

Energy WA

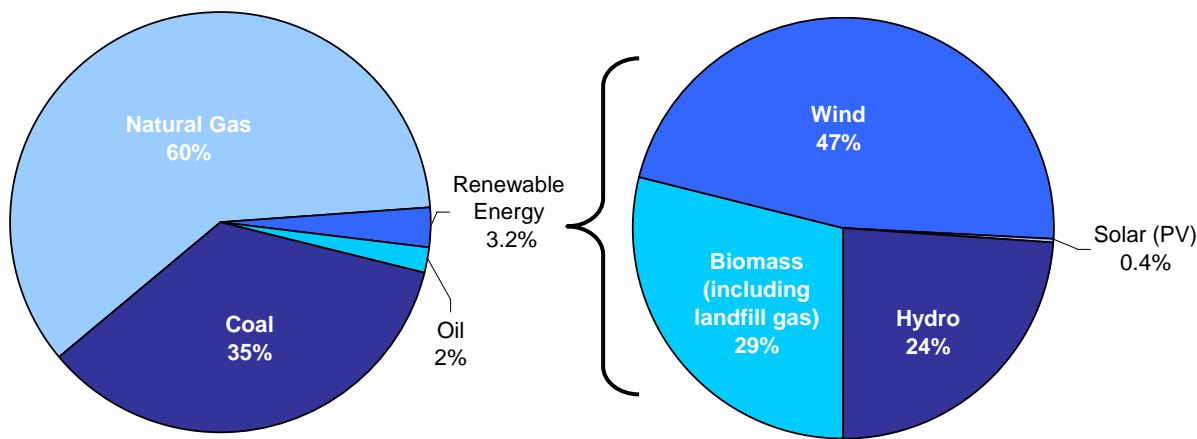
Electricity Generation from Renewable Energy

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Electricity Generated from Renewable Energy in Western Australia

An estimated 26,411GWh of electricity was generated in Western Australia in 2005/06, most of which came from natural gas and coal energy sources. Renewable energy accounts for around 3.2% of the State's electricity generation, nearly half of which is produced from wind power.

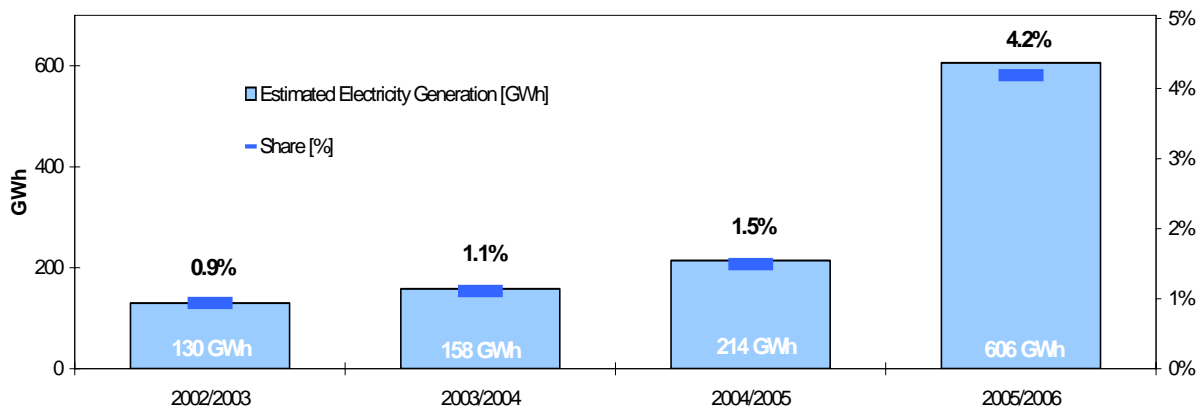
Shares in Western Australian Electricity Generation in 2005/06 by Energy Source*



Electricity Generation from Renewable Energy in the SWIS

The South West Interconnected System (SWIS) is the main electricity grid in Western Australia and connects Perth, Geraldton, Kalgoorlie and the South West. An estimated 55% (14,467GWh in 2005/06) of the State's electricity is generated on the SWIS. Electricity generated from renewable energy in the SWIS has quadrupled in recent years. Currently renewable energy is used to generate an estimated 4.2% of electricity in the SWIS. The Government's target is that 6% of electricity sold on the SWIS will be generated from renewable sources by 2010.

Electricity Generated from Renewable Energy in the SWIS



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Renewable Energy in Regional Western Australia

An estimated 45% (11,944GWh in 2005/06) of the State's electricity is generated in regional Western Australia. Regional Western Australia consists of all areas outside of the SWIS. Electricity generation from renewable sources is approximately 2% of total electricity generated in regional Western Australia.

Some towns in regional Western Australia benefit considerably from renewable energy. The table below shows some of the towns that use renewable energy to meet a substantial amount of annual electricity demand.

Town	Renewable Energy Source	Capacity	Average supply of annual electricity demand
Esperance	Wind	5.6 MW	22%
Denham	Wind	0.7 MW	42%
Bremmer Bay	Wind	0.66 MW	42%
Hopetoun	Wind	0.6MW	30%

Renewable energy has also played a role in pastoral stations. Many pastoral stations have relied exclusively on diesel generators to provide an electricity supply. Due to the cost, the diesel generators are often run for only limited periods each day. Around 40% of pastoral stations have now added renewable energy systems.

For more information on renewable energy in Western Australia, see: <http://www.sedo.energy.wa.gov.au>

Sources: Renewable energy electricity production estimated by Office of Energy based on industry data. Western Australian fossil fuel based electricity generation from ABARE (2005) *Australian energy: national and state projections to 29-30*, ABARE, Canberra. Total electricity generation on the SWIS based on Independent Market Operator (2005) Statement of Opportunities, IMO, Perth.

* Note that the percentages in the pie charts are rounded and therefore the total does not add up exactly to 100%.

