and Planning, Engineering & Infrastructure, City Property, Asset Management	Sensors – Internet of Things (IoT)

Information/Data	Service Area	Potential Solution (where known)
water levels, stormwater trunk mains, side entry pits, parking, footpaths, Community facilities		
Greater understanding of non-English speaking background residents' needs	Community Connections	Translating tool on the website, neighbourhood centre, call centre
Better community segmentation data to understand importance of services provided and performance/satisfaction and gaps for these service areas.	Community Engagement Service reviews Prioritisation of projects/programs and funding	
Improved knowledge of where people spend their money, trends and interests	City Activation	Retail data
Create a 3D City Model of the city, or key precincts, where we can plan growth scenarios and add developments etc to visualise what impact this would have	City Activation Development and Regulatory Services Innovation and Strategy	Online 3D City Model
Trial the use of Virtual Reality, with a specialist partner in areas such as community education, access and inclusion, specialised staff training (eg use of equipment such as chainsaws), building design and usage, open space upgrades	Service Provision Asset Management Community Connections Staff Learning and Development	Virtual reality technology
Community data around importance of council services vs perception of importance to give us clear indication of efficiency opportunities and innovative options to increase or decrease service levels.	Service Reviews Community Engagement	Online Survey Community Forums Online Videos Media Sensors – Internet of Things (IoT)
Data on parking trends around our shops and train/tram stations.	Engineering & Field Services	App or Website Sensors – Internet of Things (IoT)
Information on creative industries, trends of human behaviour and society in Marion and what their needs are to help us inform decision making on public realm infrastructure and design, social inclusion programming.	City Activation Engineering & Field Services Community Connections	

Information/Data	Service Area	Potential Solution (where known)
Improved sharing of Projects/programs within the organisation and btween other key stakeholders such as SA Water, SAPN, DPTI e.g. capital works program, street scaping, walking and cycling, open space	Infrastructure/project focused teams	
Capturing feedback (often verbal) we receive from residents/external customers/internal customers at events and projects.	Customer Experience Community Engagement	
Monitoring key locations already identified as hot spots through thermal mapping	Environmental Sustainability Development Services	Sensors – Internet of Things (IoT)
Analyse carbon inventory data and water consumption data profiles – establish consumption targets that can be monitored and reported (internally and publicly).	Environmental Sustainability	Data Warehousing, Analysing existing and new data.
Real-time pedestrian/cyclists counters to track usage on key paths/networks which may inform future planning.	Engineering & Field Services City Activation	Sensors – Internet of Things (IoT)
Opportunities for data sharing/collaboration to support business and innovation between state and local government, universities and industry.	City Activation Innovation and Strategy	Open Data (Data Mining) Ecosystem of support for entrepreneurs and innovators
Real-time data around staff availability for workload for teams during the day, improve allocation of work, streamline timesheets clocking in/out during day.	Engineering & Field Services Finance & Contracts	

11.6 Fixed Wireless Internet Proposal

TRIM Reference: B3663 Manager Information Services, Jo Farrelly's Report

Purpose of Report

To provide information regarding the proposal and obtain approval for the signing of a partnership agreement with Uniti Wireless to support the provision of high speed fixed wireless internet across the City.

Strategic Plan Link

Strategy 2.3.3 Provide effective, up to date, stable and secure ICT (Information Communications and Technology) systems which allow staff to maximise throughput and provide excellent customer service to residents

Background

Staff approached Uniti Wireless in November 2017 to explore the possibility of utilising fixed wireless internet for the provision of high speed broadband to the Community. This initiative was driven by ongoing concern over poor internet speeds currently available within the City and recognition of the fact that the NBN, when available, is not necessarily a feasible long term solution in all situations.

Initial discussions with Council's Information Services Team progressed to meetings with the Executive Management Team who supported exploring the initiative. Uniti Wireless then presented their concept to Elected Members at the CEO Briefing session held on 14 May 2018.

