Tasmanian Small Business Council
Uniting Small Business

Tasmanian Energy Security Taskforce

Interim Report

Submission

January 2017

Acknowledgements & Disclaimers

This project was funded by Energy Consumers Australia (http://www.energyconsumersaustralia.com.au) as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas. The views expressed in this document do not necessarily reflect the views of the Energy Consumers Australia.

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Executive Summary

The Tasmanian Small Business Council (TSBC) welcomes the Tasmanian Energy Security Taskforce's (TEST) Interim Report and the opportunity to respond.

As the Interim Report only provides firm findings and recommendations on short term energy security matters, with important medium and long term issues still indicative and other key matters still being determined, we recommend the Taskforce provide for a further round of consultations before its Final Report.

We believe that energy security needs to be set within a clear and comprehensive energy strategy and have suggested 14 points for such a strategy, which we recommend be included in the Taskforce's Final Report.

We support the Taskforce's position that supply and demand balance in energy security should be left to the market with the Government having ultimate responsibility should this be necessary. Market forces are likely to deliver more efficient outcomes and lessen the need for any government involvement under conditions of competition and private ownership. The former is weak in Tasmania and the electricity sector is under high levels of Government ownership. The Taskforce needs to consider the implications of this in its Final Report and find a path to more efficient delivery of energy security.

Throughout the recent threat to energy security, the energy supply situation in Tasmania was precarious and this created significant concern and uncertainty for Tasmanians. It also tarnished the economic reputation of the State (and restoring confidence in energy security remains an important task). To help do this, the TEST needs to extend its assessment to include a complete and thorough examination of the recent threat and the lead up to it, including decisions made. No stone should be left unturned in restoring the State's reputation as a provider of secure electricity.

For the most part, we support the TEST's definition of energy security. However, we do not believe that it is appropriate, or necessary, to include reference to "low carbon emissions" in the definition. Generation mix preferences are best left to the market to determine and the Government's preferences should be contained within an energy strategy.

The TSBC broadly supports the TEST's energy security assessment framework involving adequacy, reliability and competitiveness criteria across the short, medium and long terms. However, inclusion of "low carbon emissions" under competitiveness can conflict with price, affordability and choice, which are at the core of competitiveness. Furthermore, the use of 'Impacted', 'Susceptible', 'Managed' and 'Resilient' ratings in place of the conventionally used 'High', 'Moderate' and 'Low' is more granular, but less easily communicated.

Having examined the Interim Report's energy security assessment for both electricity and gas we question the optimistic ratings provided for some electricity elements (see Table 1).

We largely agree with the Taskforce's assessment of the security of the Tasmanian gas market and its ratings, which reflect the considerable internal and external threats it faces. However, the TEST should more actively support the need for reforms to the gas market based on stimulating growth and competition, beginning with a major Government review.

We support the Taskforce's energy security governance recommendations, including the Monitor and Assessor and Energy Security Co-ordinator roles, and the integration of gas market security within the two new roles. However, we have residual concerns that the new roles still leaves room for both conflicts of interest over Hydro Tasmania's commercial and energy security roles, and for information asymmetry problems.

For example, an independent analysis prepared for us for this submission illustrates the extent of the conflict of interest problem. It estimates that Hydro Tasmania could have earned between $22 million to $50 million in 2015 from renewable energy certificates (LGC's), illustrating the revenue that its water in storage can earn. This is a material sum compared to Hydro's profit of $62 million and potentially more than the $42 million it returned to the State Government (see Box 1). We recommend that the TEST consider structural separation of these roles.

The important role that hydro-electrical resources and their management play in Tasmania's energy security is acknowledged and we call on the TEST to conduct a full, frank and comprehensive assessment of related policies and decision making during and in the lead up to the recent energy security threat. This includes if/why Hydro Tasmania:

- Chose to sell the Combined Cycle Gas Turbine (CCGT) and related decisions;
- Assumed a two-month maximum closure of Basslink given public knowledge of numerous outages of High Voltage Direct Current links that greatly exceeded this;
- Adopted less conservative water management (including relaxation of the Prudent Water Management policy);
- Excessively reduced its water resources to pursue carbon tax and LGC revenue opportunities.

Examining these issues is important for future energy security and restoring public confidence in energy security.

In relation to storage management, we support the a High Reliability Level (HRL) based on a six month Basslink outage, coinciding with very low dam inflows and avoiding extreme environmental risk in Great Lake. We also support a prudent storage level (PSL) set to create a 'storage buffer' from the High Reliability Line (HRL).

We recommend that the Taskforce's prudent water management recommendations be costed in its Final Report and be assessed against their benefits.

We strongly support the need for effective and timely communications and response mechanisms on energy security, including publication of an annual assessment, a transparent scale of escalating actions as energy in storage approaches low levels, and that contingency measures be evaluated using a competitive tender process.

We strongly support and recommend that demand side response be allowed to play a more integrated part in Tasmania's energy market through the use of competitive forces. As well as contingency reserve, this could also extend to the normal operations of the market and grid support, which would expand opportunities and improve its contribution to risk mitigation and energy security. In addition to large industrial users, smaller customers and cogeneration can also play a role, with demand side aggregators providing facilitation.

We do not question that forecasts of possible changes in Tasmania's climate could impact energy security, but note that all forecasts are subject to uncertainty. Some caution is therefore appropriate in relation to the implications of this work for energy security.

The Taskforce has found that the viability of the Tasmanian gas market is susceptible given its small scale, and increasing supply and price risks associated with both gas commodity and pipeline issues. It has also found that the Tamar Valley Power Station (TVPS) is important to gas market viability and should be retained for energy security until more competitive options are available. The TSBC supports these findings which are consistent with the study of the Tasmanian gas market by Goanna Energy for the TSBC, which called for a major gas market review to improve growth and competition. We recommend that the Taskforce support such a review as it would make a positive contribution to energy security.

Fortunately, a decision to sell the CCGT was not completed before the onset of the recent energy security threat and it was able to be returned to service. However, this was due more to happenstance than good decision-making and we note that the Tasmanian Government's decision to approve its sale on the condition that energy security was maintained was nearly breached. This justifies a Taskforce examination of all the circumstances surrounding the sale, which appears to have been based on poor decisions.

We support the TEST's recommendations that the gas contract for the TVPS be negotiated before the Taskforce completes its Final Report and that key features of the contract be relayed to the gas market by the end of first quarter of 2017. This will add to transparency and certainty about a key energy security issue with electricity and gas implications.

We recommend that the Taskforce consider the option raised in the Interim Report (p. 100), for a policy decision by the Government on an implied subsidy for non-TVPS gas customers and whether this would be in the best interests of energy security overall.

Regarding the need to renegotiate the contract to supply the TVPS with gas after the end of 2017, this is impacted by a range of gas market uncertainties that Hydro Tasmania and the

Tasmanian Government must consider. There is no easy or clear answer at this stage but, whatever the outcome is, it will have a major impact on the Tasmanian gas market.

The Interim Report makes clear the importance of Basslink, Tasmania's second largest energy source after hydro-electricity, to electricity supply and energy security.

The TEST has found that the future energy mix in the NEM and how it is managed to maintain adequate and reliable supply is uncertain, with unclear implications for energy imports to Tasmania in the medium to long term. We recommend that it consider the implications of the closure of the Hazelwood power station for energy security in Tasmania.

The TEST finding on Basslink that is of particular concern to us is that the TEST is currently not in a position to assess the reliability of Basslink, especially given the significance of Basslink to Tasmania's energy security. This leaves a hole in energy security.

The main reason for this finding appears to be Basslink's unwillingness to provide the TEST with the information needed for it to assess Basslink's ongoing reliability following its extended 6 month outage. We find this to be of significant concern and urge Basslink to reconsider its position. After the Interim Report was completed, Basslink announced that the finding of an investigation into its extended outage was "cause unknown", while tests on sections of the cable assessed it as sound. This has presumably made little difference to the inability of the TEST to assess the reliability of Basslink.

The option of building a second interconnector is discussed in the Interim Report. However, the benefits seem to rely more on market benefits than energy security. Meanwhile, the costs are substantial and there are a range of unknown technical and other issues to overcome. We agree that, on pure energy security grounds, there are less costly options available. We also point out that those who benefit from use of a second interconnector should pay for it in proportion to these benefits, should a decision be made to build it.

Existing market ready renewable energy suffers from a lack of reliability, which diminishes its energy security potential, though it can make a contribution. The black out in South Australia, which heavily promoted renewable energy, in September 2016 attests to this (though it was also related to transmission issues).

Barriers to entry to renewable energy in Tasmania related to difficulties in negotiating purchasing agreements for this capacity due to Hydro Tasmania's dominance in the market would be best resolved through ensuring a competitive electricity market.

For the time being, the role of emerging technologies in energy security will be small due to their high cost and uncertainties about their use. For many such technologies these issues are unlikely to be resolved for some time. However, developments should be monitored. The appetite of Tasmanian energy consumers to participate more actively in their energy

use through new technology is untested and held back by the lack of competitive tension in the Tasmanian electricity market.

1 Introduction

The Tasmanian Small Business Council (TSBC) welcomes the Taskforce's Interim Report and the opportunity to respond to it. The role of the TEST is important to the future energy security (electricity and gas) that the Tasmanian small business sector needs.

Our submission responding to the TEST's Consultation Paper sets out the reasons for our interest in energy security on behalf of Tasmania's 37,000 small businesses and we refer the Taskforce to our remarks contained in that response.

