



8 July 2016

Ms Gabrielle Woods
Committee Secretary
Public Accounts Committee
Legislative Council
Parliament House HOBART 7000

Tasmanian Gas Pipeline Pty Ltd
ACN 083 052 019

PO Box 203 Collins Street
WEST VIC 8007

Dear Ms Woods

Re: Inquiry into the Financial Position and Performance of Government-Owned Energy Entities

On behalf of the Tasmanian Gas Pipeline (TGP), I would like to thank the Committee for the extension of time TGP received to make a submission to the Inquiry into the Financial Position and Performance of Government-Owned Energy Entities, and for the opportunity to present to the Committee at the hearings scheduled for 4 August 2016.

This submission outlines some of the key issues that suggest a new gas transportation agreement is vital to ensure Tamar Valley Power Station (TVPS) is able to fulfil the energy security and fuel diversification roles that have always been fundamental reasons for Tasmania to own and maintain thermal and gas-fired generation for almost four decades.

Also attached is a paper prepared by Value Adviser Associates (VAA), which outlines the economic value of gas in Tasmania, a historical perspective on the Tasmanian Gas Pipeline and gas-fired generation in Tasmania and the opportunities for gas-fired generation to provide cost-effective energy security for the State. TGP's intention is to provide a more detailed submission to the Energy Security Taskforce in due course.

I ask that this submission including the VAA paper is treated as confidential until TGP's appearance at the hearings.

A long-term take-or-pay pipeline capacity agreement with TVPS was the cornerstone of the original investment in the TGP and today represents approximately 55% of the pipeline's annual revenue. This agreement was facilitated by the State Government and was integral to the market design arrangements that underpinned Basslink and Tasmania's entry to the National Electricity Market. It is now held by Hydro Tasmania and services the pipeline capacity requirements for the TVPS, which together have been critical in the response to the power crisis in recent months. However, this agreement expires in December 2017 and there is no certainty on future arrangements.

TGP has worked diligently to review the fundamentals of its business to improve its commercial performance ahead of the current take-or-pay Gas Transportation Agreement expiring in December 2017. TGP has:

- Made an investment of approximately \$18 million to connect TGP directly to the Victorian Declared Wholesale Gas Market. This will, for the first time, enable TGP to provide gas storage services and diversify TGP's revenue away from a sole reliance on Tasmanian industry;
- Significantly reduced its cost base by implementing internal cost efficiencies including the renegotiation of major service provider contracts;
- Undertaken feasibility studies to investigate the opportunity of bringing other services currently based in Victoria (e.g. control room and engineering support) to Tasmania, which would further enhance TGP's financial commitment to Tasmania; and
- Commenced an early refinancing process to take advantage of the current low interest rates.

Nevertheless, the future of our business, and a critical infrastructure asset that was facilitated by the State, is challenging if a new agreement cannot be reached.

TGP has consistently maintained — with the previous Government, the current Government, various Government Departments and in external reviews — that the future of the Tamar Valley Power Station and associated risks to gas transmission prices is a shared responsibility between TGP, Hydro Tasmania, Government and customers and that a Tassie Inc solution should be developed.

It should be noted that if a commercially acceptable outcome cannot be reached with Hydro Tasmania or the State, then gas transmission pricing for industrial customers may increase on average by 110% for some customers, placing their commercial viability and their role as major employers, particularly in the North West of Tasmania, at risk.

The ability to keep gas transmission prices competitive is a key to retaining the competitiveness of Tasmanian industry with competitors on the eastern seaboard and global commodity markets.

In 2014, TGP commissioned an Economic Impact Assessment of Natural Gas Supply on the Tasmanian Economy, which assessed the likely impact of increasing gas commodity and gas transmission pricing on 11 of Tasmania's major industrial gas users. This study found that, conservatively, a minimum of 3,550 FTE jobs could be lost and that a similar number would leave the state if the delivered price of gas becomes uncompetitive due to either significant increases in the pipeline capacity charges or the cost of the natural gas commodity.

TGP has taken a pragmatic approach to the negotiations with Hydro Tasmania since November 2013 in line with our shared responsibility for mitigating the impact of the revenue lost when the current agreement expires. In particular, TGP made a number of commercial offers that would have reduced Hydro Tasmania's near term contractual obligations, increased the flexibility in its offtake arrangements, improved Hydro Tasmania's financial position and provided additional benefits to its wholesale power and gas retailing activities. Importantly, had Hydro Tasmania taken up any of these offers, then the cost to Hydro of running the TVPS during the recent energy crisis would have been significantly reduced.

