BELL BAY ALUMINIUM

PACIFIC ALUMINIUM

Tasmanian Energy Security Taskforce
energysecuritytaskforce@stategrowth.tas.gov.au

09 September 2016

Dear Mr Willis,

Re: Tasmanian Energy Security Taskforce Consultation Paper

Bell Bay Aluminium (BBA) welcomes the opportunity to make a submission on the Tasmanian Energy Security Taskforce Consultation Paper.

To meet Tasmania's energy needs the provision of a secure and reliable electricity supply is fundamental. In considering Tasmanian energy security, the Taskforce must recognise that the cost of providing this security is also a fundamental consideration for major industry to ensure international competitiveness. Ultimately Tasmanian electricity must be affordable for all consumers.

The recent energy supply issues in Tasmania have been problematic for all Tasmanians and Tasmanian industry including BBA. The response to the state's energy supply issues must be a measured and carefully considered one, looking firstly at the existing risk mitigation measures available to Tasmania, examining why they did not deliver the desired energy security outcome and what settings and operating approaches for these measures could deliver the right outcome and at what cost. Only after considering the suite of options and settings for existing measures, should new measures be considered and the cost impact of any changes must be paramount in considering what is required. Tasmania already has a significant arsenal of energy security measures in place in the Basslink Interconnector, the Tamar Valley Power Station and the ability of the State to store significant and readily accessible energy resources in its dams and lakes.

We understand the Tasmanian Government's *2015 Energy Strategy – Restoring Tasmania's Energy Advantage* has been the basis of recent efforts by Hydro Tasmania to support economic growth and TasNetworks to rein-in transmission costs. BBA has concerns that the laudable objective of the strategy, using Tasmania's energy resource to grow its economy, has been lost amid the focus on a major capital investment such as a second Basslink interconnector to resolve the issue of Tasmania's energy security. Instead the focus should be to work with the existing asset base and make it work better to achieve its full potential.

BBA has responded to the Consultation Paper questions in the attached document. No part of this submission is confidential. Should you have any queries in relation to this submission please contact Lou Clark, Community Relations Specialist, on 0419 326 023 or lou.clark@pacificaluminium.com.au

BBA looks forward to an ongoing dialogue with the Energy Security Taskforce members, the Tasmanian Government and other key stakeholders throughout this important review of Tasmania's Energy Security.

Kind regards

Greg Turner
Acting General Manager
Bell Bay Aluminium

Tasmanian Energy Security Taskforce

Consultation paper

Submission Form

This document provides a form which respondents may find helpful in providing answers to the questions presented in the Taskforce's consultation paper. The Taskforce recommends that you read the consultation paper to understand the context in which the Taskforce has posed the questions. The Taskforce will also welcome submissions in other formats should respondents prefer not to use this form.

Should you wish to claim confidentiality in relation to all or part of your submission, please clearly indicate the reasons for your claim. If only parts of your submission are requested to be confidential, please attach the confidential parts separately to the remainder of your submission that is suitable for publication.

Submission details	
Name:	Bell Bay Aluminium
Organisation (if applicable):	
Contact (optional and not to be published):	

1. What are the specific risks to Tasmanian energy security that you think the Taskforce should consider?

BBA considers that the overarching direction of all energy policy measures adopted in Tasmania should be to use Tasmania's energy resource to grow its economy. In this context, it is imperative to get the balance right between risk and cost in an environment of declining demand and potential emergence of renewable technologies over time. In determining what actions to take with regard to Tasmania's energy security the Taskforce needs to protect against conflicting decisions/actions which result in inefficiency and increased energy costs

The recent energy supply issues demonstrate that in determining contingencies, supply needs to meet demand over a longer period than the 60 days of a Basslink outage previously planned for. The possibility of overlapping events and the long term outage of a power station also needs to be considered in this context.

The Taskforce should also consider the issue of maintaining minimum dam storage levels before export is allowed or use gas to supplement storage or export. A scrutinised business case should be approved and adhered to for hydrological management.

2. What risks are acceptable to you or your business in terms of energy security and the risk/cost trade off? How well are you or your business able to manage energy supply disruptions?

BBA is a sensitive load, and by its nature is fundamentally concerned with energy security risks. With regard to energy supply disruption:

- BBA can manage some level of disruption as demonstrated by the fact that it provides services to the state to minimise disruptions to other users but this capability does not take away from the sensitive nature of the load and the importance of energy security to the smelter.