This submission responds to the findings and recommendations made in the TEST's Interim Report, and it largely follows the structure of that report. It focuses on matters of most interest to small business.

1.1 TEST's Approach to the Interim Report and Need for Further Consultation

We note that the Interim Report divides energy security into short term matters (defined by the Taskforce as 1-5 years), medium term matters (defined as 5-10 years) and long term matters (defined as more than 10 years). The TSBC recognises the logic of breaking down energy security in this way as reflected in our response to the TEST's consultation paper.

We also note that the TEST intends to provide firmer findings and recommendations on medium and long term energy security matters in its final report and that this will involve scenario modelling. However, we are concerned that it does not intend to allow for submissions in this and its detailed scenario modelling. We believe that this would be a valuable addition to the Taskforce's consultation processes. For small business, which relies heavily on electricity for its day-to-day operations it is vital that we support and have an opportunity to comment on all the TEST's short, medium and long term proposals. The TSBC also notes that the TEST has justifiably placed considerable emphasis on restoring confidence in Tasmania's energy security, on the transparency of energy security and on good communications with stakeholders, including electricity consumers. A further round of consultations prior to the Taskforce's Final Report, allowing stakeholders to see and consider all of the TEST's findings and proposed recommendations would support this.

The TSBC ***recommend*** that the TEST modify its processes to allow for a further round of consultation on a draft of its Final Report.

1.2 Energy Strategy

In its response to the TEST's consultation paper[1] the TSBC suggested 14 points for a well developed energy strategy (p37), repeated here for completeness:

[1] http://www.stategrowth.tas.gov.au/__data/assets/file/0010/139573/Tasmanian_Small_Business_Council_-_Submission.PDF.

1. A clear vision statement and objectives for testing proposed actions;
2. The vision statement would articulate, among other things, the Government's "green appetite", and how environmental outcomes are to be balanced against cost;
3. Two sections – immediate/short term (1 to 5 years) and long term (6 to 20 years);
4. The challenges and opportunities in each section (1 to 5 years, 6 to 20 years);
5. Actions and responses to the immediate/short term challenges and opportunities, which must align with long term strategies;
6. A range of future (6 to 20 years) credible scenarios of supply and demand;
7. Analysis of lowest cost options to meet any projected supply shortfall and to optimise any supply surplus;
8. The projected mix of electricity generation, including replacement of existing plant, and the impact of local generation, in particular solar PV, rooftop and industrial;
9. The role of private investment;
10. An assessment of hydrological risk and the most cost effective means of mitigating it;
11. Economic modelling of each scenario against a range of parameters, including electricity prices, financial inflows and outflows to the State, and social equity;
12. The most economically efficient mix of electricity and gas to meet domestic and small business energy needs;
13. The role of technology, e.g., smartgrid; and
14. Actions proposed to address long term challenges and opportunities, based on the assessment of the most likely scenario.

The current "energy strategy"[2] contains only some of the above elements. The TSBC is strongly of the view that consideration of appropriate energy security measures should be a sub-set of a well considered energy strategy, and should not stand alone from that strategy.

We contend that a major cause of the recent threats to energy security was the lack of a comprehensive energy strategy.

We ***recommend*** that the Taskforce develop a clear and comprehensive strategy for energy security to sit within an Energy Strategy, based on our 14 points and include this in its Final Report.

[2] http://www.stategrowth.tas.gov.au/__data/assets/pdf_file/0017/100637/Tasmanian_Energy_Strategy_Restoring_Tasmanias_Energy_Advantage.pdf.

2 Energy Security Assessment and Oversight

This section of our submission responds to matters raised in Part A of the Interim Report.

2.1 Importance of Energy Security to Tasmanians

We support the Taskforce's comment that:

> *It is reasonable to assume that Tasmania's economy would suffer significantly from a lack of energy security, with the withdrawal of capital from the State and consequential job losses.* (Interim Report, p. 8)

Many small businesses and the people that rely on them can (and probably would) be damaged by this.

We also recognise that as an island State, albeit with significant interconnection to the mainland, and heavy reliance on hydrological resources for on-island electricity generation, Tasmania faces some unique energy security issues that need to be addressed.

The TSBC generally supports the TEST's position that finding a balance between supply and demand for electricity should be essentially left to the market to determine, but with the Government having an ultimate responsibility for ensuring energy security is maintained. In saying this we are also firmly of the view that the Government needs to do this whilst keeping energy affordable for Tasmanian residences and businesses.

However, something the TEST appears not to have given sufficient weight to is that the electricity market in Tasmania remains almost totally in government ownership with extremely limited competition present in both electricity and gas. This almost certainly acts as a brake on the ability of the market to deliver supply and demand in the most optimal and efficient manner, as well as introducing distortions that are often associated with government ownership and a lack of competition.

We ***recommend*** that the TEST consider the implications of the lack of competition in Tasmania's electricity and gas markets and the high incidence of government ownership in electricity for energy security in its Final Report.

2.2 TEST's Assessment of the Recent Threat to Energy Security

While the recent threat to energy security did not involve an actual loss of supply, it did require resort to drastic measures to avoid this, such as installation of temporary diesel generation and negotiated reduction in load by some major industrial customers. This situation was precarious and created significant concern and uncertainty for Tasmanian businesses and residences. It also tarnished the economic reputation of the State (and restoring confidence in the State's energy security remains an important issue).

The Interim Report itself mentions that some businesses (particularly major industrials who reduced load) reported loss of customers as they reduced production, with the recovery of these impacts lasting beyond the period of the threat. Similarly, some businesses were exposed to price shocks through direct spot price exposure or contracts that were due for renewal (as contract prices were impacted by very high spot prices). Whilst tariff customers have been insulated from the electricity price impacts of the crisis to date, it is possible that its impacts will continue to influence Tasmanian wholesale prices and that this will eventually flow through into regulated tariffs through increases in wholesale costs.

Seen in this context, the TEST's assessment of the recent energy security threat seems rather limited. This is disappointing. In our view a more complete and thorough assessment should be provided in the Final Report that extends to assessment of the recent threat, the lead up to it and related decision-making. It is important that electricity consumers and the public are provided with confidence that the TEST thoroughly understands what led to the threat and how it was handled. This is an important aspect of finding cost effective solutions that minimise such risks in future and renewing confidence in Tasmania's energy security as quickly as possible. If this is not done, there could be a lingering perception of gaps in energy security that could risk investment, jobs and the economy. In short, no stone should be left unturned.

In particular, the TSBC's response to the TEST consultation paper[3] indicated (p. 39) that the methodology for managing hydrological risk described by the Expert Panel, which identified the actions required to mitigate the lack of availability of Basslink and the Tamar Valley Power Station (TVPS), would have avoided the energy supply threats of early 2016. The lack of availability of TVPS output should have resulted in a revision of the Prudent Water Management (PWM) policy, which (when implemented) would have flagged the need for the reinstatement of the TVPS capability given the extent of storage declines during 2015.

The TSBC ***recommends*** that a thorough and complete assessment of the circumstances and decisions made during the recent energy security threat, including the weakening of the PWM policy be provided in the TEST's Final Report.

2.3 TEST's Definition of Energy Security

The Taskforce has adopted the following definition of energy security for Tasmania:

Energy security is the adequate, reliable and competitive supply of low carbon emissions energy across short, medium and long-term timeframes that supports the efficient use of energy by Tasmanians for their economic and social activities.

[3] http://www.stategrowth.tas.gov.au/__data/assets/file/0010/139573/Tasmanian_Small_Business_Council_-_Submission.PDF.

We note its comment that the first part is broadly similar to other definitions of energy security, including that used in the Australian Government's National Energy Security Assessment (NESA). However, the inclusion of "low carbon emissions" and short, medium and long term timeframes differs from these.

We do not object to the inclusion of timeframes in the definition that are consistent with the TEST's assessment process, but we can see little reason for the inclusion of "low carbon emissions" in a definition of energy security. Low carbon emissions are not necessary to deliver energy security. In some ways, too much emphasis on this could even cloud the definition or make it more difficult to achieve energy security under some circumstances, even in Tasmania, which already has low emissions. For example, how would the procurement of significant diesel generation (which has high emissions) during the recent threat to energy security have been perceived under such a definition?

The Taskforce justifies its decision to include low carbon emissions in the definition as follows:

> *Energy systems nationally and globally are transitioning toward lower carbon intensive energy sources, and over the long term it is expected that these sources will be dominant and cost competitive. It is logical for Tasmania, therefore, to at least sustain its current low carbon emissions status and to seek to make further progress over time. It also provides an opportunity to enhance Tasmania's brand through its clean energy status and potentially leverage economic development opportunities, particularly as the rest of the world and nation continue to transition to a lower carbon emissions intensive future.* (Interim report, p. 21)

It is risky, uncertain and unnecessary to have regard to low carbon emissions in a definition of energy security and highlights the lack of an appropriate energy strategy, which would otherwise provide guidance on the mechanisms to be implemented to achieve energy security. Moreover, changes in generation mix will occur separate from any definition of energy security and should be left to do so. It also places Tasmania's future energy security within a certain technological framework, which is undesirable in our view.

Tasmania's energy security should not be about picking technological winners, but for the most part should be left to market forces (which the TEST supports).