These offers also ensured that TGP would have longer-term certainty over its revenue streams. In turn, if these negotiations had been successful, TGP would have been able to provide similar certainty to TGP's other customers that have made significant investments in gas infrastructure as part of their industrial processes.

Unfortunately, by early 2015 it had become clear that the parties would be unable to reach an agreement on mutually acceptable terms. In particular, Hydro Tasmania was only willing to negotiate a short extension beyond the current agreement. Further, TGP was unable to agree on the fixed annual prices and contract extension terms.

At that time, TGP maintained that our offer represented a fair and reasonable outcome for all parties, and would have enabled lower price increases to be passed on to other pipeline users than may otherwise be required.

It would appear that, concurrently with the negotiations with TGP, Hydro Tasmania was also negotiating with the State Government to decommission and sell the combined cycle gas turbine at TVPS. Disappointingly, TGP was not consulted in this decision despite being a key counterparty and stakeholder in the Tasmanian energy sector. TGP understands that Tasmania's major energy users were also not consulted.

In December 2015, prior to Basslink's failure, Hydro Tasmania met with TGP and advised that they would not be contracting for any pipeline capacity with TGP beyond December 2017, and that the CCGT would be sold and removed from the site. Importantly, TGP was also advised that Hydro Tasmania intended to operate the open cycle gas turbines located at TVPS (a total capacity of 188MW) in a run to failure mode of operation.

In April 2016, TGP contacted Hydro Tasmania and indicated our willingness to restart negotiations in light of the Minister's statements that approval for the decommissioning and sale of TVPS had been withdrawn. TGP made a formal offer to Hydro Tasmania on 6 May 2016 that expired on 30 June 2016.

Based on the Minister's statements, it is clear that the assets will now be held for a role in Tasmania's energy security — which was the original purpose behind the State's direction to Aurora Energy to purchase and complete the project in 2007 — as well as any commercial opportunities. However, TGP draws the Committee's attention to the lack of clarity in its future intentions for the asset and our concern that the TVPS can have no role in energy security unless there is an associated gas transportation agreement to support its future use.

TGP is concerned that the option with the most capacity (and proven capability) for providing energy security is not being considered on a level playing field.

TGP also notes various parties' suggestions that new wind farms can play a role in increasing Tasmania's on-island energy generation capacity but would be dependent on Hydro Tasmania offering power purchasing agreements of up to 20 years to make these investments viable. In this context TGP would be willing to provide attractive commercial arrangements, including discounted fixed charges, if Hydro Tasmania, other energy businesses or the State Government were willing to enter a contract with TGP of a similar term.

A key factor in the economics of the TVPS is its operations and maintenance arrangements, which were raised by Hydro Tasmania in its submission to this inquiry and its appearance before the Committee on 20 June 2016. Hydro Tasmania indicated that fixed costs would exceed \$20 million per annum.

TGP considers that these fixed costs appear to be significantly overstated as a standalone generator and could be further decreased if different operating models were to be considered including the outsourcing of O&M to a third party who has a portfolio of similar power stations. This approach would realise considerable cost savings through the synergies that would be realised by moving around operations and maintenance teams, centralising control rooms and sharing management and overheads across the portfolio. Simply keeping the same cost base that exists under Hydro Tasmania's management today should not be the base case for determining the long term operating cost of TVPS.

It should also be noted that, whilst TGP has not undertaken detailed financial analysis of Hydro Tasmania's funding costs relating to TVPS, Hydro Tasmania has substantially written down its asset valuation post-transfer, and transferred the TVPS-related debt to TasNetworks. Accordingly, its depreciation charges and funding costs should be relatively low.

TGP also believes that there may be considerable commercial opportunities for TVPS in the wholesale market under Hydro Tasmania's or private ownership. These include:

- Profitable dispatch into elevated spot market prices, which are apparent for sustained periods in the current wholesale environment;
- Facilitating the rebuild of the hydro storages and allowing lower storage levels to be maintained without the opportunity cost of lost wholesale sales; and
- In the longer run, if and when a transparent carbon market is reintroduced, hydro storages could be used more aggressively — subject to new risk management protocols after the recent experiences with inflows well below historical patterns and Basslink failure — with support and energy security provided by the TVPS.

