

John Arneaud

TAS 7051
12th August 2011

John Pierce
Chairman
Electricity Supply Industry Expert Panel
GPO Box 123
Hobart TAS 7001

By Email to : contact@electricity.tas.gov.au

Dear Mr Pierce,

RE : Independent Review of the Tasmanian Electricity Sector - Issues Paper

Thank you for the opportunity to provide input to your review of the current position and future development of Tasmania's electricity industry. In particular, I appreciate the consultative approach taken by the Panel to the review process.

I have focussed my submission on the questions relating to Governance, commenting on.

1. The Panel's view that, 'compromising efficient electricity sector outcomes to achieve financial outcomes for the SOEBs or the taxpayers would not be in the community's best long-term interest'; and
2. Whether SOEBs should be restricted from expansion interstate or into what are perceived as non-core businesses.

In addition, I have made some observations on network investment and cost recovery.

In closing, I'd like to thank the Panel again for the opportunity to comment. If you would like to discuss any matters raised, please contact me via the sending email address.

Yours sincerely,

John Arneaud

(electronic document – no signature)

Submission on Independent Review of the Tasmanian Electricity Sector - Issues Paper

By John Arneaud 12/08/2011

I have focussed my submission on the questions relating to Governance, commenting on.

1. The Panel's view that, 'compromising efficient electricity sector outcomes to achieve financial outcomes for the SOEBs or the taxpayers would not be in the community's best long-term interest'; and
2. Whether SOEBs should be restricted from expansion interstate or into what are perceived as non-core businesses.

In addition, I have made some observations on network investment and cost recovery.

1 Tension Between Energy Market and State Government Objectives

I agree with the Panel's view that it would not be in the community's best long-term interest to compromise efficient electricity sector outcomes to achieve financial outcomes for the SOEBs or taxpayers. Given that most of the relevant information is not in the public domain, I can offer no evidence to support this belief. Given the limited transparency of the relevant decisions, I feel that it is impossible to have an evidence-based discussion on this topic. What follows is therefore based on my own perceptions.

It seems to me that at times, there might be significant pressure on Ministers to sacrifice long-term electricity market efficiency for short-term electoral gain; for example by directing/advising a SOEB to enter into a contractual arrangement which underpins a private investment in a marginal electorate.

Over time, I have developed the view that the only way to be absolutely sure that this cannot occur is to prohibit NEM jurisdictions from having control over energy businesses in their own jurisdiction. Such a prohibition could be applied NEM-wide. I realise that such a far-reaching change is beyond the scope of the Panel, but I believe that it is preferable to a Tasmania-specific restriction on SOEBs.

In relation to the proposed restriction on control, I note that:

- If we completely remove the ability of jurisdictions to control the operational and investment decisions of SOEBs then I believe that we will also remove the incentive for them to continue in ownership of these assets. It is clear to me that they do not retain ownership in order to benefit from a high return on invested capital. The financial returns are low in comparison to say, the bond market or fixed interest deposits. For me, the inescapable conclusion is that jurisdictions wish to retain ownership of energy businesses in order to be able to distort the energy market for political ends, by including consideration of jurisdictional externalities; and
- If this prohibition were adopted, State Governments would be free to own SOEBs in other jurisdictions. For example the Tasmanian government could exchange its Transend assets for an equivalent asset value in Powerlink.

I have given considerable thought to the possibility of alternative, less radical solutions. My view is that attempts to achieve the desired outcomes by constraining the operation of Tasmanian SOEBs, either structurally or operationally, will disadvantage them in terms of NEM-wide competition. In the absence of such a radical prohibition, there will remain at least the perception of a tendency for jurisdictions to operate the SOEBs to further short-term political ends.

2 Non-Core or Interstate Activities

Far from seeking to restrict the expansion of Tasmanian SOEBs interstate, I believe that any failure of these businesses to develop a truly national market presence will lead in the long-term to an inability to compete effectively with the large 'gentailers', eg Origin and AGL. If State Governments and/or taxpayers are uncomfortable with the commercial risks of doing business in the NEM, then perhaps then need to consider whether they should have financial exposure to that market.

A more interesting question is whether Hydro Tasmania should be prohibited from further development of generation assets in this state. Given that much analysis and discussion has been centred on the 'Market Power' and 'Monopoly Position' of Hydro Tasmania, it beggars belief that we should be envisaging a future where that entity perpetuates its dominant position. If there is indeed a need for future generation development and these developments are in fact commercially viable, then surely alternative private investors will take up such opportunities?

I would recommend to the Panel that they consider the option of merging the distribution component of Aurora with Transend Networks, the Aurora retail business with Hydro Tasmania and offering TVPS for sale.

