

Bega Valley Shire Council case study: 100% renewable energy target



Bega Valley Shire Council is updating its energy strategy with a more ambitious target to achieve 100% renewable energy by 2030.

Working with the NSW Government to develop this new strategy has prompted us to reflect on what we've done and to explore opportunities through a lens that reflects ongoing changes in the energy market.

Daniel Murphy, Coordinator Environmental Management

Summary

Bega Valley Shire Council, a local government on the far south coast of NSW, wanted to set more ambitious targets for its existing climate change strategy.

This case study highlights the value of a clean energy strategy process to drive continuous improvement.

Using the clean energy strategy process, the Council set a stronger focus on renewable energy and is moving to a more ambitious renewable energy target – from 20% for 15 sites to 100% across the board. These targets are already driving action, including projects for solar PV, upgrading to LED street lights and upgrading to energy efficient equipment.

About the Council

Bega Valley Shire Council is a local government organisation on the far south coast of NSW. Over the past few years the Council has implemented solar PV and energy efficiency projects, buoyed by local initiatives such as the Tathra Community Solar Farm. These projects lowered energy consumption and improved community engagement.



Current energy situation

In 2015-16 the Council's greenhouse gas emissions were 29,650 t.CO₂-e (tonnes of carbon dioxide equivalent), with the largest component (71%) generated by waste sent to landfill. Energy expenditure was primarily on electricity (63%), followed by fuel for the vehicle fleet. Around 60% of the electricity was used for the main administration building, aquatic centres, sewage treatment plants, water management services and street lights (see Figure 2).

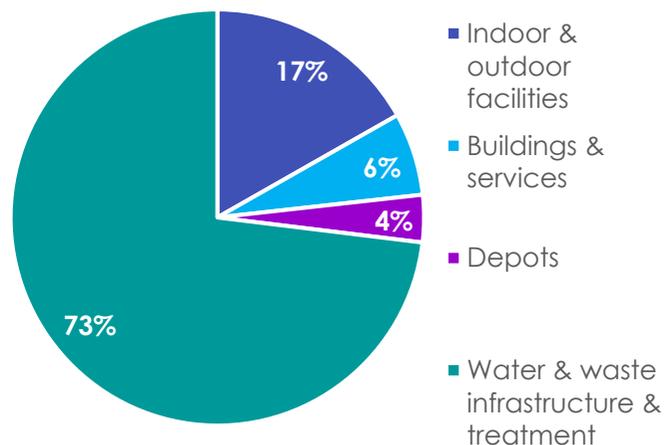


Figure 2: Council electricity consumption from the grid

What is a clean energy strategy?

The NSW Government is actively encouraging businesses to develop clean energy strategies for achieving 100% renewable energy and emissions reduction.

A strategy includes an individually crafted mix of measures for reaching a clean energy target. Measures might include energy reduction, energy efficiency, on-site solar or other renewable energy, off-site procurement of renewable energy or purchase of carbon emission offsets.

Fast facts: Council's energy situation and clean energy strategy

	Electricity consumption	<ul style="list-style-type: none">Estimated at 7,100 megawatt hours per annum
	Electricity cost	<ul style="list-style-type: none">Estimated at \$1.7 million per annum
	Clean energy target	<ul style="list-style-type: none">Leading towards 100% renewable energy
	Possible measures	<ul style="list-style-type: none">Implement solar PV at key Council sitesEnergy efficiency upgrades

Setting a target

The target was set by first analysing the Council's current situation. This analysis identified the Council's priorities, key stakeholders and issues that would influence the clean energy strategy.

Stakeholder workshops were used to get input on four areas of the clean energy strategy: what should be included in the strategy (scope), what kind of target should be set, when to get there and strategies to reach the target.

On each of the areas, the workshops found stakeholder support to:

1. include all emissions in the strategy (electricity, vehicle transport, landfill emissions)

2. choose a renewable energy target that is tangible and specific, rather than a generic emissions reduction target
3. set aspirational 2030 targets, with interim targets. These should align with the Council's broader plans
4. reduce the Council's footprint across energy use areas, generate electricity to meet its own needs and offset vehicle fleet and landfill emissions.

With a preferred target agreed upon, the Council identified funding and measures to consider that would drive action to reach the target.

Measures to reach the target

Install solar PV systems

Install solar PV behind the meter at key Council sites, offsetting some of the site's electricity consumption from the grid, and sized so most of the electricity generated would be consumed on site. Key Council sites include Bega depot and sewage treatment plant and Sapphire aquatic centre.

Bega Council will also look to partner with other organisations to generate renewable energy, either on Council land or off-site.

LED street lights and energy efficiency

This project requires coordinating with the network operator to coincide with the next bulk lamp replacement cycle and install energy efficient LED street lights.

Other efficiency projects include: upgrading lighting to LED in buildings, installing lighting controls – occupancy sensors and dimming controls, and other projects focusing on optimising equipment on sewage treatment plants (as these consume the most energy in the Council's portfolio).

Greenhouse emissions abatement

Implementation of a Food Organics Garden Organics (FoGo) system to reduce emissions associated with waste management operations, such as composting, landfill gas flaring and landfill diversion. Options for vehicle fleet emissions abatement include electrification, reducing vehicle size and purchasing carbon offsets.

Bega Valley Shire Council's key clean energy strategy takeaways

The value of a clean energy strategy for engagement: Developing a strategy brings stakeholders to the table and clarifies which opportunities should be implemented. Engagement is critical to ensure key staff have input on the target and strategies. Allow sufficient time to make sure this is done well.

A specific, measurable target can help to drive change: The targets in the previous climate change strategy were used internally and externally to provide focus and to demonstrate that the organisation was serious about addressing climate change. The new strategy, with its target of 100% renewable energy, is even more goal-oriented and will provide direction and focus to the sustainability program.

For more clean energy strategy case studies and a how-to guide for developing a clean energy strategy, visit energy.nsw.gov.au/clean-energy-strategies. While every reasonable effort has been made to ensure that this document is correct at the time of printing, the State of NSW, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance or upon the whole or any part of this document. October 2018 © Crown Copyright State of NSW through NSW Department of Planning and Environment 2018.

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