

Sustainable Futures Committee

Meeting Date: Thursday, 12 October, 2017
Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra
Time: 4:00pm

Please note: Council's Code of Meeting Practice permits the electronic recording and broadcast of the proceedings of meetings of the Council which are open to the public. Your attendance at this meeting is taken as consent to the possibility that your image and/or voice may be recorded and broadcast to the public.

Agenda

1. Apologies

2. Confirmation of Minutes

- Sustainable Futures Committee - 17 August 20171
- Business Arising

3. Declarations of Interest

4. Presentations

- SF17.20 Daniel Jones - Repower Shoalhaven
- SF17.21 Lorraine Larri - Presentation - Community Engagement in Environmental Issues

5. Reports

- SF17.22 Renewable Energy Management - Progress8
- SF17.15 Helping Nature Help People 18
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- SF17.24 Sustainable Business Practices In Local Government.....22
- SF17.25 Discussion Paper on Progressing the Committee Agenda24

6. General Business

- SF17.17 ENOVA - Renewable Energy Retailer – see attachment
- Sustainable Futures Committee at its meeting on 17 August 2017 resolved that the matter be deferred to the meeting to be held on 12 October 2017
- This item has been requested for discussion by Mr Oisin Sweeney. ENOVA is a company based in the northern rivers that offers a model in advance of this discussion. <https://enovaenergy.com.au/about-us/>

Membership

Clr White – Chairperson
Clr Gartner – Alternate Chairperson
Mayor
All Councillors
General Manager (or nominee) – non-voting
David Brawn
Oisin Sweeney
Robert Hayward
Peter McVay
Lorraine Larri

Quorum – Six (6) voting members

Purpose

The Sustainable Futures Committee will make recommendations to Council with respect to the following:

- Setting emission targets for the Shoalhaven.
- Focusing on energy, including energy efficiency, energy security and renewable energy generation as well as other climate change issues
- Creating and building community capacity for environmentally sustainable living and business.
- Addressing, adapting and building resilience to climate change.
- Appropriate ways to protect, connect and integrate ecological values within our urban and regional context.
- Supporting and promote Waste reduction and resource recovery.
- Building organisational and community capacity to meet the challenges of climate change.
- Engage with and learn from our community business and industry leaders on innovative solutions.
- Establish and/or support renewable energy generation projects in the community.
- Ensure the currency of related strategy, policy and other key Council documents related to the purpose of the Committee.

Delegation

To expend funds allocated to the Sustainable Futures Committee by Council within the approved budget.

MINUTES OF THE SUSTAINABLE FUTURES COMMITTEE

Meeting Date: Thursday, 17 August 2017
Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra
Time: 4:00 pm

The following members were present:

Clr Kaye Gartner - Chairperson
Clr Patricia White – by teleconference
Clr Amanda Findley
Clr John Levett
Clr Nina Cheyne
Clr Mark Kitchener
Mr David Brawn
Mr Oisin Sweeney
Mr Robert Hayward
Mr Peter McVay
Ms Lorraine Larri

Others present:

Craig Milburn – Director Finance, Corporate and Community Services
Carmel Krogh – Director Shoalhaven Water
Ben Stewart – Director Assets and Works
Phil Costello – Director Planning Environment Development Services
Kelie Clarke – Environmental Services Manager
Elizabeth Dixon – Environmental Planning and Assessment Team Supervisor
Jessica Rippon – Executive Manager, Communications
Representatives from the Office of Environment and Heritage

Apologies / Leave of Absence

Apologies were received from: Clr Wells and Clr Gash

Confirmation of the Minutes

RESOLVED (Clr Gartner / David Brawn)

That the Minutes of the Sustainable Futures Committee held on Wednesday 19 July 2017 be confirmed.

CARRIED

Business Arising from Previous Minutes

Carmel Krogh gave a verbal update on the resources commitment. She confirmed the budget of \$50,000 and in addition there is approval for a new role to assist in energy management initiatives. Carmel advised that she has had tentative discussions with Kelie regarding the job description for the role and will provide a written report for the next committee meeting.

Action: Carmel Krogh to provide a written report for the next Sustainable Futures Committee meeting.

Declarations of Interest

Oisin Sweeney - SF17.17 ENOVA - Renewable Energy Retailer – less than significant non-pecuniary interest declaration – Mr Sweeney is an ENOVA shareholder and will promote the ENOVA model as very relevant to the Shoalhaven – will remain in the room and will take part in discussion and vote.

PRESENTATIONS

SF17.8 Office of Environment and Heritage - Briefing

HPERM Ref:
D17/257406

Representatives from the Office of Environment and Heritage briefed the Committee with regard to the following:

- Climate Change Fund
- NSW Climate Change Policy Framework & the roles of the NSW Government
 - Achiever net-zero emissions by 2050
 - More resilient to a changing climate
 - Develop value for emissions savings
 - Embed climate change consideration in government decision making
 - Develop action plans and carry out policy investigations
 - Review in 2020
- Outline of the Paris Agreement
- Climate Change Fund Draft Strategic Plan
 - Energy Efficiency , Advanced energy and energy market outlook, preparing for a changing climate
 - \$500m environmental future fundingn package – three themes:
 - Advanced energy (\$200m)
 - Energy efficiency (\$200)
 - Climate change adaption (\$100)
 - Energy savings target of 16,000 GWh a year by 2020
- Support vulnerable households to save energy and money
- Support large energy users to identify energy savings opportunities
- Expand investment under the Government Resource Efficiency Policy
- Transition to 21st century transport fleet & government power purchase agreements
- NSW Government agencies managing climate change risks
- Overview of OEH climate change impacts and adaption program
 - Information and knowledge delivery
 - Regional and sectoral assessment
 - Stakeholder engagement & capacity building

**SF17.9 Community Member - Sustainable Futures Committee -
Induction and Code of Conduct****HPERM Ref:
D17/234398**

Craig Milburn provided a presentation on Council's Code of Conduct and Meeting Procedure.

REPORTS

SF17.18 Cities Power Partnership**HPERM Ref:
D17/260521**

The Committee discussed the Cities Power Partnership proposed draft pledges.

Recommendation

That Council

1. Decide to partner with other South East Coast Councils through this program i.e. Kiama, Eurobodalla and Bega Valley
2. Call a meeting of Mayors and General Managers of these Councils, to take place by mid-November, to formalise this partnership.
3. Staff establish formal liaisons with partner Councils for information exchange and joint project funding and management.

Recommendation (By consent)

That Council

1. Decide to partner with other South East Coast Councils through this program i.e. Kiama, Eurobodalla and Bega Valley
2. Call a meeting of Mayors and General Managers of these Councils, to take place by mid-November, to formalise this partnership.
3. Staff establish formal liaisons with partner Councils for information exchange and joint project funding and management.
4. To adopt the Cities Power Partnership Pledges.

