

# Independent Market Operator

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## First stage of reserve capacity cycle successfully completed

The first stage of the first Reserve Capacity Cycle has been successfully completed.

This is a significant step towards securing adequate generation capacity in the South West Interconnected System for 2007/08.

The Reserve Capacity process has secured commitments from market participants to provide a total of 4115.4 MW of capacity for the period October 2007 through to September 2008.

The Independent Market Operator (IMO) had been seeking a total of 4000 MW to meet the reliability criteria set for the South West Interconnected System within the Market Rules. The higher figure actually obtained means that the South West Interconnected System will be provided with a slightly increased reserve margin of generation capacity.

"One of the major requirements in an electricity market is to ensure that sufficient generation capacity is provided", said Ms Anne Nolan, Chair.

"Western Australia is expected to experience a load growth rate of 3.1% per year and the Reserve Capacity process aims to meet this growing demand. The results of this first Reserve Capacity Cycle indicates support for the development of the Wholesale Electricity Market in Western Australia".

The Reserve Capacity Cycle for 2008-09 will commence with a Request for Expressions of Interest being released in January 2006. The IMO will provide further information on this process towards the end of this year.

## Assignment of capacity credits

Eleven market participants have been assigned capacity credits in the first Reserve Capacity Cycle, which totalled 3764.4 MW. These credits were assigned to generation and Demand Side Management facilities that are already in place or under construction.

A further 351 MW of credits were assigned to new capacity that is to be built over the coming two years.

Capacity credits were assigned to a broad range of facilities and market participants reflecting the increasing diversity within the Western Australian marketplace.

The largest allocation was to Western Power covering its exiting generation plant, planned plant upgrades and its Demand Supply Management programmes.

However, other companies will provide over 20% of capacity in 2007/08.

Alinta Sales was assigned a total of 649.7 MW for three major installations. These are the cogeneration facilities being constructed at Pinjarra, the Walkaway Windfarm and the recently announced gas turbine plant to be built at Wagerup. The remaining credits were split between existing and new capacity providers including Worsley Alumina, Goldfields Power and Southern Cross Energy.

A feature has been the significant capacity credits assigned to renewable energy projects, including windfarms. Two large windfarms being built north of Perth, Walkaway and Emu Downs Windfarms, were assigned credits of 71.8 MW. It is also notable that almost 20 MW of credits were assigned to three market participants operating plant fuelled by landfill gas.

Western Australia is developing a reputation as a clean, green state with enormous renewable energy resources and a potential for growth. Renewable generators' positive contribution to meet electricity demand is most welcomed.

The Reserve Capacity process, together with energy reform more generally have established structures that will facilitate viable renewable energy projects and enabled Western Australia to harness its renewable energy resources.

Demand Side Management arrangements were also successful in securing credits. Demand Side Management provides a way for some large customers to commit to reducing their electricity consumption at times of very high system demand. As well as Western Power's existing programme, credits were assigned to the Water Corporation's Demand Side Management programme.

"Generators powered by renewable energy and Demand Side Management facilities will provide just over 5.5% of capacity in 2007/08 which is a positive step forward", said Ms Nolan.

"The success of this first stage provides strong support for the decision to have a specific capacity mechanism within the Wholesale Electricity Market. This has provided a mechanism to ensure that sufficient plant is brought on-line to provide the level of generation capacity required to meet the demands within the South West Interconnected System. It has also demonstrated that a broad range of companies and generator types are interested in participating in Western Australia's electricity sector".

## Summary of capacity credits assigned for the period October 2007 through to September 2008

Provider	Capacity	Fuel Source
> AGL (Gosnells and Rockingham)	3.1 MW	Landfill gas
> Alinta Pinjarra	258.0 MW	Gas
> Alinta Walkaway Windfarm	40.7 MW	Wind
> Alinta Wagerup	351.0 MW	Gas
> Emu Downs Windfarm	31.1 MW	Wind
> Goldfields Power	61.4 MW	Gas
> Landfill Gas and Power	12.1 MW	Landfill gas
> Landfill Management Service	4.1 MW	Landfill gas
> Perth Power Partnership	4.5 MW	Gas
> Southern Cross Energy	19.1 MW	Gas
> Water Corporation (DSM)	11.0 MW	DSM
> Western Power Generation	3152.8 MW	Coal, Gas, Diesel
> Western Power Demand Side Management	120.0 MW	DSM
> Worsley Alumina	46.5 MW	Coal, gas
> <b>Total</b>	<b>4115.4 MW</b>	

*Note: DSM – Demand Side Management*

## What is a capacity credit?

One of the major requirements in developing an electricity market is to ensure that system reliability and security is maintained. This issue is of particular importance in an isolated system, such as the South West Interconnected System where it is not possible to draw support from adjacent systems.

The Western Australian Wholesale Electricity Market has a separate Reserve Capacity Mechanism through which the IMO is charged with the responsibility of securing enough capacity to meet an agreed level of reliability.

The IMO determines the amount of generation and Demand Side Management capacity that is required to meet the forecasted requirements for the market. A Market Participant who offers capacity, which is to be counted towards this requirement, is then assigned capacity credits.

The Market Rules define a capacity credit as “a notional unit of Reserve Capacity provided by a facility during a capacity year”. What this means is that a generator makes a firm commitment to provide capacity to the South West Interconnected System and, in return, the IMO will pay the generator for making its capacity available.

For example, if a generator commits to provide 100 MW of capacity, it is assigned 100 capacity credits. In turn, retailers, and large end-users that trade through the Wholesale Electricity Market, are obliged to fund capacity in proportion to their maximum electricity demand.

The level of obligations is set so that the number of credits produced by generators equals the obligations on customers. These wholesale purchasers can either acquire capacity credits directly from a generator or can purchase them from the IMO.

In 2007/08, the cost of a capacity credit will be \$127,500 per MW. This means that wholesale customers will pay around \$525 million for capacity with this money being returned to the generators and Demand Side Management providers, who hold capacity credits. This represents about one quarter of the wholesale price of electricity. The remainder will be paid through energy prices that are struck by bilateral contracts between generators and retailers or through the short-term energy market.

### Enquiries or to register as an interested party, can be made to the IMO by:

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## The Capacity Credit Process

