26 April 2006

John Tamblyn, Chairman
Australian Energy Market Commission
Level 16, 1 Margaret Street
Sydney NSW 2000

By email: submissions@aemc.gov.au

Dear John,

CONGESTION MANAGEMENT REVIEW: ISSUES PAPER

Origin appreciates this opportunity to provide a submission to the *Congestion Management Review: Issues Paper* prepared by the Australian Energy Markets Commission (the Commission).

While congestion costs in Australia to date have not been significant there is a potential for such costs to increase substantially with demand growth over time. We note that congestion costs have more than quadrupled in North America and are of increasing concern in European electricity markets[1]. Moreover, while in an absolute sense congestion costs may not yet be substantive relative to overall energy market revenues it can have unpredictable and differential impacts on individual market participants. Congestion can at times reduce the ability of generators to access markets, reduces supply side competition and generally increases trading risks and electricity purchase costs for retailers. It is therefore vital that an appropriate congestion management regime is implemented which addresses congestion in a simple, transparent and predictable manner and at minimum cost.

In this context, Origin favours a graduated approach beginning with the implementation of CSP/CSC arrangements as a first step in addressing congestion, followed by transmission investment and then regional boundary change as a last resort. We believe this to be the lowest cost approach to tackling material and persistent congestion on the network. The trigger for implementing each measure should be a well specified and comprehensive cost-benefit analysis applied on the basis of sound economic criteria. Further, given a comprehensive Annual National Transmission Statement (ANTS) we do not consider a specific threshold for applying each measure is necessary. Rather, participants themselves, upon review of ANTS, can determine whether a specific measure is needed and subsequently lodge an application with the Commission. However, congestion measures put forward for consideration by the Commission should follow an appropriate sequence. That is, consideration of CSP/CSC arrangements should always occur prior to that of regional boundary change.

[1] See for example PJM state of the market reports, and for European concerns: Oxford *Energy Comment, 2004 Electricity Infrastructure & Security of Supply: Should EU Governments Invest in Transmission Capacity?* www.oxfordenergy.org/comment_prn.php?0403

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The scope for transmission investment to resolve congestion, on the other hand, is already addressed separately via the regulated transmission investment framework. However, this component of an overall approach to congestion needs to be improved. Transmission companies do not have strong incentives to provide transmission solutions for congestion other than that which has the potential to affect reliability standards. In this regard Origin considers it may be worth exploring stronger financial incentives for transmission companies specifically focused on reducing congestion.

Finally, critical to the success of managing congestion using CSP/CSC arrangements in the first instance, is an appropriate allocation of CSCs. If this is not done correctly this may increase the level of uncertainty surrounding congestion impacts on the market, increase the level of dispute and create incentives for participants to increase congestion rather than reduce it. In other words, it may have the opposite effects to that intended.

Consequently, we think that any allocation of CSCs is best done in a manner that appropriately shares access to constrained capacity, and thus also shares the costs of congestion, rather than allocating participants specific rights to transmission through a grandfathered or auctioned approach.

The detail surrounding our views outlined above follows in the answers to the questions posed by the Commission below.

1. Do existing constraints have a material effect on the efficiency of the NEM? What is the nature and materiality of these constraints? Why is it that these constraints have not been addressed to date? Are there specific points of congestion that should be addressed in advance of the establishment of a new congestion management regime?

It is generally agreed that congestion can have significant market impacts and impedes the efficiency of the NEM. Congestion generates unpredictable increases in energy purchase costs for retailers via: preventing low cost generation from meeting demand; causing generators to be constrained off the network; facilitating the exercise of generator market power; and increasing the riskiness of trade across region boundaries through regional price separation. Origin draws the attention of the Commission to work commissioned by the ERAA examining these issues and attached to their submission to this consultation.

Currently no specific criteria or process has been established for formally assessing the materiality of congestion or how best to address it. It is only addressed in limited way through the regulatory test and only to the extent that it affects customer supply reliability. However, this can still leave individual generators and retailers substantially exposed to congestion costs. A primary objective of this review is to develop appropriate economically based criteria for determining if and when specific congestion measures should be implemented and with a focus on market impacts.

