

Renewable Energy Installations on Council Assets

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1. PURPOSE

To ensure the consistent implementation of a strategic and proactive program for generation of renewable energy on Council assets that supports the Principles and Objectives of the Community Strategic Plan.

2. STATEMENT

The Community Strategic Plan identifies “Council’s water and energy consumption” as as one of the measures to gauge. This Policy actively supports the following strategies:

- 2.3.1 *Develop solar, wind and other renewable energy sources for Council*
- 2.2.1 *Plan and implement corporate carbon emissions management strategy*

The renewable energy installations must achieve for Council

1. active promotion of renewable energy to the community
2. long term operational savings,
3. reduce operating costs
4. have a payback period – cost effective capital investment

Council will:

- prioritise its capital investment in renewable energy solutions, giving high priority to its high energy-use and more publically visible assets, and
- Continuously investigate the feasibility of setting up a larger scale centralised offsetting facility, only if whole of life costs are reduced.

The strategic basis of this policy reflects Council’s responsibilities to:

- embrace renewable energy to protect Council and its community against future increases in the cost of energy provision,
- demonstrate leadership to the community through the use of renewable energy solutions,
- respond to the effects of a low carbon economy,
- Recognise the ‘whole of life cost’ of assets.

This Policy will complement the Energy Savings Action Plan, an important tool that guides Council's avoidance and reduction of energy use, which also identifies high energy use assets where offsetting will be beneficial in the long term and links with Council's sustainability action plan – Section 5 Energy.

3. PROVISIONS

3.1 What is classified as renewable energy?

Energy can come from either renewable or non-renewable sources.

1. Renewable energy sources such as solar, wind and hydro-power are naturally replenished and produce very few greenhouse gas emissions when operating.
2. Non-renewable energy comes from diminishing stocks of fossil fuels and can produce large amounts of greenhouse gases.

Most electricity currently comes from coal fired power stations that release high levels of CO₂ and other pollutants into the environment. Losses in the transmission system from the power station to the asset also create inefficiency in the current system.

Sustainable energy is broadly the provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs.

Sustainable energy includes all renewable forms of energy derived from natural energetic processes that can be harnessed with little pollution, such as:

- Anaerobic digestion,
- Biomass power,
- Geothermal power,
- Hydropower,
- Incineration of waste,
- Solar energy,
- Tidal power,
- Wave power or,
- Wind power

Renewable energy systems usually operate at low cost *but may have a large capital outlay to implement and install*. The cost per kWh for the system life includes the installation and operating costs and remains unaffected by future energy price rises.

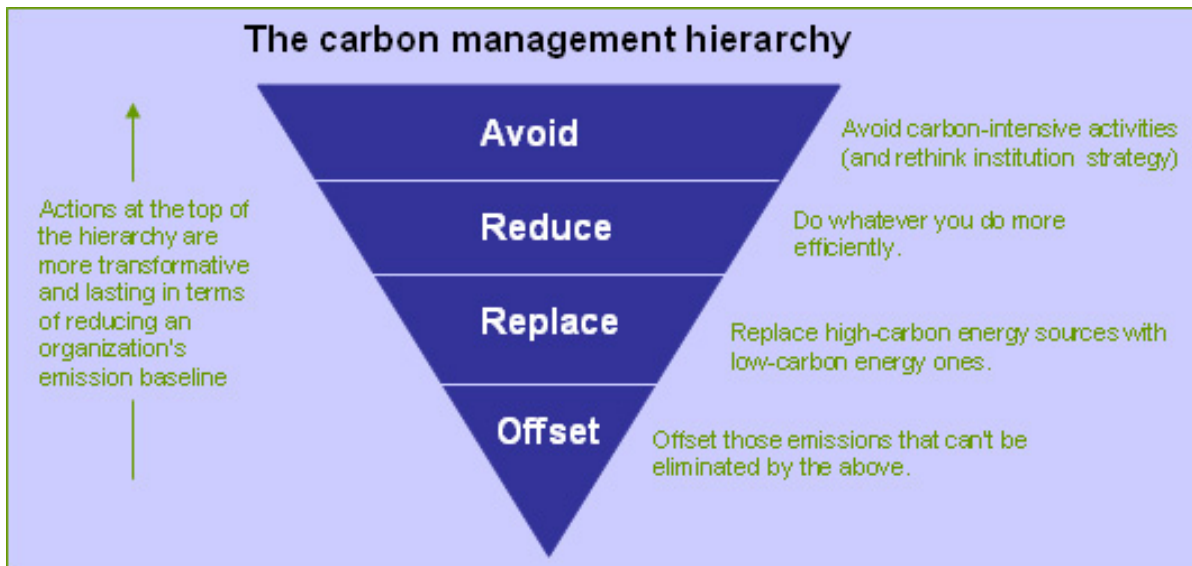
The design and installation of these systems is a complex task requiring specialist knowledge. The [Clean Energy Council](#) has a register of accredited designers and installers who can ensure systems comply with the appropriate Australian Standards.

