MEDIA STATEMENT

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Holistic planning needed to meet modern grid challenges

A coordinated, long term and holistic planning approach is needed to ensure Victoria's aging power system meets the reliability challenges of the changing generation mix as it transitions to a low carbon future, according to the Australian Energy Market Operator's (AEMO) 2017 Victorian Annual Planning Review (VAPR).

The VAPR, which provides information relating to the capability and development of Victoria's electricity declared shared network (DSN), has identified key trends influencing power system resilience – that is, its ability to withstand, and recover from disturbances, such as fault on lines.

These include:

- **Reducing system strength** – which could lead to unstable power system operation;
- **Reducing minimum demand** – which can lead to high network voltages that exceed safe operating limits;
- **Withdrawal of coal-fired generation** – which requires careful planning of the grid to manage power system reliability; and
- **Aging network** – which can result in the need for increased maintenance of network infrastructure.

AEMO has investigated the impact of these trends and the VAPR outlines strategies for maintaining resilience as the power system transitions to a low-carbon future.

"AEMO has already begun implementing temporary operational measures to address some of these challenges in the short term, in particular, reducing minimum demand. However, it is imperative we address these challenges in a holistic, co-ordinated manner and with a long term focus, to ensure ongoing stability of the power system," said AEMO Group Manager Forecasting and Planning Craig Price.

AEMO has recognised the need to increase the capacity of the transmission network in western Victoria to facilitate increasing levels of renewable generation being incentivised under the Victorian Government's Victorian Renewable Energy Target (VRET).

"The renewable generation capacity being considered under the VRET greatly exceeds current transmission network capacity, so in order to relieve congestion on the network and realise the full potential of the new generation, greater capacity must be built into the network," said Mr Price.

AEMO has commenced a Regulatory Investment Test – Transmission (RIT-T) to identify the preferred option for increasing capacity in western Victoria. The first report of the RIT-T was published in April 2017.

Increase in interconnector capacity will also be required to enable the sharing of excess renewable generation between Victoria and other states in the National Electricity Market (NEM).

"This VAPR shows that increasing the capability of the existing Victoria – New South Wales interconnector may be economically justifiable. Increased interconnection would allow excess generation to be shared between Victoria and other jurisdictions.

"This emphasises that the planning approach to the NEM must be holistic – no element of the network can be considered in isolation of others," said Mr Price.

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About AEMO:

AEMO is responsible for operating Australia's largest gas and electricity markets and power systems, including the National Electricity Market and interconnected power system in Australia's eastern and south-eastern seaboard, and the Wholesale Electricity Market and power system in Western Australia.

AEMO also operates the Victorian Declared Wholesale Gas Market and the Victorian gas transmission system; the wholesale gas Short Term Trading Market hubs in Adelaide, Sydney and Brisbane; the Wallumbilla Gas Supply Hub in Queensland; and the Moomba Gas Supply Hub in South Australia.

As Australia's independent energy markets and power systems operator, AEMO provides critical planning, forecasting and power systems security advice and services to deliver energy security for all Australians. For more information, head to ***www.aemo.com.au***