Origin would support addressing the constraint in the Snowy region with a regional boundary change in advance of the establishment of a congestion management regime. This reasons for this our discussed in our submission to the consultation *Reform of Regional Boundaries* being run concurrently with this one.

2. Given the development of the NEM and the recommendations of reviews undertaken to date, what are the significant priority issues for this Review?

- Determining the appropriate congestion measures to implemented and in what sequence.
- Settling upon an agreed and comprehensive set of economic criteria for assessing the cost-benefits of implementing a specific congestion measure.
- Establishing how best to integrate the various measures so that congestion is addressed in the most efficient and timely manner possible.
- Determining how best to allocate the costs of congestion among participants and consumers.

3. What are the key questions the Commission should seek to examine quantitatively as part of the Review? What key factors should the Commission take into account in this modelling analysis?

The Commission should assess and outline possible methodologies and key factors to be addressed by participants when they put forward their applications with respect to the particular measure in question. Origin envisages that the issues to be quantitatively assessed when examining the impacts of alternative congestion measures may include: dispatch efficiency; system costs, generator competition (are bids more likely to reflect marginal costs subsequent the introduction of a measure); changes in dispatch patterns; trading risk; changes in energy flows; and investment incentives.

4. Are there any material problems with the 'option 4' approach to constraint formulation to managing system security and reliability? How might such problems be addressed while continuing to maintain system security and reliability?

Origin supports Option 4 as the most appropriate constraint formulation in the NEM. However, in some cases this formulation may create inadvertent distortions to bidding incentives in a regionalised market. This can be addressed though implementation of an appropriately specified CSP/CSC measure or regional boundary changes.

5. Are there any other problems, other than constraint formulation, with the management of system security in the context of the current congestion management regime? How might any such problems be addressed?

No comments.

6. How material are reductions in the dispatch and pricing efficiencies due to binding intraregional constraints under the current arrangements? How can they be quantified?

It appears that only a few intra-regional constraints are causing material congestion at this stage (with the Snowy constraint of principle concern); however, it is difficult to properly assess this due to the lack of an appropriate measure for quantifying constraint costs. Moreover, it is impossible to know how such costs may increase over time.

We note that the ACCC with the assistance of stakeholders is developing a methodology for quantifying such costs and we understand this is close to being finalised.

7. How material are the reductions in dispatch and pricing efficiencies due to the management of negative settlements residues under the current arrangements? How can they be quantified?

The management of negative residues requires that lower cost generation is substituted with more expensive generation for a period (where the calculated cost is a combination of bid price and constraint impact coefficient). The quantum of this substitution could be readily estimated with re-runs of the dispatch engine under different scenarios (one where NEMMCO intervenes and one where it does not).

8. Have the existing arrangements resulted in materially inefficient investments? Could the existing arrangements result in materially inefficient investments in the future? What kind of inefficiencies may result?

Origin considers that to date most generator investment in the NEM has been efficient. Regional prices combined with non-price signals such as the need to locate close to fuel sources, loss factors and the potential to be constrained off, appear to have guided investment to appropriate locations in the NEM.

9. How well do existing arrangements provide signals for efficient investment over time and locationally using the least-cost technology—generation, network demand side management or non-electricity alternatives?

Origin considers the current arrangements adequate in this regard.

10. Does the potential to be constrained-off or constrained-on relative to the regional reference price result in material risks for market participants? How are those risks managed?

It is widely agreed that the constrained off and on provisions in the NER create significant risks for participants and need to be improved. There are currently few ways to adequately manage such risk, although constrained off participants usually receive a high price for the volumes that are dispatched.

Origin considers that an appropriately conceived CSP/CSC regime offers a better alternative for participants to manage this type of risk.

11. Do market participants face problems in managing risk due to the nature of the instruments available, or the liquidity of market for those instruments? If so, how are those problems related to the current approach to congestion management?

