

Our Ref: (46372 – D11/2289976)
Contact Officer: Mark Wilson
Contact Phone: 08 8213 3419

15 August 2011

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

By email: contact@electricity.tas.gov.au

Dear Mr Pierce

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

The AER welcomes the opportunity to comment on the Electricity Supply Industry Expert Panel's issues paper on its review of the Tasmanian electricity sector.

The AER has had ongoing concerns about market power in the Tasmania Electricity Sector and hopes that the Panel will seek to address these issues.

Please find attached the AER's submission to the Panel's issues paper. The submission includes detailed analysis of market events in Tasmania.

If you have any questions regarding the information in this submission please contact Tom Leuner on (03) 9290 1890 or Mark Wilson on (08) 8213 3419.

Yours sincerely



Andrew Reeves
Chairman



AER Submission

**Independent Review of the Tasmanian Electricity Sector
Response to Electricity Supply Industry Expert Panel's
Issues Paper**

15 August 2011

Background

The AER monitors the wholesale electricity market and is responsible for compliance with and enforcement of the National Electricity Rules (Electricity Rules). The AER is also a part of the ACCC. In performing these roles, the AER has had to consider a range of market power, market efficiency and competition issues in Tasmania.

Drawing on this experience, the AER has concentrated on addressing three of the key issues identified by the Panel:

- the extent to which the wholesale energy market in Tasmania is delivering efficient outcomes in the contract, spot and associated markets, and the extent to which the existing wholesale electricity market supports or hinders the development of retail competition;
- the conditions that would need to be satisfied for retail competition in Tasmania to be effective at the small business and household level; and
- how Government has made major decisions that impact on the Tasmanian energy sector and how transparency might be improved and accountability for outcomes enhanced.

Summary and conclusions

The panel asserts:

“... the electricity industry will make the best contribution to the growth and development of Tasmania and to the economic welfare of Tasmanians if it is operated on the most economically efficient basis possible.”

The AER agrees with the panel’s assertion. However, the AER is of the view that the electricity industry in Tasmania is not being operated on the most economically efficient basis possible and provides analysis in this submission to support its view.

Wholesale market issues

The AER concludes that wholesale market outcomes in Tasmania do not reflect efficient supply costs. This submission provides evidence to support this conclusion and explores options to achieve more economically efficient outcomes.

The AER is also of the view that the significant inefficiencies and risks in the wholesale energy market in Tasmania are hindering the development of retail competition.

The AER’s analysis highlights that Hydro Tasmania reduces supply from its non-scheduled plant to spike the spot price without warning, resulting in inefficient price outcomes. The ability to unexpectedly spike the prices would be partially remedied by Hydro Tasmania re-registering its non-scheduled plant as scheduled (and the Woolnorth wind farm as semi-scheduled).

Basslink and FCAS interactions

Analysis by the AER shows that Hydro Tasmania has the ability, through its energy and frequency control ancillary services (FCAS) offers, to drive counter price flows across Basslink. This limits the ability of competitors to manage spot market risk through inter-regional residues (if they were available for purchase). Furthermore, commitments made prior to entering the NEM, which would have allowed for the purchase of inter-regional residues, have not been fulfilled. Combined, these factors have increased the difficulty for potential new retailers to manage spot price risk.

Potential solutions

The AER considers that structural reform is the preferred means of promoting competition in generation and retail markets and this warrants careful consideration by the panel. A second best approach may be to require Hydro Tasmania to offer energy and inter-regional hedge products, similar to the arrangements in the FCAS market.

Wholesale market issues

Non-scheduled generation

In its issues paper and preceding discussion paper (*The Evolution of Tasmania's Energy Sector*, the "evolution paper"), the panel raised the issue of Hydro Tasmania's ability to manipulate its non-scheduled generation to raise prices.

Specifically, in its issues paper the panel asked the question:

"How can non-scheduled generation materially shift supply and demand balance and therefore move prices?"

The AER considers Hydro Tasmania's strategy of using its non-scheduled generation to raise prices to be a significant problem that leads to inefficient market outcomes. The AER has discussed this in several *Spot prices above \$5000/MWh* reports (\$5000 reports) and Weekly Electricity Market Analysis reports (Weekly reports).

Hydro Tasmania has employed the same strategy on most occasions where the spot price has exceeded \$5000/MWh in Tasmania, and at other times of high price outcomes. Figure A1 in Appendix A shows the 45 occasions between June 2009 and November 2010 where the AER has reported on high price events¹ in Tasmania caused by Hydro Tasmania's use of its non-scheduled hydro generation to increase demand. As Hydro Tasmania's financial contract position is unknown it is not possible to determine the financial impact of this strategy to either Hydro Tasmania or other parties. However, if it is assumed that Hydro Tasmania was contracted for 90 per cent of its output during these periods² then this strategy would have returned around \$10 million to Hydro Tasmania.³

¹ In addition to the requirement to publish a report where the spot price exceeds \$5000/MWh, the AER undertakes detailed analysis of significant price events (both high and low) in its Weekly Electricity Market Analysis reports, which are published on the AER's website (www.aer.gov.au).