CARRIED

SF17.10 Overview Report - The International and National Picture**HPERM Ref:
D17/254138****Recommendation (Item to be determined under delegated authority)**

That the report, regarding the International and National Picture be received for information.

RESOLVED (By consent)

That the report, regarding the International and National Picture be received for information.

CARRIED

SF17.11 Renewable Energy - Planning Processes - Set Targets**HPERM Ref:
D17/254251****Recommendation**

That Council:

1. Use strategic and statutory planning processes to provide renewable energy both at the residential, commercial and larger scale.
2. Power Council operations by renewables directly and set targets to increase the level of renewable power for Council operations over time.

RESOLVED (By consent)

That the Committee support a renewable energy pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.12 Energy Efficiency - Planning Applications - Benchmarks**HPERM Ref:
D17/254285****Recommendation**

That Council set minimum energy efficiency benchmarks for all planning applications.

RESOLVED (By consent)

That the Committee support an energy efficiency pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.13 Sustainable Transport - Council Planning and Design**HPERM Ref:
D17/254312****Recommendation**

That Council encourage sustainable transport use (public transport, walking and cycling) through Council transport planning and design.

RESOLVED (By consent)

That the Committee support a sustainable transport pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

**SF17.14 Working Together and Influence - Set Targets -
Sustainable Energy Policies****HPERM Ref:
D17/254372****Recommendation**

That Council set city level renewable energy or emissions reduction targets and Sustainable Energy Policies to provide a common goal and shared expectations for local residents and businesses.

RESOLVED (By consent)

That the Committee support a working together and influence pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.15 Helping Nature Help People**HPERM Ref:**
D17/253999

Oisín Sweeney spoke briefly to this report and advised the Committee that he will provide more information regarding nature-based solutions at the next meeting of the Committee.

Recommendation

That Shoalhaven City Council develop and implement a Policy to facilitate nature-based solutions to ensure Shoalhaven residents have resilient communities in wildlife-friendly surrounds.

RESOLVED (By Consent)

That the Helping Nature Help People agenda item be deferred to the next meeting of the Committee scheduled for 12 October 2017.

CARRIED

SF17.16 Bellingen Shire Council - Renewable Energy - Council Buildings**HPERM Ref:**
D17/254094

Oisín Sweeney - SF17.17 ENOVA - Renewable Energy Retailer – less than significant non-pecuniary interest declaration – Mr Sweeney is an ENOVA shareholder and will promote the ENOVA model as very relevant to the Shoalhaven – remained in the room and will took part in discussion and vote.

Oisín Sweeney advised the Committee that he wanted to highlight the leadership that Bellingen Shire are demonstrating with regard to renewable energy use on council buildings.

Recommendation (Item to be determined under delegated authority)

That the Sustainable Futures Committee hold a discussion regarding the information and attachment.

RESOLVED (By consent)

That the Committee receive the report regarding Bellingen Shire Council - renewable energy – council buildings report for information.

CARRIED

Note: The Chair advised the members if they wish to have an item included in a Committee agenda it should be emailed to Council's Governance Unit. It was also noted that agenda items may be provided for information only.

GENERAL BUSINESS

SF17.17 ENOVA - Renewable Energy Retailer

HPERM Ref:
D17/254057

This item has been requested for discussion by Mr Oisin Sweeney. ENOVA is a company based in the northern rivers that offers a model in advance of this discussion.
<https://enovaenergy.com.au/about-us/>

RESOLVED (By consent)

Item deferred for discussion at the next Committee meeting scheduled for 12 October 2017.

CARRIED

Introduction of Items as Matters of Urgency

Recommendation (Item to be determined under delegated authority)

That the following addendum reports be introduced as matters of urgency:

1. SF17.18 Cities Power Partnership

RESOLVED (By consent)

That the following addendum reports be introduced as matters of urgency:

2. SF17.18 Cities Power Partnership

CARRIED

The Chairperson ruled the matters as ones of urgency as they relate to urgent business of Council and allowed their introduction.

ADDENDUM REPORTS

SF17.18 CITIES POWER PARTNERSHIP

HPERM REF:
D17/260521

Item dealt with earlier in the meeting.

SF17.19 Additional Item - Council Budget 2018/19

Craig Milburn spoke to the Committee with regard to the program of Council's budget preparation for 2018/19 will be distributed to members for their information.

Action: The program of Council's budget preparation for 2018/19 to be distributed to members for their information

There being no further business, the meeting concluded, the time being 6.07pm.

Clr Gartner
CHAIRPERSON

SF17.22 Renewable Energy Management - Progress

HPERM Ref: D17/314816

Group: Shoalhaven Water Group

Purpose / Summary

This report provides an update to the Committee on the progress with staffing resources for Council's energy management initiatives and provides recommendations to further develop pilot solar schemes utilising Shoalhaven Water assets.

Recommendation (Item to be determined under delegated authority)

That the Committee note the resourcing process and support the preparation of documents for Expressions of Interest for land-based and floating solar projects.

Options

1. The Committee can choose not support the proposed strategy to develop pilot or specific projects for solar power generation

Implications: Further advice and direction would be required to revise the current direction.

Background

The Committee is aware that Council has now committed to funding an additional full-time resource to facilitate and develop Council's sustainable energy directions. Such a role is new to Council's structure and discussions have been held across all the group directors of Council to ensure that support can be provided organisation-wide. It is intended that this new resource be located within the Assets and Works Group within the Asset Management Section. Given the appointment of a new Section Manager in this area, embedding of a new structure and resource will take some months. To ensure that the momentum sought by the committee is not lost, a contract resource has already been engaged to progress the potential opportunities for renewable energy projects and energy use optimisation until a permanent in-house resource is established for the energy management initiatives





The work to date has focussed on the following 2 areas:

1. What are the current rates and structure of Council's electricity accounts and where are the savings opportunities
2. Feasibility of renewable energy for existing sites and identification of target sites for solar

These areas are discussed below.

Electricity Accounts

Council's electricity is charged through 2 separate contracts – A retail contract for large sites (43 sites) and a retail contract for small sites (538 sites). Origin Energy is the Retailer for both contracts and Endeavour Energy is the Network provider. The accounts are a complicated conglomeration of charges based on consumption, demand and voltage required. To add complexity, the Network Provider and the Retailer have different peak/off peak times as shown in the diagram below.