Similarly, the TEST's reference to enhancing Tasmania's "brand" and "leveraging economic development opportunities" is also unnecessary and undesirable for energy security, which in certain circumstances could impose additional costs on Tasmania's energy consumers, or even place energy security at greater risk (e.g., if this resulted in the excessive pursuit of low emission technologies that were unreliable).

Specification of the desired components of Tasmania's generation mix should be identified within the energy strategy, as suggested at item 2 in our proposed energy strategy contents.

We note and support the Taskforce's comment that "efficient use" is broad enough to include the future use of demand side responses by consumers if these are cost effective. The same point could be made for low carbon emission energy sources provided they offer the most efficient option for delivery of energy security.

Similarly, we do not agree that the use of "lower carbon emission energy sources" is necessarily consistent with the risk appetite expressed in submissions to the TEST, especially the low appetite for high cost new infrastructure and the high appetite for better use of existing energy sources and assets. However, we do support the five risk appetite factors expressed by stakeholders in submissions and listed on page 22 of the Interim Report.

*The TSBC **recommend** that the TEST review its definition and adopt a simpler approach that focuses solely on energy security as a core by removing the reference to "low carbon emissions."*

2.4 Assessment of Tasmania's Energy Security by TEST – Framework and Criteria

The Taskforce's energy security assessment framework involving both qualitative and quantitative information, which the TEST say is robust, credible, and transparent with the aim of addressing areas of concern over the short, medium and long term is supported. We note that examining solutions to medium and long term framework issues will be a primary focus of the Final Report, further highlighting the need for consultation on it.

The use of the three criteria of adequacy, reliability and competitiveness across the short, medium long term time frames is supported with exception of the inclusion of "low carbon emissions" in the definition of competitiveness. We do not see this as a competitiveness factor which relates to core competitiveness issues such as electricity price, affordability and choice on the part of consumers. It could be accommodated through a separate criterion.

We note that the TEST has used four assessment levels ('Impacted', 'Susceptible', 'Managed' and 'Resilient') in place of the three conventionally used ('High', 'Moderate' and 'Low') as it has assessed this as providing greater granularity that allows further insights into the strengths and weaknesses of Tasmania's energy security. Whilst we agree with the logic of this argument, we believe that the outcome of the TEST's assessment shows some weaknesses in its approach which could require some modification. These should become more obvious from our comments below on its energy security assessment (Section 2.5).

In addition, the TSBC believes that the terminology used by the Taskforce to rate energy security is more complex and less easy to understand than the conventional terminology.

This presents potential problems with the need for simplicity, transparency and ease of communications in energy security.

We also note that the assessments for the medium and long terms are indicative only at this stage and will be finalised in the Final Report and will include the results of scenario analysis. This highlights the need for consultation on these matters.

*We **recommend** that the Taskforce reconsider the inclusion of "low carbon emissions" in its competitiveness criteria and its non conventional terminology for energy efficiency levels.*

2.5 Results of the TEST's Assessment

This section comments on the results of the Taskforce's assessment of Tasmania's energy security, first for electricity and then gas. At the outset, it is worth pointing out that the TSBC welcomes the Taskforce's energy security assessment for Tasmania and the transparency that this provides.

2.5.1 Electricity Assessment

Our comments on the TEST's electricity assessment are in Table 1 below.

Table 1: TSBC Comments on TEST Interim Report Electricity Security Assessment

Electricity Adequacy	TSBC Comments
Short Term	• We agree with many of the Taskforce's comments but there are some areas of concern. • Water storages may be at higher levels than in recent years, but this is largely due to the good fortune of strong winter rains in 2016 and is no guarantee of future short term adequacy. Firm evidence that storage management has responded to the threats of 2015/16 is required. • Whilst the immediate future of the TVPS and its gas supply may be in place for 2017, after this both its future role and its gas supply are in need of urgent clarification for short term adequacy to be maintained. • Whilst Basslink is operating, its sudden loss of supply in December 2015 and prolonged outage suggest that there is little room for complacency. The TEST has itself been unable to determine Basslink's reliability. The TSBC requires strong evidence that the possibility of a repeat has been planned as a short term contingency.

	• We note the TEST's comments that energy supply regulation and oversight needs strengthening. • We also note the Taskforce's comment that supplies of electricity generation "are sufficient at least over the next 12 months, and likely beyond." However, the 5 year duration of its short term timeframe requires firmer conclusions beyond the next 12 months. • We further note the TEST's finding of a 700-1,000 MWh energy deficit for Tasmania and its implications for electricity security. • In sum, we are not totally convinced by the TEST's short term assessment and its 'Managed' rating.
Medium Term	• We note the Taskforce's assessment that Tasmania's on-island energy deficit will continue in the medium term, making it dependent on imports to overcome the gap. This makes the continued availability of Basslink and contingencies to deal with its loss for an extended period critical. There must be a well considered plan on how to deal with this but the TEST has been unable to rate Basslink's reliability. • The TSBC believes that medium term planning of electricity adequacy should be based on a continuation of all existing major industrial load. Scenarios could model the impacts of its potential loss. • We note the TEST's comments that gas prices and supply could tighten further in the medium term, potentially making the TVPS uncompetitive (even with its energy security value) but that this is uncertain and could be offset by a carbon price. Negotiation of a new TVPS gas contract should help clarify this. Scenarios should model sensitivity to gas market uncertainties. • Whilst construction of a second interconnector would strengthen Tasmania's energy security this could come at significant cost and should be assessed against competing options, including TVPS. • Significant new wind generation depends on a second interconnector and scenario analysis should model this and its energy security impacts. • In light of the above comments and the TEST's indicative assessment, we reserve our position on the 'Managed' rating for the medium term.

Long Term	• Uncertainties increase within the TEST's long term 10 year+ assessment. This increases the need for scenario analysis using sensitivity tests. • We remain to be convinced that a second interconnector is preferred over gas generation, given the likely cost of constructing the former. Though it may have energy security spin-offs, small business is concerned about its potential to impact electricity prices. It should be assessed against competing energy security alternatives. • We note the dependence of additional wind generation on a second interconnector, an outcome that cannot be relied upon yet to deliver long term energy security. • We note the Taskforce's comments about the potential for growth in other technologies, such as small-scale solar, EVs, battery storage, large scale solar, wave, biomass and geothermal. Whilst possible, such developments are still subject to too many uncertainties to offer energy security. • The TEST recognises the long term uncertainties in its indicative long term assessment of electricity adequacy, but still finds that "there are no significant concerns that Tasmanian consumption cannot be met", which leads it to a 'Managed' rating. In our view, it has provided insufficient evidence for this assessment and we reserve our position on it.
Electricity Reliability	**TSBC Comments**
Short Term	• Numerous risks to Tasmania's short term electricity reliability are mentioned by the TEST including, aging hydro power stations, network challenges, the future of the TVPS and its gas contract, the single point dependency of the Tasmanian Gas Pipeline (TGP) and the intermittency of wind generation. • The assessment lists offsetting factors to a number of these and Tasmania's Reserve Plant Margin (RPM) appears healthy but some residual risks remain and the impact of these should be clarified. • Given the existence of these residual risks and the need to more clearly spell out their impacts on electricity security, we believe that the Taskforce's "Resilient' assessment is premature at this stage.

Medium Term	• The Taskforce lists several reliability risk factors, including no delay in refurbishing aging hydro power stations, the ability of the network to respond and adapt to more embedded renewable capacity, EVs, demand management, possible Basslink outages, gas generation and Tasmanian gas market viability challenges, and more extreme weather events. • Its overall 'Managed' rating could be tested by any of these risks and the possibility of multiple contingencies.
Long Term	• Many of the risks applicable to the TEST's medium terms assessment of electricity reliability also influence the long term. A longer time frame increases the uncertainty around a number of these risks. As such the Taskforce's 'Managed' rating for the long term could be too optimistic.
Competitiveness	**TSBC Comments**
Short Term	• The TEST's conclusion that prices for smaller customers are below the average for other jurisdictions is based on OTTER's standing offer comparisons. However, these do not include the impact of standing offer discounts available in all other jurisdictions, which are often significant. • Small business electricity prices are also inflated by significant cross-subsidies, which may add around $10 million per annum to the sector's electricity costs, though these are slowly being wound back.[4] • There have been recent welcome reductions in network prices by TasNetworks, but (in our view) its costs need to reduce further and there are some threats to further network price reductions in the short term (e.g., higher interest rates, appeals on AER decisions, lesser reductions in distribution opex than TasNetworks originally proposed). The outcome of the next round of AER Tasmanian network determinations (covering 2019/20 to 2024/25) is also uncertain. • The recent and expected further increases in wholesale and environmental charges will reduce competiveness.

[4] Goanna Energy Consulting Pty Ltd, *Cross-subsidies in Tasmanian Electricity Tariffs; the Impacts on Small Business*, Report prepared for the TSBC, October 2016 (http://www.tsbc.org.au/wp-content/uploads/2016/11/Cross-Subsidies-in-Tasmanian-Electricity-Tariffs-and-Small-Business-Oct-....pdf).