² The Panel states in footnote 44 of its Issues Paper that: *It is noted that unless load-following or whole-of-meter contracts are used, there will always be a risk of 'unders' and 'overs', as it is very rare for actual demand to match contracted levels. Therefore, even where contract levels are relatively high, there will tend to be some spot market exposure for most market participants.*

³ The increase in spot market revenue is calculated by comparing the difference between the forecast price one hour ahead (which assumed a constant output from the non-scheduled generation) and the actual price multiplied by 10 per cent of the dispatch level of the Hydro Tasmania portfolio.

Hydro Tasmania often employs this strategy at off peak times (it has never been associated with any supply scarcity), leading to inefficient commitment and dispatch of open cycle gas turbines and demand side responses (presumably from large industrial customers).

Apart from the impacts on market efficiency, the use of this strategy by Hydro Tasmania would also be a major spot market risk for any new retailer in Tasmania.

How non-scheduled generation is used to manipulate price

To understand how non-scheduled generation can be manipulated to raise prices, it is important to explain what it means for a generator to be classified as non-scheduled. The vast majority of installed generation in the NEM is registered as scheduled. Scheduled generators are dispatched by AEMO in accordance with their bids to meet demand. However, a number of smaller generators are classified as non-scheduled generation. Non-scheduled generators fall outside of the market processes and can produce electricity at their discretion. The output from non-scheduled generators is treated as negative demand, so any variation in their output is reflected in the demand that must be met by scheduled generators (for example, a 10 MW *decrease* from a non-scheduled generator is treated as a 10 MW *increase* in demand).

As non-scheduled generating units are not scheduled as part of the central dispatch process, there is no requirement to notify the market of the availability or output level of these units. As a result, the output from these units is difficult to incorporate accurately in market forecasts.

There is around 2400 MW of installed scheduled generation in Tasmania and a further 240 MW of non-scheduled generation. Hydro Tasmania operates five non-scheduled mini-hydro generators, all with a nominal capacity of less than 30 MW. The only other significant⁴ non-scheduled generation is the 140 MW Woolnorth wind farm. From 1 July, the operation of this plant was transferred from the Roaring 40s to Hydro Tasmania.

As discussed in the evolution paper, in June 2009 Hydro Tasmania employed the strategy of making sudden and repeated cuts in the output of its non-scheduled generators, leading to an increase in effective demand. Coincident with this there was a step change reduction in the amount of low price generation capacity offered by Hydro Tasmania, resulting in the dispatch of higher priced generation in its portfolio to meet the increase in demand. It is critical to note that as non-scheduled generation is not scheduled as part of the central dispatch process, the resulting high prices were not forecast, meaning there was reduced opportunity for market participants to respond.

To take an example, on 10 June 2009 Hydro Tasmania employed this strategy to cause the price to reach \$6212/MWh at 9.30 am. Figure 1 shows that a reduction in output from Hydro Tasmania's non-scheduled generators (Cluny, Paloona and Repulse) caused an increase in the 5-minute demand in Tasmania (represented by the red line). Figure 2 shows the capacity offered by Hydro Tasmania at different price thresholds. It shows that from 9.05 am the amount of capacity offered at lower prices was reduced, (and replaced with capacity priced at greater than \$9000/MWh shown in pink) coincident with the reduction in non-scheduled generation. Figure 2 also shows that this strategy saw the dispatch of Hydro Tasmania's high priced scheduled generation (as indicated by the red line being dispatched into the pink offer prices).

⁴ There is also a 2 MW and a 10 MW generator.

Figure 1 also highlights the demand side response in Tasmania in response to the high dispatch prices (with those prices represented by the blue line in figure 2).

