Appendix B Summary of submissions

This Appendix presents a summary of submissions received to date as part of the consultation process on the Snowy Hydro proposal and related alternatives. All submissions are available on the Commission's website.

B.1 First round consultation

On 12 January 2006, the Commission commenced first round consultation under section 95 of the NEL on the Snowy Hydro proposal. Submissions on the proposal were to close on 10 March 2006. Snowy Hydro gave a presentation to the Commission on its proposal on 10 February 2006.

On 16 February 2006, the Commission published a section 107 notice to extend consultation on the proposal from 10 March 2006 to 24 March 2006. Its reasoning for this extension was to allow consideration of the Snowy Hydro proposal and alternative Macquarie Generation proposal as it commenced first round consultation on the latter proposal on the 16 February 2006. Aligning the consultation periods enabled the co-ordination of submissions on both proposals.

The Commission received ten submissions that combined comments on both the Snowy Hydro and Macquarie Generation proposals from: Delta Electricity, Eraring Energy, National Electricity Market Management Company (NEMMCO), Origin Energy, Westpac Institutional Bank, the Australian Energy Regulator (AER), Ergon Energy, Energy Users Association of Australia (EUAA), and the "Southern Generators" . Four submissions from CS Energy, the Energy Retailers Association of Australia (ERAA), Snowy Hydro Ltd, and TransGrid submitted submissions on the Snowy Hydro proposal. Four submissions from CS Energy, the ERAA, Snowy Hydro Ltd., and Wambo Power Ventures were received on the Macquarie Generation proposal. Five supplementary submissions from the Southern Generators, Wambo Power Ventures, Hydro Tasmania, Macquarie Generation, and Snowy Hydro were also received.

Origin Energy and Snowy Hydro supported the Snowy Hydro proposal and did not support the Macquarie Generation proposal. CS Energy supported the Snowy Hydro proposal as a short-term solution and considered the Macquarie Generation proposal may be considered as part of a longer-term option. The EUAA supported the Macquarie Generation proposal as the best long-term solution but thought its consideration should wait until the Congestion Management Review concluded. TransGrid's submission responded to statements presented in the Snowy Hydro proposal document. The remaining submissions did not support either proposal.

B.2 Preparation of Draft Rule Determination

In preparing this Draft Rule Determination, the Commission sought comment from stakeholders on the modelling approach to be used to assess the Snowy region boundary change proposals. It also asked NEMMCO for advice regarding the process for implementing a region boundary change. Stakeholders submitted comments on the modelling approach and NEMMCO's implementation advice.

B.2.1 Information Disclosure Statement – 15 June 2006

In preparing the Draft Rule Determination, the Commission published an Information Disclosure Statement on 15 June 2006 seeking comments on the modelling inputs and approach being adopted for the Snowy regional boundary Rule change proposals. Submissions on this public consultation closed on 23 June 2006. Hydro Tasmania and Snowy Hydro Ltd. submitted comments on the Information Disclosure Statement.

B.2.2 Implementation of a region boundary change

The Commission wrote to NEMMCO on 12 July 2006 requesting advice and clarification on understanding what process must be undertaken in order to implement a region boundary change and how long that process would take. NEMMCO responded on 25 August 2006. The Commission asked for stakeholder comments on NEMMCO's response by 13 October 2006. Six submissions on implementation were received from: the ERAA, Snowy Hydro Ltd., Macquarie Generation, Country Energy, Delta Electricity, and Ergon Energy.

B.3 Submissions related to the Snowy region boundary change proposals

Due to the overlapping content of submissions to the above consultations, the summary below reflects comments related to the Commission's assessment criteria. Comments specifically related to the modelling approach are presented in Appendix A.

B.3.1 Timing of consideration (including on alternatives)

Twelve submissions commented on the interactions between the Snowy Hydro and Macquarie Generation proposals, the proposed MCE Reform of Regional Boundaries Rule change proposal, (MCE boundary criteria proposal) and the Congestion Management Review (CMR).

B.3.1.1 Consider Snowy region boundary change proposals now

Five submissions preferred to see the Snowy Hydro and Macquarie Generation proposals progressed prior to considering the MCE boundary criteria proposal and CMR.

- Delta Electricity suggested both proposals could be used as test cases for developing criteria for congestion management and regional boundaries;[128]

[128] Delta Electricity, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 23 March 2006, p.2.