	• The Tasmanian electricity market suffers from a lack of competition (generation and retail), offers almost no choice and remains very immature. This detracts from competitiveness and its companions such as innovation, customer choice and customer empowerment. • As discussed earlier, the inclusion of 'low carbon emissions' in the TEST's competitiveness assessment is, in our view, inappropriate. It distorts the assessment and may contribute to misleading results given Tasmania's low carbon status. For example, it would increase competitiveness and disguise the otherwise uncompetitive nature of the Tasmanian electricity market. • The TSBC cannot support the Taskforces 'Managed' rating for Tasmania's short term competitiveness given that the Tasmanian electricity market is clearly not competitive. We are concerned that Tasmania's low carbon footprint may have contributed to the rating. The rating should be downgraded.
Medium Term	• We agree that price forecasting is difficult, even in the short term and that efficiency is important to price outcomes over the medium and long term. However, the absence of generation and retail competition means that regulation must be relied upon to pass gains through to customers and mute the pressures for greater efficiency. • We see little prospect of retail and generation competition increasing unless current policy settings change; whilst there is scope to offer consumers access to new products and services, perhaps on competitive basis, the lack of retail competition removes an important source of competition. Tasmania's opportunities to provide a location for developing new products, already impacted by its small size, could well be further diminished by its uncompetitive electricity market. Government support, including the risks of picking winners, may be relied on to overcome these limitations. • As with the short term, the inclusion of low carbon emissions in the medium term assessment and its potential to distort outcomes remains a concern. • We do not agree with the 'managed' rating for medium term competitiveness and a lower rating would be more appropriate.

	• The TEST's comment that "Tasmania also has advantages that, if capitalised upon, could increase Tasmania's competitiveness to a Resilient rating by this period" seems very premature to us.
Long Term	• We concur with the comments that the electricity market could look very different in the long term but that this is subject to considerable uncertainty. • Whilst there may be scope for non-traditional competitors to enter the market giving consumers greater control and choice, the underdeveloped state of Tasmania's electricity market and high levels of government ownership/regulation make the prospects of this less likely. Other parts of the NEM are more advanced and appear to offer better prospects overall. • It could be worth further investigating the costs and benefits of Tasmania joining Victoria as a single region, as flagged by the TEST but this may increase prices. Benefits to consumers should be a key criteria. • Low carbon emissions would be a contributor to competitiveness if further climate change action were implemented. However, its role in the TEST's competiveness assessment is questioned. • We question the 'managed' rating of the TEST.

The above comments also cause the TSBC to query the Taskforce's overall 'Managed' ratings for Electricity Adequacy, Reliability and Competiveness.

*The TSBC **recommend** that the Taskforce reconsider a number of its energy security ratings for electricity, which seem to be too optimistic.*

2.5.2 Gas Assessment

Our comments on the TEST's gas assessment are in Table 2 below.

Table 2: TSBC Comments on TEST Interim Report Gas Security Assessment

Gas Adequacy	TSBC Comments
Short Term	• We agree that gas infrastructure in Tasmania is more than adequate to meet existing demand, even with gas generation in full production and poses no risk to adequacy of reticulated gas supplies.

	• We agree that a bigger threat is posed by the price (commodity and transportation) and supply challenges in the eastern gas market. However, recent reductions in these pressures and the prospect of gas market reforms to assist the domestic market may improve the outcome for Tasmania, although the outcome and timing are uncertain. • We agree that the need to renegotiate substantial gas contracts by the end of 2017 poses some risks to supply. It also poses a potential risk to the continued viability of the Tasmanian natural gas market if some contracts are not renewed due to price or supply constraints. • Tasmania is known to have on-shore and off-shore supplies of gas it could potentially access to improve gas adequacy and reduce its dependency on the eastern gas market. Despite interest in exploration and the possibility of access to on-shore gas within the next 5 years, the current Moratorium on exploration is preventing potential development of this gas and should be publicly reviewed to robustly establish its costs and benefits. • Taking the above and the TEST's assessment into account, we agree with the Susceptible ranking.
Medium Term	• We concur that natural gas demand in Tasmania and eastern gas market outcomes will be major influences on medium term adequacy of gas. • Access to on-shore gas in Tasmania over the medium term will depend heavily on government policies such as the Moratorium on exploration. Development within the 5-10 year time frame could otherwise be possible. • We agree with the TEST's Susceptible rating.
Long Term	• We agree with the Taskforce's assessment that long term factors are similar to medium term ones and with its Susceptible rating for the long term.
Gas Reliability	**TSBC Comments**
Short Term	• Whilst Tasmania's gas infrastructure is relatively new and therefore less likely to be subject to failure, the Longford gas processing plant (upon which gas supply into Tasmania relies) is an aged asset, though its reliability record has generally been good (apart from a major failure in 1998). In our view, Longford poses some credible

	risk to reliability notwithstanding improvements to emergency arrangements following the 1998 incident. • Clearly there are always risks of gas infrastructure breaking down that need to be factored into any gas security contingencies and associated planning. • In relation to imported bottled gas, the existence of a well developed distribution system throughout Tasmania, with several competing suppliers, is acknowledged, as is its contribution to gas reliability. However, it is not of immediate use to natural gas customers in the event of a loss of reliability. • We agree that single point of dependency is an important reliability issue. • On balance, we believe that the Managed rating of the Taskforce is appropriate.
Medium Term	• Although failure risks for gas infrastructure relevant to Tasmania could increase somewhat in the medium term as assets age and, as such, there may well be an increased reliability risk we accept the TEST's Managed rating. However, management of the assets appropriate to their increasing age will become more importance and structures need to support this.
Long Term	• Our comments on the medium term apply to an increasing extent in the long term. Whilst noting the TEST's comments about the low failure rates of gas infrastructure over the long term and the incentive for reliability provided by substitutes, it is also appropriate to recognise in gas security arrangements that these assets have failed (mostly unexpectedly and without warning) and that alternative fuel substitution is not always perfect.
Competitiveness	**TSBC Comments**
Short Term	• We note that residential gas prices are competitive with the mainland whilst those for small business are high, reflecting OTTER analysis of gas standing offers. However, this analysis does not include substantial discounting to gas customers on the mainland. Its absence in Tasmania detracts from the competitiveness of gas. • We agree that there is little active competition between Tasmania's two gas retailers, which further limits the competitiveness of the gas market.

	• Whilst competition from alternative fuels, especially bottled gas and electricity, provides some check on gas prices, this is limited in the short term and not as beneficial to gas competitiveness as direct competition. • Moreover, the small size of the gas market, its limited network, heavily subsidised electricity heating tariffs (the costs of which are borne by small business) and the lack of competition in the Tasmanian electricity market also damage gas competitiveness. • The TEST opines that gas has relatively low emissions for a fossil fuel and that low levels of gas consumption also helps to keep its emissions low presumably causing the Taskforce to see this as positive for competitiveness. Unfortunately, as far as the TEST's competitiveness assessment goes, this could help disguise the lack of competition in the gas market. • We support the TEST's Susceptible rating for gas competitiveness given the many risks associated with Tasmanian gas market that are holding it back.
Medium Term	• We support that "(t)here is considerable uncertainty as to whether the gas market in Tasmania will be competitive and viable in the medium term." The factors we mentioned above are likely to continue to play a role in this unless the Tasmanian Government promotes growth and competition in the gas market with supportive policies. • The TEST points to the possibility of gas customers switching to alternative products or fuels as the best way to strengthen energy security. However, we note that this would reduce the size of the gas market even more, possibly threatening its viability, with adverse impacts for gas security. We recognise that this threat could incentivise Tasmanian gas market participants to keep their prices more competitive. • The Taskforce is pessimistic about the prospects for increased gas demand and competition. However, if the Tasmanian Government, gas market participants and gas consumers co-operated to promote growth in the market this could change. This is the essence of a report on the Tasmanian gas market commissioned by the TSBC.[5]

[5] Goanna Energy Consulting Pty Ltd, *The Tasmanian Gas Market: Building the Pipeline to Opportunities*, Report prepared for the Tasmanian Small Business Council, August 2016 (http://www.tsbc.org.au/wp-content/uploads/2016/08/TSBC-Report-Tasmanian-Gas-Market-August-2016-Final-v3.1.pdf).

	• Growth in gas consumption and market access would also help to promote overall energy security in Tasmania by broadening its fuel mix and reducing reliance on electricity to some extent. • In the absence of any action to significantly promote growth and competition in the Tasmanian gas market, we must reluctantly agree with the Taskforce's Susceptible rating for long term gas market competitiveness.

*We **recommend** that the Taskforce support the need for reform to promote growth and competition in the Tasmanian gas market, beginning with a thorough review of the gas market by the Tasmanian Government.*

2.6 Review of Energy Security Oversight

The Taskforce's review of Tasmania's energy security oversight arrangements has identified several areas where it believes change is necessary. We have examined its findings and recommendations and generally support its associated recommendations. We expect that implementation of these recommendations will lead to improvements in the management of energy security in Tasmania in future and in Tasmania's ability to deal with a range of energy security circumstances. This is an important outcome for small businesses in Tasmania, which rely on energy to maintain their operations.

2.6.1 Electricity Security Oversight

More specifically the TSBC supports:

- That the State Government, through the Minister for Energy, be ultimately responsible for energy security. This role should be accompanied by full accountability, transparency and a responsibility for ensuring effective and timely communications of energy security matters.
- That energy security policy responsibility rest with the Minister and associated Department, with consultation on and communication of all major decisions.
- The proposed new Monitor and Assessor role and associated arrangements recommended by the Taskforce. We support ensuring that the role is adequately – but not excessively – resourced and are mindful of the need to keep the costs of this role contained over time. We are also mindful of the need to ensure that the role needs to avoid the risk of it becoming captive to other entities. Based on the discussion in the Interim Report, we believe that location of the role in either OTTER or AEMO should be the preferred options for further examination.