Figure 1 – Hydro Tasmania’s non-scheduled generation and demand – 10 June 2009

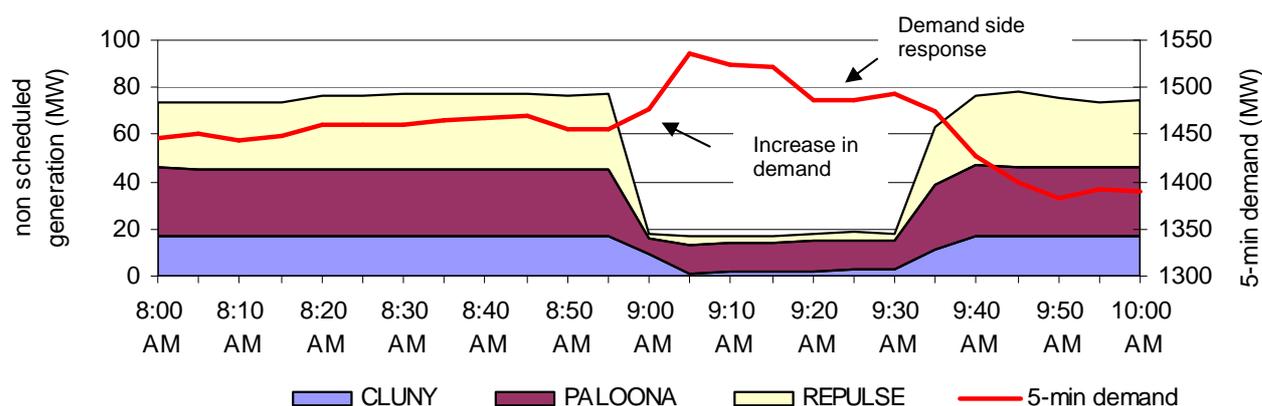
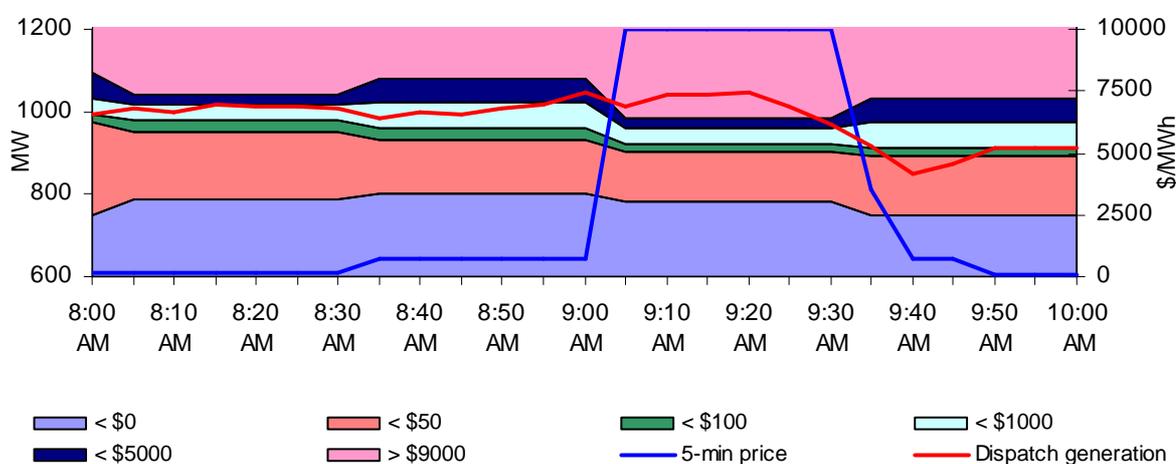


Figure 2 – Hydro Tasmania’s bids, dispatch and 5 minute price – 10 June 2009



Note that although the increase in effective demand was only around 60 MW (or 5 per cent of the Tasmania demand at the time), the offers from Hydro Tasmania were structured so that a small increase in demand caused the dispatch of high-priced offers and a large increase in the regional price. As AEMO’s forecast of the demand assumed that the output from the non-scheduled generation would be constant, the actual price was significantly greater than the forecast price.

A further example of Hydro Tasmania’s control over its non-scheduled generation

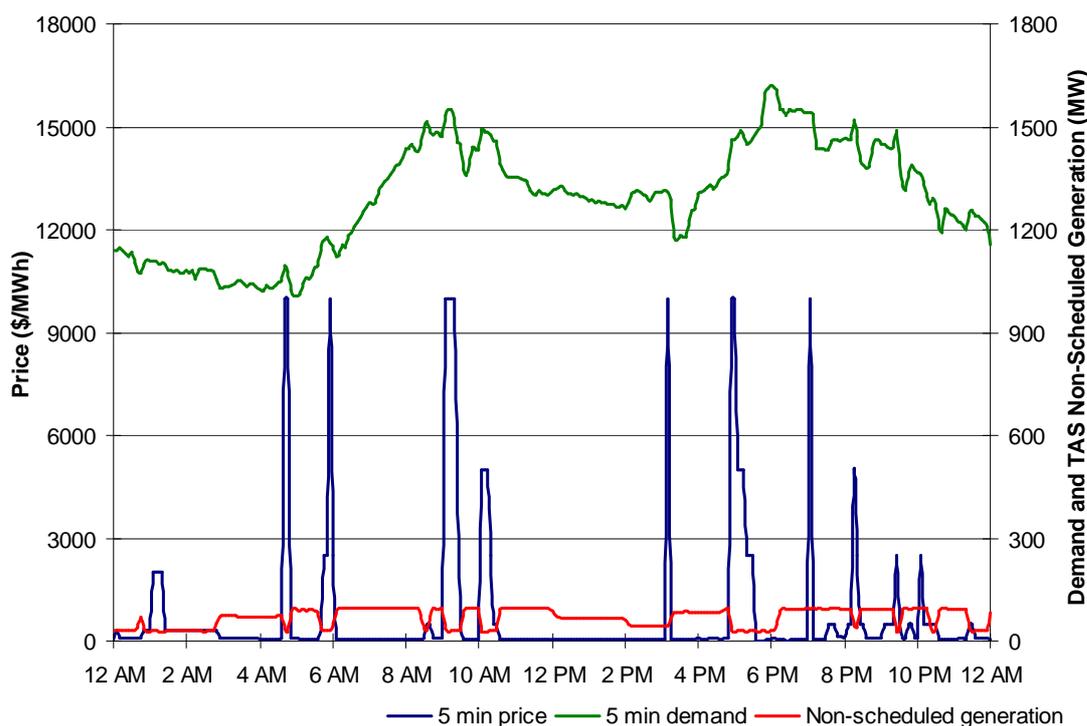
A possible argument for generators being classified as non-scheduled is⁵ “the physical and technical attributes of the relevant generating unit are such that it is not practicable for it to participate in central dispatch.” Hydro Tasmania’s behaviour on 11 June 2009 provides an example of the extent of control it has over its non-scheduled generation. As shown in figure 3, Hydro Tasmania reduced its non-scheduled generation (shown by the dip in the red line) at least ten times throughout the day, many of which were at times of low demand. In response, 5-minute demand increased (as represented by the rises in the green line), which saw the 5-minute price increase sharply, at times to the price cap⁶.