- NEMMCO did not oppose fast-tracking but stated that the proposals should demonstrate the economic benefit characteristics outlined in the MCE proposal;[129]

- Eraring Energy suggested that a robust process for assessing alternative boundary proposals would be an outcome from considering the Snowy boundary Rule change proposals;[130]

- The numerous interim measures to deal with the congestion problems in the Snowy region convinced CS Energy that the Commission should consider these proposals now rather than waiting until the region boundary change process was finalised;[131] and

- Snowy Hydro stated that while the process proposed in the MCE boundary criteria proposal was sound, existing problems, like that in the Snowy region, should be corrected prior to implementing the new arrangements.[132]

Hydro Tasmania noted that the Commission was considering the Snowy boundary change proposals prior to determining a general regional boundary criteria. It considered, however, that "in the interest of consistency", lessons from the proposed modelling exercises should inform the more general criteria.[133] In a supplementary submission, Hydro Tasmania stated that the Southern Generators Rule "appears to have resolved all the known dispatch and pricing issues in relation to the constraint within the Snowy region" so the assessment of a boundary changes should now focus on the consequences of loss modelling.[134]

B.3.1.2 Consider Snowy region boundary change proposals, Congestion Management Review, and proposed MCE boundary change criteria together

The AER supported an approach considering the proposals and Congestion Management Review (CMR) in parallel. It considered an holistic review process would allow consideration of all the possible options rather than a narrow approach focussed on considering Rule change proposals.[135] The Southern Generators[136] supported consideration of these boundary change proposals within the CMR so

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[129] NEMMCO, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 7 March 2006, p.1.

[130] Eraring Energy, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 22 March 2006, p.1.

[131] CS Energy, s.95 submission, Snowy Hydro proposal, 24 March 2006, p.1.

[132] Snowy Hydro, s.95 submission, Snowy Hydro proposal, p.14.

[133] Hydro Tasmania, Submission on Information Disclosure Statement June 2006, 23 June 2006, p.2.

[134] Hydro Tasmania, Supplementary s.95 submission, Snowy Hydro and Macquarie Generation proposals, 5 October 2006, p.1-2.

[135] AER, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 24 March 2006, p.1.

[136] The "Southern Generators" include Loy Yang Marketing Management Company, Pty. Ltd., AGL Southern Hydro Pty. Ltd., International Power (Hazelwood, Synergen, Pelican Point, Loy Yang B, and Valley Power), TRUenergy Pty. Ltd., NRG Flinders Pty. Ltd., and Hydro Tasmania.

propose a "sensible and co-ordinated [congestion management] regime", which would put forward, if necessary, a single optimal change.[137]

B.3.1.3 Consider the CMR and proposed MCE boundary change criteria first

Origin Energy stated that it saw the Snowy Hydro and Macquarie Generation proposals as alternatives, addressing the same issue. The proposals should therefore be considered together, it stated. Origin Energy commented, though, that the CMR, including details on economic criteria for analysing boundary changes, should be finalised first. Once the criteria were settled, Origin Energy proposed consideration of these Snowy boundary change proposals should be fast-tracked.[138]

The ERAA expressed support for a formal boundary change process. Its view was to expedite consideration on the MCE proposal then use those findings to consider these proposals on the Snowy region boundary. The ERAA was concerned with a fast-track solution without comprehensive economic analysis to ensure it was the most efficient long-term solution.[139]

Wambo Power Ventures stated it was "inappropriate" to agree to a one-off change to the region boundary structure pending the development of a general framework.[140]

B.3.2 Economic efficiency of dispatch

B.3.2.1 Positive affect on dispatch efficiency

Origin Energy considered that by increasing the number of generators observing the same price signals, the Snowy Hydro proposal would enhance competitive neutrality, decrease bidding distortions, and lower the ability for each generator to influence its price for output.[141]

Snowy Hydro stated its proposal would increase generation from Tumut into NSW because it would no longer need to keep the lines into NSW unconstrained. It calculated that the net economic benefit of placing Tumut generation in NSW was around $3.34 million.[142] Macquarie Generation's proposal, Snowy Hydro argued, would not eliminate Tumut generation's incentives to maintain headroom on the transmission lines into NSW.[143]

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[137] Southern Generators, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 24 March 2006, p.2.

[138] Origin Energy, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 4 April 2006, p.1-2.

[139] ERAA, s.95 submission, Snowy Hydro proposal, 23 March 2006, p.2.

[140] Wambo Power Ventures, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 24 March 2006, p.1.

[141] Origin Energy, s.95 submission, p.1.

[142] Snowy Hydro, s.95 submission, Snowy Hydro proposal, p.8-9.

[143] Snowy Hydro, Submission, June 2006 Information Disclosure Statement, 21 June 2006, p.4.

On the other hand, the EUAA considered the Macquarie Generation proposal provided the best means to align regional boundaries and financial transactions with transmission constraints and to minimise the need for special arrangements to manage intra-regional constraints.[144]

B.3.2.2 Adverse affect on dispatch efficiency

The Southern Generators stated that a proposal should be rejected if it reduced dispatch efficiency.[145] The Macquarie Generation proposal, they stated, moved transparent pricing through the existing inter-regional constraints to intra-regional constraints.