The smelter has measures in place to manage short term risk, for example, as a result of unplanned equipment failure but extended supply issues present the business with a different set of business and commercial impacts. The recent experience with Basslink was meant to be a maximum 60 day outage and was contemplated on this basis in all risk planning including minimum storage levels. It ended up being materially different and as such requires a change in the contingency adopted to manage these outages in Tasmania. Compounding concerns, dam levels were at an unacceptably low level from day one of the Basslink outage.

3. What level of reliable electricity supply is required by customers? Do customers consider reliability should be as close as possible to 100 per cent at all times, or would, for example, reliable supply closer to 99 per cent of the time be acceptable if the cost is significantly less?

Reliable electricity supply at close to 100% is the desired state by customers generally and for BBA in particular, given its sensitivities to supply security. Given the amount of capital (over) investment in network and generation over the last 20 years in Tasmania, this seems to us to be a reasonable expectation.

It is worth mentioning that the customer is never actually presented with the opportunity if they agreed to accept a lesser service for a lower cost. Historically, the regulators have set the reliability targets, incentivised the investment and approved an increase in charges to recover the investment. Yet the customer has no input as to what risk they are prepared to take versus the cost of investment.

Part of what may be an appropriate response for Tasmania to support improved energy security would be for the energy providers to negotiate 'demand response' services with the major consumers that are willing and able to provide such services. This has the potential to benefit all consumers. This would keep reliability as close to 100% for those who expect it and not require investment dollars to sustain or install new infrastructure.

4. How well are Tasmania's energy security risks understood and communicated to the community?

5. What existing frameworks for assessing and monitoring energy security might the Taskforce wish to consider?

The Taskforce should consider:

- Water storage levels and the economic value placed on security needs compared to other water uses
- Basslink operation, both short and long term – in the short term, constraints are placed on the link limiting its capacity and in the long term, what is its end of useful life and the strategy beyond that
- Gas Assets – a minimum quantity of MW needs to be maintained from gas assets and the condition needs to be monitored to ensure the MWs are available when the generation is required

6. Which potential energy security solutions should the Taskforce consider?

The Taskforce should consider:

- Increasing the generation capability of Tasmania including:
  - Throughput from existing Hydro stations, whether this is via storage increases at certain stations (run of river) or increased generation through efficiency gains on machines or installation or replacement of generators
  - A gas asset portfolio that can respond to demand changes, market opportunities or Hydro asset failures
- The minimum dam storage levels to be maintained to manage the risk
- Engage proactively with customers to agree on demand reduction services that can be activated if energy security becomes an issue

7. What international examples of water storage management practices should be considered by the Taskforce when reviewing Hydro Tasmania's approach?

While it is appropriate to learn from international examples, it is important that any changes are considered and adapted in line with the Tasmanian context.

The role of pumped storage in Tasmania in addition to current water storage management may add value and should be further considered.

8. What governance arrangements might be useful to consider in strengthening water storage management in Tasmania?

The changing of minimum storage levels needs to be far more transparent and subject to greater governance than the reductions in September 2012. Not only do levels need to be increased but the processes to lower them again need to be much more transparent and publically accountable.

In addition to minimum dam levels, a more sophisticated approach around energy security constraints as well as economic considerations should be a formal basis for Hydro deciding "when not to export". The quantity of MWh available for export could be based on storage and risk factors. Constraint equations operate in the NEM all the time, so this could be managed in the same way as is done for existing systems in place through AEMO. Risk factors like wind output, run of rivers and major storages all have different variables that can be considered inputs into building constraint equations.

9. What economic opportunities and risks are there for Tasmania associated with a second Bass Strait interconnector, and how would it improve Tasmania's energy security?

The current interconnector is constrained and any investment should be made on the current Basslink first, to enable the full capacity of the link to be used.

From BBA's perspective, discussions focussed on a second Basslink is a concerning distraction which can only lead to increased costs and therefore conflicts with the overarching direction of using energy to grow Tasmania's economy. Given what is currently known, it is hard to identify economic opportunities for a second interconnector. In particular:

- Who will pay the very high capital cost of a link? Installation and operation will take many years and then that cost will more than likely need to be recovered from Tasmanian consumers and businesses in order to provide a return on investment
- The current geographical spread of hydro stations, prudent water management practices and asset management requirements would not enable enough increase in MW generation above current base generation levels to support viable export quantities
- Demand has been declining across the NEM and the nature of the electricity market is changing, potentially reducing the value of the link
- For the future of Tasmania's economy and energy security, a much better investment would be in economic renewables, pumped storage, increased efficiencies or expanding installed hydro generation base. This would drive prices down, create economic growth in the state and meet intent of the Government's Energy Strategy

10. How might the Taskforce consider the role for gas generation in Tasmania relative to other options to maintain energy security and the associated costs and risks?