3 Energy Density and Cost-Reflective Network Pricing

Transmission and distribution form a significant component of electricity pricing. OTTER's reports show that this component has increased at a greater rate than the energy and retail margin components. Between 1999 and 2010 the increase in the network component of retail prices was from 4.3c/kWh to 8.9c/kWh or 6.8% per year. Recent increases have been driven by an attempt to maintain high reliability in the face of aged assets and increasing raw material prices.

In my view there are two main reasons why network costs are particularly high in Tasmania:

1. The energy density is low so a small customer base must support significant capital and operational costs;
2. The smearing of costs over the whole customer base weakens the scrutiny applied to individual investment decisions.

3.1 Energy Density

The table below shows the very different nature of the transmission networks in the various countries. Clearly in Australia where the transmission network serves a relatively small peak load per installed km, it is to be expected that costs will be higher than in, for example, Spain with a much more concentrated load. The Tasmanian average energy density is in fact optimistically high, since there is a great point concentration of load in the Georgetown area. Ignoring this point load, actual energy density in Tasmania would probably be about a third of the Australian average of 0.9 kW/m of transmission.

	Australia as a whole	Tasmania	Japan	Norway	South Africa	Spain	New Zealand
Peak GW per 1000km of transmission	0.9	0.52	1.2	1.29	1.87	2.10	0.6

Table 1 : Relative Energy Densities

Sources – Tasmania, Transend Annual report; New Zealand, Transpower, Others CIGRE paper, “Regulatory Incentives for Capital Investments in Electricity Systems”, July 2010,pg 49.

3.2 Network Pricing, Cost Recovery and Incentives

The Tasmanian reliability criteria were not established through a strict economic test, as was done in Victoria. It is likely that some reduction in network costs could have been achieved by accepting a lower reliability standard – at the cost of increased customer disruptions. There is a free rider problem. For some customers their value of reliability is low, so they would prefer lower standards and lower prices. However there is no practical way of separating these customers from more critical customers, (eg hotels, banks) on the same circuits.

In addition to the reliability considerations above, customers do not pay for the marginal cost of networks required to provide their local services. Significant cost smearing occurs:

1. the cost of the long transmission lines from hydro generation to major load centres is smeared over all Tasmanian customers;
2. the cost of distribution supply to rural Tasmania is twenty times that of supply to the Hobart CBD, (OTTER Reliability report); and
3. the cost of transmission developments are not recovered by those who benefit from that specific investment, leading to a charge well below the marginal cost of connection.

In general, network owners have little countervailing pressure to defer capital expenditure. The AER is unlikely to be too critical of an assertion that a particular augmentation is necessary due to aged assets, or risk of failure. After all, who can really determine exactly when a transformer or line will fail and isn't it much easier to take no chances, particularly when the CAPEX is covered by a regulated WACC? Three case studies are offered as Attachment 1

Attachment 1. – Case Studies

3.3 Mowbray

The \$11 million project to build Mowbray substation and install the 110 kV transmission line from Trevallyn substation took two years to complete. The transmission line extends for three kilometres, including a 2.3 kilometre underground cable. It crosses the Tamar River using existing distribution line towers, which were modified to carry 110 kV transmission lines.

The 2.3 km underground section was mandated by Launceston Council's planning requirements, adding significant cost to the project. From the perspective of network cost reduction the relevant question is, "would the Launceston Council have insisted on an underground cable as opposed to a cheaper overhead section, if the additional cost were to be recovered directly from Launceston ratepayers¹?"

3.4 Lindisfarne

A second 220kV injection point for the Hobart area has been implemented, driven by the reliability specified as necessary for Hobart load centre. This involved the construction of a new double circuit 220 kV transmission line between the Waddamana substation and the Lindisfarne substation, together with the installation of two 220 kV/110 kV network transformers at the Lindisfarne substation. The estimated total cost of the project was \$130 million.

This asset will have a projected life greater than 50 years. The justification was based on the reliability criteria rather than a strict economic test. Again, it is a moot point whether all the Hobart area customers are really willing to pay some M\$13 pa in additional network charges to manage the fairly low risk associated with a major outage at Chapel St. In addition, it is certainly possible that a major industrial load may leave within the lifetime of the project, negating its economic justification. This risk is buried within the project but carried by all Tasmanian customers.

3.5 Electrona

The reliability of transmission services to areas south of Huonville and Electrona will receive a significant boost with the construction of a new \$13 million, 16-kilometre 110 kV line between the Knights Road and the Electrona substations. The installation of optical fibre will improve communications and protection capabilities between the Knights Road and Electrona substations, as well as providing lightning protection for the line.

This is a growing area and from a central planning perspective the assumption of future demand growth may be justified. However, it is highly likely that most customers south of Kingston would be unwilling to pay more, [over \$1m pa in aggregate] to increase supply reliability. This project might well not have taken place if the capital cost were to have been recovered from the relevant local customers, rather than through a postage-stamp smearing mechanism.

¹ Note the loose connection here between ratepayers, the council itself and electricity consumers.