

Victorian Climate Change Grants 2015 Final Report

FOR INFORMATION ONLY

Banking on Our Solar Future Innovation for Resilient Communities

Towong Shire Council

1. Introduction: Who are we and what did we plan to do?

1.1 Project description

When?	Started in 2016
How long?	2 years
Who?	Towong Shire Council
What?	Install a solar battery bank at Tallangatta Integrated Community Centre and a solar PV system (including a battery bank) at Tallangatta Council office building. The aim of this project is to educate the community, raise awareness of alternative energy solutions and provide opportunities for individuals and business owners to make informed investments in energy storage and solar electricity systems.
Where?	37 Towong Street, Tallangatta, VIC, 3690 32 Towong Street, Tallangatta, VIC, 3690
How much?	\$80,000 which was funded by the Victorian Climate Change Grants 2015 program
Background	This project builds on Towong Shire Council's earlier work as a leader in adaptive, innovated projects to mitigate climate change. The CSIRO cluster report on climate change in Australia 2015 predicts increased frequency and intensity of floods, fire, heatwave and storms. Increased frequency and intensity of these events increases Towong Shire's residents' vulnerability to disrupted electricity supplies. For example, some townships are supplied by single electricity lines which on code red days could be off line for up to 48 hours. In heatwave conditions this means a loss of airconditioning for households and businesses, The Corryong town ship is particularly vulnerable and there have been many reports of appliances failure due to 'brown outs'. Building on the success of the Solar North East and Towong Pure Energy and the ecologically sustainable design principles applied to the Tallangatta Integrated Community Centre this project aims to enable residents to install battery systems to support both existing solar installations and new household solar systems with battery storage to provide consistent power supply. Battery storage is the next logical step to compliment existing systems where feed in tariffs have reduced dramatically since their introduction. Battery storage enables electricity not used during daylight hours to be stored and used in the evenings to offset peak usage load, reducing residential electricity costs and reducing pressure on the grid during events such as heatwave.

1.2 Acknowledgements

This work would not have been possible without the financial support of the Victorian Climate Change Grants 2015 program and the local community usual support.

2 Methods & activities: what did we do?

2.1 Key project activities

- Built a demonstration site at the Tallangatta Integrated Community Centre
- Set up live website link to data from TICC and Tallangatta Council Office
- Conducted a desktop assessment of current solar power installations in Towong Shire
- Completed an assessment report and presented to Council
- Developed and distributed educational/event material (information brochure)
- Seek EOI's for Installation of solar array and battery storage at TICC and Tallangatta Council Office
- Arranged and hosted mini expo with solar energy and storage retailers
- Appropriately communicated with DELWP during the project execution

2.2 Key project evaluation activities

The project was evaluated as per the question below:

- How has the project allowed your council(s) to build skills, knowledge and capacity?
- Has the project led to climate risk being taken into account in council decision making and planning? If so, how?
- To what extent has the project promoted awareness of decentralised electricity in the wider local government community?
- Has the project provided the resources for community members to make informed decisions/investments in solar energy solutions as a response to climate adaptation?

2.3 Outputs

The desktop assessment done at the beginning of the project demonstrated that 22% of the buildings within the Towong Shire have solar panels installed on the roof and only 6% have solar hot water. The report also indicated that the solar panels roof top solar installations in Towong Shire are above the Victorian and New South Wales average.

Even though incentives for solar panel installations have reduced, a number of technologies have been developed to maximise the impact of existing and future installations such as battery storage, online monitoring devices and network sharing options.

Towong Shire developed and distributed an information brochure about Home battery storage systems in partnership with Indigo Shire Council and Borough of Queenscliffe. It aims to explain how a battery storage system works, in which cases it is a good idea to get it installed (if they are a good investment and how to calculate the payback period), if they can be connected to existing solar systems, how to determine the the battery size required based on the electricity consumption, power distributor approval process, the environmental impact, how to find a reliable supplier and tips on how to evaluate a quote.

A live website link was set up for each of the systems installed (TICC building and Tallangatta office) and it is available for demonstration to the community with real time data at the TICC. The live connection allows the battery to be monitored and receive regular software updates. The website provides graphics and data that can be easily accessed from a computer or smartphone.