Origin is satisfied with the current settlement residue process for managing interregional risks but considers significant intra-regional congestion could be better managed through an appropriate CSP/CSC regime.

12. Are there problems in accessing information to support effective risk management in the context of congestion in the NEM? Is the lack of exchange based trading a problem in this context?

Origin has no concerns in this regard.

13. Does the current design of IRSR units impact the ability of participants to efficiently manage inter-regional price risk?

Origin considers the current design of the settlement residue process is appropriate for managing inter-regional risk.

14. Has the uncertainty regarding regulatory process and decisions created material risks for participants?

Origin considers that a clearly defined process for managing congestion and appropriate economic criteria for assessing when and how it should be addressed is critical to the continued success of the NEM. A holistic approach to congestion is required, with the Commission to decide upon a least cost graduated approach to congestion incorporating CSP/CSCs, transmission investment and regional boundary change. A key aspect of the approach to congestion going forward is that it is clear, simple and predictable so that participants have a better grasp of how congestion is going to impact them and how best to manage it.

15. Do market participants face problems in managing risk due to a lack of transparency associated with the current approach to congestion management? If so, what are the nature and materiality of these problems?

Currently there is no transparent and predictable way in which to allocate the costs of congestion or access to constrained capacity. This is of concern because in some cases, such as the current intra-regional constraint in Snowy, the financial impact of congestion can be substantial and unpredictable; particularly with associated NEMMCO interventions to manage negative residues. A selectively applied CSP/CSC regime which clearly defines how participants will be impacted by congestion would be of significant value to the market.

16. Are there any additional issues with the current congestion management regime that should be considered as part of the Review? How can the materiality of these concerns be quantified?

An important additional issue to be considered is the extent to which stronger incentives could be provided for transmission companies to use the net market benefits limb of the regulatory test to address congestion.

17. Is this an appropriate characterisation of the current arrangements in the NEM for the purposes of assessing potential improvements to the congestion management regime?

Yes

18. Is the proposed 'staged approach' to congestion management an appropriate framework? Is it the most effective response to those problems? Is it technically and commercially feasible?

Origin agrees that this is an appropriate framework. Prima facie, a sensible approach to intra regional congestion would seek to establish some price signals and access rules around serious constraints in order to properly allocate the costs of congestion and to encourage participants to reduce their congestion impacts. If this does not reduce congestion, or it increases substantially, this may subsequently trigger regulated investment or regional boundary change which will tend to be of higher cost and greater impact to the market.

The key trade-off to be considered is between increasing financial market and trading risks to participants versus providing incentives for congestion reduction. For this reason congestion should only be addressed where it is significant and in the simplest and lowest cost manner first; followed with progressively more costly options if congestion persists. An appropriate framework needs also to be in place for participants to manage the price risk introduced by congestion measures.

19. Has the NEM had material congestion problems which have not been enduring? Is it likely to do so in future?

The Tarong constraint in Queensland appears to fall into that category. Congestion by its nature is unpredictable in respect of its frequency, amplitude and duration, changing with demand growth and new transmission and generation investment in the network. It is likely that new congestion pinch points in the network will develop over time in line with demand growth, which will need to be addressed with an appropriate congestion framework. It is critical therefore that the right measures can be put in place quickly and with minimum disruption to the market so that it can address congestion if and when it becomes material.

20. Are the costs of an interim congestion regime (discussed in greater detail below) clearly lower than the costs associated with region boundary change?

It would appear that the implementation costs of a CSP/CSC regime are substantially less than regional boundary change. In respect of the latter, the introduction of new regional reference nodes requires extensive modifications to systems, contracts and overall risk

management processes for both generators and retailers. The implementation of a CSP/CSC scheme would require only that the settlement process be changed and is primarily focused on generators. Moreover, given that a CSP/CSC regime largely provides the same benefits as regional boundary change, but at lower cost, it may largely obviate the need for the latter.

21. What triggers should be considered for the introduction of various congestion management tools under a staged approach? Which institutions should be responsible for recommending and approving the introduction of congestion management tools at each stage?

