



Renewable Energy

Melbourne, Victoria, Australia

Tap into the growth of the renewable energy sector – we have the resources.

The timing and conditions are perfect for investment in the Victorian renewable energy industry. With strong market potential, ready access to resources and an effective operating environment, Victoria has it all.

Mandatory Renewable Energy Target

Demand for renewable energy is guaranteed to grow, driven by legislated renewable energy mandatory targets, general electricity consumption growth and increasing consumer preferences for 'green' renewable energy.

Victoria is increasingly getting behind the use of renewable sources for energy generation. The Victorian Renewable Energy Target (VRET) scheme will be included in the additional 45,000GWh of mandatory renewable energy announced by the Australian Government in late 2007. Given Victoria's abundant renewable energy resources, a significant proportion of this renewable energy generation is likely to come from Victoria.

The higher renewable energy target should boost renewable energy generation in Victoria to at least **10% by 2016**. Initiatives to promote consumer demand for renewable energy have been introduced and electricity consumption is forecast to grow at 1.7% pa 2007-2020 fuelling an increase in market potential in the renewable energy sector.

» climatechange.gov.au/renewabletarget

Australian Government action on climate change

The Australian Government is committed to ensuring Australia meets its responsibilities in facing global challenges. Initiatives include:

- ratifying the Kyoto Protocol; Australia has committed to ensuring its greenhouse emissions over 2008 to 2012 are no more than 8% above 1990 levels
- reducing Australia's greenhouse gas emissions by 60% on 2000 levels by 2050
- implementing a comprehensive emissions trading scheme by 2010 to deliver these targets
- setting a 20% target for renewable energy to be reached by 2020 to dramatically increase the use of renewable energy
- investing in research and development on low emissions technologies
- assisting households and businesses to use energy wisely
- managing our land to reduce emissions.

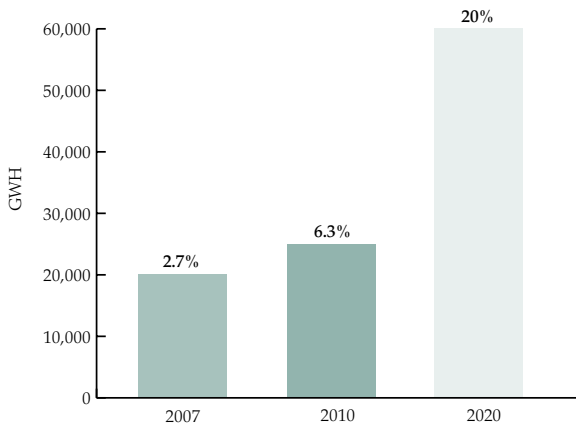
» climatechange.gov.au

Source: Australian Government, Department of Climate Change

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Renewable energy consumption in Australia



Source: Renewable Energy (Electricity) Act 2007, Australian Government election commitment

Market potential

The growing renewable energy sector in Australia provides opportunities for manufacturing and service industries that support renewable energy generators. Victoria has a strong manufacturing history where many international and local companies position themselves here to leverage industry growth and local capability.

Business opportunities extend to the growing Asian market, which has significant growth rates in electricity consumption and generation. And a number of significant Asian economies have introduced legislative frameworks to stimulate the use of renewable energy.

Victoria provides a stable and English speaking business environment with sound intellectual property protection, and a multicultural population that provides a multilingual skill base that can facilitate your business in Asia.

Victoria - leading growth in renewable energy

Victoria has a range of initiatives in place to drive the development of renewable energy. These initiatives make Victoria an attractive environment for investment in renewable energy technologies.

» sustainability.vic.gov.au/investment

Energy Technology Innovation Strategy

The Victorian Government has committed more than \$160 million to drive advances in pre-commercial sustainable energy technologies, such as solar, energy storage, biofuels, biomass conversion, geothermal energy efficiency and clean distributed energy, as part of its Energy Technology Innovation Strategy (ETIS).

This includes \$72 million in funding to support large-scale demonstrations of leading sustainable energy technologies in Victoria. It is designed to accelerate these technologies to the commercially-ready stage, so that the renewable industry can meet increasing market demand for green power.

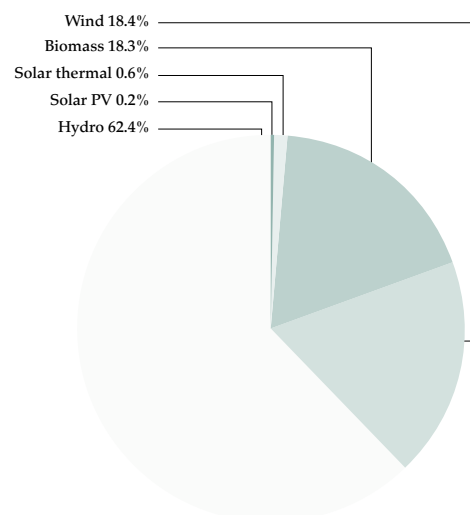
Current initiatives also include:

- **\$50m grant to Solar Systems Generation** to establish the world's largest and most efficient solar photovoltaic concentrator demonstration project in regional Victoria.
- **\$10m for Sustainable Energy Research and Development Grants** supporting new renewable energy technologies, including solar energy, hydrogen fuel and waste-to-energy research.
- **\$29.25m for the Centre for Energy and Greenhouse Technologies** which provides investment funds to support the development of new sustainable energy and greenhouse reductions technologies to a pre-commercial stage.