3 Final outcomes & evaluation findings: what impact did we have, and what did we learn?

3.1 What impact has the project had?

The project was successfully completed and the systems installed in both buildings are up and running. The community members that participated in the expo and that received the brochure got a better understanding on how the battery contributes to the system and how the authorization process works. The payback period is something that still concerns final users but with the advance of technology it is expected to reduce making solar PV systems and batteries more affordable. The community that lives within Towong Shire can now consider solar electricity system as an alternative energy solution and make better decision when investing in an energy storage system for their residences.

The expo was an important moment to connect individuals with similar interests and promote social networking between them. It represented a positive social impact for the project.

3.2 Funding outcomes

How has working in partnership/collaboration benefitted this project?	There was a partnership formed with Indigo Shire throughout the delivery of this project. A key output of this partnership was the FAQ booklet as well as support and shared learnings through delivery.
Has the funding led to increased capacity?	Yes – as it provided funding to deliver this project and for council to have a greater capacity to support its community with information about and an explanation of battery storage systems.
	After being granted the Victorian Climate Change Grants 2015 (CCG15) program fund, the Towong Shire Council reinforced Environmental sustainability topics in its policies, mainly the Climate Change policy when referring to the Council Plan 2017-2021 where this project was openly mentioned as an example to be followed (Appendice 1). The policies and minutes where the project was mentioned are included in the appendices of this report.
	It would have taken Council couple of years to achieve the same outcome without this valuable help.

3.3. *Lessons learnt*

Should have anticipated the promotional material to be printed out before the expo, so a hard copy would have been handed over to the attendees.

Should have decentralized the activities in the work plan and considered two responsible officers for each task (sort of a collaborative approach) to avoid delays in the project completion due to lack of availability.

It was interesting to see how informed the community was about solar battery usage and the way they engaged with the expo held at the TICC building.

The opportunity to better understand the challenges of battery storage in a rural setting that this project provided was very valuable. Through the tender process it became apparent that some of the systems had particular requirements such as 24/7 internet connections which could not be provided nor guaranteed in Tallangatta and Towong Shire. This project allowed consideration of the requirements and negotiation with the successful tenderer to modify the system requirements to meet the building and council needs. This learning is helpful for the broader community.

Sought opportunities to partner with similar projects. The Indigo Shire had a similar project funded through CCG15 to trial battery storage at community facilities. Although the projects were different, the timing provided a valuable opportunity to share learnings and partner in the development of the "Home battery storage systems: frequently asked questions" booklet with the Alternative Technology Association and the Borough of Queenscliff. This partnership has strengthened the project, as well its influence and reach.

The initial plan was considering having the the project control group nominated members working on the project through to the end. The internal project manager left part way through delivery of the project and an external consultant had to assume the position and run the project maintaining DELWP updated about the progress until another internal project manager was nominated.

4 Suggested future actions and recommendations: what should be done now?

Issue	Recommendation	Who you think should act on this recommendations
Inconsistency of information online for small scale intallation	Workshop presentations to be held in appropriate events where the community can participate and clarify doubts about solar systems	Government authorities
Vulnerability of town cities to natural disasters	Consider reports that predicts increased frequency and intensity of severe weather events and propose alternative energy backups to help prevent outages	Government authorities
Long pay back period for solar systems	Increase the funding incentives on solar energy system installations in order to scale up the demand and precipitate a price affordability	Government authorities
Low incentives on renewable energy technology development	That the responsible authorities look more carefully into funding renewable energy research projects in the near future	Government authorities

Appendices

Appendice 1

This is an extract from the Council Plan 2017 – 2021 where it is mentioned in the strategic objective of the environmental sustainability section as a strategy to be followed continuously. The full document can be trieded from [https://www.towong.vic.gov.au/about-council/plans-budgets-reports/plans/images/Council-Plan-2017-2021-final-\(as-amended-5-Sep-2017\).pdf](https://www.towong.vic.gov.au/about-council/plans-budgets-reports/plans/images/Council-Plan-2017-2021-final-(as-amended-5-Sep-2017).pdf)