Gas generation is very important as recently proven during the Basslink outage, as wind cannot be relied upon for security. The Taskforce needs to consider how to best use the gas assets already in the Hydro Tasmania generation portfolio.

11. What can be done to strengthen the Tasmanian gas market without significant subsidy from Government and costs on taxpayers or consumers?

Tasmania's gas market will benefit by ensuring a minimum commodity and capacity quantity contract is in place for the Tamar Valley power station. These underpinning contracts will ensure it provides a large base load which will act to keep prices down for all consumers. Hydro Tasmania should then sell gas and transport to customers on a "postage stamp" basis i.e. a cost pass through with administrative costs rather than additional profit. This allows Hydro Tasmania to sell gas to customers in the state and/or sell gas back into the national gas market. Managed correctly this would strengthen the gas market without requiring a significant subsidy.

12. How could the potential expansion of renewable energy generation in Tasmania help long term energy security without creating increased costs for consumers?

Additional wind farms should only be installed on the basis of those farms funding their own connection infrastructure as well as being economically viable without any State Government subsidies.

13. Which renewable energy technologies and products present the best opportunity for Tasmania and why?

Pumped storage presents the best opportunity as it:

- Stabilises and reduces wholesale electricity prices
- Increases the spread of renewable energy – no need to expand the transmission network
- Substitutes for wind farms when not operating, or less cost compared to investing in wind farms on a $MWh installation cost
- Utilises existing assets in both generation and transmission

14. Is there a limit on the level of intermittent renewable generation that Tasmania can sustain without affecting the reliability of the network, or requiring significant cost to strengthen the network?

On occasions the limits are already exceeded. For example at George Town, in the situation where there is no gas generation, with Musselroe wind farm online and Basslink and major industrial loads in place, network security issues are dealt with on a regular basis. These include fault current levels, voltage stability, voltage levels and frequency levels. This now requires TasNetworks to fix these issues with capital solutions, funded from their revenue reset funds, yet TasNetworks have not caused the issues.

15. Are there material barriers to the take up of emerging energy products and services in Tasmania?

Renewable installers and investors should be required to pay for the network related issues highlighted in question 14 so that it is not left to TasNetworks to install whatever is required, either Reactive Support or Static Var Compensation systems that all consumers will then be required to pay for.

16. Is there a timeframe where renewable energy developments could be more favoured in Tasmania than elsewhere?

17. What impact will the national commitment to reduce carbon emissions have on renewable energy development in Tasmania and in the wider NEM?
Additional renewable investment in the wider NEM is expected as a result of existing policy such as the Renewable Energy Target. Whether Tasmania will be the destination of this investment depends on the relative project economics for particular installations compared to those in other States.

18. Are there other climate change related implications for energy security in Tasmania?

19. Are there other scenarios with energy security implications in Tasmania that the Taskforce should be considering?
As described earlier, the scenario where either Poatina or Gordon power stations experience a long term outage also needs to be considered. Consideration should be given to buy-back arrangements with major customers as a risk mitigation for energy security where major customers are willing to provide this service. In addition consideration should be for alternative scenarios for the forecasts related to future demand both in Tasmania and in the NEM. There has been a systematic issue with over forecast demand in the NEM in recent years and so multiple alternative scenarios, including continued declining demand should be considered in determining what is required.

Are there any other comments or input that you would like to provide to the Taskforce?
The Energy Security Taskforce needs to consider any cost of investment to improve security. This cannot drive up the costs for energy consumers in Tasmania. The energy strategy needs to be delivered, whatever the outcome of this Taskforce, in a way that focuses on sustaining and improving costs and not increasing energy prices. The State owned electricity businesses, Hydro Tasmania and TasNetworks should look to improve their business efficiencies so that they can absorb any costs associated with changes in energy security requirements rather than increasing the electricity costs of consumers. Government oversight of the business decisions made by the State owned electricity businesses should include clear oversight of the energy security implications of those decisions. Rather than the distraction of a second Basslink, new generation within the state would alleviate energy shortfall concerns raised by the Taskforce and assist with the Government's Energy Strategy direction to use energy to grow the state economy.

Do you wish to claim confidentiality for all or part of your submission? Please explain your reasons for seeking confidentiality.