	Business Days		Non-Business Days
	Network	Supplier	
	 Endeavour Energy	 origin	
12 AM	Off-Peak	Off-Peak	 origin  Endeavour Energy
1 AM			
2 AM			
3 AM			
4 AM			
5 AM			
6 AM			
7 AM	Shoulder	Peak	
8 AM		Shoulder	
9 AM			
10 AM			
11 AM			
12 PM			
1 PM			
2 PM	Peak		
3 PM			
4 PM			
5 PM			
6 PM			
7 PM	Peak	Peak	
8 PM			
9 PM			
10 PM	Shoudler	Shoudler	
11 PM	Off-Peak	Off-Peak	
12 AM			

*Endeavour tariffs change on financial year,

**Origin Contracts rates change on calendar year

The following chart summarises the rates:

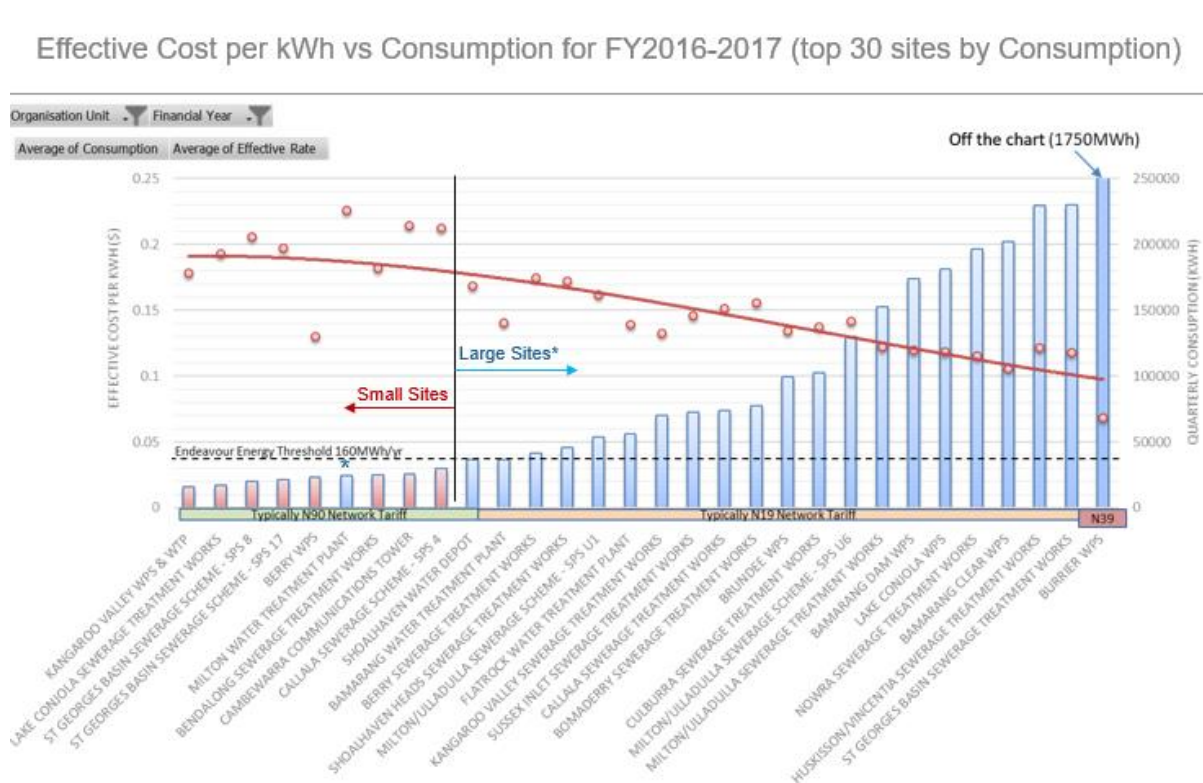
SF17.22

Variable										Fixed					
Commodity Rates				Network Charges (incl. Environmental & Government)											
Origin Energy				Endeavour Energy											
Origin Retail Class	Peak /kWh	Shldr /kWh	Off Peak /kWh	Annual Cons. MWh	Network Tariff	Peak /kWh	Shldr /kWh	Off Peak /kWh	Network Access Charge	Demand Charge per kVA/Month	Metering & Other	Example Account	Variable Costs/ Month	Fixed Costs/ Month	
Large	~5c	~5c	~3.5c	>160	N39	~2.5c	~2c	~1c	~\$49/day	~\$6.5	~\$80/mth	Burrier	\$51,000	\$14,500	
					N19	~4c	~3c	~1.5c	~\$19/day	~\$10		Husk. WWTP	\$ 6,800	\$ 2,900	
					N89*	~15c	~9c	~2c	~\$19/day			Callala WWTP	\$ 3,600	\$ 600	
				<160	N84	~15c	~10c	~5c	~78c/day	N/A		Bamarang WTP	\$ 1,650	\$ 100	
					N90							SW Depot	\$ 1,700	\$ 100	
Small		~9c			N90		~9c		~47c/day		22c/day	Nowra SPS24	\$ 2,000	\$ 20	

* = This is a Transitional Network Tariff applicable to selected customers with annual consumption > 160 MWh. It is not available on application.

The current contracts are in place until 2019.

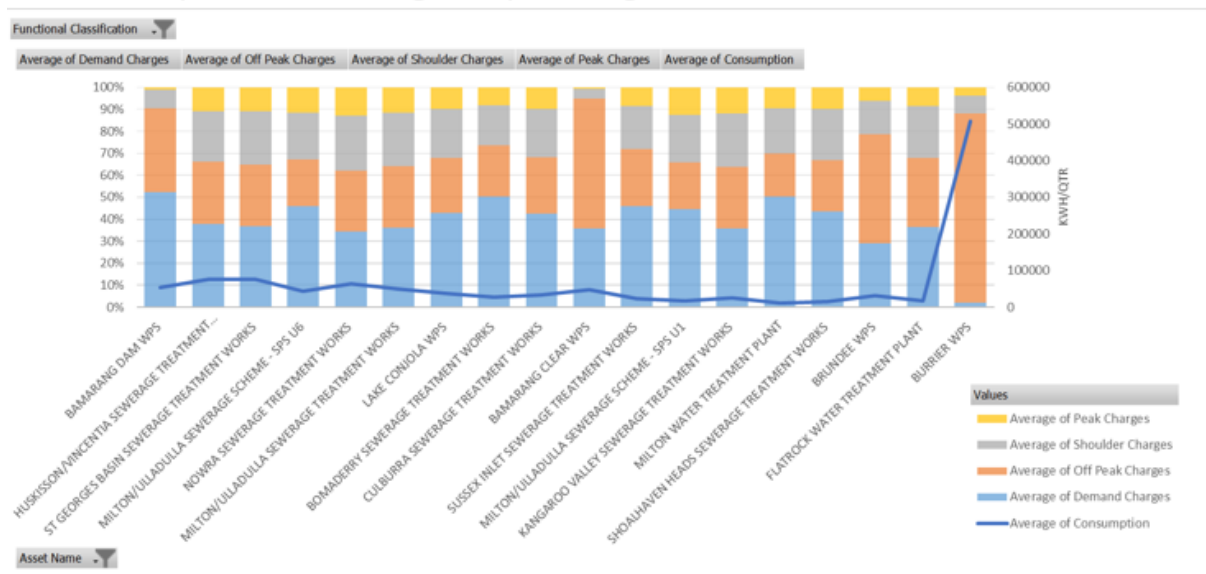
The following graph shows the effective cost per kWh vs consumption for the 2016/17 financial year for the 30 highest use sites.