Environmental sustainability

Strategic objective

Integrate sustainable environmental management practices into all our activities

Strategies	17/18	18/19	19/20	20/21
5.1 Research options for Mitta Mitta town water with North East Water	•			
5.2 Continue to explore solutions for Bellbridge Wastewater expansion (in conjunction with North East Water)	•			
5.3 Review waste services across the Shire (including green waste, hard waste, recycling and rubbish bin options)	•			
5.4 Continue to lobby for the expansion/improvement of North East Water's Tallangatta wastewater plant to accommodate Tallangatta's future development and the elimination of odour emanating from the plant	•	•		
5.5 Maintain current and future landfills to best practice and investigate improvements to operations (e.g. covers)	•	•	•	•
5.6 Continue to implement noxious weed control along roadsides with available funding and lobby for additional funding	•	•	•	•
5.7 Encourage adjoining landowners (including DELWP and Parks Victoria) to implement weed controls on their land	•	•	•	•
5.8 Investigate and seek funding for solar street lighting in key locations	•	•	•	•
5.9 Continue to look at renewable energy projects where funding is available (e.g. Banking on Our Solar Future)	•	•	•	•
5.10 Deliver strategic tree plantings under the Tree Management Plan as funding becomes available	•	•	•	•

Appendice 2

The Climate Change Police has its latest version updated in October 2018 and it aims to help Council to manage its climate change vulnerability thereby increasing the organisation's resilience and preparation for the future and it largely accounts the concerns with future development projects to be aligned with the strategies established.

Climate Change

Responsible officer:	Director Community and Corporate Services
Key Result Area:	Environmental sustainability
Document type:	Policy
Reference:	10/01/0004
Approved by:	Council
Date approved:	2 October 2018
Date of next review:	August 2017
Print date:	23 October 2018

Definitions

- Climate change: Refers to a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer¹.
- Adaptation : Process of adjustment to actual or expected climate and its effects which aims to reduce the impact of any given level of climate change.
- Mitigation : Refers to efforts to minimise the extent of climate change by reducing or preventing emission of greenhouse gases.
- Resilience : The capacity of an organisation to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks.²

Scope

The purpose of this policy is to provide a mechanism to guide strategies, evaluate and assess projects and policies, and enable Council to manage its climate change vulnerability thereby increasing the organisation's resilience and preparation for the future.

¹ IPCC (2007) Fourth Assessment Report: Climate Change 2007: Synthesis Report

² [Walker, B. and Salt, D. \(2008\) Resilience Thinking: Sustaining ecosystems and people in a changing world. Island Press. U.S.A.](#)

Background

This policy is underpinned by climate projections in the *Murray Basin Cluster Report* from CSIRO and the Australian Bureau of Meteorology's *Climate Change in Australia Projections* (Timbal et al. 2015).

Expectations are for hotter and generally drier conditions in Towong Shire with increasing frequency and intensity of extreme climatic events. This has implications for the continued management of local government assets and delivery of services into the future. A range of local government functional areas are already faced with the impacts of heatwave, drought, fire and flood. These extremes place pressure on the achievement of strategic objectives, via a range of financial, people and safety, environmental, governance, business continuity and reputational consequences.

This policy aligns with Towong Shire Council's mission statement by proactively planning for a changing climate.

Objectives

Council is committed to responding to the risks of climate change to Council assets and services.

The objectives of this policy are to:

- Reduce greenhouse gas emissions (through appropriate mitigation strategies)
- Conserve natural resources
- Promote a safe and healthy community
- Increase Council's resilience to the impacts of climate change

Approach

We aim to achieve the objectives of this policy by:

1. Developing and implementing an Adaptation Action Plan to assess and respond to the impacts of climate change on Council assets and services.
2. Evaluate the climate change implications when making strategic and operational decisions, and developing policy positions.
3. Adopting a Climate Change agenda item at Senior Management Group meetings to initiate and report on projects within the organisation which support this policy.

Deployment

Climate change impacts are experienced across the organisation and community, and mitigation and adaptation actions are implemented by Councillors, staff and community members.

This policy applies to Council services and assets. It is to be considered when Council and its officers make recommendations and decisions, or design and review programs, processes and projects. This policy also applies to Councillors as the elected representatives of the Towong Shire in their decision making and advocacy; and to all employees, agency employees, sub-contractors and volunteers whilst they are working on Council sites and/or under Council direction.

