Macquarie Generation

GC

Corporate Office

34 Griffiths Road
LAMBTON NSW 2299

PO Box 3416
HAMILTON DELIVERY CENTRE
NSW 2303 AUSTRALIA

Telephone 61 2 4968 7499
Facsimile 61 2 4968 7433
Website www.macgen.com.au
ABN 18 402 904 344

Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box H166
AUSTRALIA SQUARE NSW 1215

Email: submissions@aemc.gov.au

Dear Chairman

CONGESTION MANAGEMENT REVIEW

Macquarie Generation agrees with and supports the proposed approach and analytical framework outlined in the Congestion Management Review *Directions Paper* released on 12 March 2007.

The following brief note outlines Macquarie Generation's views on some of the key areas of the review and the proposed next stages of analysis and investigation.

Measuring the level of congestion

Macquarie Generation has previously stated its view that it does not consider there is a significant level of congestion in the National Electricity Market that would justify fundamental changes to the financial management of congestion. This view is based on Macquarie Generation's trading experience in the NEM, commissioned work undertaken by MMA and submitted to the AEMC, and other independent analysis including the total cost of constraints assessment published by the Australian Energy Regulator.

Macquarie Generation supports the Commission's interim conclusion that "there is no clear evidence that mis-pricing due to system normal constraints is having a significant adverse effect on dispatch efficiency" (p 31).

The one area of concern is the design of the Snowy Region. The Snowy Region presents a unique, one-off problem as it is complicated by the presence of loop flows, significant tidal flows of electricity, no load in the area and the one generation company controlling flows across a significant intra-regional constraint. The AEMC is currently working to resolve the Snowy Region problem.

The question of whether congestion is a material problem is the crucial issue for the review. The Commission has indicated that it wishes to undertake further research to fully understand the magnitude and materiality of congestion in the NEM. Macquarie Generation appreciates that the Commission needs to be confident that the conclusions it makes on this question are firmly established using measures that

account for the market impact of constraints in the NEM.

The historical pattern of congestion provides the best guide to the likely level of congestion over future years. The NEM has been in operation for a sufficient number of years to assess likely trends in the incidence and impact of congestion and the timeliness of transmission investment in response to emerging points of congestion. Forward modelling of likely congestion is of limited value as it is ultimately a function of the input assumptions on a number of uncertain variables, including areas of load growth and the timing and location of new investment in both generation and transmission.

Macquarie Generation shares the Commission's concerns regarding the usefulness of Annual National Transmission Statement measures of the impact of network constraints. The ANTS indicators are likely to significantly overstate the impact of current and future congestion by using short run marginal cost bidding to calculate market benefits and failing to take account of the likely investment in transmission networks beyond that currently approved by the AER.

The Commission notes that the events of 2 February 2006 contributed significantly to the total cost of constraints calculated by the AER for 2005-06. Macquarie Generation has reviewed the market data on that day. The key factors driving market outcomes were the near record level of demand in NSW and the fact that Snowy Hydro was bidding its Murray plant in a way that induced clamping of the Victoria to Snowy interconnector. Macquarie Generation's proposal to split the Snowy Region into separate pricing regions would correct dispatch signals during similar high demand events.

Threshold test for implementing changes

After considering various measures of the impact of congestion on the technical efficiency of dispatch in the NEM, the AEMC must make a decision on what it considers to be a significant level of congestion that may justify a change in market arrangements.

The AEMC will need to take into account all of the transition, implementation and ongoing operational costs of any alternative mechanism. The Commission also needs to be mindful of the costs that can arise in the contract market if there is uncertainty about the prospect of fundamental changes to financial arrangements for managing congestion or the timing of any revised regime. The AEMC would also need to ensure that the threshold for introducing any congestion mechanism included a margin by which the expected although uncertain benefits exceeded the more tangible costs.

Pricing for constrained-on generation

Macquarie Generation supports a system of payments for constrained-on generation so that generators that are dispatched in the market are paid no less than their offer price. Macquarie Generation believes that it is totally inconsistent with the principle of an open and competitive electricity market to compulsorily oblige a supplier to

provide its product to the market at a price below which it was voluntarily prepared to sell.

Macquarie Generation favours the option of continuing to determine the regional price under current arrangements but to require NEMMCO to make side payments to generators who are constrained-on. The side payments would be equal to the difference between the generator's offer price and the regional reference price.