Eraring Energy stated it opposed both proposals because they moved from explicitly pricing congestion on existing interconnectors to not pricing congestion because the existing interconnectors would become intra-regional transmission lines. In its view, both proposals would "fix one problem and create two new problems."[146] The Southern Generators concurred with the concern of moving away from explicitly pricing the inter-regional congestion on the "Dederang-Murray" southward constraint. They expressed a similar concern with the constraints north of Tumut generation.[147]

Westpac stated that the Snowy Hydro proposal created incentives for Tumut generation capacity to be offered at very low prices, yet would be "immune" to the shadow price at the Tumut node. It considered under this proposal, Snowy Hydro's ability to act as a "gate keeper" was not reduced; if anything it was more likely to increase it. Westpac continued, stating this would disadvantage the Victorian generators by shutting them out of the NSW market, even if there were no counter-price flows.[148] The EUAA considered the Snowy Hydro proposal was unlikely to stand as a long-term solution because other intra-regional transmission constraints north and south of the Snowy region would require congestion management mechanisms, like CSP/CSC in the future.[149]

Snowy Hydro stated that the Macquarie Generation proposal was "technically incorrect". It commented that Upper Tumut was "firmly connected" to Canberra and Yass, and it would therefore be "incorrect to place a boundary between these locations".[150]

TransGrid noted that in its Rule change proposal, Snowy Hydro commented that the current Snowy region boundary may create perverse incentives to invest in a 500kV

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144 EUAA, Attachment to s.95 submission, Snowy Hydro and Macquarie Generation proposals, 24 March 2006, p.6.

145 Southern Generators, s.95 submission, p.6.

146 Eraring Energy, s.95 submission, p.2, 5.

147 Southern Generators, s.95 submission, p.7-8.

148 Westpac, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 24 March 2006, para 8-10.

149 EUAA, Attachment to s.95 submission, p.6.

150 Snowy Hydro, s.95 submission, Macquarie Generation proposal, 23 March 2003, p.7.

ring upgrade as a way to increase supply from north NSW into the Sydney area. TransGrid responded to this claim by stating that any potential transmission investment needed to pass the Regulatory Test, and that it was "questionable" to argue that Snowy Hydro's proposed region boundary change provided exactly the same benefits as TransGrid's 500kV upgrade."[151]

In its technical supplementary submission, the Southern Generators commented their analysis of constraint locations relative to the proposed Snowy region boundaries indicated the Macquarie Generation proposal would provide a more accurate representation than existing regions, but that in others, it would be less accurate. They concluded for all constraints, the Snowy Hydro proposal, would have been "equal to or worse than the existing regions with the Tumut [CSP/CSC] trial in place."[152]

The Southern Generators proposed that the problems in the Snowy region could be better addressed by the permanent application of a CSP/CSC arrangement for both Murray and Tumut power stations. The allocation of CSC would follow a similar logic to that currently used to determine Tumut's allocation.[153]

B.3.2.3 Introduction of region loop flows

Several submissions expressed concern that the Macquarie Generation proposal introduced an inter-regional loop flow between South Australia, Victoria, and the new Northern Victoria region. The Southern Generators, Westpac, Eraring Energy, Snowy Hydro, and NEMMCO all raised this concern in various submissions.[154]

Macquarie Generation submitted a supplementary submission stating its proposal intended to "preserve the linear structure of the NEM". This, it stated, would "mitigate the need to implement a network model representation" so did not require fundamental changes to the NEM dispatch engine.[155]

Delta Electricity noted that when considering these boundary changes, the AEMC should "ensure the changed region does not have a generator or a [regional reference node (RRN)] in the loop."[156]

B.3.2.4 Loss factors

In its supplementary submission, Hydro Tasmania raised a concern of the impact on dispatch efficiency and pricing implications from moving Murray and Tumut

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151 TransGrid, s.95 submission, Snowy Hydro proposal, 27 March 2006, p.2-3.

152 Southern Generators, Supplementary s.95 submission, Snowy Hydro and Macquarie Generation proposals, 31 March 2006, p.3.

153 Southern Generators, s.95 submission, p.11.

154 Southern Generators, s.95 submission, p.8; Westpac, s.95 submission, para 13; Eraring Energy, s.95 submission, p.4; NEMMCO, Letter to Dr John Tamblyn, Implementation of a region boundary change, 25 August 2006, p.9-10; Snowy Hydro, Submission on implementation, 12 October 2006, p.3.