Relevant legislation

The local policy and planning context relevant to climate change adaptation is tabulated in Table 1 with quotes from key council documents. Some of these guiding documents acknowledge climate change and the increasing nature of extreme events, and others take the additional step in putting forward various adaptation responses.

Resources

The following resources are committed by Council to assist with the implementation of this policy:

- Director Community and Corporate Services to manage implementation of this Policy
- Managers to implement this Policy
- Other resources as deemed necessary by the Chief Executive Officer.

Table 1. Towong Shire Council local policy and planning context relevant to climate change

TSC document	Relevant content
<p>Council Plan 2017-2021 (Towong Shire Council, 2017)</p>	<p>Mission : 'To provide leadership and service to the Towong Shire community that adds value and enhances social, economic and environmental wellbeing now and in the future'.</p> <p>Items listed as ongoing responsibilities for the Environmental sustainability Key Result Area:</p> <ul style="list-style-type: none"> • Prioritise resource allocation to support environment systems • Increase staff and community environmental awareness and integrate environmental management into Shire activities where possible
<p>Municipal Strategic Statement (Towong Shire Planning Scheme)</p>	<p>The Municipal Strategic Statement acknowledges the challenges and opportunities presented by climate change in clause 21 under '21.02-2 Economy' and '21.04-8 Climate change'. A key strategic action is "the implementation of the recommendations of the Climate Change in North East Victoria: Socioeconomic Resilience Plan (2012) to improve economic, industry and community resilience within Towong shire."</p>
<p>Municipal Emergency Management Plan (Towong Shire Council, 2018)</p>	<p>Increasing frequency and intensity of extreme events (particularly heatwaves) are acknowledged in the risk assessment that fed into the emergency management planning process.</p>
<p>Municipal Public Health and Wellbeing Plan (Towong Shire Council, 2013)</p>	<p>Action 1.1.2 "To investigate future climate change health and wellbeing impacts and effects on the local community"</p>
<p>Heatwave Plan (Towong Shire Council, 2017)</p>	<p>Under 'Council obligations under Government Legislation and Policy', the plan refers to the following documents, including linkages between heatwave and climate change: Public Health and Wellbeing Act 2008, Emergency Management Act 1986 and 2013, Climate Change Act 2010, Planning and Environment Act 1987, Our environment, our future sustainability action statement 2006. This statement identifies community and local government as the levels most appropriate for heatwave emergency planning and response.</p>

Results

The deployment of this policy together with the results achieved will be reviewed at least annually.

References

FN1-IPCC (2007) Fourth Assessment Report: Climate Change 2007: Synthesis Report

https://www.ipcc.ch/publications_and_data/ar4/syr/en/mains1.html

Timbal et al. (2015), *Murray Basin Cluster Report*, Climate Change in Australia Projections for Australia's Natural Resource Management Regions: Cluster Reports, eds. Ekström et al., CSIRO and Bureau of Meteorology, Australia. Accessed 2/2/2015:

- Cluster full report
http://www.climatechangeinaustralia.gov.au/media/ccia/2.1.4/cms_page_media/172/MURRAY_BASIN_CLUSTER_REPORT.pdf
- Cluster summary brochure
http://www.climatechangeinaustralia.gov.au/media/ccia/2.1.4/cms_page_media/176/MURRAY_BASIN_BROCHURE.pdf

Towong Shire Council (2017) *Council Plan 2017-2021*

Towong Shire Council (2013) *Towong Healthy Communities Plan 2013 – 2017*

Towong Shire Council (2017) *Towong Shire 2017 Heatwave Plan*

Towong Shire Council (2018) *Municipal Emergency Management Plan*

Towong Planning Scheme, containing the Municipal Strategic Statement at Clause 21

FN2 - [Walker, B. and Salt, D. \(2008\) Resilience Thinking: Sustaining ecosystems and people in a changing world. Island Press. U.S.A.](#)

Appendice 3

The Renewable Energy and Development Policy has its latest version updated in October 2018 and it includes in its objective its compromise to Increase community awareness of the real costs of energy and available opportunities to reduce these costs through encouraging intelligent design and sustainable development.