⁵ Clause 2.2.3 (b)(2) of the NER

⁶ The price cap increased from \$10 000/MWh to \$12 500/MWh on 1 July 2010.

The frequency with which Hydro Tasmania used this strategy on this day clearly demonstrates its control over the output of its non-scheduled mini hydro plant.

Figure 3 – Hydro Tasmania non-scheduled generation, Tas demand and price 11 June 2009



Other non-scheduled generation

The Woolnorth windfarm is also registered as a non-scheduled generator. On 30 October 2009, a reduction in generation at Woolnorth windfarm from 120 MW to zero saw demand increase rapidly and the 5-minute dispatch price reach \$10 000/MWh (the price cap at the time)⁷. As a result the spot price reached \$1705/MWh. However, rather than being part of a strategy to increase the price, the reduction in output from the wind farm was in response to a spike in the price for frequency control ancillary services (FCAS).⁸

At the time, Woolnorth was owned by Roaring Forties (which in turn was 50 per cent owned by Hydro Tasmania and 50 per cent owned by China Light and Power). However, changes to the ownership of the Woolnorth wind farm from 1 July this year, saw the operation of this plant transfer to Hydro Tasmania. As a result Hydro Tasmania now controls around 240 MW of non-scheduled generation in Tasmania. As discussed earlier, 60 MW changes in the output of non-scheduled generation, although only representing 5 per cent of Tasmania demand, have led to significant price changes. An increase in the amount of non-scheduled generation under the control of Hydro Tasmania to almost 240 MW may lead to an even greater risk of this occurring.

⁷ This was reported in the weekly report covering the period 25 to 31 October 2009.

⁸ These services are provided by Hydro Tasmania but paid for by all Tasmania generators, pro-rata to their output. Therefore a reduction in output from the wind farm would reduce its exposure to the high FCAS cost. This FCAS price spike was driven by a network issue requiring additional services, from a reduced number of providers. On this occasion the price was not directly driven by Hydro Tasmania's bidding strategy. Woolnorth has also reduced its output at other times of high FCAS prices, such as on 3 April 2009.

Solution to the non-scheduled generation problem

The above analysis highlights the ability of Hydro Tasmania to raise spot prices without notice. Although this has had significant spot market impacts, there exists a simple, immediate and inexpensive potential solution.

The Electricity Rules⁹ specify the requirements for registration as a generator. The Rules include a threshold of 30 MW that delineates a scheduled generator from a non-scheduled generator. This may be adequate in a large demand region like New South Wales but not in a small region such as Tasmania. As stated in the issues paper,

“the intended concept of non-scheduled generation is that generation is classified as non-scheduled because it is immaterial to determining the supply/demand balance at a point in time. This is clearly not the case on all occasions in relation to Hydro Tasmania’s non-scheduled generation.”

If the smaller Hydro Tasmania non-scheduled generators were scheduled then this would require that plant to be bid into the market and for the generators to comply with dispatch instructions. This would remove the ability of Hydro Tasmania to manipulate demand and cause un-forecast high prices. As discussed previously, the critical issue is the lack of forecast of these high prices, which means there is reduced opportunity for market participants to respond.

On the same basis, re-registering the Woolnorth wind farm as a semi-scheduled generator would bring it into line with the obligations of newer wind farms¹⁰, and into the market arrangements.

Generators are permitted to apply to change their classification with AEMO at any time. The AER considers, therefore, the Panel should recommend that the Government of Tasmania direct Hydro Tasmania to re-register its non-scheduled generation with AEMO as scheduled (or in the case of the Woolnorth wind farm as semi-scheduled). This would provide an immediate and simple solution to this problem. However, it should be noted that this would not in itself prevent Hydro Tasmania from exercising its market power. Once the plant are scheduled they can still be used to push up the price by rebidding capacity into higher price bands. However, at least such rebidding will be transparent, will be incorporated into forecasts, and will be subject to the “good faith” clause 3.8.22A of the Electricity Rules.

Market power

In its issues paper the panel asked the question:

“Is there any evidence of latent market power in the Tasmanian wholesale market, and what are its consequences?”

In its discussion of latent market power in the issues paper the panel articulated the key issue as *“the degree of confidence that market participants have that market outcomes will routinely and by default, reflect economically efficient outcomes.”*

⁹ Clauses 2.2.1 to 2.2.3

¹⁰ Changes to the Rules in 2008 mean significant intermittent generators (such as wind farms) are required to participate in the central dispatch and projected assessment of system adequacy (PASA) processes, and limit their output at times when that output would otherwise violate secure network limits.