155 Macquarie Generation, Supplementary submission, Macquarie Generation proposal, 21 April 2006.

156 Delta Electricity, s.95 submission, p.3.

generation from dynamic loss factors to static loss factors. At the moment, the impact on dispatch efficiency due to the Murray-Tumut constraint is only during the short period that the constraint binds. A change in loss factor accuracy resulting from the move to static loss factors would affect dispatch efficiency all the time.[157]

Snowy Hydro addressed Hydro Tasmania's concerns in its own supplementary submission. Snowy Hydro stated that under its boundary change proposal, the marginal loss factors for Murray and Tumut generation were no different from loss factors in other locations in the NEM. It considered the impact of marginal loss factors to be immaterial as they "are only an issue in the case of dynamic efficiency when due to dynamic loss factors one plant is dispatched in preference to another."[158]

B.3.3 Pricing outcomes and participant responses

Origin Energy stated that it preferred the Snowy Hydro proposal since prices tended to be less volatile in larger regions because more generators observed the same price signals and there is more trade around prices that reflect a higher concentration of generation and load.[159]

ERAA stated it supported regional boundaries that promoted efficient pricing as that provided appropriate investment signals to both generation and load.[160] The Southern Generators noted though, it was important to consider if implementing a region boundary change caused any new mispricing.[161]

Both the Southern Generators and Westpac suggested that new regional reference nodes should be located near generation (e.g. Murray or Tumut) as since load was not as responsive to price signals as generation.[162]

In its submission to the June 2006 Information Disclosure Statement, Snowy Hydro commented that because the current Snowy region had no consumers, measuring the impact of the proposals on prices in the Snowy region was not necessary. It stated there would be no efficiency gains from cost reflective pricing. Rather, it continued, the impact of the proposals on prices in NSW and Victoria should be an important consideration.[163]

Under the Snowy Hydro proposal, TransGrid raised that the total settlement residues available for auctioning may be lower, resulting in lower Settlement

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[157] Hydro Tasmania, Supplementary s.95 submission on Snowy Hydro proposal, p.2.

[158] Snowy Hydro, Supplementary s.95 submission, Snowy Hydro proposal, 20 November 2006, Attachment A.

[159] Origin Energy, s.95 submission, p.1.

[160] ERAA, s.95 submission, Snowy Hydro proposal, 23 March 2006, p.1.

[161] Southern Generators, s.95 submission, p.6.

[162] Southern Generators, s.95 submission, p.7-8; Westpac, s.95 submission, para 13.

[163] Snowy Hydro, Submission on June 2006 Information Disclosure Statement, p.5.

Residue Auction proceeds to end customers currently used to offset transmission charges. This may result in increased transmission charges TransGrid noted.[164]

B.3.4 Inter-regional trading and risk management

Ergon Energy stated that a change in region boundaries should be accompanied by significant net economic efficiencies and enhanced market operations because of risks (and resultant costs) associated with trading across regions.[165] It is these risks and costs that submissions focused on when commenting on the affect the Snowy Hydro and Macquarie Generation proposals may have on a participant's ability to manage inter-regional price risk.

Submissions recommended that the Commission should consider the potential impact of the dissipating the NSW Electricity Tariff Equalisation Fund (ETEF) arrangements on Retailers. The NSW Government announced its intention to phase out ETEF from October 2008 to 20 June 2010. Submissions commented that uncertainty of the Snowy region boundary was influencing NSW retailers willingness to contract at this time to cover the volume previously covered by ETEF. Affected retailers face increased uncertainty regarding counterparty risk, price, and instrument type.[166] Snowy Hydro also stated that uncertainty over the Snowy region boundary was limiting its own ability to transact in medium- and long-term contracts.[167]

When considering the affect of a region boundary change on risk management, submissions favoured the Snowy Hydro proposal. Country Energy, Origin Energy, and Snowy Hydro all noted that this proposal was the less disruptive compared to the Macquarie Generation proposal. Submissions considered that the Snowy Hydro proposal would:

- improve hedging contract liquidity;[168] and
- create fewer regions meaning fewer transmission paths to be hedged by retailers, reducing basis risk and encouraging inter-regional trade.[169]

One of the main criticisms submissions presented for the Macquarie Generation proposal related to the significant market impact on existing hedging contracts and the future implications of inter-regional trading. Submissions considered that the Macquarie Generation proposal would:

- create substantial contract basis risk and increased volatility for participants;[170]

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164 TransGrid, s.95 submission, p.3.

165 Ergon Energy, s.95 submission, Snowy Hydro and Macquarie Generation proposals, 25 March 2006, p.1.

166 Country Energy, Submission on implementation, 13 October 2006, p.2; Snowy Hydro, Supplementary s.95 submission, p.2-3.