Renewable Energy and Development

Responsible officer:	Manager Economic Development
Key Result Area:	Environmental sustainability
Document type:	Policy
Reference:	10/01/0004
Approved by:	Council
Date approved:	2 October 2018
Date of next review:	August 2019
Print date:	23 October 2018

Scope

The Renewable Energy and Development Policy is an economic development initiative that aims to identify positive economic outcomes from applying sustainable initiatives in the energy and development sectors. The primary objective of the policy is to generate economic activity through application of sustainable energy programs and projects.

Background

Throughout Australia and across the globe, much attention has been directed towards sustainable development and renewable energy. The decisions that governments, business and individuals make in these areas have implications for our environment, our communities and our economy.

The role of government is to set the agenda and assist communities and business to find solutions and capitalise on opportunities. Local Government in particular is well suited to develop policy and strategies that address these wide ranging issues as well as taking specific local action to deliver 'on the ground' successes that transform policy into meaningful action.

Victoria is now part of a National Energy Market, which has undergone significant reforms over the past ten years to provide higher levels of choice to consumers through competitive retailing of energy. However, the current system has limitations in terms of reliability of supply, transmission losses from existing power generation infrastructure and in recent times, concerns have been raised over the effect of drought on supply capabilities for both hydro generators and coal fired generators that use water for cooling in plants. These circumstances disadvantage the rural communities of Towong and particularly existing and potential industry.

Approach

Climate change will have far reaching implications on economic development. The Australian Federal Government has created a mandatory renewable energy target for production of renewable energy, which acts to increase the costs of traditional energy sources (fossil fuels) while creating demand for renewable supplies. Further, the Australian Federal Government has ratified the Kyoto Protocol, which will act to increase pressure on actions to reduce emissions. In a very real sense, the supply of renewable energy is evolving from being an environmental issue to an economic opportunity.

A number of renewable projects have already been considered in Towong, but the approaches to these have been largely ad hoc. They include a potential bio-fuels plant and an ANU proposal to develop a solar power plant in the Corryong region. Such projects have the capacity to create jobs, increase economic activity and improve energy reliability. In addition to the economic incentives, these projects offer a sustainable source of power with benefits for our communities and the environment.

Council has an obligation to address the disadvantages to industry and its residents by exploring alternative energy production scenarios that are sustainable under an economic development framework. In the current climate of renewable incentives combined with public concern over climate change, this obligation also presents a real opportunity for Towong to market its 'green' credentials on sustainability while at the same time taking advantage of assistance that will make proposals viable from an economic perspective.

Objectives

The objectives of this policy are to:

- Increase economic development opportunities by proactively pursuing alternative energy investment within Towong;
- Find synergies between renewable energy supply and water conservation where possible;
- Develop local jobs through investment, knowledge transfer and capacity building
- Reduce industry reliance on traditional power supplies by introducing locally generated renewable sources of energy through innovative technologies or improved infrastructure;
- Increase community awareness of the real costs of energy and available opportunities to reduce these costs through encouraging intelligent design and sustainable development;
- Reduce overall energy consumption by increasing awareness and avoiding transmission losses associated with non-local generation of power; and
- Reduce emissions of greenhouse gasses from industry and residential properties

Approach

We aim to achieve the objectives of this policy by

- Researching and understanding the current energy market and trends to generate knowledge of future opportunities in the energy sector;
- Developing an understanding of the external influences that will shape the energy market, including government policy, changes in technologies and influences of other sectors on energy such as water and regional development;
- Identifying opportunities through knowledge and developing projects or programs that take advantage of these opportunities in a manner that is consistent with this policy
- Supporting proposed projects and programs through appropriate assessment and resourcing to achieve specific goals
- Building mutually beneficial partnerships with stakeholders who share common objectives of this policy, to identify opportunities for joint action
- Communicating our policy objectives to our staff, communities, stakeholders and externally to generate awareness of our goals and to attract investment
- Marketing our successes in a manner that is consistent with our brand
- Measuring our performance in order to ensure continuous improvement

Deployment

The Chief Executive Officer is ultimately responsible for the implementation of this policy however the Manager Economic Development will oversee the implementation of this policy. The Manager Economic Development is accountable for the operational implementation of relevant programs and projects falling under this policy.