» dpi.vic.gov.au

Source: Victorian Government, Department of Primary Industries

Composition of Victoria's renewable energy sector 2007



Source: Sustainability Victoria 2007



Our energy sources

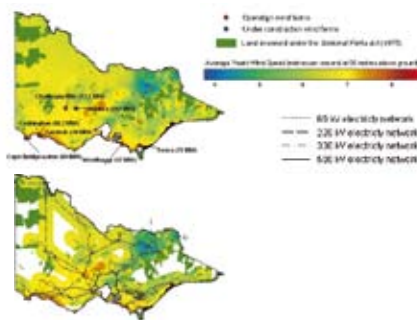
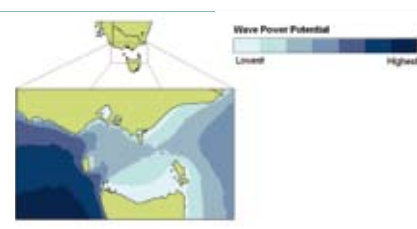
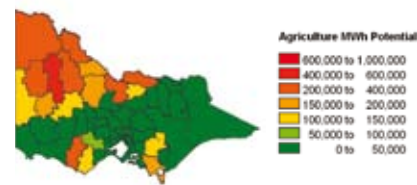
Victoria has excellent access to sustainable fuel sources with wide-open spaces, ocean-lined borders, and extensive industry and agriculture.

Victorian Resources, Benefits and Key Players

Resource	Benefits	Key Players
Solar	<ul style="list-style-type: none"> - Melbourne receives more solar radiation than Barcelona. - Average yearly global solar exposure on a horizontal surface 12-20 MJ /m² / day. - Current installed base of 2.4 MW. <p>Solar Radiation data supplied by the Bureau of Meteorology</p>	Solar Systems BP Solar Origin Energy Selectronics
Bioenergy	<ul style="list-style-type: none"> - Untapped potential from farming to industrial waste. - Crops: wheat, barley, field peas, canola, chickpeas, faba beans, lentils and lupins. - Livestock: beef & dairy cattle, poultry and pigs. - Installed capacity of 101 MW. <p>Agricultural resources included in calculation: Crops - Wheat, Barley, Field Peas, Canola, Chickpeas, Faba Beans, Lentils and Lupins Livestock - Beef cattle grazing, Dairy cattle grazing, Dairy cows in semi-feedlots, Poultry slaughtered, and Pigs farmed.</p>	Babcock & Brown EDL Diamond Energy
Hydro	<ul style="list-style-type: none"> - Potential to install about 30MW of mini-hydro (<1MW) electricity generation on existing water supply infrastructure. - Installed capacity of 603.9 MW. <p>This resource assessment was developed in partnership with Hydro Tasmania</p>	Pacific Hydro AGL Snowy Mountain Hydro
Geothermal	<ul style="list-style-type: none"> - Geothermal temperature increase of 3 - 4°C per 100 metres from the surface. - Geothermal hotspots with a temperature gradient of 7-8°C per 100 metres. - Highly productive aquifers in the unconsolidated basin sediments at depths of up to 1000 metres providing uniformly high productive geothermal bores. <p>This resource assessment was developed in partnership with Sinclair Knight Merz and Professor Jim Cull, Monash Geoscope</p>	Geodynamics Green Earth Energy Hot Rock Energy
Wave	<ul style="list-style-type: none"> - Victoria has world-class wave resources, particularly west of Cape Otway. A number of wave energy projects are proposed for Portland <p>This resource assessment was developed in partnership with Water Technology Pty Ltd</p>	Ocean Linx
Wind	<ul style="list-style-type: none"> - Access to world-class wind resources (one of the highest average wind speeds in the world). - Fastest growing renewable energy industry in Australia. - Installed capacity of 134 MW (252 MW currently under construction). 	Pacific Hydro Roaring 40s Suzlon Acciona

Detailed resource maps on all renewable energy resources are available at:

» sustainability.vic.gov.au/invest





Strategic Location

Victoria has a favourable time zone- bridging North American and European working hours and providing ready access to the Asian market. Melbourne serves as a focus for economic activity and acts as a transport, manufacturing and service industry hub in Australia.

Melbourne has the largest 24/7 freight and passenger airport in Australia. Melbourne Port is Australia's largest and busiest container sea-port, handling 37% of Australia's container trade. There are also well-serviced container ports at Geelong and Portland.

Sound legal framework and protection

Australia's intellectual property system and business legal framework is well regarded internationally as providing a stable business environment that is conducive to enterprise and protective of innovation. Victoria affords your business a high level of protection and provides for efficient support of renewable energy projects.

Skills

Victoria has a population of 5 million including 2.3 million workers, 46% of whom are under 35 years old. Over 150 different languages are spoken in Victoria, providing a diverse base of cultural backgrounds from which to draw staff that can facilitate your expansion into new regions.

Victoria has one of the highest rates of tertiary participation in the Asia-Pacific region. The State also has nine world-class universities which have a range of relevant science and engineering courses providing a constant stream of highly skilled graduates.

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Technology

Melbourne is Australia's knowledge, innovation and technology capital, and is home to a large cluster of research institutes, universities, Cooperative Research Centres (CRC) and technology parks. These will provide your business with the latest in technological developments.

Sustainability Victoria focuses on changing the way Victoria supplies and uses resources. It helps businesses improve their competitive edge by applying leading thinking to the sustainable use of resources. Sustainability Victoria works with all levels of Government to integrate sustainability into policies and actions to reduce environmental impacts.

sustainability.vic.gov.au

Invest Victoria is the point of entry for all enquiries about establishing a new business or growing existing business in Victoria. Invest Victoria will work with you to develop business solutions that meet your company's needs, and work with you through the range of establishment issues to ensure that your business future in Victoria is secure and profitable.

investvictoria.com

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