167 Snowy Hydro, Supplementary s.95 submission, p.2.

168 Country Energy, Submission on implementation, p.3; Origin Energy, s.95 submission, p.1.

169 Origin Energy, s.95 submission, p.1.

- reduce market liquidity, encouraging the creation of smaller "regional markets";[171]

- introduce financial complexity by creating two new load-bearing regions, which the additional Settlement Residue Auctions required for hedging the added price risk would not efficiently manage because the Auctions are not a firm instruments for hedging;[172]

- introduce significant new system and transaction costs for retailers, including the cost and time of unravelling and renegotiating existing contracts, which could take up to five years to complete;[173] and

- introduce "substantial complexity for retailers in ensuring customer prices in each state remain uniform in line with requirements by state governments". [174]

On the other hand, the EUAA considered that a potential for well-defined regions, like in the Macquarie Generation proposal, would provide customers for Snowy Hydro to contract with no additional inter-regional trading risk. The additional regions in northern Victoria and southwest NSW could provide more economic incentives for local generation, including co-generation, leading to lower losses and lower prices for customers. The EUAA did not that some of these benefits may be offset with the additional costs of trading through more regions and that this trade-off would need to be investigated by the Commission.[175]

B.3.5 Power system security, supply reliability, and technical factors

The only one to discuss power system security and supply reliability, NEMMCO's submission noted that neither Snowy Hydro or Macquarie Generation acknowledged whether there may be any unintended consequences on the power system should their proposals be accepted.[176]

B.3.6 Good regulatory practice

Almost all submissions agreed that the intra-regional congestion problem in the existing Snowy region affected dispatch and pricing efficiency, and investment efficiency.

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[170] Eraring Energy, s.95 submission, p.5; Wambo Power Ventures, Supplementary s.95 submission, Macquarie Generation proposal, 15 May 2006, p.1; Origin Energy, s.95 submission, p.1.

[171] Delta Electricity, Submission on Implementation, 11 October 2006, p.2

[172] Country Energy, Submission on implementation, p.2

[173] Origin Energy, s.95 submission, p.1; Country Energy, Submission on implementation, p.1; ERAA, Submission on implementation, 13 October 2006, p.2-3.

[174] Origin Energy, s.95 submission, p.2

[175] EUAA, Attachment to s.95 submission, p.6.

[176] NEMMCO, s.95 submission, p.3.

B.3.6.1 Assessment principles

Snowy Hydro stated that any "dispatch efficiency losses from current pricing arrangements have to be balanced against any dispatch inefficiencies under regional pricing arrangements." It also considered investment efficient and price impacts were important assessment criteria to include when considering region boundary change proposals.[177]

Eraring Energy suggested criteria that was consistent with the MCE proposal, with the addition of considering that a change should not introduce major "basis risk" for market participants that cannot be managed by recontracting or using inter-regional hedging products.[178]

B.3.6.2 Minimisation of operational intervention in the market

Eraring Energy commented that the Snowy CSP/CSC Trial had a number of problems including: being complicated, having no defined assessment criteria; lack of transparency with CSC allocation; and no defined means of allocating CSC rights. Eraring Energy suggested that conceptually, implementation of a CSP/CSC mechanism avoids the need for additional region boundaries because the mechanism introduces localised nodal pricing in a dynamic way. However, it noted the CSP/CSC mechanism was complicated to both understand and implement. Eraring Energy agreed with both the Snowy Hydro and Macquarie Generation proposals to convert the cross-section between Murray and Tumut generation into an interconnector. It did not support the proposal's choices to move away from explicitly pricing congestion on the existing interconnectors.[179]

Eraring Energy put forward an alternative proposal in its first round submission ("Eraring counter-factual") that retained the existing interconnectors and would explicitly price the Murray-Tumut constraint in a more transparent way than the existing CSP/CSC regime. It proposed its option: would not introduce "basis risk" for market participants; could be implemented quickly; and resolved the negative residue problem for Victoria to Snowy region flows.[180]

B.3.6.3 Promotion of stability and predictability

CS Energy viewed continued stability of region boundaries as crucial for market certainty as changes in regional boundaries are a significant and long term regulatory risk for the NEM. [181] Ergon Energy concurred stating that a stable region boundary structure prompted efficient dispatch, pricing, and risk management.[182]

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[177] Snowy Hydro, Submission on June 2006 Information Disclosure Statement, p.3, 4.
[178] Eraring Energy, s.95 submission, p.1.
[179] Eraring Energy, s.95 submission, p.2, 3, 5.
[180] Eraring Energy, s.95 submission, p.2, 3, 5.
[181] CS Energy, s.95 submission, Macquarie Generation proposal, 24 March 2006, p.1.
[182] Ergon Energy, s.95 submission, p.1.