With potentially impending closure of brown coal-fired power stations in Victoria, Hydro Tasmania will be able to optimise its wholesale position in the NEM and take advantage of any carbon pricing in the future knowing that TVPS is available to provide short response, firm energy security.

TGP considers that a new agreement with Hydro Tasmania is imperative for the future of Tasmania's economy, energy security, and ability for Hydro Tasmania to optimise its position in the National Electricity Market.

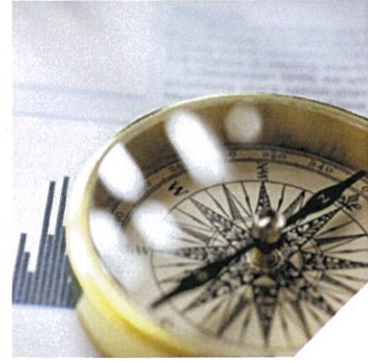
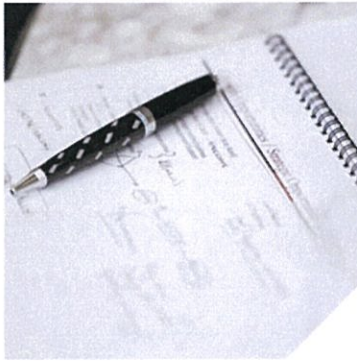
The new agreement will continue to provide competitive gas transportation prices to large commercial and industrial customers in Tasmania and the broader Tasmanian economy.

TGP gas transportation to TVPS also drought proofs Tasmania's energy requirements by ensuring the continuation of another fuel source and provides confidence for the economy to grow.

Lindsay Ward
Chief Executive Officer
8 July 2016

L. J. Ward

YOUR TRUSTED VALUE ADVISER



Tasmanian Gas Pipeline

Public Accounts Committee Inquiry into the financial position and performance of Government owned energy entities

8 July 2016



Qualification

This report has been prepared for Tasmanian Gas Pipeline Pty Ltd on the understanding that it would be made public. However, in no event shall Value Adviser Associates Pty Ltd assume any responsibility to any third party that accesses the report or any other information that is disclosed, whether or not consent has been provided.

VAA has acted independently in preparing this report. VAA is being remunerated on the basis of time spent and no part of the fee is contingent upon the contents, the conclusions reached or the future use of this report. Value Adviser Associates has no conflict of interest in relation to the work undertaken.

1. Introduction

This paper has been prepared as an addendum to the submission provided by Tasmanian Gas Pipeline Pty Ltd (TGP Pty Ltd) to the Public Accounts Committee.

Specifically, this paper addresses the following terms of reference:

4. Past and current Government's energy security policies and management including risk management strategies and plans
5. Past and current Government's and Government owned energy entities energy mix policy decisions and challenges

Our intention in this paper is to present a longer-term perspective on the role of gas in the Tasmanian energy mix, and to identify issues that we consider are important for the Committee to consider in these two terms of reference. TGP will be providing a more detailed submission to the Tasmanian Energy Security Taskforce in due course.

2. Context

The Tasmanian Gas Pipeline (TGP) transports gas from Victoria to Tasmania. It is used to supply gas consumed by a wide range of consumers that are directly or indirectly connected to the TGP.

Most of Tasmania's large manufacturing and industrial companies use natural gas as key inputs. The TGP's five largest industrial customers are Grange Resources, Simplot, Bell Bay Aluminium, Fonterra and Tasmanian Dairy Products. TGP's 20 largest industrial customers are a major source of employment and underpin the local economy particularly in North West Tasmania, and are spread across several sectors, as shown in Table 1.

TABLE 1: TGP'S 20 LARGEST CUSTOMERS, EXCLUDING TAMAR VALLEY POWER STATION

Industry	Per cent of total
Resources	26.6
Food processing	18.0
Metals manufacturing	12.0
Dairy industry	11.20
Food & beverage manufacturing	5.2
Health Services	3.1
Pharmaceuticals	2.1
Chemical industry	0.8
Laundry services	0.7
Education	0.6
Building products manufacturing	0.5
Road construction	0.4

Other commercial and residential customers access gas through the Tas Gas distribution networks that connect to the TGP at:

- ▶ Wynyard
- ▶ Burnie
- ▶ Devonport
- ▶ Westbury
- ▶ Ulverstone
- ▶ Bell Bay & George Town
- ▶ Carrick (Launceston)
- ▶ Longford
- ▶ Bridgewater (Hobart)