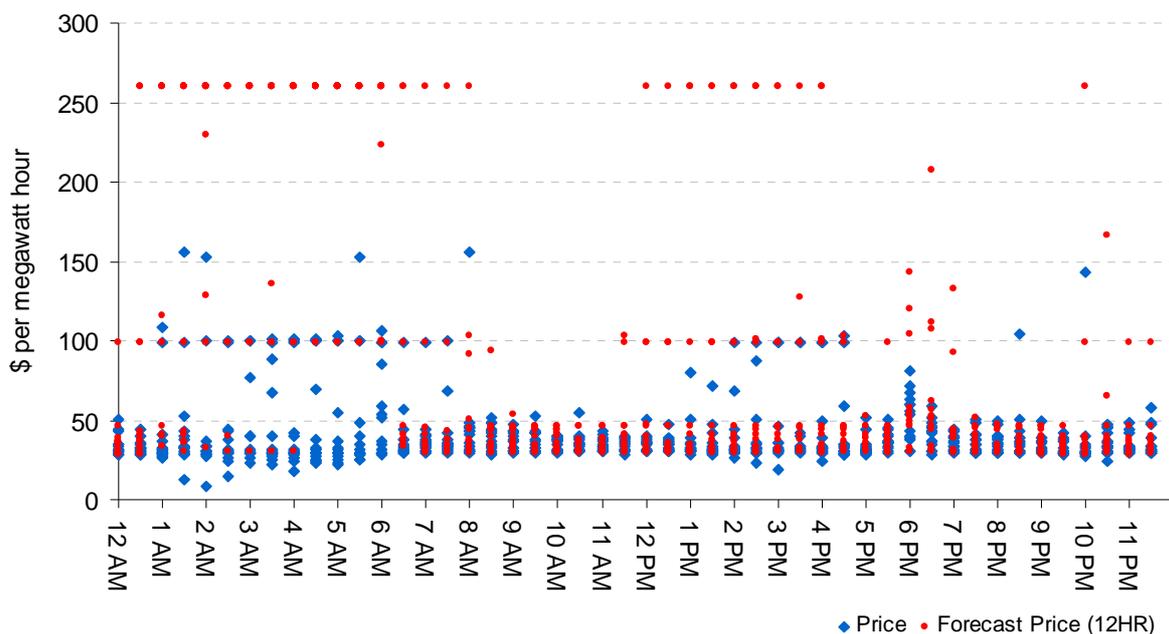
The AER considers that Hydro Tasmania has significant market power. This market power is clearly exercised at times (as noted in the above discussion), so is not “latent” at all times. However, Hydro Tasmania could set the spot price much higher for much longer periods of time, so in that sense, Hydro Tasmania does have significant latent market power.

In its *Spot prices greater than \$5000/MWh* report into the events of 19 November 2010, the AER said:

“Hydro Tasmania can raise prices almost at will, through bidding its capacity at high prices. It can also influence the price by varying the output of its non-scheduled generators, which is treated as a change in demand.”

In addition to the \$5000 reports published by the AER there are numerous other examples of where Hydro Tasmania has used its market power to influence price. For example, figure 4 shows actual spot prices (in blue) over the two week period 16 May to 29 May 2011. This period coincided with an outage of the AETV combined cycle gas turbine plant. It demonstrates the presence of spot prices around \$100/MWh and higher at times of low demand (from 1 am to 7 am) during this period. Also shown in red are the forecast prices 12 hours ahead. As shown, the actual price outcomes are considerably lower than forecast following AETV’s responses to the high forecast prices, but still at unusually high levels for off peak times. AETV’s response saw the commitment of its open cycle gas turbines, which generated every morning during this period. This is clearly not an efficient use of resources and is further evidence of Hydro Tasmania’s ability to set the price to high levels that do not reflect economically efficient outcomes.

Figure 4: Spot prices by trading interval, 16-29 May 2011



A further recent example occurred on Monday 25 July, where the spot price reached \$2084/MWh for the 11 am trading interval. This was driven by Hydro Tasmania’s bidding strategy that saw 1050 MW offered (day ahead) at prices above \$11 700/MWh and 602 MW priced below zero for the 11 am trading interval. For the previous trading interval, 1359 MW of capacity was priced at less than \$50/MWh. The step change in offer prices meant that the high priced capacity from Hydro Tasmania was dispatched, setting the price for the 10.35 am dispatch interval to \$12 390/MWh.

In response to the high price, there was an apparent 150 MW demand side reduction, which saw the price drop to \$28/MWh at 10.40 am. For the next few hours and for several hours on each of the following three days, Hydro Tasmania offered only around 600 MW at negative prices, with the remainder offered at around \$300/MWh. As a result prices were set at around \$300/MWh for these periods.

These market outcomes driven by Hydro Tasmania's strategies would be a major spot market risk for any new retailer in Tasmania. This also represents an inefficient outcome because AETV committed its open cycle gas turbines during this period.

Effectiveness of competition in the Tasmanian spot market

Spot price in Tasmania compared to Victoria

In its issues paper the panel posed the question:

“What does the history of spot market prices demonstrate about the effectiveness of competition in the Tasmanian spot market?”

Hydro Tasmania contends in its submission to the panel's discussion papers that there is no problem with wholesale competition in Tasmania. In its submission it presents quarterly and annual average price data since 2006 to support its claim, arguing that price outcomes in Victoria are close to those in Tasmania.