Noting that every region boundary adds trading risks, the ERAA supported region boundaries that allowed for retailers to effectively manage the risk of trading in a multi-region market, minimising the number of regions while maintaining economic efficiency.[183]

B.3.6.4 Promotion of transparency

CS Energy stated that consideration of these region boundary change proposals should not be considered precedent for future reviews/boundary change proposals.[184] To minimise uncertainty, Ergon Energy noted that all boundary Rule change proposals should be subject to the proposed MCE process.[185]

B.3.6.5 Market power

Snowy Hydro stated that use of ramp rates was not a signal or market power. Nor was having generators from the same company on either side of an interconnector, it commented.[186]

B.3.7 Implementation

Snowy Hydro noted that NEMMCO had already initiated a region boundary change during its processing of the Directlink conversion to regulated interconnector status. Part of the conversion was to redefine Terranora load to another NEM market region.[187]

B.3.7.1 Execution and operational issues

Under the Macquarie Generation proposal, the ERAA noted, the "rapid partitioning of a customer base into multiple price regions" would introduce major challenges for retailers operationally (e.g. risk management and providing regulated price/service offering to all customers.) The ERAA also commented that the majority of customers were insensitive to electricity prices and therefore such a region boundary change was unlikely to produce much efficiency benefit.[188] Origin Energy concurred stating that the Macquarie Generation proposal would increase the complexity for retailers to ensure customer prices in each state remained uniform in line with State requirements.[189]

Regarding the setting of reserve margins for its proposal, Macquarie Generation suggested that NEMMCO currently set a combined minimum reserve level for

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[183] ERAA, s.95 submission, Snowy Hydro proposal, p.1.
[184] CS Energy, s.95 submission, Snowy Hydro proposal, p.1.
[185] Ergon Energy, s.95 submission, p.1.
[186] Snowy Hydro, s.95 submission, Snowy Hydro proposal, p.3.
[187] Snowy Hydro, Submission on implementation, p.4.
[188] ERAA, Submission on implementation, p.2.
[189] Origin Energy, s.95 submission, p.2.

Victoria and South Australia. It did not see a reason why a similar methodology could not be extended for South West NSW with the NSW region, and Northern Victoria with the join Victoria/South Australia region. Macquarie Generation considered the calculations were unlikely to change significantly in two years and NEMMCO could consider individual regional reserve levels when it undertook its next NEM-wide review in 2008.[190]

Considering NEMMCO's advise on receiving demand forecasts from relevant TNSPs, Macquarie Generation commented that TransGrid and VENCorp currently prepare subregional load forecasts as inputs to their Annual Planning Reviews and network planning processes. It may be possible, it suggested, that these TNSPs already have forecast load levels in the new regions it proposed.[191]

Snowy Hydro and NEMMCO raised complications with the proposed Macquarie Generation boundary between Ballarat and Horsham as it was across a semi-distribution line rather than across a transmission line. NEMMCO's proposed solution was to move the boundary south of Ballarat to accommodate for the lack of appropriate metering on the proposed boundary. Macquarie Generation had no objection to this approach.[192]

Snowy Hydro also raised an issue with the lack of revenue quality metering to measure flows on the Macquarie Generation proposed region boundaries. It also flagged the implementation risks for the TNSPs in determining new regional energy and demand forecasts for the modified region loads.[193] Country Energy expressed concern about the generation to load ratio in the Macquarie Generation proposed regions.[194]

B.3.7.2 Transaction costs

Macquarie Generation expressed that implementation costs represented a small fraction of the overall gains recognised from eliminating distortions created by misaligned region boundaries and intra-regional congestion.[195]

However, one of the transaction costs raised in multiple submissions was that of renegotiating contracts. These costs were seen to be significantly greater under the Macquarie Generation proposal compared to the Snowy Hydro proposal.

Under the International Swaps and Derivatives Association Master Agreements [ISDA MA], a change in region boundaries is considered a "Market Disruption Event." This can trigger renegotiation of affected contracts. Many submissions

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[190] Macquarie Generation, Submission on implementation, 17 October 2006, p.2.

[191] Macquarie Generation, Submission on implementation, p.2.

[192] Snowy Hydro, Submission on implementation, p.3; NEMMCO, Letter on implementation, 25 August 2006, p.13; Macquarie Generation, Submission on implementation, p.2.

[193] Snowy Hydro, Submission on implementation, p.2-3.

[194] Country Energy, Submission on implementation, p.3.

[195] Macquarie Generation, Submission on implementation, p.1.

commented on the implications of such renegotiation such as the requirement for parties to enter into complex and time and resource consuming renegotiations.[196]

Snowy Hydro and the ERAA consider that while there may be some contracts affected under the Snowy Hydro proposal, they suspect most contracts would not be impacted.[197]

The ERAA suggested that under the Macquarie Generation proposal, there may be a need to consider introducing new risk management instruments to assist retailers in meeting their obligations to supply customers with regulated price or service offering across multiple regions. Under the Snowy Hydro proposal, the ERAA commented that retailers would need to reassess their inter-regional trading and hedging strategies, including Settlement Residue Auction requirements.[198]

Delta Electricity and the ERAA raised in their submissions that there would be significant work to incorporate additional regions into existing IT systems.[199] Snowy Hydro added that the Macquarie Generation proposal would require extensive updating of region based data in NEMMCO's market system and a solution to the problem of no revenue quality metering to measure flows on the proposed region boundaries.[200]

In its advice on implementation, NEMMCO noted that its "ability to implement additional 2007 initiatives without additional costs may be restricted."[201] Snowy Hydro noted this point in its submission, commenting that the NEM was set up to allow on-going changes in region boundaries so it would expect that NEMMCO's market systems would be flexible enough to accommodate this market design feature.[202]

B.3.7.3 Transition

ERAA, Country Energy, CS Energy, and Macquarie Generation all supported the extension of the Snowy CSP/CSC Trial until implementation of a boundary change in the Snowy region.[203]

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196 Delta Electricity, Submission on implementation, p.2; ERAA, Submission on implementation, p.2; Snowy Hydro, s.95 submission, Snowy Hydro proposal, p.8.

