



30 January 2012

Mr Joe Spurio
Senior Manager Network Analysis
AEMO

Mr Simon Appleby
Senior Manager Regulatory Affairs
ElectraNet Pty Ltd

Via email: Appleby.Simon@electranet.com.au and Planning@aemo.com.au

Dear Sir,

**Re: South Australia – Victoria (Heywood) Interconnector Upgrade, RIT-T:
Project Specification Consultation Report**

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Infigen Energy thanks the Australian Energy Market Operator (AEMO) and ElectraNet for the opportunity to comment on the Project Specification Consultation Report (PSCR) outlining the first stage of the joint study of the technical and economic viability of a Heywood Interconnector upgrade, including a formal application of the Regulatory Investment Test for Transmission (RIT-T).

Infigen Energy (ASX: IFN) is Australia's leading specialist renewable energy business. Infigen has six wind farms in Australia with a total capacity of 557MW and the future growth of our business is focused on Australia where we have over 1,800 MWs of wind farms in various stages of development. Infigen also owns and operates a sizeable US wind energy business that takes its aggregate wind energy business interests to 24 wind farms with a total capacity of 2,113MW. Infigen has developed 278MW of generation in the South East of South Australia and has plans for significantly more.

South Australia has a world class wind resource which continues to play a significant role in meeting Australia's renewable energy requirements at the same time as minimising cost to electricity users. The ability of the South Australian electricity network to accept production from wind farms and transport it to the major population and industrial centres in Victoria and New South Wales is critical to enabling electricity users to gain full benefit from this high grade resource.

Infigen Energy is very supportive of the RIT-T process for the Heywood Interconnector upgrade and believes that significant market benefits will be derived centred around the "further development of South Australia's renewable energy resources and also provide South Australia with access to reliable thermal generation from the rest of the NEM, particularly at peak times" (PSCR, pg 2). Enhancement of the Heywood interconnector will also will assist in driving the lowest cost solution to meet Australia's Large-scale Renewable Energy Target (LRET) and reducing pollution from current generation sources.

Our specific responses to the credible options raised in the PSCR are provided on the following pages.

We have also taken the opportunity to propose one relatively low cost option for bringing new generators in the South East of South Australia to market that



should be examined, either as part of the RIT-T process. Specifically we believe that there is excellent potential to unlock additional capacity of new and existing transmission assets in South East South Australia and South West Victoria by use of advanced control schemes.

Please do not hesitate to contact me should you have any questions or would like to discuss this submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Scott Taylor", with a large, sweeping flourish above the name.

Scott Taylor
Group General Manager, Australia



South Australia – Victoria (Heywood) Interconnector Upgrade

RIT-T: Project Specification Consultation Report

Infigen Energy is very supportive of the work being undertaken by AEMO and ElectraNet in respect to the joint study of the technical and economic viability of a Heywood Interconnector upgrade including a formal application of the Regulatory Investment Test for Transmission (RIT-T) and believe that when undertaken transparently and correctly, will support the National Electricity Objective (NEO) to,

“...promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to-

- (a) price, quality, safety, reliability and security of supply of electricity; and*
- (b) the reliability, safety and security of the national electricity system.”*

The correct and transparent application of the RIT-T in this instance will support this NEO objective by:

- a) promoting the efficient connection of new renewable electricity generation to the Australian National Electricity Market required by the LRET;
- b) unlock significant benefits associated with generation assets currently being constrained in South Australia and the inability of Victorian generation to be used to meet South Australian peak demand by ensuring the full utilisation of the interconnector; and
- c) increasing the interconnector flow which should promote efficient market outcomes.

Infigen Energy has examined the two credible network options and the two credible non-network options presented in the PSCR and provide the following comments on the options presented.

NETWORK OPTIONS:

Infigen's comments on these options are limited to ensuring that the costs of each option are provided at a suitable granularity to allow detailed feedback by industry participants and/or third party engineering review. Making this part of the RIT-T process will ensure that industry has an avenue to comment on this important aspect of determining any possible net market benefit from these two options. This will provide the best chance of all technical and economic benefits of such augmentations being recognised and appropriately considered in the RIT-T evaluation process.

In particular we note that the assumption of what the new entrant wind energy price will be at the time of commissioning the proposed addition/s would be a materially significant assumption. Given the rapid pace of change in the industry and the eminent entrance of new, cheaper manufactures of wind turbines into the Australian market there is a risk that these costs could be overstated if they are sourced from out of date sources.



Option 1: Installation of a third 500/275 kV transformer at Heywood along with reactive support in South Australia

Infigen believe this Option, together with the non-network option described below, is the most reasonable and effective solution.

The broad outline of the costs of the proposed works under this option of \$60-80m looks to be quite high, however, without an adequate understanding of the scope of these works Infigen is not in a position to comment at this stage. We would welcome this to be made available under the RIT-T process.

Further, we would also like to suggest that all cost estimates under the RIT-T process be reviewed by an appropriately qualified independent engineering firm to ensure that there is a transparency of the underlying assumptions that in effect determine the outcome of the process. Without a high level of transparency in a regulated asset environment the underlying drivers to ensure the least cost solution may not be present.

Option 2: Construct a new Krongart-Heywood 500kV interconnector

Infigen does not believe this option represents value due to its significant costs.

Infigen would welcome the opportunity to gain an understanding of the quantum of market benefits that would be required to make this solution viable and would request that this form some type of sensitivity analysis under the RIT-T process.

NON NETWORK OPTIONS:

Option 1: Demand Management

Infigen would like to further understand the opportunity to shift demand to match South Australia's wind energy generation profile and welcomes analysis of the costs and benefits of doing so.

One item that wasn't mentioned in the PSCR was the potential impact of significant amounts of rooftop solar commissioned due to the numerous State and Federal incentives of the recent past and the impact of such generation in regards to offsetting some peak demand in times of hot weather. As this information would only become available to the retailers who supply electricity to houses that have such systems installed (via the form of reduced electricity supply) we would like to propose that the RIT-T process be used as a means to understand the impact of the installation of such systems and to pave the way for potential aggregation of data sets of the amount of demand reduction that has been associated with the installation of solar on the roofs of Australian electricity customers.

Option 2: Utility Scale Storage

Infigen is of the belief that other more credible and beneficial non-network options exist to meet the identified need.



OPTIONS NOT CONSIDERED:

Use of advanced control schemes in South East South Australia and South West Victoria

Infigen believe there is one very attractive relatively low cost option for bringing new generators in the South East of South Australia to market that should be examined as part of the RIT-T process.

There is excellent potential to unlock additional capacity of new and existing transmission assets in South East South Australia and South West Victoria by use of advanced control schemes. These schemes would be similar in principle to the Basslink Network Control Special Protection scheme, which has been successfully applied in Tasmania to maximise transport of energy to Victoria via Basslink.

Infigen has worked with Senergy Econnect Australia (SEA) to create the high level concept of this scheme in the appendix to this submission. We request that AEMO and ElectraNet evaluate this as a credible non-network solution. Infigen appreciates that this would require a detailed understanding of the current capabilities of the transmission assets in the region and would request that the underlying analysis of this potential option be considered to form part of the transparent outcome of the RIT-T process.

South East South Australia to Victoria – Release of Capacity using Control Schemes – High Level Concept