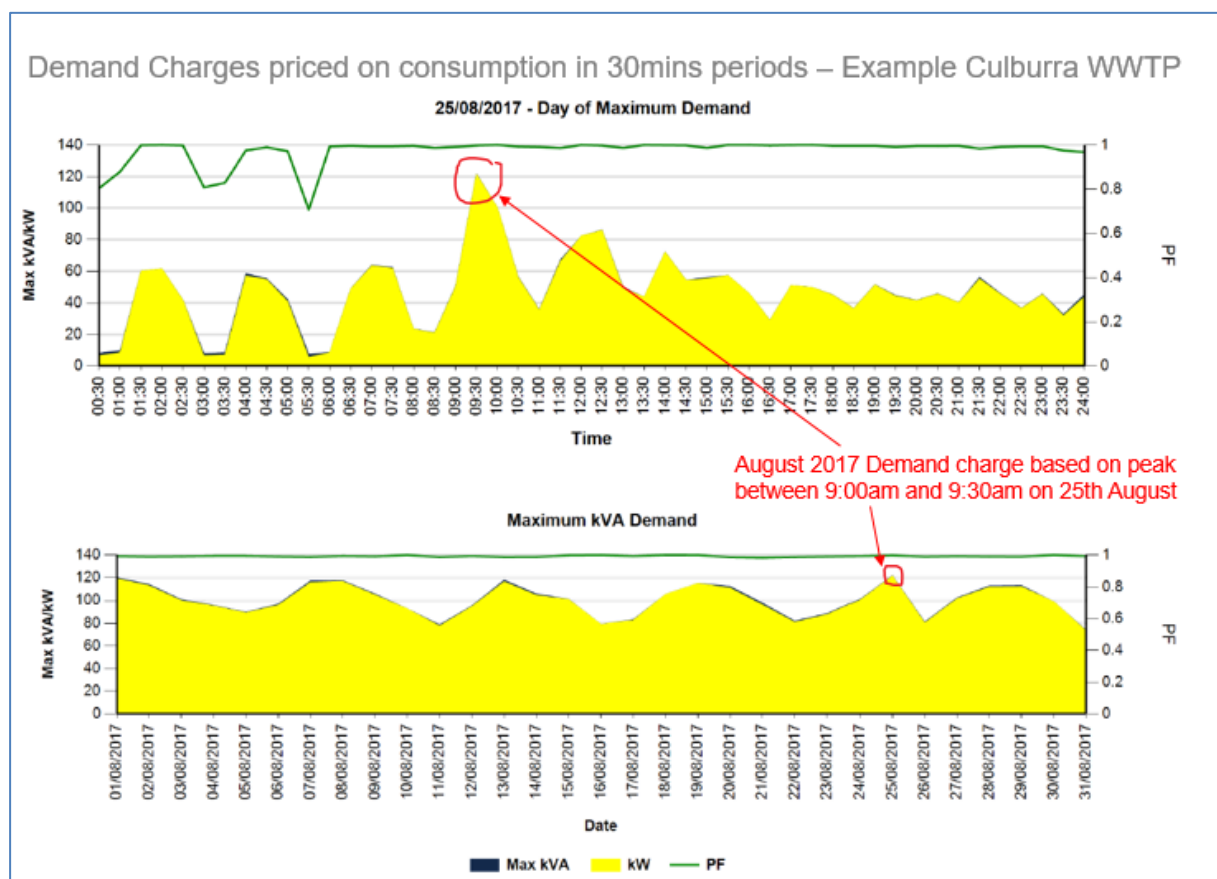
Analysis of the individual accounts has been carried out to determine potential savings opportunities (for example to optimise time of use tariffs). A snapshot is given in the graph below. Those with the higher demand charges as a percentage of the total bills indicates there may be opportunity to lower bills (subject to operational requirements).

SF17.22

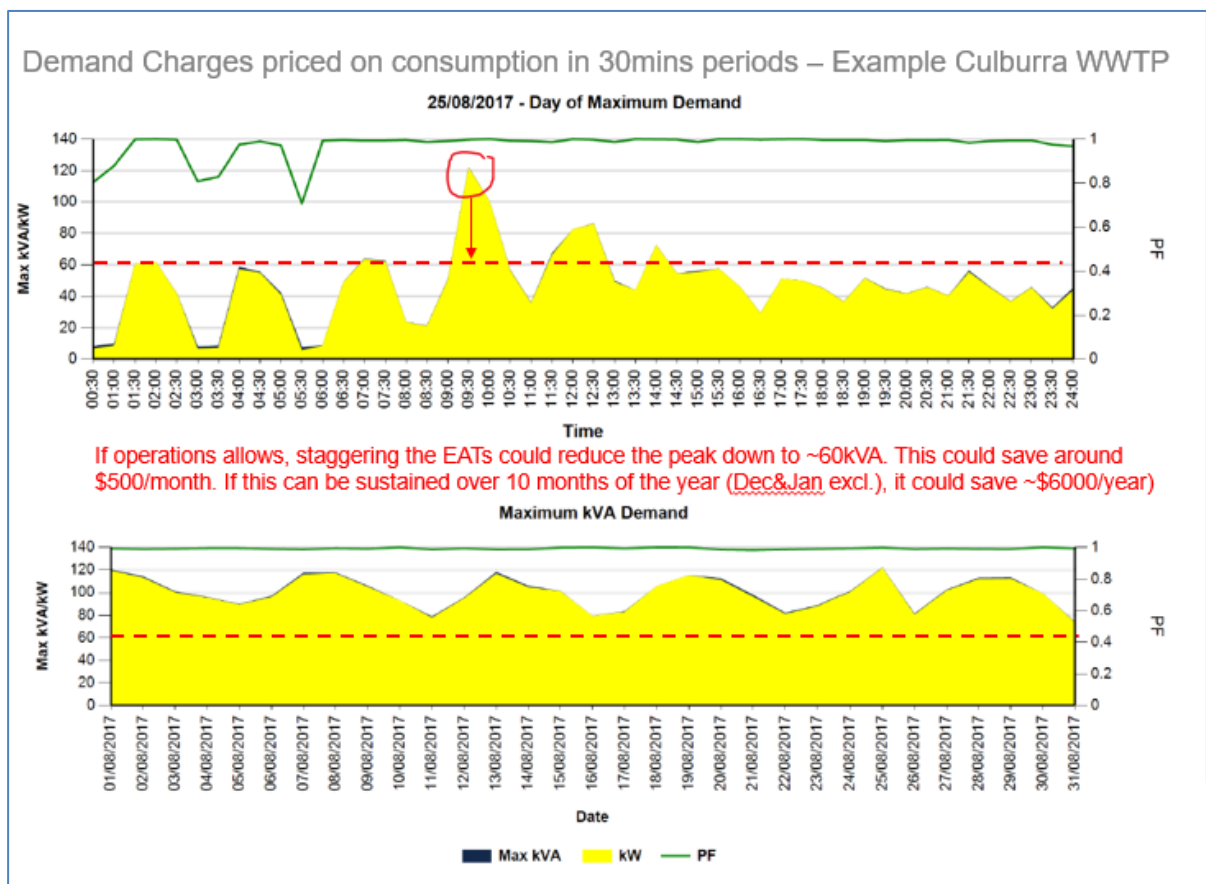
Demand Optimisation - Charges as percentage of accounts



Potential savings opportunities are now being explored with operational personnel (e.g. Culburra STP as shown in the graph below).



