

41. MGE07/97CS

Riverlink - SA/NSW Interconnection  
**APPROVED**

*All Ministers*

Not Relevant

## CABINET COVER SHEET

- 41
- 1. TITLE:** Riverlink – SA/NSW Interconnection
- 2. MINISTER:** Hon Dr Michael Armitage, MP  
Minister for Government Enterprises
- 3. PURPOSE:**
- To approve in principle the Riverlink project and endorse South Australia and New South Wales continuing to jointly pursue its establishment.
  - To approve the undertaking of a public consultation process to enable Riverlink to be included as a regulated asset under the National Electricity Code.
  - To note that the project will be resubmitted to Cabinet for final approval subject to its approval as a regulated interconnect within the National Electricity Market and environmental approval.
- 4. RESOURCES REQUIRED FOR IMPLEMENTATION:** Within existing budget allocations.
- 5. RELATIONSHIP TO GOVERNMENT POLICY:**
- Consistent with competition principles framework.
  - Consistent with a commitment for the development of a national electricity market and providing greater third party access to the South Australian and other (NSW) markets.
  - Infrastructure development to support and enable lower electricity prices to South Australian industry.
- 6. CONSULTATION:**
- Feasibility study undertaken and reviewed by the Electricity Sector Coordinating Committee (ESCC), ETSA and TransGrid.
  - Reviewed by the Electricity Capacity Project Team.
  - Independent analysis by London Economics (jointly funded by SA and NSW).
- 7. FAMILY IMPACT STATEMENT:**
- Facilitates the import of lower priced energy which will act to dampen the impact of future electricity price increases.

- The implementation of Riverlink will increase the available capacity thus reducing the likelihood of future power outages.

**8. URGENCY:**

To ensure that capacity is available for **Summer 1999/2000** to maintain acceptable electricity supply reliability levels.

**9. RECOMMENDATIONS:**

That **Cabinet** approve:

- 4.1 in principle the Riverlink project and endorse **South Australia** and **New South Wales** continuing to jointly pursue its establishment
- 4.2 the undertaking of a public consultation process to enable **Riverlink** to be included as a regulated asset under the **National Electricity Code**
- 4.3 that the project will be resubmitted to **Cabinet** for final approval subject to its approval as a regulated interconnect within the **National Electricity Market** and environmental approval.

**SIGNATURE:**  
**PORTFOLIO:**  
**DATE:**

  
**MINISTER FOR GOVERNMENT SERVICES**  
17-12-97

**TO: PREMIER AND CABINET**

**RE: RIVERLINK – SA/NSW INTERCONNECTION**

**1. PROPOSAL**

- 1.1 to approve in principle the Riverlink project and endorse South Australia and New South Wales continuing to jointly pursue its establishment.
- 1.2 to approve the undertaking of a public consultation process to enable Riverlink to be included as a regulated asset under the **National Electricity Code**.
- 1.3 to note that the project will be resubmitted to **Cabinet** for final approval subject to its approval as a regulated interconnect within the **National Electricity Market** and environmental approval.

**2. BACKGROUND**

- 2.1. South Australia will require additional sources of electricity capacity within the next 3 years if existing levels of electricity supply reliability are to be maintained.
- 2.2. Over the past 3 years **ETSA** Transmission and **TransGrid (NSW)** have undertaken joint feasibility studies into a transmission system interconnection between the **States**. The technical analysis and costing carried out in this period have identified the Riverlink proposal as an option that is technically viable and is favourable from economic viewpoint.
- 2.3. Riverlink is a direct interconnection between the **ETSA** Transmission System and the **NSW** transmission network. It will provide South Australia with approximately 250 MW of equivalent generating capacity if sourced from **NSW**, or 170 MW of equivalent generating capacity if sourced from Victoria.
- 2.4. Riverlink involves the construction of approximately 330 km of 275 kV transmission line between Buronga in **NSW** and Robertstown in South Australia. Approximately 200 km of the line will be built in South Australia. (Refer to Appendix for a map of the proposed development).
- 2.5. The total cost of Riverlink should not exceed \$95 M of which up to \$45 M is attributable to **ETSA** for works in South Australia.
- 2.6. At its October 31 1997 meeting the **ETSA** Corporation Board endorsed Riverlink as its preferred investment to meet the South Australia's need for additional capacity. **TransGrid's** Board have also endorsed the project as a preferred development.

