

SUBMISSION COVERSHEET

Submissions may address any key issues related to the Infrastructure Australia agenda and/or in specific response to the topics raised in the discussion papers.

Please complete and submit this form with your submission. Where possible, *Infrastructure Australia* requests submissions are submitted electronically. Contact us:

Via email Write 'Submission' in subject field of the email and send to: mail@infrastructureaustralia.gov.au	Via post Address your submission to: The Infrastructure Coordinator Infrastructure Australia GPO Box 594 Canberra ACT 2601 AUSTRALIA
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Submission title: ElectraNet's response to Infrastructure Australia's call for submissions to Australia's Future Infrastructure Requirements

Author(s): ElectraNet

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Please indicate if your submission:

contains NO confidential material

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Please indicate which of the following your submission covers:

Issues Paper 1 — Australia's Future Infrastructure Requirements

Issues Paper 2 – Public Private Partnerships

AND/OR

General (Includes information on the following areas)

Water Infrastructure

Transport Infrastructure

Climate Change

Public Private Partnerships

Infrastructure Audit

Infrastructure Law

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Telecommunications Infrastructure

Energy Infrastructure

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International issues

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- Authors of submissions are responsible for securing the appropriate right to use any third party material incorporated into their submissions.
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Response to Infrastructure Australia's call for submissions on
Australia's Future Infrastructure Requirements

ElectraNet is pleased to make this submission in response to your call for project ideas for evaluation and possible inclusion on the National Infrastructure Priority List.

ElectraNet is the principal electricity transmission network service provider in South Australia and manages a transmission network that extends for more than 1,000 km from the Victorian border near Mount Gambier in the State's south east to Port Lincoln on the Eyre Peninsula. In addition there are significant radial extensions of over 200 km each from the main network to Leigh Creek and Woomera in the State's north and the Yorke Peninsula. In all, ElectraNet's transmission system consists of 5,676 circuit kilometres of transmission lines and 76 substations that operate at nominal voltages of 275 kV, 132 kV and 66 kV.

ElectraNet understands that Infrastructure Australia has been tasked with:

- Conducting an audit to determine the adequacy, capacity and condition of nationally significant water, transport, energy, and communications infrastructure;
- Producing an Infrastructure Priority List; and
- Producing best practice, nationally consistent guidelines for Public Private Partnerships.

In addition it is also understood that Infrastructure Australia intends to provide advice on harmonisation of policies and laws relating to the development of infrastructure and will be guiding the allocation of the Federal government's 'Building Australia Fund'.

In this submission ElectraNet wishes to provide background to the framework that electricity transmission infrastructure is delivered under and to demonstrate that the impact of the introduction of climate change policies on that framework is being addressed.

Significant policy making, industry and regulatory frameworks have been established for the energy sector under the Australian Energy Markets Agreement of the Council of Australian Governments. Transmission infrastructure is designed and delivered to meet the National Electricity Objective of efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- Price, quality, safety, reliability and security of supply of electricity; and
- The reliability, safety and security of the national electricity system.

The transmission regulatory framework is mature and existing mechanisms are considered adequate to support investment to meet this objective. However, the implementation of climate change policies presents new challenges that may require support to investors to enable them to deliver necessary generation and transmission infrastructure within a timeframe in which the investments may, in the short term, appear uneconomic due to the scale of the investment project, technology immaturity and/or first mover disadvantage. ElectraNet considers that in these circumstances it may be in the national interest to support the necessary investments, provided that they assist in achieving the expanded MRET and/or CPRS targets. Premier Mike Rann stated *"We say that a commitment to improved transmission and distribution will bring on more private investment in geothermal and wind power sources more rapidly"*¹.

Climate change policies proposed by the Federal Government will create a step change in the required delivery of electrical transmission infrastructure. Renewable energy targets set for 2020 and the introduction of the Carbon Pollution Reduction Scheme will cause structural changes to the supply and delivery of electricity to consumers. The Garnaut Climate Change Review recognised that these structural changes pose challenges to the delivery of infrastructure and suggested:

- that there may be a "public good" case for increasing the capability of interconnectors between NEM regions²; and
- that there may be a case for extending the 'Building Australia Fund' to include high-value electricity transmission infrastructure³.

However, the Garnaut Review appeared to support the funding of this through the National Transmission Planner⁴. This would severely compromise the independence of the planner given its role, as accepted by the Ministerial Council on Energy and Australian Energy Market Commission, by moving the National Planner from being an "honest broker" in formulating least cost national plans to an involved investor with potentially severe conflicts of interest in combining both roles. The investor role clearly lies with existing or new transmission companies.

Additional problems also exist, for example, while South Australia is a renewable energy resource rich state with significant potential for the development of wind and geothermal power generation, the high energy demand centres lie on the eastern seaboard.

Under current arrangements, transmission investment in South Australia that contributes to the national climate change objectives will be met by renewable generators for their connections (some remote from the existing network) and by consumers in South Australia for the supporting network augmentations (including increases in interconnection) and who

¹ "Connecting our mining boom to renewable energy" 25 June 2008

² The Garnaut Climate Change Review – Final Report, September 2008, p446

³ Ibid p.451

⁴ Ibid pp 449-451

will not necessarily gain proportionate benefits from such investment. In other words, South Australian customers would be required to pay through transmission charges for benefits that would largely accrue to interstate customers.

The Ministerial Council on Energy (MCE) directed the Australian Energy market Commission (AEMC) to conduct a review of the energy market frameworks to determine whether the frameworks need to be amended to accommodate the introduction of emissions trading and the renewable energy target. This will include consideration of the issue of proportionate benefits raised above.

ElectraNet is actively participating in the AEMC review through its membership of Grid Australia.

ElectraNet has substantial experience with transmission development arrangements, with the connection of generators to the network and technical issues associated with remote low emission generation technologies. For instance, ElectraNet has more grid connected renewable energy connected to its network than all the other states combined and is presently actively working with many proponents to enhance the level of renewables across multiple technologies. ElectraNet is responding to the government's climate change initiatives through identification of likely renewable generation locations and interconnector capacity analysis.

In responding to these challenges, ElectraNet has commenced work to assess the requirements and economic viability of transporting renewable energy to the high demand centres of the east coast.

As studies are currently being undertaken to identify changes required to meet these challenges, ElectraNet is not at this stage presenting specific projects for inclusion in the Priority List. Rather, ElectraNet is well advanced in its planning and is prepared to assist Infrastructure Australia with its work in addressing the challenges in this sector through appropriate funding mechanisms.

In summary, ElectraNet believes that the policy making framework for the energy sector is well structured to deal with issues of infrastructure adequacy and the impending AEMC review is an appropriate mechanism for assessing government policy recommendations relating to electricity transmission, and identifying any necessary changes to the regulatory framework going forward.

If this AEMC Review does not deliver the prospect of bringing forward the necessary investment in transmission infrastructure within the timeframes required to meet climate change policy targets then the Building Australia Fund could be used to provide the necessary funding support. In this eventuality the necessary funding support should be channelled through established mechanisms for transmission infrastructure investment.

ElectraNet welcomes the opportunity to assist Infrastructure Australia with its work in relation to Australia's electricity transmission system. If you have any further enquiries please contact Rainer Korte, Group Manager Regulation and Corporate Services, on (08) 8404 7983.



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