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20 July 2012

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Electricity Authority
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By email: Tuong.Nguyen@ea.govt.nz

Dear Carl

Locally net pivotal behaviour is a result of transmission issues

Genesis Power Limited, trading as Genesis Energy, responds to the Authority's draft market performance review "Locally net pivotal generation" dated 2 July 2012.

We agree with the Draft Review's identification of transmission loss as the source of net pivotal events in the New Zealand electricity market.[1] Given that net pivotal behaviour is a transmission network problem, solutions should be focused on addressing transmission issues directly. For example, we have previously suggested that Transpower be required to explicitly consider impacts of network configuration decisions on wholesale market competition. Solutions that are focused on ensuring the transmission network provides an adequate platform for wholesale market competition will resolve the concerns identified in the EA review, without introducing unintended distortions.

[1] Paragraph 6.21 of the Draft Review

We also have four comments on the Draft Review analysis that we consider warrant further consideration by the Authority:

- there is insufficient evidence in the Draft Review of locally net pivotal behaviour creating material market problems. In particular, the calculation of long term impact of net pivotal behaviour is incorrect;

- the Draft Review quickly dismisses the ability for market responses, such as hedging agreements, to mitigate net pivotal behaviour in a way that is in the long-term interests of consumers. Our experience as a market participant does not support this conclusion.

- the Draft Review describes net pivotal behaviour as "uncompetitive", without providing any evidence to support such an allegation; and

- market performance reviews are not the appropriate place for considering solutions to problems identified and described in the review.

We discuss these comments in more detail below.

The report rightly identifies transmission as a cause of net pivotal scenarios

Section 4 of the review classifies net pivotal situations into three types—when regions become isolated, when transmission constraints bind, and when transmission constraints create springwasher effects. The availability of transmission is central to each type of net pivotal scenario identified by the Authority.

Genesis Energy has consistently emphasised the important role that transmission plays in enabling competition between generators. We strongly encouraged Transpower to include consideration of competition benefits when evaluating new transmission benefits.[2]

We believe that the most direct response to net pivotal situations is to strengthen the way that market impacts are considered in transmission planning and operational decisions. This does not mean that other aspects of transmission services (such as system reliability) are not important. Rather, explicitly incorporating market impacts into transmission decision-making confirms that Transpower is expected to take reasonable steps to preserve competition and safeguard market outcomes.

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[2] Genesis Energy submission Transpower on the investment proposal "Bunnythorpe to Haywards Conductor Replacement", 7 November 2011 (http://www.genesisenergy.co.nz/shadomx/apps/fms/fmsdownload.cfm?file_uuid=1A925DCE-5056-AC66-4C57-EF93D06F0791&siteName=genesis)

It is clear that a great deal more work is needed on any possible remedies to the issues identified in the Authority's review (and as noted below, we recommend that any work on remedies is only pursued when the problem is clearly defined and quantified). In our view, the most productive remedies will be directed at the transmission problem, rather than other remedies identified in the review (such as net pivotal declarations, or prices by offer or fiat).

No evidence of a substantial market problem

We consider that the Draft Review provides insufficient evidence of any substantial market problem caused by net pivotal behaviour. We agree with the Authority's assessment that, when assessing the impact of locally net pivotal behaviour, "the magnitude of the loss of efficiency is extremely small in the short term".[3]

However, we do not agree with the report's approach to quantifying the long-term impact of net pivotal generator behaviour.

Wrong approach to defining problem

The Authority alleges that any generator offers above the plant LMRC are inefficient.[4] We disagree with this statement. Short term price spikes above the LRMC of the most expensive generator are integral to ensuring that appropriate market signals are sent to ensure adequate reliability. This is particularly true when those signals reflect constraints or outages on the transmission network.

We suggest that the appropriate approach to identifying behaviour problems in the electricity market is that taken by the Australian Energy Market Commission (AEMC) in its recent draft rule determination "Potential generator market power in the NEM"[5]. In that decision the AEMC noted:

> "A generator's transient ability to significantly increase prices for short periods should not be considered a basis for a rule change unless that power is exercised to such an extent or with sufficient frequency that it causes long term average prices to be above the efficient level for a sustained period of time."

We encourage the Authority to review the AEMC decision in detail before finalising this Draft Review. It is clearly not desirable to have Australian and New

[3] Paragraph 5.8 in the Draft Review

[4] Paragraph 5.7(b) in the Draft Review

[5] Australian Energy Market Commission, Draft Rule Determination "Potential Generator Market Power in the NEM" June 2012

Zealand regulators taking such different positions on the relevant benchmark to use when evaluating generator offer behaviour.

Error in formula at paragraph 5.11

We also note there is an error in the formula used by the Authority to calculate the long term impact of net pivotal behavior at paragraph 5.11. The correct formula for calculating deadweight loss is a change in quantity times *half* the change in price. The paragraph should therefore read (changes underlined):

> We might estimate that in this case retail prices in the East Cape, Tasman, West Coast, North Isthmus were 10 percent higher than elsewhere, and that demand elasticity is -0.3. Then the dead weight loss per year equals ΔQ x 1/2ΔP = 6286(GWh) x 3(percent) x 0.5 x 83.15($/MWh) x 1000 x 10(percent) = $0.78 million ≈ $7.8 million ~~$1.57 million ≈ 15.7 million~~ on a net present value basis.

If the calculation in paragraph 5.11 is done correctly, the estimate of long term impact is very small (present value of $12 million at most, using the calculation in paragraph 5.13).

The basis for a 10% increase in retail prices is not explained

Furthermore, we do not understand why the Authority has used a 10% increase in retail prices for the purposes of this calculation. Why does the Authority expect that a 10% increase in retail prices is plausible if net pivotal risks remain?