However, using average prices can lead to misleading conclusions as they tend to smooth out the effects of individual prices. There are many examples of where the spot price in Tasmania has been significantly higher than that in Victoria for sustained periods. There have also been instances where the spot price has reached the price floor in Tasmania, while at the same time the spot price has been high in Victoria.

Hydro Tasmania's ability to harm competitors

In its issues paper the panel posed the question:

“Does Hydro Tasmania have the capacity to raise or lower spot prices based on its knowledge of the contract positions of its counter-parties and is there evidence that such a capacity has been exercised?”

As Hydro Tasmania is a major provider of energy market contracts and can deduce the physical capability of its only competitor from publicly available information - both in real time and into the future - it can easily structure its offers to cause financial harm to AETV. The panel states in its issues paper:

“during the 2010-11 financial year (until 8 May 2011), the TVPS CCGT unit operated at 200 MW or greater for 52 per cent of the time. Interestingly, the average spot price when the power station operated at 200MW or greater over that period was \$36.44, substantially below the short run marginal cost of generation from that facility.”

There are many examples of higher priced offers (and consequent higher spot prices) when the AETV combined cycle gas turbine is offline or unavailable, and lower priced offers (and spot prices) when it is running. Analysis by the AER of the bidding strategy by Hydro Tasmania over 2010-11 shows that on average 1300 MW of capacity is offered at prices less than \$30/MWh whenever the combined cycle gas turbine plant is on line but only 1070 MW when it is off. This leads to higher prices when the AETV plant is off and lower prices when it is on.

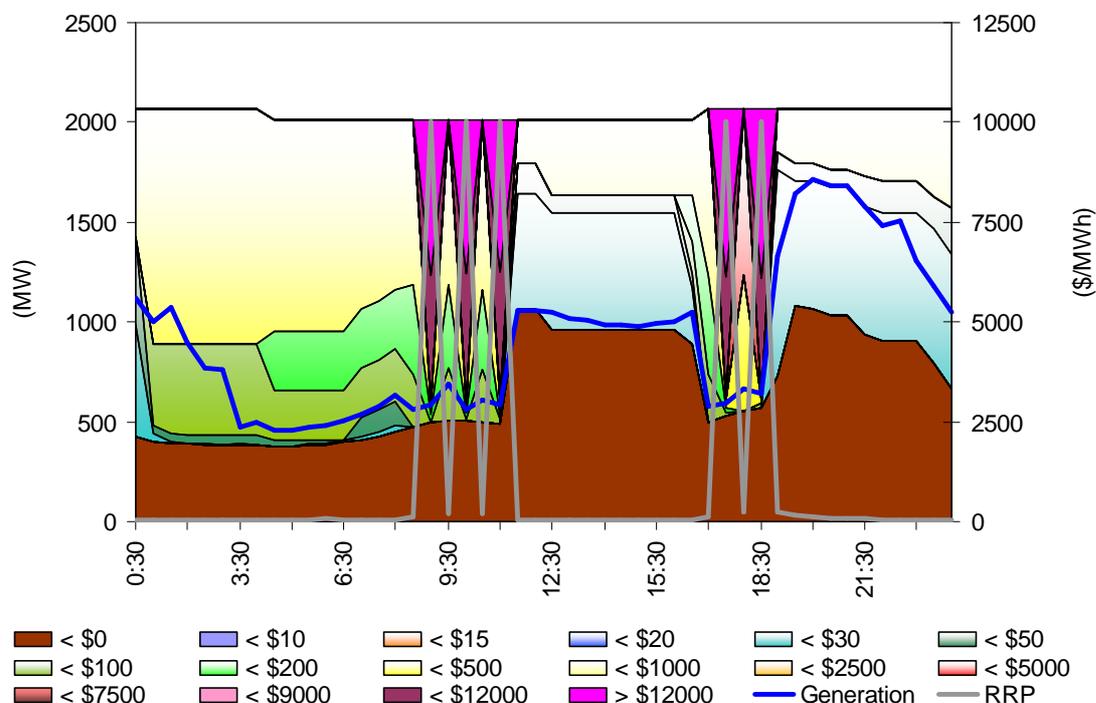
On the other hand as Hydro Tasmania can set the price at will, the risk of prices at the price cap during an outage of a potential competitor’s plant (only limited by the cumulative price threshold, or CPT) means that, depending on its contract position, a competing generator could be substantially damaged in a very short time, as well as forgoing a significant amount of revenue.

As a specific example, on 7 August 2010 Hydro Tasmania’s bidding strategy saw step changes in offer prices from one trading interval to the next and then back again, as shown in figure 5.

Initial forecasts at 12.30 pm the day before showed prices of \$10 000/MWh for the 9 am, 10 am, 11 am, 5.30 pm and 6.30 pm trading intervals. This was driven by day-ahead offers by Hydro Tasmania, which saw five step reductions-each for only a single trading interval-in the availability of low-priced capacity in Tasmania, which was replaced with high-priced capacity. It is hard to argue that the offer prices reflect “water value” in this example, as the value is varying every half hour.

