

Submission

No 5

INQUIRY INTO THE ECONOMICS OF ENERGY GENERATION

Organisation: Australian Energy Market Operator - AEMO

Name: Mr Matt Zema

Position: Managing Director and CEO

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Mr Jonathan O’Dea
Chair
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FROM THE OFFICE OF THE
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Dear Mr O’Dea

Inquiry into the economics of energy generation

Thank you for your letter informing us of the Public Accounts Committee Inquiry into the economics of energy generation”.

About AEMO

AEMO is an independent, member based organisation (ownership 60 per cent government, 40 per cent industry) working in the long-term interests of Australian consumers by ensuring that energy markets operate to balance issues of price, quality, safety, reliability and security of energy supply.

AEMO also delivers an array of gas and electricity market operational and planning functions to eastern and south-eastern Australia in which New South Wales is the largest region.

AEMO does not invest or participate in the markets, but its responsibilities include:

- Day to day management of wholesale and retail energy market operations and emergency management protocols.
- Ongoing market development required to incorporate new rules, infrastructure and participants.
- Long term market planning through demand forecasting data and scenario analysis.

AEMO operates retail and wholesale energy markets in New South Wales including the National Electricity Market (NEM) and a Short Term Trading Market (STTM) for wholesale gas. Market operation includes a range of functions from systems operation, maintenance of system security, metering and settlements through to market performance reporting, incident analysis, emergency management and the promotion of market improvements.

In its role as the National Transmission Planner, AEMO delivers strategic gas and electricity planning advice and forecasting to guide long term investment in Australia’s energy network infrastructure and resource management. This includes independent modelling of possible future scenarios and advice on how our markets might develop under those scenarios.

AEMO provides advice on how generation and transmission might develop to meet forecast energy requirements. Included in that work are projections of the future cost of a range of

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generation technologies. This information is delivered annually through a suite of interrelated documents¹:

National Transmission Network Development Plan (NTNDP)	<ul style="list-style-type: none"> - A strategic plan and comprehensive information source for the NEM transmission network. - Explores a range of scenarios to determine potential future electricity transmission impacts.
Electricity Statement of Opportunities (ESOO)	<ul style="list-style-type: none"> - Provides information about demand forecasts, generation capacities, and NEM supply adequacy for the following 10 years. - Supported by the annual Power System Adequacy report which considers security matters in the following 2 years and the Generator Information Page providing ongoing information on existing, committed and future generation projects.
Gas Statement of Opportunities (GSOO)	<ul style="list-style-type: none"> - Examines the interconnected Australian gas transmission network, consolidating demand and reserve forecasts and opportunities. - Explores a range of scenarios to determine potential future impacts on gas reserves, processing and storage, transmission pipelines and customer demand.

As part of its Clean Energy Future policy, the government announced that:

“The Government will ask AEMO to expand its planning scenarios to prepare for greater use of renewable energy. This will include further consideration of energy market and transmission planning implications of moving towards 100 per cent renewable energy.”

This study, when completed, may be of interest to the Committee in its work.

The Committee’s Terms of Reference

A range of matters the Committee will consider are closely linked to the roles of AEMO outlined above and the information in our systems. AEMO would be happy to support the work of the Committee and would welcome any request for information within our areas of responsibility.

We would particularly make reference to the item four in the terms of reference; namely “the potential for NSW sourcing energy interstate”. A major function of the National Electricity Market is to provide a spot market framework within which generators in a region and across the market nationally can compete to supply customers in real time. The 5 minute auctions and competitive dispatch process can, however, only provide competition between generators to the limits of the capacity of the transmission system. Optimal development of the national grid is therefore critical to the competitive market environment, and is examined

¹ These can all be found at: www.aemo.com.au

within our NTNDP. Based on planning work undertaken by the AEMO and the transmission companies, the potential for an upgrade to the interconnector between New South Wales and Queensland has been proposed. Powerlink (Queensland) and Transgrid (New South Wales) have announced that they intend to commence formal consultation on an upgrade of around 25% in the transfer capacity soon.

Larger interconnectors have been proposed and examined but are expensive and not justified in the short term. AEMO studies have shown, however, that a larger national network upgrade may be economic in the next decade (between 2020 and 2030) depending on what projections for future energy development are used.

Yours sincerely



Matt Zema
Managing Director and Chief Executive Officer