3.1.1 Funding opportunities

Government rebates, investor or community funding may be an option to offset the initial cost of installing renewable energy power systems on public facilities.

3.2 Carbon Management Hierarchy

Effective carbon management will ensure that Council is in a robust position in the future to cope with and adjust to rises in energy supply costs, guided by the framework of the Carbon Management Hierarchy (below).



Source: www.yale.edu/sustainability/images/carboman.jpg

Actions at the top of the hierarchy are usually more cost effective to implement and have more transformative implications than offsetting. It is important that offsetting energy use is not seen as a 'fix all'. It is critical that Council continues to find innovative ways to avoid reduce and replace its use of energy.

The first three areas of the hierarchy (avoid, reduce and replace) will be achieved through ongoing strategies and actions. Existing plans such as the [Energy Savings Action Plan](#) and [Sustainability Action Plan](#), as well as the Sustainable Futures Committee support and inform continuous review and implementation of initiatives across Council's operations.

This Policy addresses Council's strategic approach to the 'Replacement' layer of the Carbon Management Hierarchy, with the objective of generating more of Council's energy needs from lower-carbon sources.

3.3 Priority Sites and Assets

The following table gives an indication of the type of assets that would be considered as priority sites. This list is not comprehensive. Installations on 'high priority' facilities would fulfil Councils 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

3.4 Factors to consider when investigating installation of a renewable energy solution on a Council asset

1. Is the asset a high energy user?
2. Has there been an effort by occupants to reduce the consumption of energy?
3. Have all viable options been implemented to reduce consumption of energy?
4. Is the building used by the public?
5. Is it a highly visible facility?
6. Will the service from the asset be affected by rising energy prices?
7. Does the Asset Management agree renewable energy is a priority?
8. Is there an opportunity for community education to be coupled with an installation?
9. Has an initial analysis/ investigation been undertaken to see what type of renewable solution would best fit the asset? E.g. wind monitoring, is roof north facing , shading such as trees

10. Have you considered life expectancy of current components? E.g. roof life expectancy versus life expectancy of a solar or PV system installed on a roof.
11. Has pay-back period been calculated? Whole of life requires initial capital cost / replacement cost, ongoing operating cost, life expectancy of asset and its components. Calculation to consider current operating costs versus future costs.
12. Have you checked for Government Grants, community funding or investor funding to offset the cost to Council?

4. IMPLEMENTATION

Once the priority of an asset has been determined from its importance and energy use and factors considered when determining a renewable energy solution for a council asset, then a funding source for *whole of life costs* must be identified and approved.

5. REVIEW

This policy statement will be reviewed:

- within 12 months of the date of the election of a new Council or
- every four years or
- as directed by Council or
- a change occurs in legislation

The Director of Assets and Works shall be responsible for review of this policy

6. APPLICATION OF ESD PRINCIPLES

This Policy supports Council's commitment to ESD principles through:

- a) Education awareness to reduce footprint
- b) Encouraging the avoidance and reduction of energy use; and
- c) Demonstrating leadership to the community in the area of reducing emissions.
- d) Encouraging the installation of renewable energy assets;