



30 January 2012

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Dear Mr Appleby and Mr Spurio

**Subject: South Australia - Victoria (Heywood) Interconnector Upgrade**

Origin welcomes the RIT-T Project Specification Consultation Report (PCSR) in relation to the proposed South-Australia - Victoria (Heywood) Interconnector Upgrade.

Listed in the ASX top 20, Origin is a leading producer of gas in eastern Australia, is the largest owner and developer of gas-fired electricity generation in Australia and is a leading wholesaler and retailer of energy.

In South Australia, Origin owns and operates the 86MW Ladbroke Grove plant and the 216MW Quarantine plant, with potential for expansion. To meet obligations under the Mandatory Renewable Energy Target (MRET) Scheme, Origin is also presently investigating a number of potential wind power projects in South Australia including Crystal Brook Wind Farm (up to 90MW in capacity) and larger scale wind power opportunities on Yorke Peninsula and Eyre Peninsula. In Victoria, Origin owns and operates the recently commissioned 564MW Mortlake Power Station and has development approval for the Stockyard Hill Wind Farm expected to generate in excess of 450MW.

Origin notes that in recent years there has been a general decrease in net power flows from Victoria to South Australia and an increase in power flows from South Australia to Victoria. Origin also notes that the number of hours per year that power flow has been constrained has steadily increased and is now in excess of 3000 hours or over one third of the year.

These constraints increase the number of price separation events between the South Australian and Victorian regions: denying customers in the higher priced region access to



cheaper generation available in the lower priced region. These separation events also increase pool price volatility in both regions. This volatility leads retailers to factor in a higher risk premium which ultimately results in higher priced electricity to end-use customers.

The presence of these constraints also acts as a disincentive to further wind generation being established, particularly in South Australia. This creates inefficiency in the overall NEM with higher capacity factor wind resources in South Australia unable to be developed and, instead, lower capacity factor sites in Victoria or New South Wales developed in order to meet MRET obligations.

As both an energy retailer and a potential developer of further wind generation in South Australia, Origin supports augmentation of the interconnector to remove, or at least substantially alleviate, these constraints and increase the economic efficiency of the NEM. Removal of the Heywood transmission constraints will lead to a more efficient energy market: encouraging development and efficient locating of least cost generation (wind and gas), resulting in less pool price volatility and least cost electricity to South Australian and Victorian consumers.

Origin therefore agrees with ElectraNet and AEMO that the highest market benefits include:

- Changes in fuel consumption
- Changes in generation plant capital and operating costs; and
- Competition benefits.

Following initial analysis and market modelling, ElectraNet has proposed analysing the following credible options to overcome the Heywood interconnector constraints:-

- Incremental upgrade from 460MW to 650MW (a 190MW increase in capacity);
- New 500kV line from Heywood into South Australia, (providing additional 2000MW capacity); and
- Non-network options such as demand management or utility scale energy storage.

While Origin is supportive of non-network options being analysed, it considers the contribution from demand management is limited and that significant utility scale energy storage is unlikely to be economic in the near term.

Origin also considers an incremental 190MW upgrade commissioned by June 2016 will have only limited short-term benefit and would be disappointed if adopting this option would delay a more substantial augmentation such as the 2000MW additional capacity.

Subject to reviewing the results of the cost-benefit analysis, Origin would favour a larger capacity augmentation such as the building of a new 500kV line from Heywood into South Australia. However, Origin notes the touted commissioning date for this project as being 2025. An earlier commissioning date would increase the viability of more wind generation being established in South Australia and potentially defer the need for new



gas generation plant investment in South Australia which might otherwise be needed to meet demand expected from new mining load in South Australia (notably the large expansion of Olympic Dam but also other mines on the Eyre Peninsula).

Origin notes that ElectraNet and AEMO have considered but dismissed options including a greenfields South Australian-New South Wales interconnector (due to high cost), electric vehicles (due to being highly speculative at this stage) and additional scheduled generation in South Australia (already included in the Base Case).

Origin agrees this is appropriate.

Origin also notes and agrees that changes in ancillary services costs and option value are not material.

Origin looks forward to further consultation on this process when the Project Assessment Draft Report is published in mid 2012.

Yours sincerely

A handwritten signature in black ink, appearing to read "Kyle Russell".

Kyle Russell  
Group Manager Transmission