

13 September 2016

Karen Olesnicky Acting CEO AEMO GPO Box 2008 Melbourne VIC 3001 Locked Bag 14051 Melbourne City Mail Centre Victoria 8001 Australia T: 1300 360 795 www.ausnetservices.com.au

Dear Karen Keenen

Re: A Victorian Solution for South Australia's Electricity Challenges

This letter seeks to initiate discussions with AEMO to assist in developing a Victorian solution to the electricity supply challenges faced in South Australia (SA).

Recently a great deal of attention has been given to a proposal for a new interconnector between SA and New South Wales (NSW), at an estimated cost of \$500m, as a means of easing energy problems in SA including:

- high average electricity prices;
- high ancillary services costs; and
- load shedding when the Heywood interconnector is out of service.

AEMO is presumably already exploring a solution to the above in both its role as National Transmission Planner of the NEM and planner of the Victorian shared transmission network.

AusNet Services would like to contribute ideas to the development of a Victorian solution to address constraints and deliver the necessary network capacity and inertia. A Victorian solution could include a combination of the following works and measures:

- upgrades to the Heywood Terminal Station 500kV switching arrangement to reduce occurrence of N-1 constraints;
- provision of Frequency Control Ancillary Services (FCAS) by MurrayLink;
- addition of a new interconnector to Victoria to complement possible augmentation in North West Victoria to accommodate new generation connections;
- addition of network devices in South Australia to provide frequency control and system inertia (large scale batteries, synchronous condensers); and
- investigating Fast Frequency Response (FFR) to address Rate of Change of Frequency (RoCoF) issues from other sources such as aggregated response from PV and batteries (as outlined by AEMO in the Future Power System Security Roadshow).

This solution could, prima facie, be provided at a much lower cost than a new standalone 275kV SA-NSW interconnector. In the current environment where consumers are extremely concerned about the rising cost of living and increasing energy bills, we consider it is important to explore lower cost alternatives in an effort to minimise transmission prices and save customers across the NEM money.

It is recognised that there will be a challenge in coordinating the various components of a Victorian solution and getting commitment from market participants to deliver it. AusNet

Services is ready to support AEMO in driving a Victorian solution that can meet the needs of electricity consumers at least cost.

AEMO has stated its intention in the Victorian Annual Planning Report (VAPR) to conduct a RIT-T for augmentation in North West Victoria later this year, as new generation connections in that region will likely be limited by network strength or constrained by network capacity. AEMO's 2016 VAPR also highlights that increasingly, the key driver for network augmentation in the Victorian network is

facilitating inter-regional transfers of energy and ancillary services, and new generation connections. This shift reflects slowing demand growth in Victoria and an increasing focus on the integration of renewable generation. (p 1)

Further, in the 2015 National Transmission Network Development Plan (NTNDP) AEMO has highlighted how high levels of wind and rooftop PV generation

substantially increases South Australia's reliance on synchronous generation and frequency control ancillary services (FCAS) from Victoria, via the Heywood Interconnector. This increasing reliance on the interconnector presents a system security risk for South Australia. Since 2011, AEMO has undertaken considerable work to understand these implications for the power system. (pp 23-24)

AusNet Services is keen to better understand AEMO's current thinking and how our own ideas might combine with options already under consideration to address the challenges in SA and support more renewable generation in the NEM.

We wish to formally advise AEMO of our support for a Victorian solution and to ask that it be taken into consideration. We would, of course, be happy to meet to discuss this further. Please contact Siham Knowles, General Manager Network Engineering, on 03 9695 6959 or siham.knowles@ausnetservices.com.au if you wish to discuss any matters in this letter.

Yours sincerely

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Managing Director