



4th August 2006

The Director
ERIG Secretariat
Level 4, 33 Allara Street
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Canberra City, ACT 2601
By email: erig@industry.gov.au

Dear Ms Taylor

For attention of Transmission Reference Group

I write on behalf of the Energy Intensive Industries Alliance (EIIA) in response to ERIG's investigation for the Council of Australian Governments of how best to develop a truly national electricity transmission system.

EIIA represents the interests of industries where energy is a substantial proportion of production costs and is a significant contributor to their competitiveness. It represents the aluminium industry (through the Australian Aluminium Council), the cement industry (through the Cement Industry Federation), the plastics and chemicals industry (through the Plastics & Chemicals Industry Association) and the forest products, pulp and paper industries (through the Australian Plantation Products & Paper Industry Council).

Many member companies within the EIIA are also members of the Energy Users Association of Australia (EUAA). They have been involved in, and are supportive of, the EUAA submission on these issues which more comprehensively deals with some of the technical issues.

This submission has been prepared using assistance provided by the National Consumer Advocacy Panel and engaging the services of Coolibah Pty Ltd.

The major energy-intensive manufacturing sector contributes:

- 12 per cent of Australian gross domestic product,
- 12 per cent of full-time employment and
- 20 per cent of capital investment.

The sector accounts for about a quarter of Australia's primary energy consumption and about a third of national electricity consumption. Energy accounts for about 25 per cent of the sector's cost of production. Reliability and low cost of energy supply underpin this industrial base of the Australian economy.

The sector's companies are heavily trade-exposed to the global markets, dependent on competitively-priced energy to maintain a competitive edge and unable to readily pass through domestic cost increases to their customers.

They also provide the loads that stimulate the energy investment necessary to get power and gas into Australian homes and smaller businesses and pay for a substantial portion of infrastructure development.

A significant issue for large energy users is the predictability of energy prices. This is a crucial input to budgets, pricing and market strategies and also capital investment programs.

In the Alliance's perspective, the key challenge of NEM reform is to ensure that the market is driven by the genuine needs of consumers and not the needs of consumers as interpreted by parties wishing to invest in supply infrastructure.

EIIA welcomes the CoAG decision to give importance and priority to policies that will develop the national (ie NEM) transmission network to provide users with a more efficient supply of electricity.

At present, the lack of strong inter-connection in the NEM:

- ❑ means the "national" market is in fact five trading markets;
- ❑ gives generators in some States market power;
- ❑ allows major price "spikes" which make NEM trading risky and expensive;
- ❑ limits the liquidity in the electricity financial market; and
- ❑ leads to generation owners and State governments tending to look to local, rather than market-wide, developments when new power capacity is needed.

EIIA notes questions regarding transmission posed in the ERIG issues paper and will address them below, but the Alliance suggests to the Group that there are in fact a smaller number of core questions on which governments need to focus in the management and development of transmission grids:

- ❑ how are transmission needs identified and are there appropriate incentives to attract the required levels of investment?
- ❑ is the process able to properly address societal, economic and reliability goals for electricity supply?
- ❑ have jurisdictions got the governance, supplier accountability and cost allocation arrangements right?
- ❑ will the process deliver users sustained reliability of supply at competitive prices?

The response of EIIA to the last question would be broadly “no”. The acid test, EIIA suggests, is whether or not there is effective competition between NEM States in electricity supply, and manifestly there is not. EIIA is also concerned about potential future reliability problems such as those alluded to in the TransGrid Annual Planning Report 2006.

The Alliance would like to remind ERIG of the objectives of the National Grid Protocol agreed by the Heads of Government (now CoAG) meeting in December 1992. For transmission, it was agreed, there should be:

- non-discriminatory access and trade in electricity regardless of State boundaries;
- transparent network service pricing arrangements;
- development of inter-state connections to improve electricity trade in a cost-effective and environmentally-sensitive manner;
- national technical standards and rules for network use; and
- defined obligations for grid owners and operators, generators and customers.

