



**SP AusNet™**  
A member of Singapore Power Group

24 October 2012

Ashley Lloyd  
Senior Manager Victorian Planning  
AEMO

Hugo Klingenberg  
Senior Manager Network Development  
ElectraNet

Dear Ashley and Hugo,

**Re: South Australia – Victoria (Heywood) Interconnector Upgrade**

SPI PowerNet welcomes the opportunity to make this submission to AEMO and ElectraNet's Regulatory Investment Test for the South Australia – Victoria interconnector upgrade. The purpose of this submission is to present SPI PowerNet's asset management plan for HYTS for consideration in the augmentation decision for the South Australia – Victoria Interconnector upgrade. It supports the recommendation for a 3<sup>rd</sup> 500/275 kV transformer at Heywood Terminal Station (HYTS).

SPI PowerNet does not have a spare transformer to be used in the unlikely event of a major failure of one of the existing two 370 MVA 500/275 kV transformers at Heywood Terminal Station (HYTS). Our experience shows that off-site repairs or replacement of this type of transformer may take up to 24 months. We expect that the market impact will be significant if the interconnector is constrained to the capability of only one HYTS 500/275 kV transformer during an unplanned transformer outage.

SP AusNet is considering procuring a spare transformer to manage the risk of a prolonged outage of one of the two HYTS 500/275 kV transformers. Options that augment the 500/275 kV transformer capacity at HYTS with a third transformer would mitigate the need for a cold spare transformer as the market impact for the loss of a transformer will be reduced.

It is clear that the value of the addition of a 3rd transformer is recognised from the following statement in the Project Assessment Draft Report (PADR): *“Adding a 3rd transformer at Heywood would have the added benefit of reducing the risks associated with a prolonged outage of one of the existing transformers, compared with the alternative of adopting the control schemes. Although the probability of a transformer outage is low, if a catastrophic failure of one of the Heywood transformers did occur (for example, due to a failure in the transformer tank) then the replacement time would be in the order of two years. During this period, the interconnector limits would become 460 MW (each way) if there was a third Heywood transformer in place (Option 1b). However, if the control schemes were to be adopted instead (Option 6b), the interconnector limits would fall to approximately 250 MW (South Australia to Victoria) and 210 MW (Victoria to South Australia)”.*

SPI PowerNet further considers that inclusion of the market impact cost of a major failure of a HYTS 500/275 kV transformer or the cost of a cold spare transformer to mitigate the market impact of a prolonged transformer outage should the 3<sup>rd</sup> transformer augmentation not proceed in the regulatory investment test, would confirm that the preferred option should be to augment HYTS with a 3<sup>rd</sup> transformer.

We would be pleased to provide more detailed information regarding SPI PowerNet's asset renewal strategy for HYTS should it be required to carry out the economic investment test to address the network constraints identified for the South Australia – Victoria Interconnector.

Yours Sincerely



**Alistair Parker**

**DIRECTOR REGULATION AND NETWORK STRATEGY**