- Establishment of an Energy Security Co-ordinator role either within TasNetworks or AEMO. At this stage, we believe that AEMO could be best placed to undertake such a role but recognise that a number of outstanding issues still need to be resolved.
- A review of relevant legislation to ensure it is up-to-date and supportive of the TEST's recommendations on energy security oversight.
- The Monitor and Assessor publishing annual assessments of Tasmania's energy security and also more regular forecasts of energy supplies relative to consumption. This should be done in a way that is as meaningful and communicative as possible to the Tasmanian people.

However, we were disappointed that the Taskforce did not examine other options that could potentially have improved Tasmania's energy security even more. In particular, we remain concerned that the recommendations of the TEST, whilst no doubt improving the current situation did not seek to more fundamentally examine the need for even greater clarity over Hydro Tasmania's dual – and potentially conflicting – role as a commercial entity on the one hand and as manager of the State's hydrological resources on the other. This could have lead to other potential changes such as clarification of its priorities in regards to this conflict of interest (as a minimum) or, more fundamentally, to a separation of its hydrological role into a separate independent and standalone entity. The latter would go a long way to avoiding any such conflict in future and, in our opinion, should be assessed by the Taskforce for its costs and benefits to Tasmania.

The significant potential for conflict between Hydro Tasmania's commercial imperatives and its energy security responsibilities is illustrated in Box 1 below, which assesses how Hydro Tasmania's ability to generate LGCs (Large Generation Certificates) under the Renewable Energy Target (RET) can act as a strong commercial driver to maximise revenue but conflict with it prudently managing its water resource.

The Taskforce's current approach, whilst leading to some improvements compared to the current situation, still allows scope for conflicts to emerge and for Hydro Tasmania to possess a significant information advantage over the Monitor and Assess role. The perception of a conflict of interest, which the TEST acknowledges is important, will still remain (though it will be lessened).

*We **recommend** that the Taskforce's Final Report include an assessment of the potential for conflict between Hydro Tasmania's commercial imperatives and it responsibilities in water management and that it consider the benefits of separating Hydro Tasmania's commercial and hydrological roles into different entities.*

Box 1: Potential for Conflict Between Hydro Tasmania's Commercial Drivers and Water Management

As a Government Business Enterprise with a commercial charter, Hydro Tasmania is motivated to maximise its commercial value and in doing so it may well be motivated to run down its water storages to achieve additional energy and LGC revenues. If a hydro power station exceeds its LGC Baseline (which is based on a long term average production), then each additional MWh of electricity generated is entitled to create a LGC. If Hydro Tasmania runs hard in order to pursue LGC revenue they may compromise the integrity of their water resources and increase the value of their water.

A higher water value will lead to a higher Tasmanian spot price, and because of the higher marginal cost TVPS is called on to generate so as to preserve water. The higher Tasmanian spot price will push the Victorian spot price upward (given interconnection). In turn, a higher Victorian spot price will increase Victorian forward prices and this will automatically flow through to higher Tasmanian forward prices (and eventually retail prices).

Using hydro generation for each Power Station above the Baseline, Hydro generated around 653,000 LGC's (*) in 2015. The 2015 LGC value depends on the market price at the time of sale, estimates would range from $22M in early 2015, to $50M in late 2015 or $55M at today's prevailing market price. This is a material sum of money and illustrates the potential for conflict between Hydro Tasmania's commercial drivers and its water management responsibilities. These estimates would have a material impact on Hydro Tasmania's profit of $62 million and potentially exceed its return to the Government of $42 million.

Source: Goanna Energy Consulting and Savvy Plus
*Note: The aggregated Liapootah, Wayatinah and Catagunya power station as published by AEMO have been excluded from the analysis. As the LGC Baseline relates to each individual power station, it is possible that the value for an aggregated power station would be somewhat over-stated.

2.6.2 Gas Security Oversight

We support the finding that Tasmania's gas security oversight is "generally sound" and that those changes that are desirable can, for the most part, be integrated into the TEST's electricity oversight recommendations, including the Monitor and Assessor function being extended to gas and the Director of Gas Safety responsible for engaging and coordinating potential or actual gas emergency responses with industry and customers. However, we note that this latter role could also rest with the Energy Security Co-ordinator, which would provide an integrated emergency response role across both electricity and gas, especially if AEMO is established in this role and if it has a role in the Tasmanian gas market through the latter's joining the Victorian Declared Wholesale Gas Market. We support the further examination of this by the Tasmanian Government.

3 Management of Hydro-electric Storages

This section responds to the important matters presented in Part B of the Interim Report.

The TSBC recognises that efficient and prudent management of Tasmania's hydro-electric resources is critical to long term energy security. Furthermore, we support the TEST's finding that additional resources beyond hydro-electric and wind generation are required to protect Tasmania's energy security. We also note its finding that Basslink is capable to ensuring this except when it is unavailable in which case thermal support is needed.

3.1 Need to Fully Assess Hydro Tasmania's Role in the Recent Threats

However, we believe that that Taskforce needs to provide a full, frank and complete assessment of Hydro Tasmania's management of hydrological resources in the years prior to and during the recent threats to energy supplies, including the apparent watering down of the Prudent Water Management policy. This is important for market, stakeholder and community understanding of how energy security has been managed in Tasmania to date, including by Hydro Tasmania, and what shortcomings there might be.

Whilst we welcome the Taskforce's comments on Hydro Tasmania's current approach to water management, this falls short of a transparent assessment of its recent approaches and decision-making. The Taskforce's more limited approach does not satisfy the needs of the Tasmanian small business sector to have complete confidence in the management of energy security.

*It is **recommended** that the TEST include a full, frank and thorough assessment of Hydro Tasmania's management of hydrological resources in the years prior to and during the recent threats to energy supplies in its Final Report.*

In relation to changes that Hydro Tasmania has made to its approaches since the recent energy security threat, whilst we welcome these, the TEST has not questioned why these changed arrangements were not in place beforehand. If they had been, it is our assessment that, although a threat to energy security may not have been averted, it may well have been of lesser magnitude and that the costs incurred by Hydro Tasmania in responding to the threat could well have been lower.

It is also a matter of concern to us that the TEST has not questioned Hydro Tasmania's decisions about important matters such as the sale of the TVPS combined cycle gas turbine (CCGT), its acceptance of a maximum two-month outage for Basslink for planning (when there is clear public evidence of more prolonged outages of similar interconnectors overseas not being uncommon), how it chose to generate revenue during the carbon tax period, how it chose to generate revenue through Large-scale Generation Certificates

(LGC's) and how these decisions may have influenced its decision on less conservative management of its storages. These are important matters about which the Tasmanian community should have a thorough independent assessment. In turn, this assessment should play an important role in decisions about the future approach to energy security, including Hydro Tasmania's role.

The changes that Hydro Tasmania has made in its approach to a number of matters since the beginning of the threats (more conservative hydrological management triggers, reversing the decision to close the TVPS and extending its assumptions about the length of Basslink outages) may merely be a response to lessons learnt, but could also be a response to mistakes made, poor management and its placing of commercial drivers ahead of energy security. The Interim Report does not address these matters.

3.2 Review of Prudent Water Storage Management

The TSBC supports the TEST recommendation that a High Reliability Level (HRL) be adopted that is sufficient to withstand a six month Basslink outage coinciding with a very low inflow sequence, and avoidance of extreme environmental risk in Great Lake.

We also support that a prudent storage level (PSL) be set to create a 'storage buffer' from the HRL that is consistent with a very low likelihood of storages falling below the HRL.

We are also attracted to the Taskforce recommendation that the PSL should be no lower than the interim storage targets Hydro Tasmania currently has in place (40 per cent by the end of spring and 30 per cent by the end of June 2016). We note that the Taskforce will engage further with Hydro Tasmania before finalising this.

We also support that future changes to the HRL and PSL should only be considered when there are material changes to supply and/or demand, and that they require endorsement by the Monitor and Assessor.

The Taskforce has also recommended that Hydro Tasmania be required to seek authorisation from the Energy Security Coordinator to access energy security reserve storage below the proposed HRL, and that this be accompanied by a clear plan to return storages to above this level.

In relation to the Great Lake Extreme Environmental Risk Zone (EERZ), TEST opines that:

> *There appears to be a degree of uncertainty when it comes to the risks involved with the Great Lake EERZ. The magnitude of the variation made to the EERZ during the 2015-16 energy security event reinforces this fact.* (Interim Report, p. 67)

This raised the EERZ from 6.2 to 9.1 per cent. This has clearly reduced the energy in storage available to Hydro Tasmania. Neither the implications of this change for PSL, nor the costs of it, are discussed in the Interim Report.

Clearly a safe EERZ needs to be established, and we note that the Taskforce has recommended that the EERZ should be clearly identified as constrained when determining total hydro-electrical energy in storage but has not been outlined what would occur if the EERZ were reached. Presumably steps similar to those included in the State Energy Plan would be introduced or there would be mandated load shedding. We note that, whilst still low, the probability of this happening is increased with the higher EERZ now in place.

The changes in prudent water storage management recommended also raise the question of what steps would be taken if Hydro Tasmania were to breach any of these rules. The TEST has not addressed this matter in its report but we would view any such breach as serious and appropriate action should accompany them.

