

POSITION STATEMENT

POSITION STATEMENT: RENEWABLE ENERGY

1. INTRODUCTION

The Committee for Ballarat is a visionary membership body that provides progressive and innovative leadership, enabling long-term social and economic benefits for an improved quality of life throughout Ballarat and the greater region. It is committed to providing thought leadership and advocacy for initiatives that connect us with our environment and inspire us to live sustainably.

Given Committee's role, and its clear position on climate change, it is important to take a position on renewable energy.

While Australia has huge reserves of coal, which provide relatively cheap energy for nearly everyone in Australia, the worldwide trend against the burning of fossil fuels is beginning to have an impact on consumer households and industry.

The Committee believes that in the near future, renewable energy will become a significant and growing contributor to the energy mix, potentially culminating in an end to burning coal to produce electricity.

Rather than a threat, the Committee believes that a move to a greater reliance on renewable energy will be a boon to the local economy as Ballarat and the surrounding region has already established a strong wind sector, a high penetration of rooftop solar and a nascent, but cutting-edge bio-energy capability.

With traditional manufacturing on the decline, the renewable energy sector in Ballarat and the wider region could provide much-needed jobs and, more importantly, a location for innovation in new technology.

2. RENEWABLE ENERGY TECHNOLOGIES

Ballarat and the surrounding region has invested significantly in both solar and wind energy capacity, and there is increasing interest in converting waste material into energy. These three technologies have the capacity to future-proof this region against escalating costs of conventional energy such as gas and electricity.

a. Solar

Incentives in the form of rebates and feed-in tariffs were responsible for a strong initial uptake of rooftop solar for residences and to a lesser extent businesses. As of 2015, there was 4100MW of installed solar PV generating capacity and the amount of installed capacity increased 10-fold between 2009 and 2011. As was predicted, this (global) trend drove manufacturing efficiencies such that the cost of panels and installation has plummeted. This has been tempered by the phasing out of installation rebates and a steady reduction in feed-in tariffs in incentives. Nevertheless, the payback on installing solar is still a reasonably attractive 4–6 years (based on a 5kW premium-quality system installed facing N–NW) and is likely to reduce even further as electricity costs increase.

On the immediate horizon are grid interactive systems, which further reduce reliance on the grid by virtue of battery storage. The development of efficient, cost-effective batteries has meant that some

homes are now being powered by stand-alone solar energy. Efficient, cost-effective battery storage is the next “big thing” in renewable energy, as not only will it allow homes and business to store energy for use when the sun is not shining, it will also accelerate the uptake of electric vehicles, bicycles and other transport for urban areas, reducing pollution and noise and running costs.

b. Wind

The recently reviewed Renewable Energy Target aims to see another 5000– 6000 megawatts of renewable energy capacity in Australia by 2020. Wind energy’s status as the cheapest source of renewable energy means it will contribute over half (and possibly more) of this new capacity. This translates to over 4000 MW of new wind farms built in this time, thereby doubling Australia’s current wind portfolio resulting in over 1500 turbines across the country.

The Ballarat region is well placed to capitalise on this opportunity –

- It has world-standard wind speeds of over 7 m/s, which is amongst Victoria’s best (<http://www.energyandresources.vic.gov.au/energy/about/publications-and-resources/sustainable>).
- There are four existing projects in the region totalling 333 MW, with Waubra Wind Farm the largest, that provide a platform of skills and capacity for future development
- Four further projects totalling 864 MW, with an estimated project value of \$1.8 billion, have planning approval and could proceed by 2020. Stockyard Hill, near Skipton, is the largest of these.
- Other projects in the region are at early stages of development but require firmer government policy before they proceed to construction.

c. Bio-Energy

Bio-energy is an emerging energy source in Australia and involves converting organic matter into usable energy. Various mature technologies can utilise biological materials such as green municipal waste, forestry waste, animal manures, cropping residues and other organic by-products, to produce heat, electricity and/or transport fuels. Elsewhere in the world, where cheap coal is not available, bio-energy makes a significant contribution to the energy mix. The added benefit of energy created from organic waste is that it reduces the amount of greenhouse gas that would otherwise be emitted to the atmosphere.

Landfills are becoming more problematic due to urbanisation, which limits where they can be located, their size and lifetime. Costs to run them are also escalating. Therefore reducing the amount of waste going to landfill and using that material to produce energy is not only a sound environmental decision, but also a commercially advantageous one for local councils and constituents.

Ballarat has expertise in this area through active participation with the Victorian Bioenergy Network through Cultivate Agribusiness, and Federation University’s Business School and Faculty of Science and Technology, along with a number of major manufacturers who are already processing waste sludge into energy.

The City of Ballarat is working to progress a waste-to-energy project that will be a major attractor to the Ballarat West Employment Zone for businesses wanting to benefit from using renewable energy at the site.

3. GOVERNMENT POLICY

The federal government’s main policy instrument to bring about a change in the energy mix is the Renewable Energy Target (RET). This policy is designed to ensure that at least 33,000 Gigawatt-hour (GWh) of Australia’s electricity comes from **renewable** sources by 2020. The RET was reviewed by the government and reduced in June 2015 from the previously legislated 41,000 GWh to 33,000 GWh.

Whilst the reduction in the RET was widely criticised by the renewable-energy sector and green and environmental groups, there has been continued investment in renewable energy with large gas and coal-fired

energy companies such as APA Group and AGL entering the market. Similarly, as mentioned earlier, reduced incentives to install rooftop solar have been compensated for by lower PV and installation costs, resulting in continued penetration, which will only increase as reliable, affordable battery storage becomes available.

This is a clear indication that the tide is turning – or has, in fact, turned – and investments by large energy companies in renewables will accelerate the shift away from fossil-fuel energy.

State governments have also acted to further support a switch from fossil fuel to renewables. In Victoria, the establishment of the Victorian Bioenergy Network within the Department of Primary Industry, with support from Regional Development Victoria and Sustainability Victoria, has placed the Ballarat and the surrounding Central Highlands region as a focus for bio-energy.

Federal and state governments still have the following key challenges within the RET target:

- How to respond to the increasing uptake of rooftop and commercial solar installation, which will reduce reliance on the conventional coal-fired grid infrastructure.
- Develop a clear position on wind farm location that is based on science and overall community benefit.

4. COMMITTEE FOR BALLARAT ROLE AND PURPOSE

The Committee for Ballarat supports the global position on the need to respond quickly and effectively to dangerous climate change. The Committee also sees the opportunity for innovation and leadership in new and existing industries that are responding to this major challenge.

The Committee for Ballarat supports government action to mitigate greenhouse gas emissions and encourages member companies to remain abreast of government policy and to explore renewable energy opportunities that will enhance both their competitiveness and environmental responsibility.

The Committee for Ballarat's Sustainable Living task team membership comprises industry experts, who as part of their roles within member companies and organisations, have broad knowledge and understanding of the rapidly changing renewable energy landscape. This will ensure the Board remains informed in this important area.

The Committee for Ballarat will advocate and lobby government for even greater support to establish this region as the renewable energy centre for innovation, capitalising on the region's strengths in technical knowledge and education and its already well-developed applications of solar, wind and bioenergy.