SF17.22



SF17.22

Feasibility of renewable energy

Council's current policy - "Renewable Energy Installations on Council's Assets" includes the following table to give an indication of what sites would be priority sites for renewable installations. It should be noted that the policy also states that this list is not comprehensive and installations could also be prioritised depending on Council's wish to provide visible leadership on renewable energy.

		Level of Energy Use per annum			
		High (500GJ)	Medium-High	Medium	Low
Importance to Council's strategic plans	High	Leisure centres Administration buildings Entertainment centre Holiday Haven Parks Crematorium			
	Medium	Work Depots (e.g. Bomaderry, Ulladulla) Ulladulla Civic Centre Waste depots (Nowra, Ulladulla) Shoal water assets	Depots Commercial facilities Nowra Library	Community centres Early childhood centres	Smaller public facilities Emergency services Surf Life saving and sporting facilities Public halls
	Low				Village pools

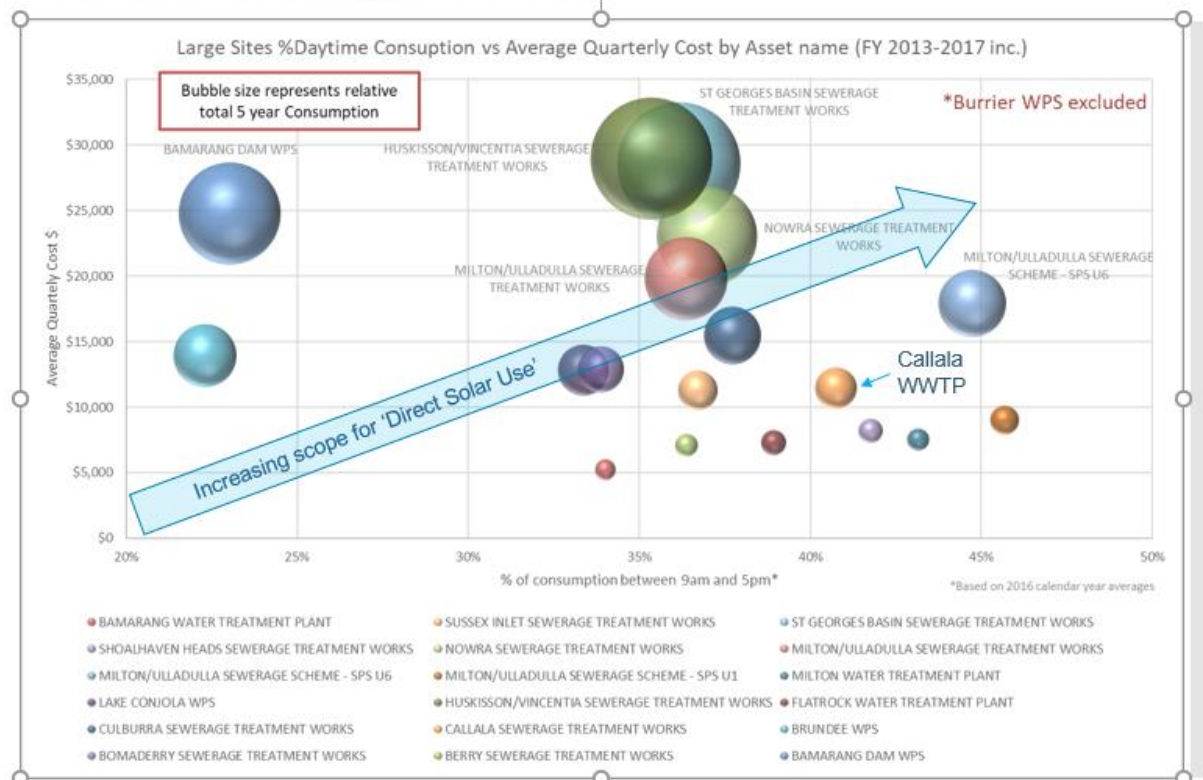
The policy gives the following key considerations before installing renewables:

1. Is the asset a high energy user?
2. Is it a highly visible facility?
3. Will Council struggle to run the asset if energy prices rise substantially?
4. Does facilities and asset management agree renewable energy is a priority?
5. Is there an opportunity for community education to be coupled with an installation?
6. Have you undertaken initial analysis / investigation work to see what type of renewable solution would best fit the asset? E.g. wind monitoring, is roof north facing, shading such as trees.
7. Have you considered maintenance issues?
8. Have you worked out the pay-back period?
9. Have you checked for Government Grants to offset the cost to Council?

Identification of possible sites for solar (Shoalhaven Water Assets)

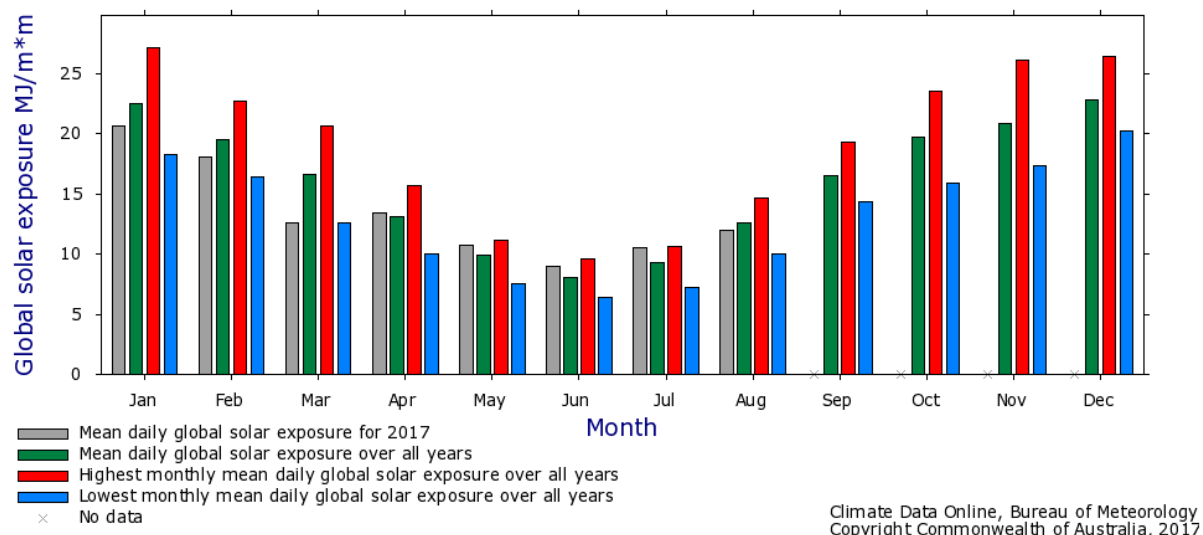
Some preliminary analysis has been undertaken to determine possible sites for solar energy. The following diagram gives a snapshot of potential Shoalhaven Water sites based on usage for the last 4 years.