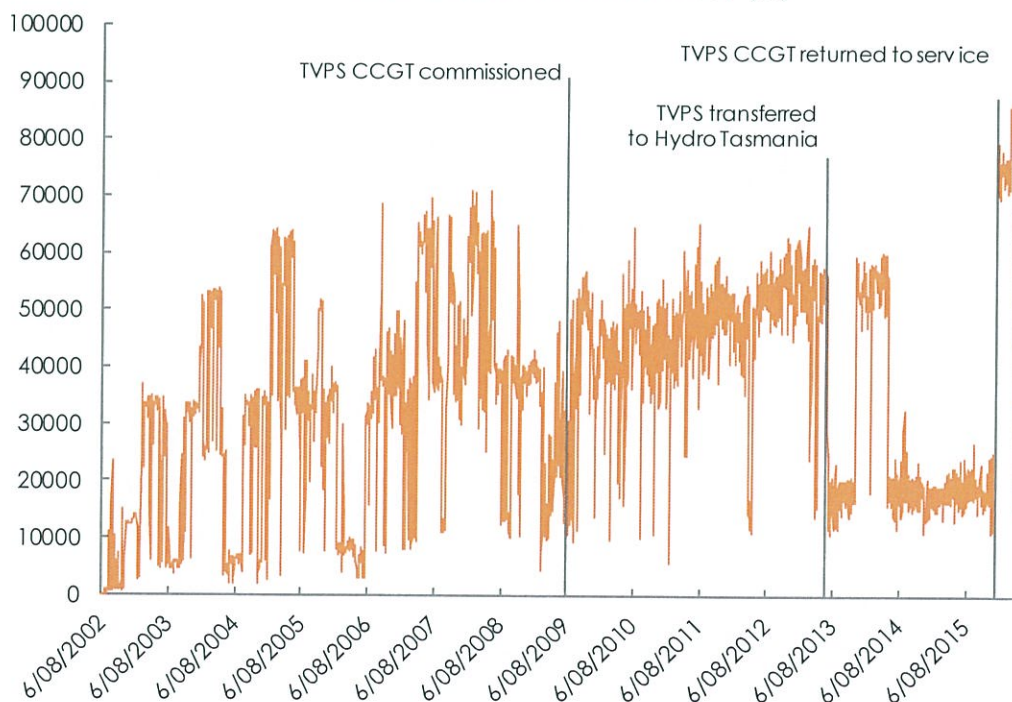
TGP is connected to the major transmission network that spans Eastern Australia. Some of the major transmission assets in this network, such as the Roma to Brisbane Pipeline and the Victorian Gas Transmission System, are regulated by the Australian Energy Regulator as a result of their strong market positions. However, the TGP and several other major transmission assets are unregulated (or uncovered), and major customers are experienced in negotiating price and access terms commercially.

As it is an unregulated asset, the TGP's owners have a very clear incentive to maximise the amount of gas that is transported through the system.

The TGP was commissioned in 2002 and has a capacity of 129 TJ per day. While the market has not developed to the extent envisaged by its original developer, Duke Energy International (Duke), the asset maintains an important role in Tasmania's economy and energy security.

Indeed, as shown by FIGURE 1, daily flows reached their highest ever level recently as the gas-fired generation assets were critical in the response to the energy situation caused by record low inflows from Spring 2015 and Basslink failure from December 2015.

FIGURE 1: DAILY FLOWS ON TGP (TJ)



TGP Pty Ltd was purchased by Palisade Investment Partners Limited in July 2011. Palisade is a specialist, independent infrastructure manager that focuses on assets that are essential to the efficient functioning of the communities and economies they serve.

3. Economic role of gas

As shown in FIGURE 1, servicing the capacity requirements of the Tamar Valley Power Station (TVPS) is a key variable in TGP's gas throughput. However, under current arrangements, the owners' revenue is largely secured by the take-or-pay contract associated with the TVPS that expires in December 2017.

The top 20 customers, excluding the TVPS take-or-pay contract, contribute around 40 per cent of the owner's revenue.

As the development of the gas market in Tasmania has never met the original expectations of Duke or the State Government, TGP Pty Ltd could never expect to achieve a commercial return based on the original capital investment or its replacement value. It is our understanding that TGP purchased the pipeline below its original construction cost and is seeking a modest, low risk long term return in line with the expectations of its ultimate owners, Australian superannuation funds.