*The TSBC **recommend** that the implications of the EERZ and the decision to increase it be more fully discussed in the Final Report, including what would happen if the EERZ is reached and what actions should follow.*

The TEST says that higher levels of energy security could come at higher cost but has not quantified the cost of its recommendations. This is a potentially important issue for small business, especially if the costs are significant and could cause us to reassess our positions.

*We **recommend** that the costs of the prudent water management policy outlined by the Taskforce should be included in its Final Report and that they be clearly aligned with the benefits the policy will bring.*

We are attracted to the TEST's suggestion that it is appropriate to be using a lower inflow sequence when forecasting system yield and planning for extreme variations. And that this should include the full data series available rather than just the data since 1997, which Hydro Tasmania believe represents a break in inflow trends.

The Interim Report discusses an alternative probabilistic approach to water management. It does not recommend such an approach but suggests that there is value in maintaining a reported PSL and that this could initially be used in conjunction with the proposed probability reporting against a HRL to determine its usefulness. We would see merit in considering this further for the Final Report and more information being provided about it and how it compares to the PSL so that stakeholders are better informed about it.

In relation to management of capacity if total energy in storage reaches very low levels and Hydro Tasmania is unable to generate from some of its power stations, to the point where it cannot supply all demand (particularly peak demand), the Taskforce says that it expects Hydro Tasmania to inform it of the outcome of its internal review of capacity management.

The Interim Report mentions that Hydro Tasmania has provided some information to the Taskforce on a confidential basis. This appears to relate to possible changes it could make

to its management of water about which it has not made final decisions. Based on the Taskforce's description, this does not appear to be commercially sensitive information. In the interests of transparency and effective consultations, it would be useful if Hydro Tasmania could either release this information or clarify the reasons for its confidentiality. If this is due to its incompleteness, it should be made public once finalised.

3.3 Communications and Response

Response practices and procedures and how energy security issues are communicated are important to small business, given the reliance of many on energy for their operations.

We note that the Taskforce has investigated communication and response practices in other jurisdictions with significant hydro-electric resources and found these to offer good examples for leverage into Tasmania. We welcome the Taskforce's emphasis on open communications and transparency in Tasmania's energy security. As pointed out in our submission on the TEST Consultation Paper, there were elements of good communications lacking in the recent energy security threat and this was a concern for small business, though there were some improvements to this as the threat progressed.

We support the Taskforce's recommendations on communications and response including:

- That Hydro Tasmania undertakes an annual review and forecasting process in October each year, that this is verified by the Monitor and Assessor and that it is published.
- That a transparent scale of escalating actions should be implemented as energy in storage approaches lower levels, with commercial operation being 'situation normal' when storages are above the PSL; progressing to increased monitoring if the PSL is breached or there are plausible indications that it could be; then increased response if there are plausible indications of a need to access storages below the HRL and subsequently an energy security reserve level if storages are operating below the HRL, with Hydro Tasmania required to work on a recovery plan.
- That contingency measures be evaluated using a competitive tender process to determine the most effective supply and/or demand measures, using cost, reliability and environmental selection criteria. In relation to environmental criteria, we raise the issue that this should not necessarily rule out the use of options that may help to provide a cost effective and reliable response, such as standby or diesel plant.
- That Hydro Tasmania is required, through legislation or ministerial direction, to comply with the proposed Energy Security Risk Response Framework. However, we also raise the need to resolve the potential for conflict with commercial operations.

3.3.1 Demand Side Response

We strongly support that the Taskforce further investigate the opportunities for demand side response to play a greater and more integrated role in Tasmania's energy security and

that competitive forces be used for this. We also raised this matter on our response to the Taskforce's Consultation Paper.

The TSBC welcomes that the Taskforce has raised this as a contingency response option in the Interim Report. We also believe that the demand side could play an important role in the energy market in Tasmania under commercial operating circumstances, or when there is a risk that normal operations, or the HRL, could be threatened, or in recovery plans. This could assist in reducing energy security risks and avoiding energy security threats.

It could also assist in avoiding some network related energy security risks and has been used in this role in some other jurisdictions (e.g., by Transgrid and Powerlink as grid support). We note that the AEMC has recently undertaken substantial work in this area, which is leading to some rule changes that may provide greater demand management opportunities.

We concur with the Taskforce that demand options are most likely to be found among larger users. Tasmania's cogeneration plants could also contribute. We also believe that smaller customers, including small business, can make a contribution and note that this could be more effective through the use of demand side aggregation.[6]

We are also attracted to the pre-contracting demand side offerings. We note that a number of Tasmania's major industrial users would appear to offer significant opportunities but that they have been used sparingly in the past and that contracts had to be rushed into place during the recent energy security threat.[7] The Taskforce has quite rightly raised that demand side response could be "a more proactively planned approach could result in more effective contingencies when considered against criteria such as cost, reliability (including integration with the network), and environmental impacts." (Interim Report, p. 71).

*The TSBC **recommend** that the Taskforce further investigate the opportunities for demand side response to play a greater and more integrated role in Tasmania's energy security and for competitive forces to be used for this.*

3.4 Impact of Climate Change

The Interim Report has found that projected changes in Tasmania's climate (rainfall, wind, bushfires, floods and storms) could have a significant impact on energy security, including reduced inflows into dams, long term storage management and yield assumptions, reduced wind generation capacity and network challenges. We do not question the risk mitigation implications of these findings for energy security but note that, as forecasts they are subject to some uncertainty and that uncertainty increases further into the future. Some caution is

[6] There are already demand side aggregators operating in the NEM who would presumably welcome additional business opportunities in Tasmania if these became available. It would be useful for the Taskforce to contact them. Other parties may also be willing to enter this market if such opportunities became available.

[7] In Victoria, the Portland and (now closed) Point Henry aluminium smelters have been used to provide significant demand side response in both high spot price and tight energy supply circumstances.

therefore appropriate in relation to the implications of this work for the Taskforce's recommendations and what additional costs in might mean for energy security.

The Taskforce's has recommended that more conservative assessments of hydro generation output and consideration of potential seasonal changes to average wind speeds should be included in energy security planning to account for the combination of climate change projections and historical rainfall variability. We support that all historical low inflow sequences should be used to assess risks, not just more recent trends.

The TEST has further recommended that Hydro Tasmania should specifically model lower inflows into Great Lake that are projected as a result of climate change, and advise the Monitor and Assessor of the implications for balancing storages across the hydro system and any increased dependence on one (particularly Lake Gordon) or more storages.

However, we believe that Hydro Tasmania, the Monitor and Assessor and the State Government need to be mindful of any additional costs that may be imposed by such assessments and publicly report on these if they arise.

We support the TEST recommendation that Hydro Tasmania and TasNetworks engage with the BOM and other experts to fully understand the opportunities to use improved climate modelling and weather forecasting for underlying assumptions of historical and future rainfall, wind variability and extreme events. This should also include better understanding of the assumptions and shortcomings in these models which impact their predictive ability.

*We **recommend** that the Taskforce support that Hydro Tasmania, the Monitor and Assessor and the State Government need to be mindful of any additional costs that may be imposed by including forecasts of changes in Tasmania's climate in energy security settings and publicly report on these if they arise.*

4 Tasmanian Gas Market and Energy Security

This section responds to Part C of the Interim Report which presents the Taskforce's findings and recommendations on the role of Tasmanian gas energy in security. Tasmania has some 750 small business natural gas customers for whom gas is an important energy source.

The Taskforce has found that the Tasmanian gas market appears susceptible given its scale, and increasing supply and price risks associated with both gas commodity and pipeline access. It has also found that the TVPS is important to the viability of the gas market. These

findings are consistent with the major report on the Tasmanian gas market by Goanna Energy, which was commissioned by the TSBC.[8]

It has further found that, in the absence of reliable alternatives, gas generation (i.e., the TVPS) remains important to Tasmania to mitigate against hydrological and Basslink failure risks. This is an important energy security finding.

We support the TEST finding that in the medium to longer term the role of gas in Tasmania's energy security will depend on its competitiveness relative to other energy security options.

Regarding the ending of the current gas contract for the TVPS at the end of 2017 and negotiation of a new contract, the TEST notes that gas could be bought on an 'as needs' basis, which may be advantageous for Hydro Tasmania but may (in our view is likely to) result in higher transportation charges for other gas customers. This could put the viability of the TGP and the entire Tasmanian gas market at risk, which would present a major energy security threat. Whilst this threat may have a countervailing downward impact on the extent of gas transportation price pressures, as mentioned by the Taskforce, where the ultimate outcome lies is uncertain[9], and therefore still poses a risk to energy security.

On one plausible scenario, the current owner of the TGP may seek to exit and offer the asset for sale to a new owner (quite possibly for a low price). Appetite for the asset would depend on its price and the ability of the new owner to recover sufficient revenue, but a low purchase price would place new owners under less pressure to increase transportation charges. However, if the TGP were under threat of closure, it could cause Hydro Tasmania to then seek to negotiate a contract that removed the risk of the TVPS being 'stranded for gas', although this may weaken its bargaining position in negotiations.

We note the Taskforce's findings that the currently tight eastern gas market could make spot or other 'as needed' gas supply options for the TVPS difficult, but that locking in long term supply (and price) also has risks in terms of potentially paying high prices and foregoing opportunities to contract on better terms at a later point (although the opposite is also a risk). We also note that gas supply and price pressures on the eastern seaboard have abated somewhat in recent times due to factors such as a drop in world oil prices and the entry of new competitors into Asian gas markets (including gas from the United States). These are all uncertainties that Hydro Tasmania will need to take into account as it seeks to

[8]Goanna Energy Consulting Pty Ltd, *The Tasmanian Gas Market: Building the Pipeline to Opportunities*, Report prepared for the Tasmanian Small Business Council, August 2016 (http://www.tsbc.org.au/wp-content/uploads/2016/08/TSBC-Report-Tasmanian-Gas-Market-August-2016-Final-v3.1.pdf).