Identification of target sites for Solar



It should also be noted that there are already some sites where we are recording solar exposure (e.g. Callala Sewage Treatment Plant as shown in the diagram below).

Callala Treatment Plant (068245) 2017 global solar exposure



It is proposed to investigate sites for a land based solar farm and a floating solar installation. There is sufficient land at Callala Sewage Treatment Plant for a land based solar system – see photo below.

Callala uses 1000GJ per year (270,000 kWh) with a maximum demand of 150kVA. 41% of the electricity is used between 9am and 5pm.

SF17.22



Bamarang Dam could be further investigated for a floating solar system. There is approximately 30ha of suitable dam surface area.



Information from other sites

The following snapshots of projects in Lismore and around the world are provided for the Committee's information.

SF17.22

Lismore Council – Floating Solar Plant

100kW solar plant being installed in October 2017

Image 1 Aerial view of site with locations of main meter board and generator set



The aerial image shows the utility meter location (RED circle) and the preferred feed in point at the generator set pad (ORANGE circle). The BLACK circle shows the approximate position of the floating solar platform. Site access locations are shown in BLUE.

Motivation for Project

- Lismore councils 100% renewable energy target
- Couldn't fit kW required on roof and land area.
- Floating solar popular overseas
- Emerging technology

System Specification

- 99.9Kw System. Roughly 10% of the WWTP power requirements.
- Systems below 100Kw, Lismore can claim the renewable energy certificates up front which helps the business case. If it's over 100Kw, then the renewable energy certificates may not be available/removed at later stages of the project.
- 7 year ROI
- Further expansion requirements to 400Kw.
- 11m flood rise and fall requirements. Easily handled by the tethering system on the tertiary pond.

Tender Process

- Lismore released tender in early 2016
- 3 tenders received by late 2016
- 'Suntrix' Chosen as preferred tenderer

SF17.22

LightSource – UK Based Company Offering Floating Solar

Only three floating solar plants had ever been built before 2014.

Over the past two years this number has grown to over 70 plants spread across the world. These so called 'floating solar systems' (or '**floatovoltaics**') are an appropriate solution to situations where roof and/or ground space is limited.

Lightsource installed Europe's largest ever solar PV system on a deep body of water. With a surface area of 57,000 square meters, and containing 23,046 solar panels on the surface of the Queen Elizabeth II reservoir in London, powering **Thames Water** via private wire, this floating solar farm is the third largest on the planet, according to Solarplaza:



Rank	Size (kw)	Name of reservoir (lake)	Country	City/Province	Operating from
1	20000	Coal mining subsidence Dam	China	Anhui Province	April, 2016
2	7500	Kawashima Taiyou Solarpark	Japan	Saitama	October, 2015
3	6338	Queen Elizabeth II reservoir	UK	London	March, 2016
4	3000	Otae Province	South Korea	Sangju City	October, 2015
5	3000	Jipyong Province	South Korea	Sangju City	---
6	2991	Godley Reservoir	UK	Godley	January, 2016
7	2449	Tsuga Ike	Japan	Mie	August, 2016
8	2398	Sohara Ike	Japan	Mie	March, 2016
9	2313	Sakasama Ike	Japan	Hyogo	April, 2015
10	2000	Reservoir in Kumagaya city	Japan	Saitama	December, 2014

Financial Implications

There are several possible models for financing, delivery and operation of any solar projects that Council could be involved in. It is proposed that an open expression of interest document be put to the market to initiate the development of business cases for the Committee's consideration.

SF17.15 Helping Nature Help People

HPERM Ref: D17/253999

Submitted by: Oisin Sweeney

Attachments: 1. Additional Information and Recommendation [↓](#)

Sustainable Futures Committee at its meeting on 17 August 2017 resolved that the matter be deferred to the meeting to be held on 12 October 2017.

Recommendation (Item to be determined under delegated authority)

That Shoalhaven City Council develop and implement a Policy to facilitate nature-based solutions to ensure Shoalhaven residents have resilient communities in wildlife-friendly surrounds.

Details

There are many ways in which decisions by Local Government can facilitate the ability of nature to make a positive difference to human lives. For example, Cool Streets promotes street tree plantings that cool the urban environment, reduce carbon emissions and electricity bills while providing habitat for native species (<https://www.coolstreets.com.au/what-is-cool-streets/>). Long-nosed bandicoots, common in village gardens in the Shoalhaven, help gardeners by eating pest invertebrates and improving soil condition and water infiltration, while insectivorous bats eat pest insects like mosquitoes and owls prey on unwanted species like rats. Strategic creation of wetlands can simultaneously provide wildlife habitat, storm water drainage, and water purification and recreation opportunities for people. Using rainforest trees in urban design can provide habitat for wildlife as well as increase the resilience of villages to ember attack in the event of fire while providing shade to residents and increasing property values. Incorporating adequate green space in new developments has positive health and wellbeing outcomes while allowing wildlife to persist.

The approach of facilitating nature to deliver desirable outcomes for humans is known as 'nature-based solutions'. Importantly, nature-based solutions are often cheap to implement, or add no extra cost to existing activities. Nature-based solutions are growing in importance as human populations become more urbanised, and the potential for positive outcomes has led to the European Union commissioning an expert group to progress the agenda.

In a time of rapid environmental change and urban growth, ensuring council policy enables maximum use of nature-based solutions to benefit residents and wildlife is a cost-effective means of promoting resilient communities.

Helping nature help people: nature-based solutions for resilient communities

What are nature-based solutions?

Nature-based solutions are activities that simultaneously have a social, environmental and economic benefit to urban dwellers. In other words they help human well-being and wildlife. Nature-based solutions are a valuable tool in urban and peri-urban environments because these areas are human-dominated, may be wildlife-poor (or at least have room from improvement) and responses may be required to current or future challenges to human well-being.

