

Transmission: who does what?

AEMC Transmission Frameworks Review backgrounder

The National Electricity Market (NEM) is made up of generators, transmission network service providers (TNSPs), distribution network service providers, electricity retailers and end-users.

The market is regulated by the Australian Energy Regulator (AER) and operated by the Australian Energy Market Operator (AEMO).

The Australian Energy Market Commission (AEMC) sets the rules to ensure the market delivers efficient, reliable and safe energy for electricity and gas consumers and provides independent advice to policy makers.

Electricity generators

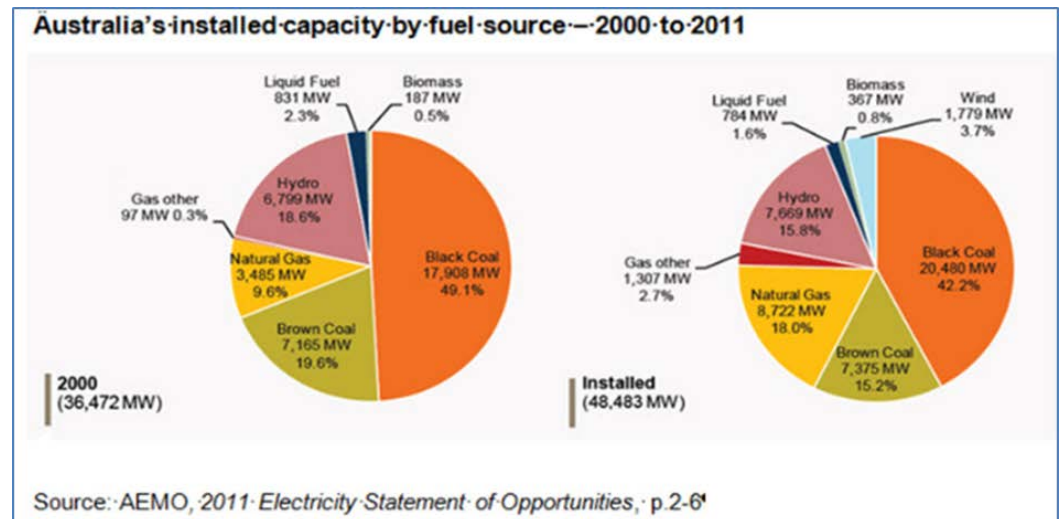
There are approximately 200 large electricity generators across the National Electricity Market owned by a mix of private entities and public corporations.

All these generators access the transmission network to get the electricity they generate to market.

In addition the market has seen a significant increase in the number of smaller generators connected directly to the distribution network.

In 2011, black and brown coal accounted by 56% of registered generation capacity.

The type and location of generation in the National Electricity Market has been steadily changing since 2000 with both black and brown coal falling as a proportion of fuel source.



The Transmission Frameworks Review is creating a flexible framework to deliver cost efficient investment in future generation and transmission.

Transmission network service providers (TNSPs)

Network businesses in the National Electricity Market are called transmission network service providers.

There are five state-based transmission network service providers (TNSPs) servicing each of the states in the National Electricity Market, with cross-border interconnectors linking the grid at state borders to allow electricity to flow from one state to another.

Transmission network service providers link generators to the 13 major distribution networks that supply electricity to end use customers.

STATE	NETWORK	OWNER	LINE LENGTH (KM)
Queensland	Powerlink	Queensland Government	13,569
NSW (and ACT)	Transgrid	NSW Government	12,656
Victoria	SP AusNet	Publicly listed company (Singapore Power International 51%)	6,553
South Australia	ElectraNet	Powerlink (Queensland Government), YTL Power Investment, Hastings Utilities Trust	5,591
Tasmania	Transend	Tasmanian Government	3,469

The role of the Australian Energy Regulator (AER)

The AER is responsible for the economic regulatory functions, enforcement and market monitoring for electricity and gas networks including the National Electricity Market. In relation to electricity transmission, the AER is responsible for approving revenue for services that will allow households and businesses to access the energy they need at the lowest possible efficient cost.

The role of the Australian Energy Market Operator (AEMO)

AEMO is the electricity and gas system operator, responsible for selecting the lowest cost generation to run through the transmission networks of the National Electricity Market. AEMO is also the National Transmission Planner, and is responsible for the annual National Transmission Network Development Plan.

The National Transmission Network Development Plan provides an independent strategic plan offering nationally consistent information about transmission capabilities, congestion, and investment options for a range of plausible market development scenarios.

In Victoria, the transmission arrangements differ to those of the other states in that the transmission network is owned and maintained by SP AusNet, but AEMO makes the decisions to invest in new transmission.

The role of the AEMC - Last Resort Planning Power

As well as setting the rules for the operation of the National Electricity Market, the AEMC currently has a small role in transmission planning through its Last Resort Planning Power. This acts as a safety net to ensure that transmission network service providers are assessing new inter-regional transmission investments where it is appropriate to do so. Under the Transmission Framework Review's proposals in its second interim report this power would be transferred to AEMO.

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