197 Snowy Hydro, Submission on implementation, p.3; ERAA, Submission on implementation, p.2.

198 ERAA, Submission on implementation, p.3.

199 Delta Electricity, Submission on implementation, p.2.

200 Snowy Hydro, Submission on implementation, p.2-3.

201 NEMMCO, Letter on implementation, 25 August 2006, p.1.

202 Snowy Hydro, Submission on implementation, p.2.

203 ERAA, Submission on implementation, p.1-2; Country Energy, Submission on implementation, p.3; CS Energy, s.95 submission, Snowy Hydro proposal, p.1.; Macquarie Generation, Submission on implementation, p.3.

B.3.7.4 Implementation lead time

In its first round submission, NEMMCO stated that the proposed commencement dates of 1 July 2007 (Snowy Hydro) and 1 August 2006 (Macquarie Generation) did not provide sufficient time to formally implement either proposal. In its advise to the Commission on implementation, NEMMCO articulated that it could implement either proposal by November 2006. This was conditional on the Commission issuing its Draft Rule Determination on 15 December 2006 and its Final Rule Determination in March 2007.

Eraring Energy commented that market participants required "adequate forward notice" for implementing a region boundary change.[204]

The Southern Generators preferred a lead time of two years, but at a minimum, proposed four quarters.[205]

ERAA considers the minimum lead time for any region boundary change should be three years to account for the impact of any region boundary change on customer load and the value of financial instruments.[206] This is particularly relevant for the Macquarie Generation proposal, the ERAA noted, because the "rapid partitioning of a customer base into multiple price regions introduces major challenges for retailers operationally" (e.g. risk management and providing regulated price/service offering to all customers). Ergon Energy supported this approach, noting that NEMMCO's proposed timeframe would greatly stretch NEMMCO's resources, which may impact the efficient delivery of other services, increase the possibility of errors, and reduce the ability to deliver the necessary changes as an efficient cost.[207]

Macquarie Generation stated it had no problem with a proposed commencement date of 1 July 2008 for its proposal. It considered the deferred commencement date would: decrease the number of existing hedge and retail contracts affected by the realignment of region boundaries; greater notice period for SRA participants; reduce NEMMCO's implementation costs due to increased planning and implementation time; greater time for TNSPs to provide their necessary information to NEMMCO; and allow for new loss factors to be introduced at the start of a financial year.[208] ERAA supported a commencement date aligned with the start of a financial or calendar year, or at an absolute minimum, a start of a quarter.[209]

Delta Electricity commented that the complexities with the contract market make it difficult to quantify the exact impact on implementation of a region boundary change. It considered further review was necessary to determine the extent to which

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[204] Eraring Energy, s.95 submission, p.2.
[205] Southern Generators, s.95 submission, p.10.
[206] ERAA, Submission on implementation, p.2.
[207] Ergon Energy, Submission on implementation, 31 October 2006, p.1, 2.
[208] Macquarie Generation, Submission on implementation, p.3.
[209] ERAA, Submission on implementation, p.3.

these issues would undermine NEMMCO's estimate of earliest implementation of November 2007.[210]

B.3.8 Consistency and relationship with policy environment

B.3.8.1 Consistency with MCE policy

Southern Generators stated that the MCE policy was aimed at stability and avoiding, if possible, the multiple subdivision of existing regions. Their submission continued stating there was "no express policy regarding the reduct[ion] [of] the existing number of regions. They concluded there was "no 'stability benefit' gained by elimination of a region".[211]

B.3.8.2 MCE proposal on boundary change process and criteria

Many submissions did not support the Macquarie Generation proposal as it did not correspond to the MCE's proposed region boundary change criteria and process (which takes account of its proposed staged approach to congestion management). Inconsistencies identified included:

- Creation of two new regions whose boundaries do not reflect identified areas of material and enduring congestion;[212]
- Introduction boundary change prior to considering transmission augmentation options or potential interim congestion pricing mechanisms, if appropriate;[213]
- Creation of multiple regions within jurisdictions;[214] and
- Placement of a boundary between two firmly physically connected locations – Upper Tumut and Canberra/Yass.[215]

The MCE Rule change proposal on boundary change criteria and process includes a requirement for applications to provide:

- "A detailed description of the proposed region change and reasons for the change;
- All the relevant technical details concerning the proposed region change; and

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210 Delta Electricity, Submission on implementation, p.2.

