ElectraNet Pty Limited
ABN 41 094 482 416
ACN 094 482 416

ElectraNet SA
electricity transmission network

PO Box 7096 Hutt Street Post Office, Adelaide, South Australia 5000 Tel (08) 8404 7983 Fax (08) 8404 7294

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Sebastian Roberts
Acting General Manager
Regulatory Affairs – Electricity
Australian Competition and Consumer Commission
Level 35, The Tower
360 Elizabeth Street
Melbourne VIC 3000

By email: sebastian.roberts@accc.gov.au

Dear Sebastian,

Murraylink Conversion to Regulated Status: Additional Information

The following information relates to matters raised in ElectraNet's July 2003 submission on Murraylink conversion to regulated status and is provided in response to discussions and requests for information initiated by your staff.

Alternative Projects - SVC at Monash

Following the July 2003 submissions from interested parties, ElectraNet has examined more closely the requirement for an SVC at Monash substation to support an AC alternative to Murraylink. This has included discussions and joint analysis between ElectraNet and VENCorp staff.

Analysis shows that the worst case contingency associated with Option 3 (AC 220 kV link) involves an unscheduled trip of a fully loaded Northern Power Station generating unit (generating 260 MW) at a time of maximum import to SA via the 220 kV AC link (200 MW) and 460 MW import to SA via the Heywood interconnector. Under these conditions, voltages at Monash Substation may drop unacceptably by approximately 10% due to the increased flow through the 220 kV AC link.

TransEnergie has proposed mitigating this voltage variation by installing a +120/-110 Mvar SVC at Monash Substation at a cost of approximately $19 million (including spares).

Based on the additional but limited analysis carried out, ElectraNet agrees that voltage control equipment would be required at Monash substation to support an AC alternative to Murraylink. However, we note that there are a number of viable and less expensive alternatives to the solution proposed by TransEnergie. These include the following:

- Installation of a smaller 35 Mvar SVC facility at Monash substation would be sufficient to provide the necessary voltage control, limiting voltage variations to approximately 5% at an estimated cost of $5 million (excluding spares).

- Installation of 40 Mvar Thyristor Switched Capacitors (TSC's) at Monash substation would also provide a more cost effective method of providing the necessary voltage control at an estimated cost of $5 million (excluding spares).

- The establishment of a bypass circuit breaker across the Phase Shifting Transformer (PST) to limit voltage variations. The operation of this circuit breaker would effectively bypass the PST and so reduce the power angle across the Riverland Region transmission system and associated network flows. Initial studies indicate that power flows could be reduced to pre-contingent network loading levels and network voltages would be restored to levels close to their original levels. The viability of this option is dependent on satisfactory transient performance during bypass switching. More detailed analysis would be required to confirm this aspect of performance. The installation of the bypass circuit breaker and associated controls is estimated to cost approximately $2 million (excluding spares).

Costing of Alternative Projects - Level of Spares

In our submission we noted that the Preliminary View includes a level of spares in the costing of alternative projects that appears to set a new benchmark when compared to industry practice in Australia. Spares appear to include full duplication of all major plant items in addition to 6% of general switchyard costs. For example, the SVC installation at Monash substation appears to have been duplicated in the cost of the alternative projects.

ElectraNet will need to review whether the lower level of spares held for its four SVC units at Para and South East substations, which are required to support the operation of the Heywood interconnector, is appropriate in the light of this new benchmark.

In our view a prudent level of spares for an SVC installation supporting an AC alternative to Murraylink might be similar to the level of spares held for the converter stations at either end of the existing DC link.

Riverland Deferral Benefits

ElectraNet's submission put the view that the Preliminary View overvalues the Riverland deferral benefit due to Murraylink given the alternative proposals (to Murraylink) resulting from ElectraNet's public consultation on options for Riverland network support. In particular we noted:

> *"preliminary assessment has identified a least cost feasible option that is estimated to cost approximately $1 million per annum (based on a 5 year term)".*

ElectraNet has provided the ACCC with additional information concerning this option on a confidential basis, including the basis of the cost estimate.

As a result this cost estimate has been reviewed and has been revised to $1.4 million per annum (previous estimate did not include once off cost for communications, monitoring, control and metering equipment).

As noted in our submission, the proposed regulated revenue cap (in the Preliminary View) exceeds MTC's own base case figures for gross market benefits for at least 5 years if the lower Riverland deferral benefit of $1-2 million is substituted in place of the benefit MTC has assumed for deferring the building of the Robertstown to Monash 275 kV line.

Please do not hesitate to contact me on 08 8404 7983 or by email should you require any further clarification of the information provided.

Yours sincerely,

Rainer Korte
NEM DEVELOPMENT AND REGULATION MANAGER