TGP Pty Ltd has taken steps to improve its commercial performance in preparation for the drop off in the TVPS take or pay contract in December 2017, including:

- ▶ internalising operations and maintenance to reduce costs;
- ▶ introducing new business practices and efficiencies; and
- ▶ investing \$18 million in a new transfer station and other infrastructure to connect TGP more directly into the Longford-Melbourne Pipeline, which allows it to offer surplus capacity for storage and injection into the Victorian transmission system.

There is clearly a delicate balance that needs to be found in future pricing for the TGP, which incorporates:

- ▶ sufficient throughput and pricing so that its owners are able to earn a commercial return;
- ▶ competitive and stable prices so that the economic value of gas in Tasmania is preserved;
- ▶ ensuring that major industrials remain competitive and preserve jobs; and
- ▶ long-term certainty that the TGP is available to provide energy security.

In our discussions with TGP Pty Ltd and perusal of confidential material, Value Adviser Associates believes that the company is cognisant of its obligations to find this balance.

However, as a statement of principle, if the TGP's keystone contract — which was originally facilitated by the State and is now used to service the TVPS — is allowed to lapse, material increases in delivered gas prices may occur.

This would jeopardise investments in existing and future infrastructure made by commercial and industrial customers, small businesses and households associated with gas.

Further, any material price rises may in the medium to long run:

- ▶ undermine the future viability of some of Tasmania's largest employers that are exposed to global commodity markets;
- ▶ add to the cost pressures and increasing import competition faced by manufacturers; and
- ▶ impact on the growth in tourism as many hotels are (when connected to the Tas Gas distribution network) significant gas consumers.

The impacts would spread through local communities given multiplier effects associated with reduced sales to suppliers and lower spending by employees and contractors.

Importantly, it is difficult to substitute gas for other energy sources. For instance, Hydro Tasmania's recent experience in responding to the energy supply situation demonstrates the difficulties in using diesel as a direct energy supply given the costs of capital, fuel and supply chain. However, some industrial processes could substitute other energy sources (including diesel, heavy oils and coal) that have higher carbon emissions profiles, and would work against State and Australian government emissions policies without an explicit price on carbon.

4. Development of the TGP

The role of thermal generation in Tasmania predates TGP.

In 1967-68, a sustained drought and declines in the hydro storages led to power rationing for major industrial customers (that had been attracted to the State by the hydro-industrialisation strategy), commercial retail customers and eventually households. In March 1968, storages fell to 14.3 per cent of the full supply level, and electricity supplies were supplemented by oil-fired generation on ships in the Tamar River.

As a result, the Hydro-Electric Commission developed the Bell Bay Power Station (BBPS), which comprised two 120 MW units that were commissioned from 1971.

Development of the BBPS recognised that the hydrological conditions were highly variable, and that thermal generation provided energy security during periods when the hydro storages were depleted by below-average inflows.

As it operated on heavy fuel oil that led to a very high marginal cost and inflexible operating profile, the BBPS operated at high capacity factors for sustained periods. In effect, it provided capacity that could be brought into production as required rather than a regular generation source thus serving its primary purpose of energy security.

These assets were then at the core of energy reform in Tasmania through formal agreements and commitments, particularly:

- ▶ the Heads of Agreement between Duke and Hydro Tasmania, which was a part of the broader development agreement in April 2001 for the Tasmanian Natural Gas Pipeline; and
- ▶ the State's National Electricity Market entry arrangements, including commitments on market structure and transitional arrangements that were made to the Australian Competition and Consumer Commission (ACCC) and finalised in November 2001.

Specific aspects of the intertwined commercial and policy frameworks included:

- ▶ separation of the BBPS into a new entity to compete with Hydro Tasmania in the wholesale market
- ▶ a joint venture heads of agreement between Duke and Hydro Tasmania to repower BBPS Unit 2 to a combined cycle plant with capacity around 220 MW. This agreement would have been novated to the new independent business
- ▶ Duke converted Unit 1 of the BBPS to gas in 2003, and Hydro Tasmania undertook a similar, but less extensive, conversion of unit 2 in 2004, ahead of the anticipated joint venture
- ▶ a take-or-pay pipeline capacity agreement that provided long-run revenue certainty for TGP and price certainty for the joint venture to operate the CCGT.

This framework was integral to the State's National Electricity Market entry arrangements and commitments to the ACCC, including that Aurora Energy would source between 10 and 25 per cent of the load required to support non-contestable customers from a party other than Hydro Tasmania.