[9] The ACCC was presented with evidence from Tasmanian shippers that a recent proposed extension of the TasGas network from Port Latta to Smithton, which was to receive $6 million in Federal funding, had to be abandoned after the TGP sought to charge shippers double what they were paying elsewhere in Tasmania to transport gas through the extension, apparently due to the risk that the TVPS gas contract would not be extended. See ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p. 114.

negotiate new gas supply for the TVPS. The outcome remains uncertain but will be important for energy security.

The Interim Report notes (p. 100) the option for a policy decision by the Government on an implied subsidy for non-TVPS gas customers, but does not provide a recommendation. The TSBC notes that such a decision would reduce gas market uncertainty and contribute to energy security information.

*The TSBC **recommend** that the Taskforce consider the option for a policy decision by the Government on an implied subsidy for non-TVPS gas customers and whether this would be in the best interests of energy security overall.*

The Taskforce has found that gas will need to remain competitive if it is to retain or attract customers, or risk being transitioned out of the Tasmanian energy market due to fuel switching. Whilst this may be the case, as the Goanna Tasmanian gas market report for the TSBC[10] has found, its case is not helped by the small size of the market[11], the lack of growth opportunities, the limited coverage of the network[12], high gas prices for small business, high transportation charges and the lack of supportive government policies[13]. The Goanna report called for a major review of the Tasmanian gas market is needed to ensure it does not continue as a significantly underutilised resource with a potential risk of eventual failure, instead maximising its potential to benefit Tasmanian gas users and the State's economy. This will have benefits for energy security.

*We **recommend** that the Taskforce support a major review of the Tasmanian gas market.*

It is also possible that a range of pro-competitive market reforms currently under being considered by the COAG Energy Council will improve the competitiveness of domestic gas.

We note the TEST's assessment that higher transportation costs as a result of loss of a large customer (including the TVPS) may, in turn, drive other customers away from gas and, in a worst case scenario, trigger an eventual collapse of the entire market, resulting in disruption, transitional issues and diminishing energy security for affected customers.

*The TSBC **recommend** that the TEST consider the energy security implications of the Tasmanian gas market more broadly in its Final Report.*

[10] Goanna Energy Consulting Pty Ltd, *The Tasmanian Gas Market: Building the Pipeline to Opportunities*, Report prepared for the Tasmanian Small Business Council, August 2016 (http://www.tsbc.org.au/wp-content/uploads/2016/08/TSBC-Report-Tasmanian-Gas-Market-August-2016-Final-v3.1.pdf).

[11] It has only around 11,700 customers and 5 per cent market penetration (far lower than other southern States).

[12] The network currently passes around 46,000 connections but was originally envisaged to pass around 100,000.

[13] For example, the then government withdrew financial support after the second stage of the distribution network was completed and successive governments have not agreed to requests for further support to help expand the Tasmanian gas market.

We note that the Taskforce has undertaken an assessment of gas market security and appears to have undertaken a limited assessment of the inter-relationships between electricity and gas security.[14]

*We **recommend** that the TEST extend its gas market analysis and include a more detailed assessment of the inter-relationships between electricity and gas security.*

The TEST has recommended that the TVPS, particularly the CCGT, should be retained at least until there is a reliable alternative in place to mitigate against hydrological and Basslink failure risk. We support this recommendation and believe it to be important to the energy security of Tasmania for the foreseeable future. However, it would be advantageous and add to energy security transparency if the costs of holding and maintaining the TVPS in standby mode where made public.

We note that if the decision to sell the CCGT had been taken earlier or if the threat to energy supplies had occurred later, the CCGT may have already been sold, leaving Tasmania without this plant which, as TEST analysis shows, provided around one-quarter of electricity demand during the recent threat and helped to offset storage level drawdown by 1 per cent per month (or around 3-4 per cent over the months it was in full operation). Its absence could well have meant the need for more drastic measures. A matter of co-incident timing is the only thing that prevented this. The TSBC is concerned about this risk, especially as the Government's condition for approval of the sale, namely, that energy security could be maintained without the CCGT, was clearly not the case.

*The TSBC **recommend** that the Taskforce examine in detail the circumstances surrounding the August 2015 decision to sell the CCGT – just prior to the commencement of the recent energy security threat.*

The TSBC agrees with the TEST's recommendation that commercial negotiations currently underway to resolve the gas commodity and transportation arrangements for the TVPS should be allowed every opportunity to be realised, with an agreement to be in place before the Taskforce's Final Report is completed.

We also agree with the recommendation that key features to be included in a new contract between Hydro Tasmania and the TGP's owner should be communicated to the Tasmanian gas market by the end of first quarter of 2017. This is important for the transparency of energy security (electricity and gas) and to other gas market customers.

[14] The Interim Report points out that use of gas instead of electricity by major industrial and commercial customers effectively offsets further demands on water storages (noting that the alternative fuel source for some gas customers may not be electricity) and that small customer gas load does offset some electricity demand and creates diversification of risk away from dependence on electrical energy (Interim Report, p. 94.).

5 Interconnection and Energy Security

This section addresses the findings and recommendations in Part D of the Interim Report.

5.1 Basslink

The Taskforce has found that Basslink represents the single largest alternative energy source for Tasmania after hydro-electric sources, meaning that it is also an important asset for mitigating hydrological risk. This is an important finding in terms of energy security.

We note that Basslink can offset the need to draw down water storages by just under 2.5 per cent per month if fully utilised. Had it been available during the recent threat to energy security it could therefore have offset the storage drawdown by up to 15 per cent, which would have largely averted the crisis and the need for the Energy Supply Plan.

We note that the TEST considered estimating Basslink's value to energy security had it been available during the recent threat but did not do so due to a lack of data and concerns about impinging on the current contractual issues between Hydro Tasmania and Basslink. On the other hand, the lack of such an estimate for the recent threat reduces transparency.

Another important finding is that, based on how interconnectors (particularly subsea interconnectors) have performed historically in other jurisdictions, and having now experienced a six month outage in Tasmania, there is sufficient evidence to consider a six month outage of Basslink to be a scenario that should be planned for. We consider that the evidence in the Interim Report supports this finding.

Allied to this, the taskforce concludes that Tasmania should not rely solely on Basslink being available to ensure energy security and, hence, additional contingencies are required. The TSBC concurs with this finding.

We also note that the TEST has found that as the future energy mix in the NEM and how it will be managed to maintain adequate and reliable supply is uncertain, the implications for energy imports to Tasmania in the medium to long term are also unclear. This is a potentially significant issue for small business in Tasmania both in terms of their access to electricity and the prices they pay. The impending closure of the Hazelwood power station in March next year means that such issues are already real.

*We **recommend** the Taskforce assess the impacts of the impending closure of Hazelwood Power Station on Tasmanian electricity security (supply adequacy and competitiveness) in its Final Report.*

The TEST finding on Basslink that is of most concern to us is that it is currently not in a position to assess the reliability of Basslink, especially given its finding of the significance of Basslink to Tasmania's energy security.

Whilst Basslink had delivered impressive availability up until 22 December 2015, and was locally and internationally recognised for its performance, its failure then and subsequent 6 month outage has been a 'game changer'. Small business faith in Basslink's reliability has suffered as a result and will take time to restore.

Basslink Pty Ltd's assertion to the Taskforce that there is no reason to consider that Basslink is less reliable than before the six month outage is not supported by evidence. It is of concern to the TSBC that there has been little information placed in the public domain by Basslink regarding the cause of the outage and remedial actions.

This lack of information was clearly a major factor in the Taskforce's finding that it is not in a position to assess Basslink's reliability. Basslink's unknown reliability could require a call on other reliability measures to compensate for this (which would impose costs on consumers), or could pose a threat to future energy security.

We would urge Basslink to reconsider its position and agree to supply relevant information to the Taskforce, confidentially if necessary, so that this hole in Tasmania's energy security assessment can be closed before the Final Report is completed. We support the Taskforce's intension to continue discussions with Basslink.

We also support the Taskforce's recommendation that OTTER reconsider its decision to defer the next independent appraisal of Basslink's asset compliance and asset management plans, so that this (albeit partially useful) information is at least available for inclusion in the TEST's Final Report.

We are aware that, after the Interim Report was completed, Basslink announced[15] that the cause of the cable failure had been determined as "cause unknown" by an investigator (presumably appointed by Basslink). It was also reported that tests on other sections of the cable by the investigator had found them to be sound. The unknown cause of the fault does not assist in better determining the ongoing reliability of Basslink but the soundness of other sections of the cable tested does provide some additional comfort. However, we do not expect that the overall outcome of this investigation would significantly change the finding that Basslink's ongoing reliability cannot be determined, or the recommendation that a six month outage be planned for.

5.2 Second Bass Strait Interconnector

We note the TEST's finding that

> *"The case for a second electricity interconnector appears to be more strongly linked to the potential benefits it may provide to the NEM in terms of maximising the role of*

[15] Basslink, Basslink fault cause investigation completed, *Media Statement*, 5 December 2016 at http://www.basslink.com.au/wp-content/uploads/2016/12/161205-Media-statement.pdf.

