DIRECTLINK JOINT VENTURE

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10 March 2005

Mr Sebastian Roberts
General Manager, Regulatory Affairs – Electricity
Australian Competition and Consumer Commission
470 Northbourne Avenue
CANBERRA ACT 2600

Attention: Mr Warwick Anderson, Director - Electricity, Regulatory Affairs Division

Dear Mr Roberts

Re: Application for Conversion to a Prescribed Service and a Maximum Allowable Revenue to June 2015

Thank you for your letter of 28 February 2005 in which you enclosed a letter each from PB Associates and Sunshine Electricity.

1. Port Macquarie augmentations

In your letter you requested that the Directlink Joint Venturers provide additional modelling of load flows and voltage conditions in the absence and presence of the augmentations to the lower north coast that are claimed to be deferred in order to support our revised calculation of Directlink's deferral benefits, which is set down in our letter of 8 February 2005.

We note that, in PB Associates' report on TransGrid's capital expenditure application, PB Associates has identified the opportunity for TransGrid to implement a voltage control scheme that could enable Directlink play a role in the deferment of the Port Macquarie 330 kV augmentations. PB Associates referred to studies that TransGrid has conducted at its request and concludes that it does 'not see any significant technical difficulty with implementing a control scheme of this type'.[1]

We also note that PB Associates' subsequent letter of 25 February 2005 indicates a much higher level of uncertainty as to the feasibility of the voltage control scheme than was apparent in its January report. PB Associates has listed a number of significant technical difficulties that would need to be overcome to implement a control scheme of this type.

[1] PB Associates, *TransGrid's Forward Capital Expenditure Requirements 2004/05 to 2008/09*, January 2005, pp. 71-2.

The Directlink Joint Venturers sought advice from BRW to clarify its statements on the Port Macquarie augmentation and to indicate how long it would take to conduct the studies you have requested on the basis of PB Associate's latest letter. BRW's advice is attached.

BRW has provided a clarification of its previous advice, which is attached. In summary, BRW indicates that:

- the level of support that Directlink can provide on its own is not sufficient to resolve the emerging problems in the Port Macquarie area;
- subject to confirmation of its technical feasibility, a voltage control scheme could be used with Directlink to alleviate the constraints in the lower north coast to the level necessary to defer the 330 kV development to Port Macquarie;
- BRW is not currently in a position to comment on the viability of such a scheme.

BRW has also indicated that the studies you have requested would take around two months to complete.

The Directlink Joint Venturers are very cognisant of the strong desire of the Commission and ourselves to promptly finalise the Commission's consideration of our conversion application. For this reason, we request that the Commission consider the application on the basis of the technical information we have provided to date.

2. Broadwater cogenerator

In our submission of 14 January 2005, we highlighted a number of major issues related to the Commission's consideration of the Broadwater cogenerator and whether it can defer network reliability projects. In particular, we highlighted the issue associated with the need for TransGrid or Country Energy to enter into a contractually-binding network support agreement (such as that between the Directlink Joint Venturers and Powerlink) with the owners of the Broadwater generator, and the willingness of the owners of Broadwater to enter into such an agreement.

Sunshine Electricity's letter of 25 February 2005 puts beyond doubt the willingness of the owners. Sunshine Electricity's position is consistent with its non-participation in TransGrid's process to assess options for alleviating emerging network constraints in the NSW far north coast area.[2] That they do not intend to enter into a network support agreement and that it 'would create risks for the project that it is designed not to manage' is a clear indication that the Broadwater cogenerator cannot be relied upon to provide network support sufficient to defer network reliability projects in the area.

[2] TransGrid, *Emerging Transmission Network Limitations on the New South Wales Far North Coast*, August 2003.

We would be happy to clarify or discuss any of the matters raised in this letter with Commission staff and their consultants.

Yours sincerely

Dennis Stanley
Directlink Joint Venture Manager

Encl.

Burns and Roe Worley

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10 March 2005

Directlink Joint Venture Manager
PO Box 518
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Attention: Dennis Stanley

Re: Modelling of Port Macquarie Voltage Conditions

Dear Dennis

The limited modelling of the mid north coast transmission network carried out by BRW without the Port Macquarie 330 kV augmentation has confirmed voltage problems at Port Macquarie beyond 2008/09 under normal peak load conditions and particularly under loss of the Lismore – Coffs Harbour 330 kV line. These results support the need for and timing of the Port Macquarie 330 kV augmentation.

Whilst Directlink on its own can provide degree of support for the voltage, it is not sufficient to alleviate the constraints in the lower north coast to the extent necessary to defer the 330 kV augmentation to Port Macquarie. This degree of support could be provided by Directlink without voltage control enhancements through injection from Queensland into the upper north coast region, particularly during an outage of the 330 kV supply to Coffs Harbour/Lismore. Supporting the northern system by supply from Queensland will reduce the loading on the north coast 132 kV system normally supplied from the south and result in an improvement of system conditions in the lower north coast region.

As the Port Macquarie 330 kV augmentation was a basic assumption, which was agreed in the modelling consultations with TransGrid for the purposes of BRW's September 2004 report, BRW has not conducted detailed modelling to investigate other solutions which could address the voltage conditions at Port Macquarie. Such solutions could include the consideration and possible implementation of a complex voltage control scheme, which PB Associates suggested in its January 2005 TransGrid report. This scheme could be used with Directlink to alleviate the constraints in the lower north coast to the level necessary to defer the 330 kV development to Port Macquarie.

It is understood from the PB Associates' TransGrid report that PB Associates had sufficient information to have a reasonably firm view that the control scheme would be technically feasible:

> "Further studies performed by TransGrid at the request of PB Associates indicate that, if it is possible to implement the control scheme, the contingent overloads and low voltages could be managed via dispatch of generation at Lismore or import from Queensland through Directlink, and provision of some additional reactive support. At this stage, it is not certain that the control scheme will be able to be implemented although we do not see any significant technical difficulty with implementing a control scheme of this type." [1] [emphasis added]

[1] "TransGrid's Forward Capital Expenditure Requirements 2004/05 to 2008/09." PB Associates, January 2005, pp 71-72.

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Worley

PB Associates affirmed this position on 28 February 2005 when it wrote to the ACCC:

> "Directlink could form part of a range of initiatives that together might provide up to a 2 year deferral of the expenditures for some, but not all, of the components of the complex."[2]

BRW has not been provided with details of the potential control scheme considered by PB Associates or the TransGrid studies and their results to which PB Associates refers. As a consequence, BRW is not currently in a position to comment on the viability of such a scheme.

PB Associates' letter to the ACCC of 24 February 2005 expressed that there are some uncertainties regarding the practical implementation and management of such a scheme, and the potential role of Directlink.

In order for BRW to be able to assess the viability of such a scheme, it would be necessary to conduct extensive additional studies as well as carry out a detailed assessment of the existing voltage control and other control and protection schemes. The need and location of additional reactive support referred to by PB Associates in its TransGrid report would also have to be examined. Such studies could take around two months to complete allowing for the necessary liaison and reporting with the parties involved.

Yours sincerely
Burns and Roe Worley

R McD Touzel
General Manager Consulting

[2] Letter from PB Associates to the Commission on 24 February 2005.