Figure 5 shows initial offers for Hydro Tasmania highlighting the capacity priced at or above \$5000/MWh and the high initial forecast prices (RRP) coincident with the high-priced offers. It also shows the initial forecast generation output for the Hydro Tasmania portfolio.¹¹

Figure 5: Hydro Tasmania opening bids and forecast spot prices for 7 August 2010



¹¹ This figure is extracted from the \$5000 report published by the AER.

Other risks for potential entrants

As stated in the issues paper, Hydro Tasmania notes that it can operate profitably at prices that are lower than new entry cost:

“the NEM market price for the non-contestable load structure is less than the new entrant LRMC calculated by IES. Further, Hydro Tasmania can profitably hedge the noncontestable load at that market price, indicating that it is more cost effective than a new entrant.”

This highlights the difficulty for any competitor generator. A further potential barrier to conventional generation entry is the 20 per cent renewable energy target, which may see additional wind generation in Tasmania. As evidenced by outcomes in South Australia, high levels of wind penetration can lead to lengthy periods of very low and even negative prices.

Basslink governance

In its issues paper the panel poses the question:

“What could be done to improve transparency and accountability of decision making in the future, while recognising the need for appropriate protection of commercial interests?”

To ensure that Basslink can operate as a source of competition to Hydro Tasmania in the Tasmanian region, the Tasmanian Government initially proposed a sell down mechanism for the IRRs across Basslink when Tasmania is importing electricity.¹² The Tasmanian Government also undertook to disallow Hydro Tasmania from specifying negative transport bids in either direction; or positive bids for southward flows, except in certain limited, technical circumstances.

It is clear that the ACCC thought that these commitments were important factors influencing potential competition in Tasmania. The ACCC in its final determination stated:

“The additional information on how the sell down of the southward IRRs would take place, the undertakings that Hydro Tasmania will not bid Basslink at negative prices and only positive prices for southward flows on limited occasions and for technical reasons, and the on-going threat of legal action, are all factors that could minimise any anticompetitive detriments of the structural arrangements that occur in Tasmania.”

However, these commitments have not been adhered to and as a result the potential to introduce competition in Tasmania has been adversely affected.

Decisions to remove the ability to manage risk through the purchase of inter regional residues has increased the difficulty for potential new retailers to manage spot price risk and as a result impeded the development of retail competition.

¹² ACCC “Tasmania Derogations and Vesting Contract - Final Determination”, November 2001, page 23

Even if this issue were addressed, further complications arise due to the complex interactions between the FCAS market and Basslink. As is explained below, it is possible for Hydro Tasmania to produce counter-priced flows into Victoria at will. This further damages the ability to manage spot price risk, as even if inter-regional residues were available, it is unlikely they would be of any value.

Basslink and FCAS

As was noted earlier, the AER reports on spot prices above \$5000/MWh and weekly on outcomes in the NEM. These reports have indicated that often the drivers for high price events in Tasmania are a combination of energy and frequency control ancillary service (FCAS) offers from Hydro Tasmania and the technical characteristics of Basslink.

Due to the complex inter-relationship between the energy and FCAS markets and the technical characteristics of Basslink, it is possible for Hydro Tasmania to produce counter-priced flows into Victoria.

Analysis by the AER shows that this becomes possible if Hydro Tasmania bids such that it offers high priced FCAS in conjunction with the “right” combination of low and high priced energy offers in excess of demand for energy in Tasmania. This bidding strategy sees the dispatch of all of the energy in Tasmania that is priced lower than on the mainland in favour of importing energy over Basslink. As the cost of dispatching higher priced local FCAS outweighs the cost of obtaining these services from the mainland, flows across Basslink are restricted to allow head room for FCAS to be provided over Basslink. The net result is exports of energy across Basslink from Tasmania to Victoria.

As this increases the requirement for generation in Tasmania (to provide exports to Victoria), high priced Hydro Tasmania energy offers are dispatched (setting a high spot price in Tasmania), therefore resulting in a counter-priced flow from Tasmania (with a high spot price) to Victoria (with a low spot price).

This analysis has been confirmed using AEMO’s NEMDE queue modelling capability.

Network issues

The majority of the questions raised in relation to networks in the issues paper are specific to Tasmania and are not within the AER’s remit. Where relevant, the AER will comment on specific network issues raised in the panel’s draft decision.

However, with the benefit of having almost completed a full round of resets under the current regulatory framework that applies to energy networks, the AER has recently undertaken an internal review of the operation of the framework. The review has found the regulatory framework is operating well in some areas, but has shortcomings in others. The AER will soon submit to the Australian Energy Market Commission a proposal for amendments to chapters 6 and 6A of the Electricity Rules to address the deficiencies it has identified in the network regulatory regime.

Potential solutions

The AER believes the National Electricity Market (NEM) works well in delivering timely investment outcomes and system reliability¹³. However, the NEM design relies on a competitive market. A level of concentration that may lead to competitive outcomes in many markets, may create concerns in the NEM, due to the NEM's susceptibility to the exercise of market power through economic withholding.¹⁴

The need for a competitive market structure was the reason why the formerly vertically integrated state utilities were disaggregated prior to the commencement of the NEM. Even in Queensland and New South Wales, where the respective governments retained ownership of all parts of the supply chain, the generation and retail components were separated into a number of entities to provide competition.