It is recognised that economic development is a vast field that encompasses various disciplines. By virtue of the nature of typical energy programs and projects, a multi-disciplinary team will often be required to achieve the objectives of this policy. Where required the Manager Economic Development will require assistance from other staff, who are responsible for supporting the objectives of this policy in their relevant field.

Application of the Policy

This Policy is applicable to the activities of Council and its communities. The policy is designed to be broad to enable flexibility in meeting the stated objectives. Although this policy is an economic development initiative, it is intended to be applied across a range of disciplines and projects where opportunities exist to undertake appropriate action.

Relevant Legislation

The actions to be taken by Council under this policy are not legal requirements. This policy is the result of a recognition that economic development opportunities exist to take advantage of opportunities presented by the current energy sector circumstances.

However, the following legislation is applicable to renewable energy;

- Renewable Energy (Electricity) Act 2000

Renewable Energy (Electricity) (Large-scale Generation Shortfall Charge) Act 2000

-

The Office of the Renewable Energy Regulator (ORER) is the statutory authority responsible for implementing these Acts and Regulations.

Resources

The following resources are committed by Council to assist with the implementation of this policy:

- The Manager Economic Development is to implement this policy

- The Council will monitor the implementation of this policy
- Appropriate budget and resourcing will be made available for identified projects or programs that meet the objectives of this policy. Such resources will be defined through ongoing assessment and implementation of projects or programs

Results

The deployment of this policy together with the results achieved will be reviewed at least annually. Targets will be project or program specific.

Appendice 4

Here are the minutes of the Council's meetings where the project was reported.

used by the group to advocate for future coordinated funding bids. Projects can include first and last mile road and bridge upgrades. A preliminary list and map of freight routes in Towong Shire has been drafted for prioritisation at the next meeting in February 2017.

Major Patching

The major patching program for the reseal program is complete. Further works will continue in other areas until late March.

Stock Grid Policy

Twelve stock grids have now been registered on Section 173 Agreements with the Land Titles Office with another five grids (over three agreements) to be presented at the February 2017 Council meeting.

The majority of Stock Grid Section 173 Agreements have been mailed out to property owners with a response expected by 30 March 2017. A number of requests have been sent out for company director's details to include in the Agreements. Responses to these requests have been slow to return. Reminder letters will be sent out in the first quarter of 2017.

A recent survey of all stock grids on public roads within Towong Shire has highlighted that many of the stock grid signs purchased from Council are yet to be installed.

Fencing has been completed on Ranch Road, Tintaldra enabling the removal of two more stock grids in the near future. The stock grid on Hardys Road, Tallangatta has been removed following the fencing of the last section of the road. Two stock grids are also programmed for replacement on Callaghans Creek Road.

Whiteleys Pit

Rock extraction and crushing at Whiteleys Pit, Cudgewa commenced on 9 January 2017.

Banking on Our Solar Future

A solar battery system has been installed in the Tallangatta Library and Community Centre to optimise the use of the 30 kW Solar panel system installed on the roof during construction of the building. As part of the project the energy consumption of the building will be projected onto a monitor in the library to demonstrate the efficiency of the system to the public and raise awareness of battery technology. This

installation is part of the Banking on our Solar Future project funded through the Victorian Climate Change Grants program.

Impact on Council Policy:

Nil.

State Government Policy Impacts:

Nil.

Budget Impact:

	Note	Dec 2016 YTD (Actual) \$	Dec 2016 YTD (Budget) \$	Dec 2016 YTD (Variance) \$	Dec 2016 YTD (Variance) %	2016/17 Full Year (Budget) \$
Income						
Funding	1	1,126,688	1,569,222	(442,534)	(28%)	4,419,630
Private Works Income		8,411	4,000	4,411	110%	10,000
Total Income		1,135,099	1,573,222	(438,123)	(28%)	4,429,630
Expenditure						
Technical Services	4	421,332	367,315	(54,017)	(15%)	766,946
Works		22,718	16,790	(5,928)	(35%)	33,600
Roads and Bridges	2	615,580	632,860	17,280	3%	1,218,366
Depreciation		-	-	-	0%	2,399,000
Street Lighting	3	4,415	24,996	20,581	82%	50,000
Depot and Workshops	4	112,091	84,780	(27,311)	(32%)	190,743
Plant and Equipment	5	53,970	99,070	45,100	46%	617,546
Private Works	6	23,736	500	(23,236)	(4,647%)	1,000
Water Projects		-	-	-	0%	3,000
Total Expenditure		1,253,842	1,226,311	(27,531)	(2%)	5,280,201
Net Income / (Expenditure)		(118,743)	346,911	(465,654)	(134%)	(850,571)

Notes:

1. North East Water contribution to Destination Tallangatta \$139k unbudgeted and \$600k budgeted to be received for R2R.
2. Road maintenance budgets spread evenly across 12 months. More maintenance will be completed in dry weather.
3. Savings due to changing to more efficient globes and one invoice not captured in this financial year ledger.
4. Christmas pay period/holidays processed in advance.

- Mitta Avenue, Hillcrest Avenue, Dwyer Crescent, Spy Court, Murray Place, Vista Court, Bellbridge

Banking on our solar future

This project has a number of components including the:

- Installation of a battery system at the Tallangatta Integrated Community Centre with monitoring and public display of the electricity consumption of the solar/battery feed into the building.
- Mapping of the existing, potential solar installations across the Shire.
- Information sessions at Corryong and Tallangatta.

The battery system has been installed and Council is currently working with the suppliers to fine tune the data for public display. Options for mapping are currently being explored and will be made available to the public upon completion. This project has been part funded by the Victorian Climate Change Grants program administered by DELWP.

Impact on Council Policy:

Nil.

State Government Policy Impacts:

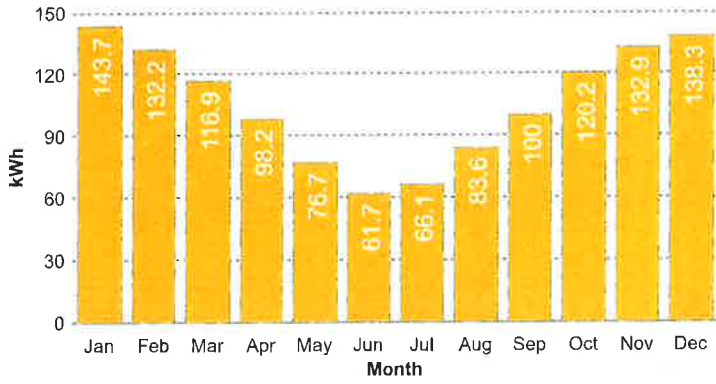
Nil.

Appendice 5

This is the energy profile of the system installed at Towong Shire Council office at Tallangatta.