Origin is unconvinced that triggers are required. Appropriate measures that value the cost of constraints over time should be incorporated in the ANTS so participants themselves can determine whether a CSP/CSC measure may be necessary and apply for it to be implemented on the basis of a rigorous supporting cost-benefit analysis. This is because implementation of congestion measures impacts the financial position of market participants, and therefore they are in the best position to determine if a CSP/CSC arrangement is necessary.

Key to this process will be appropriate information in the ANTS, such as the marginal and total cost estimates, frequency and duration of constraints (and we note the ACCC is doing some work to better value the costs of constraints) to assist participants in making their applications.

However, to reflect a staged approach, participants should only be able (as a matter of law) to propose a CSP/CSC regime first, with regional boundary change only considered as a last resort if a CSP/CSC arrangement and/or transmission investment is considered to have been ineffective or inappropriate (and this should be set out in any application). In this context, we also strongly support the rejection criteria proposed by the MCE as an initial screening to avoid spurious proposals on each case.

A clear precedent for this kind of approach has been established with the initial application by Snowy Hydro trading for a CSP/CSC trial in the Snowy region and subsequent regional boundary proposals by various participants. We consider this approach should be built upon and refined, rather than another process introduced.

22. What role should region boundary changes play in managing congestion, particularly in a staged response? How much emphasis should be placed on that role?

Origin considers that regional boundary change should be the final step in the process for managing. Regional boundary change proposals should only occur by application and on the basis of a comprehensive cost-benefit analysis supported by well defined economic criteria. In most cases we consider the need for regional boundary change will be rare as CSP/CSC arrangements will provide largely the same benefits but at lower cost. The Snowy constraint may be considered an exception due to the substantive counter-price flow issue caused by the unique circumstance of an inter-regional loopflow existing between Victoria and the Snowy region.

23. Is the economic boundary change criterion proposed in the MCE region boundary Rule change proposal consistent with the staged approach to congestion management? What further efficiency gains would be realised from region boundary change, after the introduction of an interim congestion management tool?

Please refer to our submission to the regional boundary consultation. Origin considers that the criteria for justifying region boundary change should be the same as for transmission investment; comprehensive and unlimited (for example including financial market impacts or any other benefits that are deemed to arise). The criterion proposed in the MCE rule change proposal would appear to be excessively narrow.

Origin considers that any additional net benefits arising from regional boundary change over and above a CSP/CSC arrangement are unlikely to be substantive in most cases. The exception may be when there is a potential for significant counter-price flows and/or transmission investment is seen to be infeasible for environmental or other non-economically based reasons. Thus the current requirement for a regional boundary change in the Snowy region may therefore be an exceptional circumstance.

A further concern is that the regulatory investment framework does not present strong incentives for transmission companies to alleviate congestion over and above that which affects reliability standards. However, while Origin is pleased with the LRPP concept, which should partly address this issue through greater regulatory enforcement, we consider stronger financial incentives placed on transmission companies, such as some form of profit sharing on congestion savings (as we noted in our submission on the AEMC revenue and price rules review) should be considered by the Commission.

24. To what extent will firming-up IRSRs facilitate inter-regional trade? What is the best approach to firming up IRSRs and how would this work?

Origin considers that IRSRs can only be firmed up in a practical sense by increasing the physical capability of the network, which itself requires strengthened congestion reduction incentives for transmission companies. There is no point in creating fully firm congestion hedging instruments in an environment where such firmness depends on the actions and interaction of multiple participants across the network and no one party can therefore be held responsible for making good such firmness. As a consequence, firmness could then only be guaranteed through some form of levy imposed on customers, whom have least capacity to influence such costs. This negates any efficiency rational for imposition of such a levy.

Origin remains unconvinced that firm IRSRs are a realistic option. We would prefer firmness to be addressed through enhanced regulatory incentives for transmission companies to maximise the physical capability of the network.

25. Is there a need to review the case for the 'option 4' constraint formulation approach in the context of this Review? If so, what would be advantages and disadvantages of moving away from an 'option 4' approach to constraint formulation?