Nature-based solutions can be applied retrospectively (e.g. to existing villages) or can be considered from the outset of development. Importantly, nature-based solutions are often cheap to implement, or add no extra cost to existing activities. Nature-based solutions are growing in importance as human populations increase and become more urbanised—as in the case of the Shoalhaven.

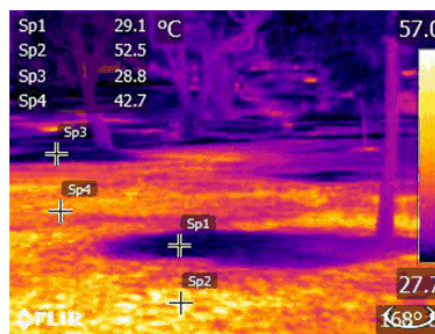
Some examples

Street tree plantings can cool the urban environment, reduce carbon emissions and electricity bills and increase property prices while simultaneously providing habitat for native species. Long-nosed bandicoots, common in village gardens in the Shoalhaven, help gardeners by eating pest invertebrates and improving soil condition and water infiltration, while insectivorous bats eat pest insects like mosquitoes and owls prey on unwanted species like rats. Encouraging such species therefore has a positive impact on human well-being.

Strategic creation of wetlands and “bioswales” to harvest urban runoff can simultaneously provide wildlife habitat, storm water drainage, water purification and recreation opportunities for people. Using rainforest trees in urban design can provide habitat for wildlife as well as potentially increasing the resilience of villages to ember attack in the event of fire. Incorporating green space with habitat value for wildlife in new developments has positive health and wellbeing outcomes while allowing wildlife to persist.

Case study: the urban canopy

Urban trees in the towns and villages of the Shoalhaven are an iconic part of the regions’ charm. They also provide habitat and connectivity between patches of bushland so have a very important ecological role. Yet they are often resented due to fear of damage to property should they fall in storms. Applying a nature-based solution lens to this problem may help overcome these community concerns: many are probably unaware of the value of urban trees to their property prices, to the liveability of their villages and for cost saving via passive cooling. As this image shows, trees have a very large cooling effect during days of extreme heat. As extremes of temperatures become more common with climate change, urban areas with an intact canopy will be much more hospitable to residents and lower the risk of health impacts.



A hypothetical project that sought to manage the urban canopy for environmental and human well-being might implement the following steps:

1. Canvass community opinion: Is the urban canopy important? Why or why not? What trees do people particularly like or dislike? Why? What natural elements are important to people in their place of residence? What impacts are they concerned about now or in future?
2. Determine what elements of trees drive positive or negative community feelings.
3. Choose local or near-local species that closest match the positive elements identified.
4. Cross-reference these with the needs of wildlife and the attributes most desirable for human wellbeing and select a variety of species.
5. Begin a planting program on public land and begin an education program to encourage private plantings.
6. Translate findings into policy to guide new development.

Upcoming opportunities

A recent Urban Ecology Renewal Investigation Project funded by the NSW Environment Trust identified several priority actions that can be delivered via a nature-based solutions approach including: embedding urban ecology in decision making; delivering green cities; creating new habitats to support biodiversity and human well-being and developing engagement programs to increase education and involvement.

It is possible that significant funding will follow the Urban Ecology Renewal Investigation Project to implement the priority findings. There are therefore likely to be significant opportunities for Shoalhaven City Council to pursue nature-based solutions and be an Australian leader in the application of this growing field.

There are initiatives soon to begin that will investigate nature-based solutions in urban areas to investigate community attitudes and barriers to implementation. These projects are Sydney-based but there may be scope for the Shoalhaven to be an included case study.

Recommendations

1. Shoalhaven City Council (SCC) should take the initial step of analysing existing policies and programs (including education) through a nature-based lens to determine which can be readily amended and where gaps exist;
2. In conjunction with the Sustainable Futures Committee, staff should identify and cost nature-based programs that could be delivered in the event funding comes available;
3. SCC should determine whether capacity exists within existing staff to design and deliver programs, or whether extra resources should be sought;
4. That SCC (via the Sustainable Futures Committee) actively pursue involvement in upcoming projects relevant to nature-based solutions.

SF17.23 Weirid Winter

HPERM Ref: D17/323868

Submitted by: Clr Kaye Gartner

Attachments: 1. Hot and Dry: Australia's Weirid Winter (under separate cover) [↗](#)

Recommendation (Item to be determined under delegated authority)

That

1. The Committee receives the Climate Council Report on Australia's 2017 Winter Weather
2. The Committee prepare a summary, including the rainfall graphic and bushfire graphic, to inform our community and advise of increased risks to our community, which currently are bushfire events and water restrictions
3. This summary and graphics be posted on Council Facebook and webpages

Details

The Sustainable Futures Committee has resolved to communicate about Climate Change and its impacts to our community.

This report provides access to data, which defines the problem of climate change in terms of higher temperatures, reduced rainfall and particularly reduced rainfall in the growing seasons. The consequent hot, dryness increases bushfire risk and heatwave risks, both of which have consequences for human health, livestock, and natural assets.

Our citizens can use this information to inform their choices about travel, garden design, electricity generation etc. Adding this layer of information is an important role of this committee and purposeful use of council's voice in the community.

SF17.24 Sustainable Business Practices In Local Government

HPERM Ref: D17/328542

Submitted by: Mr Peter McVay

Recommendation (Item to be determined under delegated authority)

That the report regarding sustainable business practices in Local Government be received for information.

Details

Some Shoalhaven City Councillors have recently questioned the costs and benefits of more sustainable business practices. Evidence internationally and across Australia suggest that a focus on sustainability is now widely recognised as core business for governments, business and communities. Harvard Business School found that sustainability must also be recognized as a vital component of any country's competitiveness strategy. A focus on environmental sustainability—which entails a commitment to internalizing pollution externalities and managing natural resources for the long term rather than the short run—helps to eliminate waste, promote efficiency, and drive innovation.¹

Commonwealth Government organisations have a statutory requirement to report on their environmental performance and how they accord with and advance the principles of ecologically sustainable development (ESD).² Within NSW the Government Resource Efficiency Policy provides guidance for government operations to improve performance in the main areas of: energy, water and waste, and to reduce harmful air emissions. All general government sector agencies (NSW Treasury, 2015–16) are required to report annually on policy targets, actions and minimum standards by publishing financial year data and a statement of compliance.³ Local Government NSW noted that:

'Councils have a pivotal role in environmental management, including regulation and education. Increasingly, councils are pursuing initiatives to reduce their environmental footprint such as stormwater improvements, waste education, and biodiversity protection initiatives. Councils are also well placed to lead by example, and inform and encourage their communities (households, businesses etc) to take up environmental improvement programs and initiatives'.⁴

The lessons learned from other NSW local government councils (and for that matter, from local councils around Australia) are that more sustainable practices not only achieve better environmental outcomes but also save money. For example,

- in Eurobodalla Shire, emission reduction actions and achievements to date have demonstrated that there is a strong business case for action. Completed actions have generated significant energy cost savings totalling over \$1 million per year. Council is on

¹ Environmental sustainability and competitiveness: policy imperative and corporate opportunity Daniel C. Esty and Steve Charnovitz; Harvard Business School, US Competitiveness Project

² This is a statutory requirement for federal bodies under Section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*.