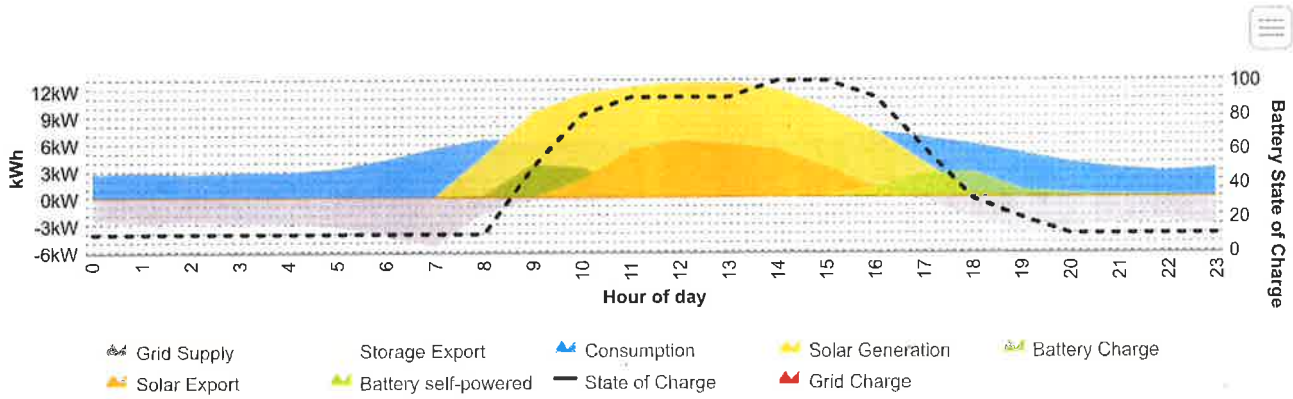
Av. daily solar production

Energy source



Grid: 42% Solar: 51% Battery: 8%

Av. daily energy profile



Enjoy these Benefits



Est. lifetime savings:
\$337,283



Self-consumed energy:
58%



Solar export earnings p.a:
\$1,456



CO₂ reduction:
44.4 tonnes CO₂

Appendice 6

The Milestone 3 report is presented in this section.

Victorian Climate Change Grants 2015 Milestone Report

Lead council:	Towong Shire Council		
Project title:	Banking on Our Solar Future		
Milestone number:	3		
DELWP contract number:	OOPP:38032		
DELWP purchase order number:			
Project manager:	Monique Tinoco		
Primary author:	Monique Tinoco	Position:	Civil Asset Engineer
Project start date:	20/5/16	Project completion date:	20/11/18
Milestone due date:	20/11/2018	Date submitted:	20/11/18

Milestone report approved by*:	
Date:	

*The report must be signed off by the project control group.

Victorian Climate Change Grants 2015 Milestone Report

1. Milestone deliverables and achievements

Milestone description	Summary of activities to achieve milestone	Completed Y/N
Develop Final project report Compile financial report on entire project	<ul style="list-style-type: none"> Final project report clearly articulates completed project activities, achievements, lessons learnt and evaluation 	Y
	<ul style="list-style-type: none"> Final project report endorsed by Project Control Group and completed to the State's satisfaction 	Y
	<ul style="list-style-type: none"> Financial report details which confirms project expenditure, with sign-off from a council Finance Officer 	To be provided when the expenditure of funds to be finalised in your council's financial system
	<ul style="list-style-type: none"> Financial report endorsed by Project Control Group and completed to the State's satisfaction 	Y
	<ul style="list-style-type: none"> Milestone report endorsed by Project Control Group and completed to the State's satisfaction 	Y

2. Issues of concern / risks / variations or potential variations

Issues	Response
Project not completed by the due date	A contract variation was submitted and approved by DELWP in order to extend the project final date to 20 th Nov 2018.
Potential financial underspent	Submitted and approved the inclusion of a new activity in the project scope which consists of an installation of a solar system (Solar panels + battery) at the Towong Shire Council office at Tallangatta.

3. Report: Financial expenditure and justification of any spending during this milestone period

See attached

4. Report: Breakdown of any in-kind reporting during this milestone period

See attached

5. Opportunities

This is the final milestone report for this project. Council anticipates future opportunities to expand solar systems installations within the Shire.

6. Promotional activities undertaken

Date	Publication Title	Article / Activity Title	Description of Article or Activity

Victorian Climate Change Grants 2015 In-kind Financial Reporting Template



Project Name: Banking on Our Solar Future
Lead Council: Towong Shire Council
Partner Councils: N/A
Milestone Number: 3
For the Period: Between 01.10.2016 - 20.11.2018

Note: Fill in the green cells only - the grey cells will automatically calculate totals

Partners	Activity	Total number of people, hours or uses		\$ Rate		
Towong Shire Council	Room hire			per event	\$0.00	
	Catering			per quote	\$0.00	
	Meeting Attendance			per person	\$0.00	
	Workshop/ seminar attendance			per person	\$0.00	
	Project Officer time (project planning etc)	5	37	per hour	\$170.02	
	Senior Manager time (project planning etc)	42	50	per hour	\$2,106.00	
	Vehicle			per day	\$0.00	
	other in kind expense				\$0.00	
					TOTAL	\$2,276.02
					Amount indicated in milestone	
				Variance	\$2,276.02	
				TOTAL INKIND EXPENSES	\$2,276.02	
				TOTAL VARIANCE FOR THIS MILESTONE REPORTING PERIOD	\$2,276.02	

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