Origin is satisfied that Option 4 represents the most appropriate constraint formulation for managing dispatch.

26. What would be the effect of ceasing NEMMCO intervention to manage counter price flows? To what degree does this depend on other factors such as the region boundary criteria and process?

Origin does not support the existence of significant counter-price flows as they are inconsistent with the basis for a regional market design and increase interregional trading risk for participants. Prices should reflect scarcity and cost as in all markets and as such energy flows should be consistent with this principle. Origin considers that negative residues due to distorted price signals can be addressed through CSP/CSC arrangements but those arising out of loop flow effects may be best addressed through transmission investment or regional boundary change. We consider these options to be preferable to NEMMCO intervention which tends to be unpredictable in terms of its impacts and thus difficult to for participants to manage.

27. How should negative settlements residues be funded? Should the current process of offsetting negative residues with positive residues within the current billing week be continued or changed?

Origin is comfortable with the recent amendments to funding of settlement residues.

28. Are constrained-on payments an appropriate solution to generators being paid regional reference prices less than what they offer? If so, what principles should apply for determining the size of payments, who should apply them and how should they be funded?

See ERAA submission on this issue

29. Would the funding of constrained on payments be likely to introduce a material financial risk for participants making the payments? How could this risk be managed?

See ERAA submission on this issue

30. Would there be merit in extending the existing NSAs as a congestion management tool in the NEM? If so, how should such arrangements be implemented?

See ERAA submission on this issue.

31. Should NCAS support contracts be used to enhance transmission network capability? If so, who should offer these contracts?

See NGF submission on this issue

32. Is there merit in having TNSPs responsible for procurement of NCAS, rather than NEMMCO, so that NCAS forms a part of the Network Services? If so, how should this be arranged?

See NGF submission on this issue

33. What would be the best way of funding NCAS payments and how should this be implemented?

No comments

34. Is the allocation of CSCs a necessary element of a CSP/CSC regime, or would it be practical to introduce CSPs without simultaneously allocating CSCs?

From an efficiency perspective only CSPs are required to encourage efficient behavioural responses around constraints; and we note that it is inaccurate price signals that are responsible for the lack of competitive discipline experienced by some generators advantageously positioned around constraints [2]. Thus to the extent CSCs protect generators fully from price signals this also eliminates some of the efficiency benefits of the regime.

Nevertheless, introducing CSPs without CSCs would create substantial additional price risk for generators which would clearly be difficult to manage without some form of hedging instrument. Origin is therefore supportive of allocating CSCs to a level that mitigates some of this risk yet also still ensures participants have incentives to reduce congestion at the margin. How this should be done is a critical issue which we discuss in more detail below.

35. If CSCs are a necessary component, what is the optimal way to allocate CSCs? What effect will this have on the ability to introduce CSPs rapidly and flexibly?

One approach to allocate CSCs is to grandfather them. Prima facie this would have some desirable properties: contracts would be allocated on the basis of leaving incumbents no worse off under CSP arrangements, thus maintaining their current level of access to the regional spot price. Corrected prices signals would then only apply to dispatch above grandfathered levels. However, this implies that new entrants would largely bear the costs of congestion as they would be exposed fully to the CSP in congested areas of the network.

There are three key issues which Origin considers makes this option problematic in relation to a shared network[3].

First, it is important to note that under the current regime a fixed level of access for intra regional generators to the regional spot price is not guaranteed, rather, this depends critically on new entry. Where new generation is sited along side existing generation, for example behind the export side of a constraint within a particular region, the level of access to that capacity (and subsequently the spot price) in that region for existing generators is reduced. That is, there is currently no fixed level of, albeit non-firm, access to the network.

[2] This issue is discussed in detail the CRA report to NEMMCO, *Network Constraint Formulation: Impact on Market Efficiency,* 8 Jan 2003.

[3] We are somewhat more conducive to the concept of rights of access to connection assets, which are paid for by generators and on which access rights would be much easier to define.