Discussion

Uniti Wireless launched the Uniti network in 2014 with a vision to become one of Australia's largest national fixed wireless internet service providers. With services operating from within Adelaide and Melbourne and plans to expand to other States, Uniti Wireless are currently disrupting the internet industry with their fast, low cost, fixed broadband internet services. Uniti run an independent network which is not reliant on other providers' infrastructure and is an alternative to the NBN. The network is a mix of fibre and wireless devices. The network is capable of speeds up to 10 gigabits per second and if installed across the City would transform the City of Campbelltown into a Gig City which would provide numerous opportunities for local businesses, schools and residents. It is anticipated that this may attract new residents and businesses to relocate to Campbelltown due to the advantages that this technology provides.

Uniti would like to enter into a partnership with the City of Campbelltown to roll out the first phase of this proposed project over a 4-6 month period, with phase two starting soon after. Uniti Wireless will fund the entire rollout and are only asking for Council's support to promote the availability of the network to residents and to not unnecessarily delay any requests for approvals.

Phase one will use existing SAPN (SA Power Networks) infrastructure for the installation of wireless network devices which will cover a significant portion of the City.

Phase two will require the installation of poles up to 7.5 metres in key areas to enable line of sight to more properties to increase coverage. The installation of these poles, subject to certain conditions, will not necessarily require development approval, although Staff will be involved in considering the appropriateness of the proposed locations.

As part of the roll out, Uniti Wireless will provide free wifi internet across the City at speeds between 3-5 megabits per second. Saturated areas will include Thorndon Park, Campbelltown Memorial Oval, Newton Village and Newton Central Shopping Centre as well as the Jan Street Precinct.

Furthermore, having wifi throughout the majority of the City provides the potential to utilise this for Smart City projects such as the utilisation of smart waste bins, transformation of waste and recycling, installation of security surveillance, monitoring energy consumption, carbon emissions or traffic movement.

If a decision is made to partner with Uniti Wireless, this would demonstrate Council's ability to support its local residents and businesses by providing an innovative long term solution to the current issues with slow internet access, with the solution being readily available in the very near future.

In order to formalise this arrangement Uniti Wireless have requested that Staff sign a formal agreement which confirms that Council will support the project by:

- promoting that the service is available to residents and businesses
- not unnecessarily holding up approvals to erect poles (some of which may be on Council property)
- identifying which areas will have saturated free wifi
- stipulating a timeline for the rollout
- confirming key contacts and how any issues will be addressed.

If supported by Council, it is anticipated that the rollout of the project will commence shortly after the Chief Executive Officer signs the agreement.

Social Implications

Consultations regarding Council's Social Plan clearly identified people's desire to have access to free wifi in public places to increase their sense of safety and provide easy access to local information. The Council area will be more attractive to people living, studying, working and visiting as access to free internet is appealing and sought after. Free wifi enables residents or visitors to feel connected and take advantage of the ability to have access to information regardless of their socio-economic situation. Providing free wifi in the City is an item for consideration in Council's recently adopted Economic Development Plan 2020.

Having the ability to have access to a paid high speed internet service is generally appealing to small business owners, larger corporate companies and providers of student and visitor accommodation, thus making Campbelltown a good prospect for attracting businesses and improving local economic development.

Environmental Implications

There are no environmental implications in relation to this report.

Asset Management Implications

Phase two of the project may require that poles up to 7.5 metres are erected in key areas where line of sight is not currently achievable, to enable the service to be provided to a larger proportion of the Community, some of these poles may need to be erected on Council land.

Governance / Risk Management

This project needs to be well managed to minimise reputational risks for Council.

Community Engagement

There are no Community engagement implications in relation to this report.

Regional Implications

Uniti Wireless are already in discussions with other Council authorities within South Australia with a view to a similar installation. If Council supports the partnership with Uniti Wireless, the City of Campbelltown will be the first Council in Australia to take advantage of this technology.

Within the Eastern Region Alliance, industries identified for growth include the creative industries (with the theme of a Smart Region), tourism, events and lifestyle, small business support, trader liaison and education. Support for these activities would be enhanced with the Uniti network as it would build on the significant assets in the region ranging from the knowledge workforce to the concentration of creative industries.

Financial Implications

There are no financial implications in relation to this report.

Recommendation

That Council endorse the project by Uniti Wireless to significantly improve internet access within the Council area and authorise the Chief Executive Officer to sign the partnership agreement based on the commitments contained within this report.