**3. DISCUSSION**

- 3.1. ETSA Transmission and TransGrid have undertaken considerable studies to identify South Australia's capacity needs. These studies have used both simple deterministic approaches and more rigorous probabilistic analysis to identify the likely timing and electrical capacity needed by South Australia.
- 3.2. The results of these studies show that South Australia will require approximately 200 MW of additional capacity by the summer 1999/2000 to maintain acceptable electricity supply reliability levels.
- 3.3. The studies indicate that the provision of electrical capacity, and not energy is needed at this point to improve reliability. The studies also show that existing generators within the State, and the SA-Victoria interconnect can adequately meet a majority of South Australia's energy requirements.
- 3.4. Market analysis was undertaken with Intelligent Energy Systems to assess the impacts of Riverlink in the National Electricity Market under a range of likely scenarios. The outcomes of this work is summarised as follows;
  - 3.4.1 under all scenarios and in all time periods the average price of electricity in South Australia is lower with the inclusion of the Riverlink interconnection;
  - 3.4.2 the difference in the average price of electricity between the with and without Riverlink cases ranges between \$1 to \$4/MWh - ie. approximately a \$10 to \$40 million reduction in the average annual cost of electricity in South Australia;
  - 3.4.3 the benefit of Riverlink is highest in the first five years of its operation with average price reductions in South Australia of \$2 to \$4/MWh (ie \$20 to \$40 million per annum) - in the longer run (to 2009/10) the benefit of Riverlink is lower and ranges between \$1 to \$2/MWh (ie \$10 to \$20 million per annum);
  - 3.4.4 the net benefit to SA customers, assuming a \$5.5 million real per annum revenue stream for Riverlink, ranges between \$4.5 to \$34.5 million per annum;
  - 3.4.5 the impact on the NSW and Victorian market region is less sensitive and under most scenarios there is a slight increase in the average price in electricity in those regions.
  - 3.4.6 in all cases Riverlink substantially reduces the gap between electricity prices in South Australia and those in the Eastern states.
  - 3.4.7 without offsetting action, there is a reduction in the profitability of Optima Energy with Riverlink, typically projected at around \$5 million per annum.

- 3.5. The Treasuries of South Australia and New South Wales engaged London Economics to undertake an independent review of the economic costs and benefits of the Riverlink interconnect and its alternatives.
- 3.6. London Economics examined the following alternatives for meeting projected load growth in South Australia:
  - 3.6.1 augmentation of the Victorian-SA interconnect
  - 3.6.2 new South Australian based generation including small-scale private generation
  - 3.6.3 increasing demand side measures (DSM) to reduce growth in peak demand.
- 3.7. London Economics found that Riverlink was the preferred alternative for meeting projected load growth in South Australia and that:
  - 3.7.1 the augmentation of the Victorian-SA interconnect primarily increases the amount of imported energy and does not substantially increase capacity due to the coincidence of summer peak demands in South Australia and Victoria.
  - 3.7.2 generation plant to meet the capacity needs is estimated to be more costly than Riverlink. The comparison of the net present value of capital plus operating and maintenance costs showed that Riverlink cost \$187.2M versus new generation cost of \$375.5M. Furthermore, in the short timeframe in which new capacity needs to be put in place, it is unlikely that sufficient independent generation projects would eventuate to supply the 200MW of required capacity.
  - 3.7.3 additional Demand Side Management (DSM) measures were unlikely to prove effective in the short time frame.
- 3.8. The London Economics study showed that Riverlink provides a range of public benefits across the National Electricity Market (NEM). It also demonstrated that any single party could not capture sufficient of these benefits to justify the project on their own. Consequently Riverlink should be deemed a regulated interconnect.
- 3.9. If Riverlink is deemed a regulated interconnect under the National Electricity Code, the cost of the project will be recovered via the transmission services provisions of the Code. Based on a South Australian portion cost of \$45 M and a likely regulated return on investment, an annual revenue stream of about \$5.5 M per annum will be required to support the investment.

**MINUTES forming ENCLOSURE to:****MGE07/97CS**

- 3.10. This level of increase in transmission charges to South Australian customers because of Riverlink is more than offset by the expected benefits from lower electricity prices (estimated net benefits to SA customers given in paragraph 3.5).
- 3.11. In order to have Riverlink deemed as a regulated interconnect, it will be necessary to undergo a public consultation process in line with the National Electricity Code requirements.
- 3.12. The imperatives of the tight timeframe means that it is necessary to begin the consultation and approval processes immediately. Code processes will not formally apply until proclamation of the National Electricity Law at the start of the NEM (expected 29 March 1998). Consequently it will be necessary for New South Wales and South Australia to undertake a process consistent with the Code in order to have Riverlink approved as a regulated interconnector in the NEM.
- 3.13. Riverlink will also be subject to the project gaining environmental clearance. Work is proceeding to engage specialist environmental consultants to undertake this work, and it is expected that broad conclusions should be available by March 1998.
- 3.14. Final commitment to Riverlink will be subject to review by Cabinet once regulatory and environmental approvals have been obtained.

**4. RECOMMENDATION**

It is recommended that Cabinet

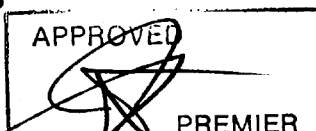
- 4.1 approve in principle the Riverlink project and endorse South Australia and New South Wales continuing to jointly pursue its establishment.
- 4.2 approve the undertaking of a public consultation process to enable Riverlink to be included as a regulated asset under the National Electricity Code.
- 4.3 note that the project will be resubmitted to Cabinet for final approval subject to its approval as a regulated interconnect within the National Electricity Market and environmental approval.

***In Cabinet***

*Michael Armitage*  
 Hon Dr Michael Armitage MP  
**MINISTER FOR GOVERNMENT ENTERPRISES**

22 DEC 1997

17/12/1997



Proposed SA - NSW 275 kV Interconnection

appendix

Attachment to  
No 41