However, under a grandfathering arrangement, such access rights remain fixed regardless of new entry, which provides existing generators with an essential property right over transmission[4]. To the extent that current congestion occurs in desirable geographic areas of the network (due to proximity to demand centres or fuel sources for instance) forcing new entrants to face the full costs of congestion may discourage new entry and competition. This appears inconsistent with the principles of an open access network, which it must be remembered is paid for and owned by consumers and who conceivably desire that competition across the network is maximised.

Second, grandfathering of contracts to incumbents to the extent it maintains their current level of access to the regional spot price also ignores the issue of distorted bidding incentives (which imposes a lack of competitive discipline on the bidding of some generators). It is unlikely that the exposure to CSP signals beyond grandfathered levels would act as sufficient counterincentive on these generators, as only a small proportion of their dispatch is impacted by the correct price signal.

Thirdly, and perhaps most importantly, allocating transmission rights freely to some participants requires that the costs of congestion are allocated to others. However, the rationale for this is not readily apparent to us in a shared network where, as a consequence of loop flows, it is the actions and interactions of all participants that essentially cause congestion. Grandfathering rights of access in this environment may be highly problematic, as Daryl Bigger identified in his review of CSP/CSC arrangements in a submission to the ACCC:

> "[A]ttempting to define the entitlements in this way would, in practice, be extremely difficult. The dispatch of a generator under the existing arrangements will vary for a myriad of reasons, such as changes in demand, transmission outages, outages of other generators and so on. The on-going determination of such rights would be highly contentious and a source of on-going dispute with every major network development (such as new entry, network changes, demand changes, etc.)"[5]

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Therefore, to the extent grandfathered CSCs have the following consequences: greater rights of access than others; uncertainty with respect to the quantum of such rights and how they change over time; do not address distorted incentives for anticompetitive bids and impose the majority of congestion costs on new entrants, then this may seriously discourage competition and new investment in the NEM.

Auctioning rights

Origin considers that auctioning of non-firm CSCs is a substantial improvement on grandfathering, for the reason that it at least ensures competitive neutrality in respect of allocation. That is, every participant would have an equal opportunity to bid for rights of access to constrained capacity, with participants then paying for congestion up front (Contrasting with grandfathered rights which allow some participants to largely avoid the costs of congestion) and which thus provides certainty for participants with regard to forward looking congestion costs they will face.

[4] Generators only pay connection charges, not the costs of the actual transmission lines themselves which is paid for by customers

[5] Daryl Biggar, *Understanding Constraint Support Pricing / Constraint Support Contracts,* October 2004

However, this approach does not resolve the complexity of adequately defining the level and number of CSCs to allocate and how the implied rights change over time with changes in dispatch patterns and network augmentation. A further key concern with an auctioned approach is that it may increase incentives for the exercise of market power (much more so than in respect of IRSRs between regions because of the greater liquidity around regional reference nodes). That is, generators who are in a position to influence congestion are likely to value the relevant CSCs much more highly than those who are not so advantageously placed. Therefore to the extent CSC fall to those who value them most this would have the effect of entrenching market power, by virtue of the level of control CSCs provide over access to strategic areas of the network. Incumbents may have little incentive to release such CSCs to new entrants who would clearly be attracted to locating in these areas (forcing them to bear the cost of new transmission to gain such access). This may be considered detrimental to competition and inconsistent with principles of open access.

Origin view on CSC allocation

For the reasons outlined above, Origin considers an alternative method of allocating CSCs may be worth considering: one which addresses issues of market power and distorted bidding incentives; avoids discriminating between incumbents and new entrants; and provides a simple way to apportion access and define rights over time, thus circumventing the complexity of other forms of rights allocations.

That is, Origin considers CSCs should be allocated to reflect some form of sharing of access to constrained transmission capacity. The most appropriate approach to defining shares, and with some precedent in the current Snowy trial, is on the basis of the installed capacity of each generator contesting a particular constraint[6] The CSC for each generator is then based on the proportionate share of that generator's capacity competing for access across the constraint, with a CSC also allocated to an interconnector in some circumstances.