211 Southern Generators, s.95 submission, p.6

212 ERAA, s.95 submission, Macquarie Generation proposal, 23 March 2006, p.1; Origin Energy, s.95 submission, p.2; Snowy Hydro, s.95 submission, Macquarie Generation proposal, p.7-8.

213 Snowy Hydro, s.95 submission, Macquarie Generation proposal, p.7-8; Snowy Hydro, Submission on implementation, p.3.

214 CS Energy, s.95 submission, Macquarie Generation proposal, p.1.

215 Snowy Hydro, Submission on implementation, p.3.

- A detailed analysis of whether the region change is likely to result in a material and enduring net economic benefit to all those who produce, consume, and transport electricity."[216]

Submissions were critical of the two proposals because neither proposal appeared to provide a compelling case as to how either proposal promoted the NEM Objective.[217]

Snowy Hydro stated in its submission that its proposal was consistent with proposed MCE boundary change process, criteria, and approach to congestion management.[218]

B.3.8.3 MCE proposed staged approach to congestion management

Noting the staged approach for congestion management proposed by the MCE, many submissions acknowledged it was unlikely that problems with the Murray-Tumut constraint would be addressed through network augmentation in the short-to-medium term.[219]

Submissions also noted that the Murray-Tumut constraint was being managed by an interim congestion pricing mechanism ("Snowy CSP/CSC Trial"). This, in conjunction with the unlikely event of network augmentation, left a region boundary change as the remaining option to address the congestion problem.[220]

B.4 Long-term investment and end user impacts and utilisation

Country Energy preferred the Snowy Hydro proposal because it (a) recognised a region boundary change was the most appropriate long term solution; and (b) considered that proposal the least disruptive to future generation investment.[221]

Snowy Hydro stated that "an early change to the Snowy region boundary would substantially reduce the risk of inefficient generation investment, by ensuring that new entrant generators compete on more level terms with incumbents for access to the transmission network."

Wambo Power Ventures' preliminary assessment indicated that any increase in the number of regions should be approached with caution given the negative impact on

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[216] Ministerial Council for Energy, Proposed Rule on Reform of Regional Boundaries, clause 3.5.2 (d), 7 October 2005. Available on the AEMC website.

[217] ERAA, s.95 submission, Snowy Hydro proposal, p.1; ERAA, s.95 submission, Macquarie Generation proposal, p.1; Ergon Energy, s.95 submission, p. 1; Delta Electricity, s.95 submission, p.1-2; NEMMCO, s.95 submission, p.1, 3; Wambo Power Ventures, s.95 submission, p.1.

[218] Snowy Hydro, s.95 submission, Snowy Hydro proposal, p.10.

[219] CS Energy, s.95 submission, Snowy Hydro proposal, p.1; Delta Electricity, s.95 submission, p.1; ERAA, s.95 submission, Snowy Hydro proposal, p.1; Ergon Energy, s.95 submission, p.1; TransGrid, s.95 submission, p.1; Origin Energy, s.95 submission, p.2.

[220] ERAA, s.95 submission, Macquarie Generation proposal, p.1; Delta Electricity, s.95 submission, p.1; Origin Energy, s.95 submission, p.2

[221] Country Energy, Submission on implementation, p.3.

financial product liquidity and risk from the consequential increase in inter-regional hedging arrangements.[222] It stated that its investment in intermediate generation was only justified on the basis of the existing regulatory process assumptions, including the "MCE's overarching requirements of only incremental change supported by robust economic criteria, and no impact on generation investment".[223]

In its supplementary submission, Wambo Power Ventures stated that the Macquarie Generation proposal was just a gaming opportunity to maintain a commercial advantage for its own proposed gas-fired plant. The Macquarie Generation proposal, Wambo Power Ventures stated, would affect its own announced new gas-fired power station.[224]

In a further supplementary submission, Wambo Power Ventures argued against the claim that new generation at Wagga can displace Snowy Hydro generation on northward flows and that it is an inefficient generation investment. Wambo Power Ventures noted that gas turbines in the Wagga area are a significant positive non-network contribution to remedy south-west NSW region supply and voltage limitations, inter-state interconnection limitations, and to improve the marginal supply/demand balances in NSW in the near term.[225]

ERAA stated that unconstrained changes in the NEM created uncertainty, which may threaten the viability of investment and strategic decision making.

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[222] Wambo Power Ventures, s.95 submission, p.1.

[223] Wambo Power Ventures, s.95 submission, p.2.

[224] Wambo Power Ventures, Supplementary s.95 submission, 15 May 2006, p.2.

[225] Wambo Power Ventures, Supplementary Submission, Regulatory Risks re: Possible Snowy Boundary Changes & Southern Region Constraints, 5 January 2007.

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