On the issue of competition the panel states:

"However, there remains the question of whether the development of stronger competition in the Tasmanian wholesale market would be feasible; and if so, whether that would be a cost effective means of obtaining more efficient cost/price outcomes for Tasmanian electricity users".

The AER considers that structural reform is the most effective way of addressing market power and promoting competition in generation and retail markets. The AER has continually argued that to achieve competitive outcomes, there must be a number of actively competing players at both the generation and retail levels. Therefore the AER believes that the panel should carefully consider all possible structural solutions in an effort to achieve competitive and efficient market outcomes in Tasmania. In addition to considering Hydro Tasmania, separating Basslink fully from Hydro Tasmania is an option that should be explored. However, as the AER has shown above, the FCAS and Basslink flow interdependencies may mean that the separation of Hydro Tasmania and Basslink is not workable, as Hydro Tasmania, at least in its current form, can exert control over Basslink flows, regardless of who controls Basslink.

While the AER considers that creating a competitive dynamic through structural reform is the ideal method of addressing concerns relating to competition and efficiency, consideration could also be given to other behavioural mechanisms that have been tried in other markets. In Western Australia, for example, there is a Ministerial Direction in place limiting generation capacity of the incumbent, Verve Energy, to 3000 MW. This measure supports generation competition, as any additional generation needs can only be met by new entrants. Such a measure, however, may not be effective in promoting competition in Tasmania, as there already appears to be excess generation capacity¹⁵, so the economics of building another generator to compete with Hydro Tasmania appear quite weak.

Initiatives to promote retail competition are also being considered in other markets. In Great Britain, Ofgem has recently proposed a new licence condition that would require the major six vertically integrated energy suppliers to make available between 10 per cent and 20 per cent of their generation capacity to the market through a regular mandatory auction. This initiative is designed to encourage new entry into the retail market in Great Britain.

¹³ Submission to the AEMC comprehensive reliability review interim report 2007 - 2nd interim report.

¹⁴ Submission to the MEU rule change proposal - 14 April 2011.

¹⁵ The AER agrees that Tasmania is energy (not capacity) limited, but there is the potential for this energy shortage to be reduced if additional wind generation locates in Tasmania, which is likely given the renewable energy target.

If the Panel's review is interested in promoting retail competition in Tasmania, thought could be given to a similar mechanism (in conjunction with the introduction of full retail competition). For example, Hydro Tasmania could be required to make energy contracts available to new entrant retailers at a price determined by the OTTER. This role would be quite similar to the role OTTER performs for FCAS in Tasmania.

OTTER's role in the FCAS market was supported by the AER. In its submission the AER said that enabling OTTER to make determinations regulating the prices charged by Hydro Tasmania for the supply of raise FCAS would protect market participants from high prices that could create a barrier to entry and restrict competition¹⁶.

Providing access to competitively priced hedging could also obviate the need for the competitor AETV generator. For efficiency reasons, it may be the case that all Tasmania Government owned generation should be combined in the one portfolio. This may result in reduced overheads and better gas, water and wind resource utilization.

A requirement to offer *firm* inter-regional hedging products would also enhance retail competition. By firm we mean hedges related to inter-regional price differences, not related to actual flows, which as previously stated are influenced by FCAS and energy offers.

While a solution forcing the offer of financial hedges would face its own challenges, particularly enforcing such a requirement, it and other similar solutions should be considered.

¹⁶ In August 2009 the AER made a submission to the OTTER's issues paper – Notice of intention to declare the supply of raise contingency

Appendix A

Figure A1: High spot prices due to Hydro Tasmania's use of non-scheduled generation.

Date	Time	Price (\$/MWh)
Wednesday 10 June 2009	6 am	1063
	9.30 am	6212
	5 pm	2570
	5.30 pm	1932
	9.30 pm	1150
	10.30 pm	2000
Thursday 11 June 2009	1.30 am	1433
	5 am	3376
	6 am	3002
	9.30 am	7577
	10.30 am	3079
	5 pm	3367
	5.30 pm	3745
	7.30 pm	1699
	8.30 pm	1578
Friday 12 June 2009	12.30 am	1579
	6 am	977
	9.30 am	9992
	10.30 am	3207
	11.30 am	2353
	12 pm	1095
	5 pm	2281
Sunday 14 June 2009	5.30 pm	1347
Monday 15 June 2009	10.30 am	3518
	5 pm	8374
	6 pm	9992
Tuesday 16 June 2009	7 am	3371
	8.30 am	6875
	9.30 am	9992
	10.30 am	5104
Friday 19 June 2009	8.30 am	9992
	9.30 am	9160
	10.30 am	5000
	5 pm	1767
Sunday 16 May 2010	6.30 am	2011
Monday 17 May 2010	6.30 am	1750
Saturday 7 August 2010	9 am	5720
	10 am	833
	5.30 pm	1647
	6.30 pm	12 400
Sunday 8 August 2010	10 am	2733
	6 pm	12 400
	6.30 pm	12 400
	7.30 pm	8300
Friday 19 November 2010	7 am	12 400