This approach would reduce the incentive and the impacts of inappropriate bidding compared with grandfathering or auctioning, as the level of access to transmission(or more importantly the regional reference price) in the event of an intra-regional constraint is not determined by bids, but by a generator's physical capacity contesting the constraint (as reflected in the CSC) and must be shared with other generators within the region as well as an interconnector (note though that generators in the exporting/adjoining region would still be allocated access to the inter-connector in the usual way on the basis of bids).

Any dispatch above the level of the allocated CSC would then be fully exposed to the CSP price signal providing strong incentives for reducing congestion at the margin. Anticompetitive bidding incentives are reduced due to the much larger component of generator dispatch being exposed to CSP signals.

Under this arrangement, access to a constraint, and thus the volume and price risk, would be shared between new entrants and incumbents (CSCs shares would need to be recalculated upon new entry to take account of the new generation shares contesting capacity). This approach would expose all generators behind a constraint to an incrementally greater level of CSP signals over time with new entry and provide an incentive for collective contribution to new transmission builds if required. Importantly it

[6] This type of approach was first put forward by Delta and Macquarie Generation

recognises that in the context of a shared network congestion costs cannot be allocated to specific parties.

Origin considers this type of approach to congestion is equitable and consistent with the principles of an open access regime and thereby supports competition. It would be simple to implement and provides much greater certainty with regard to how generators will be treated in the event of a constraint (as they will know what their shares of congestion costs and their access to constrained capacity will be before the event).

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36. Is it important to the design of a congestion management regime whether or not CSCs are firm? If so, what issues should the AEMC consider in reaching a view on the appropriate nature of CSCs?

Origin does not consider it possible that CSCs can be firm and we do not consider it essential to the design of a congestion management regime that this be so.

37. How should the process of region boundary change be coordinated with the allocation of CSCs under a staged approach to congestion management?

In our opinion it will be rare for region boundary change to be necessary with an appropriately conceived CSP/CSC regime. However, where the CSP/CSC regime is dissolved due to regional boundary change the CSCs would become void (and this should be straightforward since they were not paid for). CSCs would then be replaced with the usual IRSRs (which would need to be reissued on the basis of auction)

38. How can the Commission best draw on the partial Snowy CSP/CSC trial to evaluate the costs and benefits of the use of CSP/CSCs? How can the Commission best draw on the Snowy CSP/CSC trial to consider modifications to the proposed design of CSPs and CSCs?

The principles of sharing are implicit in the Snowy trial and can be readily extended in the way indicated I this paper.

Please refer to the paper submitted by the ERAA to the AEMC on ways in which the costs can be evaluated and benefits can be evaluated.

39. Are there any additional congestion management tools that should be considered as part of this Review? How would these tools be implemented? How would they interact with other aspects of the congestion management regime? What would be the effect of such tools on participant behaviour and market outcomes?

We consider that a powerful tool for reducing congestion is the transmission investment regulatory framework. Transmission companies in the NEM could be given a similar incentive to that of NGC in the UK, where they get to keep a proportion of the congestion costs they avoid through their actions (whether by way of augmentation or other means). This would provide a strong incentive for transmission companies to reduce congestion over and above that related to their reliability obligations and would complement CSP/CSC regime of the type we have proposed. This contrast to the case where CSCs are allocated by auction or grandfathering since there is strong incentive for holders to resist any augmentation as this would change the quantum and value of rights. This could

create significant potential for legal disputes and thus discourage transmission investment solutions to congestion.

40. Which, if any, of the congestion management issues identified in this paper could be considered on a stand-alone basis? Which issues need to be considered together to ensure a comprehensive and consistent congestion management regime?

Where a strong enough incentive could be introduced for congestion to be addressed through regulated transmission investment, such as in the UK, other measures would in all likelihood not be required.

If you wish to discuss any of these matters further please do not hesitate to call Con van Kemenade on 02 8345 5278.

Yours Sincerely,

Michael Hayes
Manager, Portfolio Strategy & Regulation