Further, there were several detailed studies from a whole-of-state perspective on the impact of Basslink and introducing natural gas. The nascent gas sector was an important factor in the

State's consideration of the Basslink business case. At a critical time in the decision-making process, and as the Basslink business case deteriorated, PricewaterhouseCoopers undertook detailed analysis for Tasmanian Treasury in May 2002, which considered the respective benefits of gas and Basslink, particularly the impact of Basslink on returns to Government, the risk to the State should Basslink proceed under scenarios with and without the TGP and gas-generation assets, and other commercial issues. (ESI Expert Panel, 2011)

A key finding in that study --- which has certainly been the actual experience --- was that State Government was not in a strong position to influence or control the key financial risks arising from Basslink, particularly pricing in the national market and hydrology. By that stage, Duke was already committed to the TGP, and the study was critical to the State Government supporting Hydro Tasmania's decision to proceed with Basslink.

As this context demonstrates, the Government was closely involved in the TGP and its role in establishing a new market structure for energy in Tasmania. This goes well beyond the traditional model of gas pipelines being developed to facilitate market access for upstream gas suppliers or competition between different heating and generation fuels.

In other words, as the State had such a significant role in overseeing the projects that allowed Tasmania to enter the national electricity and gas markets within a short timeframe, it would be inappropriate for the State to allow any of the same assets to become stranded through a focus on the publicly-owned power assets and Basslink.

5. Tamar Valley Power Station

Tasmania's original gas generation assets were the two BBPS 120 MW thermal units that were developed between 1971 and 1974 for energy security and decommissioned in 2009.

Three second hand 35 MW Pratt & Whitney FT8s open cycle gas turbines were also acquired in August 2005 to provide energy security. As Basslink had been delayed and inflows were below average for the eighth successive year, there were concerns that there was insufficient energy in storage if further unexpected delays were experienced. In effect, an insurance premium of \$37 million was being paid by the State's instrumentalities without any cost recovery from customers.¹

The TVPS incorporates the 208 MW combined cycle gas turbine, 58 MW open cycle gas turbines and the three Pratt & Whitney turbines that were upgraded to 40 MW as part of the development project.

None of these assets have been considered as purely commercial assets, even after Tasmania entered the NEM. In addition to providing energy security, these assets have also been used to facilitate a competitive market structure and competition between fuels, and to provide much needed systems support to the broader Tasmanian energy system.

The history of the TVPS is well-known in Tasmania and was addressed in depth in the ESI Expert Panel's review, and for the purposes of this paper, we do not wish to repeat background information that is already on the public record.

Alinta had acquired Duke Energy International's Australian assets in April 2004, and made a commercial decision to proceed with the greenfields development of the TVPS in October 2006. Its investment was backed by a hedge agreement with the State-owned Aurora Energy, which met the State regulatory commitments rather than a commercial imperative for new capacity.

¹ These assets were later incorporated in the TVPS when the BBPS site was sold to Alinta in 2007.

Indeed, Alinta's commercial decision led to a significant increase in the on-island generation capacity relative to the originally envisaged agreements. Alinta's total investment would have been \$480 million had the greenfields project been completed by its successor, Babcock & Brown Power (B&B Power), whereas the model envisaged in the Heads of Agreement between Duke and Hydro Tasmania would have involved a much smaller investment and less complex business model to repower one of the BBPS thermal units.

Even though the purchase of the three FT8 OCGTs reflected concerns over energy security, the prominence of the issue in the eyes of the public did not increase until mid 2007.

In July and August that year, storages were around 17 per cent and falling. BBPS was out of service, and only Basslink and the Woolnorth Wind Farm were operating in support.

In August 2007, shortly after construction of the TVPS had commenced, Babcock & Brown acquired Alinta but the financial strength of its investment vehicles was being severely eroded by the Global Financial Crisis. In a short period, Babcock & Brown Power had insufficient funding to complete the TVPS. As a result, the State (with the consent of Parliament) acquired the project for \$100 million and committed the necessary \$260 million to its completion in order to maintain energy security.

Once the CCGT was commissioned under Aurora Energy's ownership, its operating profile was dictated by:

- ▶ the wholesale gas supply and pipeline contracts that Aurora acquired in a separate transaction from B&B Power. These contracts were effectively the same ones that were agreed in 2001 to underpin development of the TGP and create the independent Bell Bay generation business; and
- ▶ a hedge contract with Hydro Tasmania, which was an internal portfolio transaction facilitated by the Government to mitigate Aurora's financial exposures resulting from its ownership of the TVPS. This hedge contract (a financial instrument) did not impact on customer pricing.