Instead of proposing an arbitrary increase in retail prices, it would be useful to look at how retail prices in isolated areas of the grid have changed as net pivotal positions have increased, relative to locations on the "core" grid. As shown in Figure 1 below, when we analyse retail prices in areas such as North Isthmus, the East Cape, the West Coast, and Tasman, we do not observe that retail prices are increasing at a faster rate than Auckland (although the prices are higher).

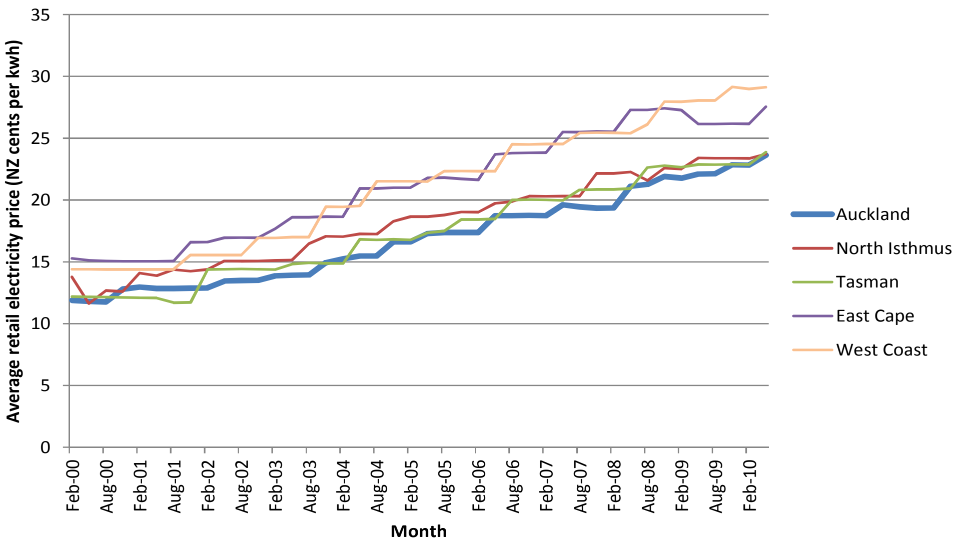

Figure 1: Average retail prices

Market responses to locally net pivotal behavior are effective

We consider that the Draft Review comment that net pivotal generator risk "is not able to be hedged"[6] demonstrates a lack of understanding by the Authority of how hedge agreements are used in the market.

In our own experience, hedge agreements have been very effective at mitigating net pivotal behaviour. We have used increased prices to signal to the market that we, as generators, have been unable to cover our risk exposure during network outages. Hedge agreements have been the market response to these signals. We note that since the event of 26 March 2011, the number of hedge agreements for notified transmission outages has increased. We consider this is a clear signal from the market that hedge agreements are the appropriate tool for mitigating this risk.

Despite the Draft Review's statement that "historical pricing data does not show any locally net pivotal situation of WKA generation", we consider that the Waikaremoana scheme demonstrates the effectiveness of hedge agreements in mitigating exposure to net pivotal pricing by participants.

Historically, transmission outages in the Gisborne/Hawkes Bay area have caused Waikaremoana to be constrained-on at times where we would have preferred to conserve water at the scheme. This constraint was reflected in high prices on generation from the scheme.

[6] Paragraph 1.6 Draft Review

These high prices were effectively mitigated by affected participants by the provision of hedging agreements. These agreements provide compensation for the opportunity cost of water when generation is constrained on and mitigate the exposure of participants to price increases caused by the outages.

A more careful use of terminology is needed

We suggest that the Authority must be more careful about the language that it uses to describe participant behaviours, especially in regards to accusations of uncompetitive conduct.

The Draft Review is prepared by a market regulator, and as such its view on the behaviour of generators may affect how other participants, stakeholders and consumers view them. Given this ability to influence the market, we consider that the Authority must be careful that its description of events and behaviours is accurate.

For example, the Draft Review refers to the "uncompetitive behaviour of generators finding themselves to be net pivotal".[7] However, the only behaviour discussed in the report is offers to supply electricity at higher prices. This offer behaviour does not interfere with the competitive processes in the market. Therefore it is not appropriate to describe it as "uncompetitive".

Suggestions for improving market review process

To be effective, it is important for the Authority to have a carefully considered and logical approach to market performance reviews. We consider that there are three key aspects to assessing whether regulatory intervention should be considered by the Authority. These steps are:

1. Defining the problem.
2. Assessing whether there is evidence of a problem.
3. Assessing solutions to the problem.

Market performance reviews are a key part of the Authority's market monitoring function. However, we consider that it is important that this monitoring role remains focused on identifying and quantifying market problems. Although we do not always agree with the approach taken in identifying potential market problems, our primary concerns with this Draft Review is that it fails to adequately quantify the effect of the problem on the market. This is a concern

[7] Paragraph 5.7

that we have also expressed in regards to the Draft Market review into South Island Reserve Pricing Behaviour.

We consider that the most effective way for the Authority to test its problem identification and quantification is for it to seek input from the wider market. Currently the Authority's approach is to seek 'corrections' from a limited number of participants who the Authority considers are affected. Although this is an important step in the finalisation of the Draft Reviews, it still limits considerations to just those participants identified as affected.

We agree with the proposal that the Wholesale Advisory Group is the proper body to further consider net pivotal behaviour and remedies. However, we note that the Draft Review dedicates seven pages to discussing possible remedies to the perceived market problem. We consider that it is inappropriate. The focus of a market performance review should remain on a robust problem definition and quantification.

If you would like to discuss any of these matters further, please contact me on 04 495 3340.

Yours sincerely

Jeremy Stevenson-Wright
Regulatory Affairs Manager