The fact that CoAG has found it necessary almost 14 years later to institute the ERIG process to address the problems with transmission indicates clearly that the 1992 objectives have not been pursued satisfactorily.

EIIA's approach to these problems is based on the view that:

- transmission is the single most important NEM issue confronting policymakers and regulators today;
- a critical deliverable of the reform process is for policymakers to ensure that generators are required to operate in a largely unconstrained single market;
- a key failure factor in policy formulation is the lack of application by governments of the acknowledged principle that the long-term interests of power users should be the core requirement for NEM operation and development -- ie, governments must ensure that the NEM delivers efficient outcomes for power users in terms of price and service performance; and
- the pricing structure of the overall (transmission + distribution) network system, which accounts for up to 48 per cent of business power charges (cf Australian Industry Group, 2002), must be acceptable to users -- that is, it must be auditable, understandable and perceived to be equitable.

In addition, the EIIA makes the point that a particular problem in regulation of NEM networks over more than a decade has been the overwhelming focus of regulators on an efficient, safe, reliable and secure intra-state electricity system -- essentially reacting to the State-centric politics of residential sector (and thus voter) requirements rather than giving at least equal attention to the impact of the overall system (including inter-state links) on the commercial needs of business (with the flow-on consequences for the economy and employment).

Failure to ensure adequate transmission inter-connection has led to less efficient operation of generation, to NEM pool prices and hedge contract prices that are higher than necessary and to costs having to be incurred by large consumers to cover the risk of pool price volatility.

The 2006 PricewaterhouseCoopers utilities survey observes that there is a need for further inter-connection in the NEM to create a strongly-integrated market which does not fragment into regions during periods of high demand. This, PwC says, will help to reduce the tendency for inefficient generation strategies being developed within States. It points out that the present situation results in electricity prices varying significantly from region to region because there is not a fully integrated and liquid national market.

EIIA endorses these views and points out further that there are frequently large price differences between NEM regions at times of only moderate stress (high load and/or local shortages of supply) as well as significant differences in the market's average spot price over longer timeframes. The Alliance's member companies are bearing a substantial portion of the extra cost burden.

Against this background, it must be clear that a policy change is essential to provide appropriate incentives for investment in transmission assets and for asset owners and operators to pursue innovation in operations to reduce congestion. The major goal of such incentives should be economic efficiency because this benefits users by driving cost-saving technologies and enabling the transfer of efficiency savings to them.

The most pressing need for this change to be implemented as quickly as possible is to be found in projections in the public domain by parties such as National Economics, ABARE, Government energy agencies and others of new electricity capacity required by NEM load centres over the next 10 years:

- Victoria and South Australia have the most urgent need for additional supply, requiring about 3,000 MW by 2015; and
- New South Wales, the largest load centre, will need an estimated 3,500 MW by 2015.

These requirements could be exceeded if power plant retirements in the next decade turn out to be more substantial than currently anticipated.

While Queensland has excess baseload capacity, and will add more with the commissioning of another large power station in mid-2007, the existing capacity of inter-connection between it and NSW already limits the surplus that can be exported south.

Support for energy-intensive user concerns can be found in comments by the transmission companies themselves. For example, TransGrid, in its 2005 NSW Annual Planning Report, acknowledges that:

- ❑ creation of the NEM has substantially changed the role of the NSW transmission network;
- ❑ power flows are now quite different from those for which the network was originally planned;
- ❑ little scope exists for further fine-tuning of the network to maximise its utilisation capacity as load continues to grow and constraints emerge;
- ❑ to meet the growing NSW load there is a need to maximise the capacity of inter-connectors, including the QNI; but
- ❑ no high capacity inter-connector upgrade has been identified that is judged likely to pass the regulatory test.

EIIA considers that stronger transmission links between the States are the best way to maximise competition among NEM generators, thus reducing price differences between the regions and lowering the exposure of end-users to both price shocks and higher than necessary average pool prices.