³ <http://www.environment.nsw.gov.au/publications/government/government-resource-efficiency-policy-whole-government-progress-2014-15-160708.htm>

⁴ *Sustainability Snippets* <https://www.lgns.org.au/policy/environment>

track to meet its commitment to reduce emissions by 25 per cent by 2020. A new corporate energy emissions reduction target of 80 per cent by 2030 has been established. An additional target will be to source 100 per cent of Council's electricity from renewable energy by 2030. (Eurobodalla Shire Council, Emissions Reduction Plan, 2017-21);

- in the City of Parramatta the Resource Rescue and Reuse (The R3 program) was initiated as a means to reduce waste from the relocation of the City of Parramatta's main administration building and library in late 2015. The program rescued redundant resources such as stationery and furniture, reused them internally where possible and offered remaining items to local schools and community organisations to provide social and environmental benefits. As a result, Council was able to divert approximately 70 ute loads of material from landfill, while at the same time providing much needed resources to 52 schools, charities and community organisations to help them in delivering valuable services to local communities.⁵
- the Sunshine Coast Solar Farm is now live and feeding electricity into the power grid, making Sunshine Coast Council the first local government in Australia to offset 100 per cent of its electricity consumption with energy from a renewable source. The \$50.4 million, 15MW solar farm, constructed at Vadora west of Coolumberrah over the past 12 months with 57,960 panels, will feed into the Energex network and is estimated to save \$22 million over 30 years after all costs are paid.⁶

Adapting to climate change impacts will also be an important role for local government councils like the Shoalhaven. Climate change has the potential to damage council assets, cause serious disruptions to the delivery of council services, generate unbudgeted financial impacts and affect the wellbeing of the community, particularly those vulnerable to weather extremes. The elderly and low income households in higher risk local communities could be significantly impacted by extreme weather events.⁷ This highlights the important role that local councils need to play in climate change adaptation. Nevertheless, implementing change inevitably involves the introduction of some new risks for council and/or the community. Risks should be identified and appropriately managed through sound, transparent business planning and risk management processes that include expected outcomes, gross and net costs, timeframes, risk treatments and investment options. These should underpin initiatives arising from the Sustainable Futures Committee. Engaging and informing the community in relation to new initiatives and the management of opportunities and risks should also be part and parcel of the functioning of the Committee.

David Brawn, Lorraine J Larri, Peter McVay, Oisin Sweeney
Community Representatives Shoalhaven City Council Sustainable Futures Committee

⁵ https://www.lgnsf.org.au/files/imce-uploads/122/Sustainability_Snippets_vol35.pdf

⁶ https://www.lgnsf.org.au/files/imce-uploads/122/Sustainability_Snippets_vol37.pdf

⁷ Australia has committed to reducing greenhouse gas emissions by 26-28 per cent below 2005 levels by 2030 Included in this policy is the national Renewable Energy Target (RET) designed to reduce the greenhouse gas emissions in the electricity sector. The target for large-scale renewable generation of 33,000 GWh in 2020 which will mean that about 23.5 per cent of Australia's electricity generation in 2020 will be from renewable sources.

SF17.25 Discussion Paper on Progressing the Committee Agenda

HPERM Ref: D17/328567

Submitted by: Mr Peter McVay

Recommendation (Item to be determined under delegated authority)

That the Sustainable Future Committee begin:

1. Implementation such as through a prioritised action plan. This should assign clear responsibilities, identify all significant actions/risks and budget/investment requirements, consider timeframes and standardised reporting on progress to completion. Establishing small working groups involving staff, (councillors?) and community representatives on each of the agreed pledges may be useful in progressing the agreed initiatives;
2. Identifying what actions might be added to the agreed pledges to address the documented purpose of the committee. For example, what gaps are there in council's adaptation strategy for climate change such as in relation to fire risk, storm/flooding risk, delineation of hazard lines, et al. Is the strategy using adaptive management to regularly review risks and actions?
3. Establishing the priorities to improve sustainability within the Shoalhaven LGA? eg promoting: local community and market gardens; local produce markets; local energy security projects such as solar gardens in addition to those on council land; community transport, etc
4. identifying the best ways to progress community education/engagement about sustainability and the potential impacts of climate change. Options might include an electronic newsletter from the committee, press releases to local media, local seminars possibly jointly with bodies such as Emergency Services, the Rural Fire Service and National Parks, social media focus, building reference groups of local champions within the community and local businesses on different initiatives, etc

SF17.25

Details

The purpose of the Sustainable Futures Committee set by Council is:

- To make recommendations to improve council's response to potential impacts of climate change;
- To improve sustainability within the Shoalhaven Local Government Area;
- Develop a prioritised action plan that will empower the Shoalhaven Community to be more sustainable and improve the sustainability of Council operations and activities;
- Identify and action funding opportunities which will improve Council's sustainability and its understanding and readiness of potential impacts of climate change;
- Identify ways to educate the community about sustainability and the potential impacts of climate change;
- Display strong leadership to the community by recommending sustainability and resilience building actions to council for consideration.

In implementing the above, the Committee at the August meeting agreed the following:

SF17.11 Renewable Energy - Planning Processes - Set Targets**HPERM Ref:
D17/254251****RESOLVED** (By consent)

That the Committee support a renewable energy pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.12 Energy Efficiency - Planning Applications – Benchmarks**HPERM Ref:
D17/254285****RESOLVED** (By consent)

That the Committee support an energy efficiency pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.13 Sustainable Transport - Council Planning and Design**HPERM Ref:
D17/254312****RESOLVED** (By consent)

That the Committee support a sustainable transport pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.14 Working Together and Influence - Set Targets - Sustainable Energy Policies**HPERM Ref:
D17/254372****RESOLVED** (By consent)

That the Committee support a working together and influence pledge to be incorporated into the Cities Power Partnership Pledges.

CARRIED

SF17.15 Helping Nature Help People**HPERM Ref:
D17/253999**

Oisín Sweeney spoke briefly to this report and advised the Committee that he will provide more information regarding nature-based solutions at the next meeting of the Committee.

RESOLVED (By Consent)

That the Helping Nature Help People agenda item be deferred to the next meeting of the Committee scheduled for 12 October 2017.

David Brawn, Lorraine J Larri, Peter McVay, Oisín Sweeney**Community Representatives Shoalhaven City Council Sustainable Futures Committee**