The key short term advantage of a regime where generators are paid at least what they bid is that it may encourage them to offer their plant to the market. Under current arrangements, generators at risk of being constrained-on may choose to offer their plant at very high price or not at all if they are concerned about being dispatched at a price below their opportunity cost of generation. In the longer term, a regime where generators were paid at least what they bid could promote more generation investment. If only those generators that alleviated congestion were rewarded with side payments, that should help promote investment in areas that need it the most (ie areas with the highest average nodal shadow price). Constrained-on generation payments would also provide a signal to the market of the value of upgrading various parts of the transmission system.

Macquarie Generation recognises that market participants would need to fund constrained-on payments through some form of general uplift payment. Macquarie Generation considers that the least distortionary funding mechanism would be a direct pass through as part of transmission network service charges.

Improving information on the likely incidence and impact of congestion

As a general rule, the more information available to the market on the incidence, location, cause and market impact of congestion the better able are participants to manage production decisions and contract positions. Macquarie Generation supports the proposals in section 6.1.5 relating to the publication of information on mis-pricing in the NEM.

One area that would significantly assist participants to manage trading risks relates to the provision of information on network outage plans. NEMMCO currently publishes the monthly RIEMNS stage one, provision of outage information, that summarises TNSP outage plans over a 13-month period and the impact of the outages on inter-regional transfers. This process as currently implemented provides little value to participants as it is constantly subject to change and is at best a guide only.

Macquarie Generation believes that there would be merit in combining the RIEMNS outage plan with NEMMCO's daily Network Outage Schedule as originally foreshadowed in NECA's RIEMNS stage one final report. The revised Schedule should provide up-to-date information on all planned outages including the date on which the outage was advised to NEMMCO, the date of any subsequent changes, who requested the change and the reason for the change.

A more transparent process for advising participants of network outage plans would

enable participants to better manage their physical and financial positions. It would also allow participants to better understand the types of factors that would alter outage plans and to learn through experience how likely it is for TNSPs to amend outage schedules. Participants would also have greater confidence in the planning process if there was a system that publicly documented the reasons for changes to schedules.

Locating new generation

Macquarie Generation agrees with the Commission that there are number of important physical factors that determine the location decision for new generation investment. One key factor that the Commission omitted is environmental limits on various emissions from the generation process. 'Air shed' limits, particularly those associated with coal-fired generation, but also applying to gas plant, often preclude the possibility of locating generation plant in or adjacent to load-rich parts of the network. Water availability, air shed limits and access to fuel supplies dominate the location decision.

Intervention rules

Macquarie Generation believes there is merit in exploring the proposal to implement a discretionary form of constraint in the event that remote generators faced an incentive to bid low while receiving the higher regional price, resulting in inefficient counter-price flows from the region with the binding intra-regional constraint.

Under current arrangements, when NEMMCO applies clamping to manage negative settlement residues it uses a discretionary form of constraint rather than a re-formulated constraint. In the past, NEMMCO has implemented the discretionary constraint in a way that allowed some interconnector flow. It would be possible to implement a discretionary constraint to fully restore interconnector flow and ensure positive inter-regional residues where pre-dispatch was showing likely counter-price flows caused by inefficient bidding behaviour.

Another option would be to apply a discretionary constraint that allowed for a degree of sharing of the available transmission capacity between local remote and inter-regional generation based on a pre-determined formula such a pro-rating on the basis of nominal capacities.

Either full or partial preference for interconnector flows would provide a sharper locational signal for new generation investment. Remote generators would face greater risks that they would not be dispatched during high price events if they locate in parts of the network that contribute to intra-regional congestion. New generators would need to be confident that any intra-regional congestion created by their locational decision was likely to be built out in the future under the investment provisions of the regulatory test.

Summary

Macquarie Generation agrees with the Commission that it is important to first

Dr John Tamblyn, Chairman
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quantify how significant congestion is in the NEM. The answer to the materiality question will determine the need for and extent of any policy response.
Macquarie Generation believes that the process and approach outlined in the Discussion Paper provides an appropriate framework for considering congestion management issues. The Paper outlines a number of incremental changes relating to the provision of information and payment for constrained-on generation that are likely to have merit irrespective of the materiality issue. The Commission should only consider pursuing more fundamental changes for managing congestion if there are significant potential productive efficiency gains.

Yours faithfully

17/4/07

RUSSELL SKELTON
MANAGER, MARKETING & TRADING