The Special Premiers' Conference of July 1991 noted in its communique that consideration needed to be given to the means of facilitating approvals for new inter-state transmission lines. This view was re-iterated by ABARE a decade later (ABARE Outlook 2001) when it drew attention to the problems caused by the lack of a genuine national grid and proposed that "increased competition (in the NEM) could be facilitated through increased transmission between generating regions."

The only major inter-connection which has taken place since 1991 is the QNI between Queensland and NSW, a project which has been reported to have paid for itself in the first year of its operation through reducing pool prices -- and which was built through the unilateral decision of two State governments rather than via the approval of the complex regulatory process established for the NEM.

EIIA is of the view that a national transmission plan should be pursued by CoAG to provide up to 2,000 MW of additional connection capacity between the major States. This would increase average transmission charges by a relatively small amount while reducing wholesale prices across the NEM (cf Port Jackson Partners study for the Business Council of Australia, March 2005). EIIA is of the understanding that strategic investment in transmission capacity would be more cost-effective than additional regional investment in generation to overcome transmission constraints, bringing more cost effective prices to the market.

This leads EIIA to recommend to the Group that CoAG's transmission objectives can best be met by:

1. Changing the regulatory test to recognise the high voltage network's ability to reduce pool prices across NEM regions and applying a customer benefits test.
2. Forming a planning body to advise governments, regulators and the transmission organisations on NEM interconnection needs.

3. Establishing new market arrangements where the transmission network service providers take responsibility for inter-regional congestion and losses.
4. Allowing for major network projects to be put to tender rather than automatically to be the responsibility of State transmission organisations.

In putting forward these recommendations, EIIA would like to cite MIT's Professor Paul Joskow, who (in 2005) wrote that a major barrier to efficient mobilization of transmission investment is the absence of a sound, stable and credible framework for identification of transmission needs, transmission cost recovery, mechanisms to align investor incentives with public interest goals and efficient pricing of transmission service.

EIIA acknowledges that ERIG will hear strong concern from some generators about any such proposals to drive large investment in augmenting inter-connection. The Alliance points out that this is not a view that will be supported by generators with low-cost plant whose access to the whole NEM is limited by transmission restraints. The main reason for some generation opposition to such developments is (understandably) to be found in their commercial interest in limiting or preventing competition from other power stations. In assessing these views, it should be borne in mind that system reliability, while critical to customer interests and especially to energy-intensive manufacturers, also benefits generators by providing dependable access to the market.

With regard to the list of key questions posed by the Group on transmission, EIIA provides the responses below. However, the Alliance wishes to emphasize here that the need to pursue substantial additions to the inter-connected system is at least as much a question of policy as of economics. Debate about economic and regulatory principles should not be allowed to over-run understanding that the over-arching goal of achieving effective competition between the NEM States in electricity supply cannot be achieved by just applying what one critic has described as "Spartan economic principles." The long-term needs of consumers and the community can best be served by CoAG policy decisions in the national interest.

1. *What is the appropriate role of transmission in the national electricity market and is that role being performed effectively today?* Answers: to deliver sustained reliability of electricity supply to end-users at competitive prices and no - investment in inter-connection is currently inhibited by poor regulation and a lack of clear market rules and processes.
2. *Are all aspects of the role of transmission appropriately valued in the regulatory regime?* Answer: No.
3. *Are the current planning, investment and operational processes of regional transmission networks supporting efficient NEM-wide provision of transmission services.* Answer: No.
4. *To what extent are any inadequacies in the national planning regime or governance arrangements hindering efficient investment in the national grid.* Answer: Very significantly.