As this shows, the State's gas generation assets, and the earlier oil-fired thermal assets, have always involved non-commercial drivers, particularly energy security and establishing a market structure that was intended to facilitate competition in the wholesale and retail markets.

The Government's submission to this inquiry (Tasmanian Government, 2016) notes that

In May 2012, the former Government announced its response to the Expert Panel. While acknowledging the energy security value of the Tamar Valley Power Station, the former Government announced that it would be seeking an independent commercial analysis of the asset and investigate the potential sale of all five generators, including the Combined Cycle Gas Turbine, so long as it did not compromise energy security. It further committed to either transfer ownership of the Tamar Valley Power Station to Hydro Tasmania or to sell the power station, if the price was right, before June 2013.

This "independent commercial analysis" is not on the public record, and should be pursued by the Committee and made available for public scrutiny, as the TVPS assets (and \$205 million of associated debt) were subsequently transferred from Aurora Energy to Hydro Tasmania on 1 July 2013 as part of the broader package of reforms that was being implemented.

At the time of the transfer, the assets were valued at \$315 million. However, Hydro Tasmania's assessed the fair value of the TVPS assets to be closer to \$100 million, and wrote down the book value of the assets by \$216 million.

While the Government believed that the need for more robust energy security arrangements had been addressed in the August 2015 approval for Hydro Tasmania to sell the CCGT, subsequent events raise doubts that should be considered by this inquiry and the forthcoming Energy Security Taskforce.

Looking forward, the Government has stated that the CCGT has been withdrawn from the market. However, we are not aware of any long-term plans for the TVPS gas generation assets, and also note that the Tasmanian Minerals and Energy Council has raised concerns with the lack of information on the future of the TVPS.

This lack of clarity is particularly important for the TGP. If the Government is committed to retaining ownership of the TVPS — including the CCGT and various OCGT units — then they cannot serve any purpose without access to gas. In other words, if the TVPS is to be retained, a pipeline capacity agreement should be secured, with appropriate flexibility, to support its ongoing availability beyond the expiry of the current agreement in December 2017.

VAA also suggests that the “independent commercial analysis” commissioned in 2012 should be updated and released publicly for scrutiny, particularly in light of the energy supply situation that eventuated and current wholesale market trends with significantly higher prices across the NEM for prolonged periods.

This would also inform future decisions on the operating model of the TVPS and pipeline capacity requirements, given the Government has recently explicitly stated that the CCGT will not be sold.

More recently, TVPS has had a role in providing additional synchronous generation to the network, which sustains the fault levels at George Town Substation. In turn, this facilitates wind generation that would otherwise be constrained by AEMO, particularly during periods of low native demand when hydro generation is not required. This network support role is procured by AEMO through the ancillary services market, and requires the gas-fired generation assets to be available for dispatch.

In the absence of the TVPS, there is a serious risk that current wind farms would be increasingly constrained off the network due to grid management challenges, and that future wind farm projects may be unable to proceed.

6. Energy security

Currently, the State and Federal Governments are strong advocates for a second interconnector, or Basslink II, in part because it will contribute to Tasmania's future energy security.

However, VAA considers that, at present, it is highly premature to identify Basslink II as a preferred solution to future energy security challenges, particularly as:

- ▶ gas-fired generation is currently available, and accordingly there is no lead time to execute revised energy security strategies (subject to executing a new gas transportation agreement from 2017); and
- ▶ Basslink II could take up to a decade to be developed and commissioned, and at a cost exceeding \$1 billion, in which time material changes in the supply-demand balance may eventuate.

Further, Basslink II involves a substantial opportunity cost. No further capital investment is required in the gas-fired generation assets that have recently provided the necessary energy, and will remain in place to do so. Utilising the existing TVPS rather than investing in Basslink II would allow substantial capital to be deployed elsewhere, such as new on-island wind farms that are not reliant on a second interconnector and productivity-enhancing infrastructure.

Notwithstanding technological developments — such as voltage source converters that permit the transfer of ancillary services on high voltage direct current transmission assets — since Basslink was commissioned, there are likely to be technical or commercial barriers that may prevent two interconnectors from operating concurrently in a sustained import mode to rebuild storages quicker than the existing link allows.

