

Ref. 2/330/9

12 December 2005

Mr Warwick Anderson Acting General Manager – Access Branch Australian Energy Regulator GPO Box 510 MELBOURNE VIC 3001

Dear Mr Anderson,

## CAPACITY IN SOUTHERN QUEENSLAND NETWORK DURING SUMMER OF 2006-07

Thank you for your letter of 14 November regarding the above subject.

You have asked for Powerlink's written advice regarding the impact of installation of the second transformer at Molendinar on Directlink's capacity to flow south in 2006/07 and whether Powerlink expects constraints in the Energex network to reduce the capacity of Directlink southward flow. These matters are addressed in this letter. However, before specifically addressing these questions, we wish to outline the findings of recent work completed which seeks to clarify capacity of the Queensland network to support southward flows on Directlink.

### **Network Capability**

Powerlink has been reviewing the capacity of the Queensland transmission network to support southward flow on Directlink during the 2006/07 summer to supply Country Energy. This ongoing analysis has confirmed our initial advice to Country Energy that there will be approximately 40 MW of headroom in the Gold Coast limit at the time of Gold Coast local peak for 2006/07, following construction of Greenbank to Maudsland 275kV transmission augmentation works. However, the analysis now indicates that this will translate into only around 50 MW of support into the Country Energy network at Mullimbimby and not the 80 – 90 MW originally advised. A copy of our revised advice to Country Energy is attached.

As pointed out in earlier correspondence, installation and operation of the second Molendinar transformer by 2006/07 would increase this limit by a small margin. However, for technical reasons outlined later in this letter, the second transformer is unable to be operated in service over the 2006/07 summer.

33 Harold Street ,Virginia PO Box 1193, Virginia, Queensland 4014, Australia Telephone: (07) 3860 2111 Facsimile: (07) 3860 2100 Website: www.powerlink.com.au Beyond the 2006/07 summer, ongoing developments are required in the Powerlink network to meet supply reliability obligations in south east Queensland as electricity demand increases. These developments will allow increased southward flows on Directlink which in turn could supply Country Energy and support TransGrid's New South Wales network. In the earlier years, these works could include the recently recommended transmission line from Middle Ridge to Greenbank in late 2007 and subsequent capacitor banks. Powerlink does not consider that these developments could be advanced to provide additional southward flow on Directlink over the 2006/07 summer.

It must also be remembered that the capacity available on the Powerlink network at any time to support southward flows on Directlink will depend on actual system conditions occurring at the time, both demand and generation.

#### **Molendinar Second Transformer**

Powerlink can confirm that works to install the second 275/110kV transformer at Molendinar will now occur in conjunction with other works already taking place at Molendinar and Greenbank prior to the 2006/07 summer. Because of fault level restrictions in the Energex network it will not be possible to operate the network with both Molendinar transformers in service until Energex upgrade their network. This is not programmed to occur until just before the 2007/08 summer, when the second transformer is needed to be in service to meet reliability of supply obligations.

Because this fault level restriction prevents the second Molendinar transformer being operated in service it will not provide any additional network capacity to allow Directlink to flow at higher levels south in 2006/07.

网络小额

#### Energex Network

As noted above, fault level restrictions in the Energex network will prohibit the operation of both Molendinar transformers together during the 2006/07 summer. High level joint studies have been undertaken by Powerlink and Energex to better understand future limitations which require augmentation into the future. As a result of this work, Powerlink is not aware of any other constraints within the Energex network over the 2006/07 summer that could be more limiting on Directlink southward flow than the transmission voltage stability limit. However, Energex will be in the best position to advise on this aspect.

I trust the above adequately addresses the issues raised in your correspondence. Please do not hesitate to contact me if you require further clarification.

Yours sincerely,

To meller

Terrence W. Miller GENERAL MANAGER NETWORK

Your ref: KS:CU Our ref: 2/320/39

29 November, 2005



Mr Ken Stonestreet Group General Manager – Networks & Infrastructure County Energy PO Box 718 Queanbeyan NSW 2620

Dear Ken,

# Re: Direct Link Transfers to Country Energy Region for 2006/2007

I refer to my previous correspondence on 7 September 2005 which discussed the transfer limit to the Country Energy network for 2006/2007. In summary the letter advised that up to 90 MW could be available to be transferred south from the Gold Coast on Direct Link to support the Country Energy network.

Powerlink has since revisited and updated this modelling. The further analysis has confirmed our initial advice, that is, that there would be approximately 40 MW of headroom in the Gold Coast limit at the time of Gold Coast local peak during 2006/2007. However, the recent analysis indicates that this will only translate to around 50MW of support into the Country Energy network at Mullumbimby and not the up to 90 MW originally advised.

As previously advised, the capacity available at any time will depend on actual system conditions occurring at the time, i.e. demand and generation.

Yours truly,

Ē

Simon Taylor Manager Network Customers