5. *Are there efficiency gains available from strengthening the relationship between the competitive and regulated sectors?* Answer: The fundamental problem with the present regulatory system is that it involves regulators, in effect, micro-managing network owners and operators, creating a situation where they have an incentive to inflate their true costs and to "game" the regulator. The approach penalises network managers for past investment and financing decisions and, because of uncertainty about future regulated rates of return, is a disincentive to new investment. The ultimate sufferers of this flawed process are the consumers. The regulatory approach requires "root and branch" reform, not just the shuffling of responsibilities from State-based to national regulators and fine-tuning the regulatory approach, welcome though this is in removing duplication of costs.
6. *Do the current arrangements create a stable framework for efficient investment in new generation and transmission capacity?* Answer: No.
7. *What are the implications for efficient investment investment of having different frameworks governing investment in electricity and gas transmission?* Answer: The prime focus of CoAG attention should be on facilitating the justified augmentation of electricity transmission not on pursuing yet another complex debate on unifying regulation of the power and gas sectors. The former, for reasons outlined above, is urgent.
8. *How can a level playing field be established and maintained between the competitive elements of the market and the regulated natural monopoly elements?* Answer: The present NEM structure is fundamentally flawed because governments failed to follow through on establishing a national transmission grid; finding a remedy for this flaw is more critical than any other issue.
9. *What is the role of the current regulatory test? Is it performing that role effectively? If not, what changes are appropriate?* Answers: The current test is an inefficient tool. Its central failure is that it only evaluates the efficiency of projects proposed by a network service provider rather than identifying the most efficient investment, or investments, required to meet user demand and reliability expectations. Its application is neither transparent nor predictable. The "competition benefits" approach introduced by the ACCC in an effort to fix the problem founders on the complex issue of how to define and then how to measure any competition benefits. The construction of strong inter-connections between the NEM regions, in effect, has been halted. EIA has made four suggestions for a changed approach (see pages 5-6 above).
10. *How can the market-based incentive arrangements inform and strengthen the economic regulatory framework/regulatory test?* Answer: As set out in this submission, EIA believes that a national planning body must be established for inter-connections and that, once this body has recommended augmentation, governments should proceed to implement such projects as a national priority. The current regulatory test approach is an important part of the problem; introducing still more complex rules is not the answer to this situation.

11. *Does the MCE transmission package, including the ANTS and the last resort planning power, provide an effective mechanism to ensure a national approach to transmission planning.* Answer: No. If CoAG thought it did, it would not be necessary to ask ERIG to address the need for transmission development to achieve effective competition in electricity supply between the States.
12. *Are current arrangements favouring intra-regional transmission investment and operation over inter-regional transmission investment and operation.* Answer: Given the failure to pursue strongly-needed inter-connections, Yes.
13. *What institutional and governance arrangements are appropriate for the transmission sector in a fully integrated national electricity market?* Answer: See EIIA's recommendations on page 5-6 of this submission.

In conclusion, the Alliance stresses that CoAG's decision to give ERIG this task is heartily welcomed by energy-intensive manufacturers with the caveat that the move is long overdue and the problems of market structural weaknesses, exercise of market power by suppliers and potential price shocks for end-users in the next 10 years are reaching a level where they are a threat to the viability of existing manufacturing operations and to new investment.

Energy-intensive manufacturers are convinced that they are -- and have been since the NEM began -- paying more for wholesale electricity than they should be because of the exercise of generator market power that flows, among other reasons, from the constraints applying to inter-connections between regions. Manufacturers are concerned that this situation will worsen. They see the current trend towards merging electricity supply activities as another worrying factor in a market with insufficient competitive pressures. Their concerns influence their appetite for investment risk.

EIIA urges ERIG to accept that the over-arching priority in electricity policy for governments, to achieve the original national grid objectives set by first ministers in launching the reform process, is to act firmly and efficiently now to ensure that well-identified demand trends do not turn existing NEM problems in to crises with significant, long-lasting social, economic and environmental effects.

EIIA looks forward to publication of ERIG's draft report and to engaging further with the Group in pursuing its important tasks.

Yours sincerely

A handwritten signature in black ink, appearing to be 'P. Brown', written over a vertical line.

Miles Prosser
ON BEHALF OF THE **ENERGY INTENSIVE INDUSTRIES ALLIANCE**