Energy in Victoria

Energy Technology Innovation Strategy

As we move towards a carbon-constrained world, innovative environmental solutions are essential to maintain Victoria's abundant and affordable energy supplies.

Through its **Energy Technology Innovation Strategy**, the Victorian Government is investing more than $180 million to drive advances in low emission technologies and to secure Victoria's energy future.

Working with both coal and renewable resources, the strategy aims to accelerate a variety of pre-commercial energy technologies through research, development, demonstration and deployment stages, so that they are ready for market-uptake. The focus is on those technologies best able to deliver clean, cost-competitive energy supplies for the state. This includes new technologies for power generation as well as looking at alternative high-value, high volume applications.

Working in partnership with industry, the strategy works to balance both the environmental and economic impacts of climate change. There is a particular focus on clean coal technologies, to ensure the continued use of low-cost, locally available resources. In addition, it makes a large investment to progress renewable energy technologies.

Initiatives under the Energy Technology Innovation Strategy include:

Clean Brown Coal Technologies

- **More than $80 million** over five years to support new pre-commercial demonstration plants, making use of clean coal technologies on an industrial scale. Located in the Latrobe Valley, these plants have attracted strong industry and Commonwealth Government support.
  - $50 million grant to HRL Limited to build and run a large-scale power plant using world-first clean coal technologies developed in Victoria. The 400 MW plant will trial a high-efficiency, integrated drying gasification technology, which is both low-cost and low-emission.
  - $30 million grant to International Power Hazelwood to develop a new large scale coal drying and combustion plant. In addition, a 25 tonne per day carbon capture plant will be built to demonstrate the latest carbon capture technology. New efficiencies gained through these technologies are expected to significantly lower CO_2 emissions as compared to the current Hazelwood plant.

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- **$12 million for Brown Coal Research and Development Grants** to boost use of the state's massive brown coal reserves, including research in technologies for coal drying, carbon capture, oxy-fuel combustion and efficiency improvements.
- **$1.2 million for Brown Coal Research and Development Post Doctoral Fellowships.**
- **$6 million for a Carbon Dioxide storage trial** (geo-sequestration) in the Otway Basin.

Renewable & Sustainable Energy

- An up to **$50 million grant to Solar Systems Generation Pty Ltd** to establish the world's largest and most efficient solar photovoltaic concentrator demonstration project in regional Victoria. Using clean energy from the sun, this 154MW plant will be capable of powering 45,000 homes. This project has also attracted significant Commonwealth Government support.
- **$10 million for Sustainable Energy Research and Development Grants** supporting new renewable energy technologies, including solar energy, hydrogen fuel and waste-to-energy research.

Other Victorian Government energy related initiatives include:

- **$29.25 million for the Centre for Energy and Greenhouse Technologies** (CEGT). The CEGT provides investment funds and support services for the development of new sustainable energy and greenhouse reductions technologies to a pre-commercial stage. Since commencing operation, the CEGT has received nearly 500 applications for funding and achieved a funding base of around 1:7 government-to-private funds.
- **$2.2 million for Mechanical Thermal Expression (MTE)** to construct a pre-commercial plant demonstrating the coal drying technology. Victoria's brown coal produces high levels of greenhouse gas emissions because of its high water content. MTE reduces coal water content with the potential to produce greenhouse gas emission reductions of between 30 and 40 per cent in a new power station.
- **$6.7 million for the Advanced Centre for Automotive Research and Testing** and **$1.59 million for the Centre for Power Transformer Monitoring, Diagnostic and Life Management** funded through the Science Technology and Innovation Infrastructure Grants program.

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