

From: Aina Danis [<mailto:aina.danis@rdawep.org.au>]

Sent: Thursday, 18 January 2018 2:32 PM

To: Korte, Rainer (ENet) <Korte.Rainer@electranet.com.au>

Cc: Cock, Lauren (ENet) <laurenc@electranet.com.au>; Dion Dorward <dion.dorward@rdawep.org.au>; Tony Irvine <tirvine@eplga.com.au>; Peter Scott <peter.scott@rdawep.org.au>

Subject: FW: Eyre Peninsula Electricity Supply Options RIT-T draft Report - submission

To

Rainer Korte

Executive Manager Asset Management
ElectraNet

Re: Eyre Peninsula Electricity Supply Options RIT-T draft Report - submission

In 2010 the Green Grid forum proposed opening up a new province for wind power. The project would be located on South Australia's Eyre Peninsula, an area roughly the size of Tasmania; populated by 58,000 people; on the periphery of the national grid; and with an outstanding wind resource. An earlier study' commissioned by the South Australian Government and prepared by a consortium of Macquarie Capital, Worley Parsons and Baker & McKenzie has established a prospective location that can be developed relatively easily and operate at capacity factors sufficient to establish that there is a viable business case for investment in transmission and 2,000 MW of generation. This study was informed by consultation with prospective wind energy developers in the area - Origin Energy, Pacific Hydro, Transfield Services and Acciona Energy - who in conjunction with RenewablesSA have formed the Green Grid Forum to further the concept.

In 2011 the Australian Energy Market Commission decided not to support the Green Grid concluding that the options were too risky for consumers.

In 2017 Electranet presented their Project Assessment Draft Report regarding electricity transmission on the Eyre Peninsula. The figure below presents a stylised overview of both advanced mining load proposals (five formal connection enquiries from mining entities ElectraNet has received for the Eyre Peninsula) on the Eyre Peninsula as well as identified areas of high-quality wind resource. The three areas identified were previously identified in the Green Grid report released in 2010 as zones that should be prioritised for development owing to their excellent wind resources (Baker and McKenzie, WorleyParsons & Macquarie Bank, Green Grid – Unlocking Renewable Energy Resources in South Australia, 2010, p. 27).

Renewable energy developments on the Eyre Peninsula remain driven to an extent by both Commonwealth and South Australian carbon emissions policies, as well as expectations about future wholesale market prices. The recent Finkel review for example made recommendations in relation to network planning to new renewable precincts, including that AEMO, supported by Transmission Network Service Providers (TNSPs) and other stakeholders, is to determine the optimal transmission network design to enable the connection of renewable resources (the 'Integrated Grid Plan') by mid-2018. This is to include identification of prospective renewable zones (which may include the Eyre Peninsula on account of the quality of the potential wind resource), and a high-level assessment of the relevant economics, to inform decisions about the order in which to develop the transmission network (Finkel Report, Recommendation 5.1, p.124).

The Energy Security for SA Working Party (ESSAWP) recommended that a 500 kV network be included and assessed as part of the RIT-T, stating that 132 kV and 275 kV options are not sufficient

to allow the development of the full potential of resources on the Eyre Peninsula. ESSAWP submission can be downloaded here:

<https://www.electranet.com.au/wp-content/uploads/ritt/2017/04/Eyre-Peninsula-Electricity-Supply-Options-Submission-from-ESSAWP.pdf>

(ESSAWP estimated costs: transmission and inter connector construction \$4 billion, 10yr return of \$14 billion, do nothing cost of \$22 billion).

ElectraNet did not consider at this stage that the significant cost of 500 kV network options would be justified in terms of the additional market benefits that can be expected to delivered over and above the 275 kV options included in the report. In particular, the cost of building a 500 kV transmission network on the peninsula has been estimated to be in the order of \$1.2 billion (ESCOSA, Inquiry into the reliability and quality of electricity supply on the Eyre Peninsula, Final Report, October 2017, p. 21.) and it is not expected that it would deliver commensurate levels of market benefit. Specifically, the market modelling finds that the wind resource limits are not reached on the peninsula with the 275 kV options, even under high demand assumptions. This implies that 500 kV options would not necessarily result in more wind generation choosing to locate on the peninsula than the 275 kV options.

Regional Development Australia Whyalla and Eyre Peninsula (RDAWEP) and the Eyre Peninsula Local Government Association (EPLGA) considered that two geographically separated single-circuit 275 kV lines, initially operated at 132 kV, is the preferred option and that, at a minimum, two geographically separated single-circuit 132 kV lines should be constructed (this is satisfied by Electranet's preferred option of 4B).

RDAWEP and the EPLGA acknowledges the regulatory framework that Electranet and ESCOSA operate within and supports a green energy zone for the Eyre Peninsula underpinned by the economic development that an Eyre Peninsula East Coast wind resource would bring. As such RDAWEP and the EPLGA supports a renewed and deeper analysis of the Green Grid concept and ESSAWP recommendations in light of Australia's rising electricity prices and clearer understanding of emerging trends in the energy market. The SA Government is investing in a feasibility study for an interstate interconnector, the price of high voltage direct current (HVDC) transmission lines is coming down, and transforming South Australia's transport sector from fossil fuel to electricity using battery or hydrogen fuel cells will require enormous extra electrical generation capacity. These factors alone should ensure that any transmission upgrades completed on Eyre Peninsula in the short term are able to be upgraded later to meet South Australia's needs in 5, 10 and 20+ years into the future.

Kind regards

Dion Dorward Tony Irvine

Chief Executive Officer Executive Officer

Director of Regional Development Eyre Peninsula Local Government Association

RDA Whyalla and Eyre Peninsula Inc

89 Liverpool Street
PORT LINCOLN SA 5606

Tel: 08-8623 0517

Fax: 08-8682 5081

Email: aina.danis@rdawep.org.au Email: aina@eplga.com.au

Web: www.rdawep.org.au Web: www.eplga.com.au



The information in this e-mail may be confidential and/or legally privileged. If you are not the intended recipient, access to it is unauthorised and any disclosure, copying, distribution or action taken or omitted to be taken in reliance on it is prohibited and may be unlawful.