> *hydro-electric generation in supporting greater renewable energy development both in Tasmania and on the mainland. Whether these benefits can be realised relative to the costs and technical issues that require resolving is a matter currently the focus of a joint Australian and Tasmanian Government feasibility study."* (Interim Report, p. 113)

This suggests that, while a second interconnector would have energy security benefits (a point recognised by the Taskforce), whether it stands or falls will depend more on its market benefits. However, as the Taskforce notes, this may change over time as the NEM transitions to lower carbon emission generation and the installation of more intermittent generation (such as wind) which could make interconnectors more important in ensuring a stable and continuous supply of electricity across the NEM regions.

The Taskforce also makes the important point (for small business) that a second electricity link could generate revenue for Hydro Tasmania (and the State Government) but at the cost of higher electricity prices and increased load risk in Tasmania. This would be of significant concern to the TSBC and its members, unless it could be robustly shown that small business would be a net beneficiary of this outcome. We are sceptical about realisation of the TEST's suggestion that Government revenue could be used to benefit customers.

The Taskforce quite rightly points out that Tasmania already has two energy interconnectors with mainland, Basslink and the TGP and that stakeholders (including the TSBC in its submission on the Consultation Paper) have pointed to the need to optimise these assets before considering new ones. In this regard, we particularly note that the TGP is much underutilised and that measures to improve its utilisation should be considered before a second Bass Strait interconnector. The costs of such an interconnector are likely to be very significant and much higher than measures to boost the gas market and TGP use.

The TEST has concluded that interconnection with the NEM is perhaps the most significant strategic energy issue facing the State over the medium to long term due to the transition from high availability thermal generation to intermittent renewable wind generation. It believes that Tasmania is strongly placed to offer competitive and secure energy supplies because its hydro-electric system (and storage potential) provides much greater availability than other forms of renewable energy. However, this would come at the risk of higher electricity prices and perhaps increased energy security risk in Tasmania. The TSBC would not be attracted to such an outcome.

The Interim Report alludes to the possibility of using a second interconnector to offer competitive and secure energy to energy intensive businesses where the uncertainties on the mainland make Tasmania an attractive option. However, we note that an additional interconnector is not a necessary condition for this as, even without one, Tasmania would still look attractive, given its hydro-electricity system has been very reliable and is low in

carbon intensity. This would be bolstered if the State Government moved to reform its electricity and gas markets so that they offered access to competitive prices and choice.

The Interim Report also briefly discusses the potential cost of a second interconnector (around $1 billion or more is mentioned plus supporting infrastructure in both Tasmania and Victoria) and that numerous technical and network management issues would need to be resolved (which also have costs). It also notes that the proportional benefits would be less than for Basslink as they would be marginal benefits above those Basslink already provides. The Taskforce concludes that "from a pure energy security perspective, there are likely to be other investments Tasmania can make to achieve enhanced energy security that are significantly less expensive." (Interim Report, p. 116)

The TSBC agree with these points and notes that some existing investments that already contribute to energy security, such as the TVPS and TGP could be closed down or more lightly used if a second interconnector is built. This would be a costly waste of resources.

A matter not discussed in the Interim Report is who should pay for a second interconnector should one be built. In our view, those who benefit should pay in proportion to their use and benefits. As pointed out in our previous submission, we would be strongly opposed to any attempt to have Tasmanian electricity consumers pay more than their share.

6 Non-hydro Renewable Energy, Emerging Technologies and Consumer Participation

This section of our submission addresses Part E of the Interim Report.

6.1 Non-hydro Renewable Energy

The Taskforce's Interim Report has found that:

- During the 2015-16 energy security event, wind made an important contribution to meeting Tasmanian electricity demand and, in its absence, additional draw down of hydro storages and/or additional load reductions would have been required.
- Tasmania's on island generation deficit can be addressed by adding more renewable energy, which will also serve to diversify the state's energy mix.
- Tasmania has a world class wind resource, but the cost competitiveness of wind could be challenged over time as the cost of other technologies decline.
- Large scale solar development should not be dismissed, despite Tasmania's resource being relatively more limited than mainland Australia.
- The potential role of other renewable energy sources such as wave, tidal, biomass and geothermal will depend on their competitiveness relative to other technologies.

Aside from the costly subsidy that renewables impose on electricity consumers, including small business in Tasmania, our main energy security concern with 'market ready' renewables is that at present they are less reliable as an energy source, though this may change in future as other more dependable renewable technologies become competitive and developments such as battery storage become economic. In the meantime, Tasmania cannot rely on renewables to deliver energy security at an acceptable level, although they can make a contribution to meeting demand.

*We **recommend** that the TEST make clear the drawbacks of existing market ready sources of renewable energy for energy security in its Final Report.*

We note the considerable risks to energy security that could be associated with placing renewable energy development and experimentation with new renewable energy technologies within an energy security framework. Therefore their development should take place outside of this, although the energy security implications of their development should be monitored and considered in Tasmania's energy security assessments and planning. The Interim Report mentions many examples where challenges remain – some of them significant – to the development of renewable technologies (both mature and more prospective ones) a number of which increase energy security risks.

Energy security problems in South Australia, which has heavily promoted the development of wind and solar power, culminating in an unprecedented state-wide black out in September 2016, whilst also transmission related, provide a salutary lesson on the dangers to overly rapid and heavy reliance on renewable energy for the foreseeable future. Tasmania should be very wary of following a similar path.

The TEST refers to problems that renewable energy developers in Tasmania have in securing a PPA (essential for a project to proceed) due to the dominant position of Hydro Tasmania in both setting Tasmanian pool prices and in providing firming capacity to intermittent wind generation. This is one example of how the dominance of Hydro Tasmania and Tasmania's currently uncompetitive electricity market are creating barriers to new entrants and holding back the development of competition. This has been a long standing concern of the TSBC. We support reforms that remove barriers to entry and promote competition and are disappointed that successive Governments have taken only limited steps to improve competition that failed to deal effectively with key issues.

The TEST has referred to the PPA problem in Tasmania as a "market failure" and recommended that the Government ensure that new entrant renewable energy development is able to establish in Tasmania where such an outcome is consistent with that which would be expected in a competitive market. We offer in-principle support for this, but note that the Taskforce has not outlined what steps it considers would achieve this, an important issue. We would not support specific measures that further distort the

Tasmanian electricity market, that further advantaged renewable energy over other types of generation or that pass more costs onto electricity consumers. In our view, the best way to deal with this matter is for the Government to take steps to initiate a competitive electricity market in Tasmania, which would provide some competitive tension for renewable energy developers seeking PPAs and have consumer benefits well beyond this.

*The TSBC **recommend** that the TEST consider the option of electricity market reform to promote competition in the context of its concerns about the difficulties renewable energy developers have in negotiating PPA in Tasmania in its Final Report.*

6.2 Emerging Technologies and Consumer Participation

The Interim Report discusses a range of emerging technologies relevant to the electricity sector and their potential for adoption into the Tasmanian electricity system. It also discusses how these might incentivise consumer participation in the electricity market.

It finds that small scale renewable energy, such as household integrated solar PV and storage, has the potential to make a small contribution to reducing Tasmania's on-island energy deficit, but provides 'consumer-level energy security', whereby individual consumers perceive they have greater energy security when they are able to control some of their supply and demand. The TSBC agrees that the contribution of small scale solar is small.

Overall, we believe that many of the emerging technologies discussed in the Interim Report remain at the high cost end, require further development (considerable in the case of some) and must confront a range of technical and commercial issues before they would be market ready and therefore able to make a meaningful contribution to Tasmania's energy security. For some this could take decades. Whilst the Taskforce suggests that cost reductions and market take-up of some could be rapid, this is not certain and has relied heavily on mandated subsidies paid for by consumers. The costs of this are not as transparent as they should be. It would be unwise to place too much emphasis on such emerging technologies for energy security which requires certainty.

In Tasmania's case, the lack of competitive tension in the electricity market – and the apparent lack of appetite to tackle this in a fundamental way – can also be identified as an obstacle to the introduction of new technologies. In the absence of this, Governments tend to fill the gap by providing support (or worse, mandating that consumers pay for it) and effectively pick winners. Poor and more costly outcomes are more likely to result.

Even technologies such as smart meters, an enabler of access to many new technologies and greater consumer participation, which are already a common feature of several mainland markets, are less common in Tasmania. Whilst new rules developed by the AEMC to improve competition in smart metering are welcome, in Tasmania the implementation of this is in Government control and, at this stage, not even the costs (and benefits) of such

meters are known. The appetite of Tasmanian consumers for greater direct control of their electricity use is also uncertain. In Victoria, where the roll out of smart meters is pervasive, the consumers' appetite for access to time-of-use tariffs and other smart meter functionality has not been great.

In relation to electricity vehicles (EVs), we note the extremely low penetration in Tasmania (a mere 150 vehicles, many probably in public ownership). Whilst there could be a rapid escalation in EVs at some stage, the extent and timing of this is unknown. Their uptake and therefore impact on energy security issues, should form part of robust supply/demand scenario modelling.

The TEST has recommended that the Tasmanian Government prudently facilitate, enable and ensure there are no unnecessary barriers to consumer-controlled energy management opportunities and choices. Whilst we do not disagree with this recommendation, we note that one of the most beneficial decisions that could be made in this direction would be to reform the Tasmanian electricity market into a more competitive one.