Hydro Tasmania's storage targets have recently been increased as an energy security measure. At face value, this appears to be sensible to given recent experience; however, there are opportunity costs of importing more energy (mostly coal-fired generation) to allow the storages to rebuild in coming years and to withhold potentially profitable exports to maintain these higher storage levels. Again, gas-fired generation could achieve similar outcomes, with lower emissions.

We also have reservations with the commercial case for developing Basslink II. For instance, if Basslink II was to proceed as a regulated interconnector, it will have significant impacts on the sources of value to both Hydro Tasmania and Basslink Pty Ltd that are contained in the current Basslink Services Agreement. As a result, it is likely that this agreement will need to be renegotiated and/or the existing interconnector will be converted to regulated status. Funding would be required to mitigate any financial impacts or loss of value on the existing asset, in addition to the development of the second interconnector.

Also, facilitating new wind farms is a key argument being used to argue in favour of Basslink II, including in the preliminary report of the feasibility study being conducted by Mr Warwick Smith AM (Australian and Tasmanian governments, 2016). However, from an energy security perspective, gas-fired generation has a lower long-run marginal cost, particularly when the depreciation charge for TVPS was reduced as a result of its asset value write-down.

TVPS also offers fuel diversification, consistent with the long-term objectives of various State governments and government businesses to facilitate a mix of hydro, wind and gas-fired electricity generation.

Commercially, Hydro Tasmania's primary focus in offering long-term power purchasing agreements to support the development of new wind farms is the 'black' energy rather than the 'green' renewable credits. Gas-fired generation is likely to offer a cheaper source of the 'black' energy than wind, and can be a 'firm' product.

To ensure the TVPS is operational and available to fulfil its energy security role beyond December 2017, operations and maintenance activities will need to be maintained, and gas transportation agreements (but not necessarily gas commodity contracts) will be required. It is likely that these pipeline contracts would be more flexible, and potentially have lower fixed volumes, compared to the current take-or-pay arrangements². Opportunities to earn trading revenue would also be available — particularly in the current wholesale market conditions — that will offset these costs.

² The ESI Expert Panel noted the financial challenges for the TVPS under Aurora Energy's ownership, and suggested that "a difference between its acquisition and completion costs and its market value, under normal hydrological conditions, of around \$150 million, [is] interpreted as an energy supply risk 'insurance premium'".

7. Concluding comments

VAA makes the following concluding comments:

1. Successive State governments were deeply involved in facilitating the entry of gas and development of the TGP, in conjunction with Basslink, as part of a broad energy reform framework.
2. As the State had such a significant role in overseeing the projects that allowed Tasmania to enter the national electricity and gas markets within a short timeframe, it would be inappropriate for the State to allow any of the same assets to become stranded through a focus on the publicly-owned power assets and Basslink.
3. Energy security and other non-commercial drivers have been common factors in the development and operation of Tasmania's gas generation assets for over four decades, including acquisition of the TVPS at a time of deteriorating hydrological conditions.
4. While it is appropriate for the Government and the State-owned electricity businesses to base key decisions, such as the ownership of the TVPS, on commercial factors, several other factors must be considered transparently. These include energy security, the broader economic impact of the gas sector on industry and jobs, and the impact on existing privately-owned assets.
5. Independent commercial analysis that may have been commissioned prior to the decision to transfer the TVPS (and associated debt) to Hydro Tasmania should be released for public scrutiny.
6. There is a lack of clarity around the Government's intentions for the TVPS CCGT given its commitment to retain the asset, which has a significant effect on the TGP and its clients. It would be essential to have a gas transportation agreement in place to reflect the Government's intention of maintaining future operating capability.
7. There are a number of potential options for providing long-term energy security, including Basslink II, new wind farms, gas-fired generation and maintaining higher hydro storage target levels. However, gas-fired generation is the only option that is immediately available and has by far the largest positive impact on jobs and a competitive industrial sector in Tasmania.
8. The economic costs of Basslink II may be hard to justify even if the project is commercially feasible, and its impact on existing asset owners and its potential limitations as an energy security solution must be given equal weighting in the current feasibility studies.
9. Notwithstanding uncertainty over the future use of the CCGT and other gas generation assets, gas continues to have an important role in the Tasmanian economy. If a new pipeline capacity contract is not executed to replace the current agreement when it expires in December 2017, there is a risk that existing consumers could face material price rises and significant economic impacts could occur over time in key sectors.

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