Department of Infrastructure, Energy and Resources
OFFICE OF ENERGY PLANNING AND CONSERVATION

Enquiries Tim Astley
Ph 6233 3091 Fax 6233 3937
Email tim.astley@dier.tas.gov.au Web www.dier.tas.gov.au

Tasmania

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Re: ERC0106 Inter-regional Transmission Charging

Dear Commissioners

The Office of Energy Planning and Conservation, of the Department of Infrastructure, Energy and Resources, welcomes the opportunity to provide comment on the rule change discussion paper on Inter-regional Transmission Charging.

This submission is the view of the Office of Energy, Planning and Conservation and not that of the Minister or Government.

Please contact Tim Astley on (03) 6233 3091 if you have any questions in relation to the matters raised in our submission.

Yours sincerely

Tony van de Vusse
Director

23 September 2011

Discussion Paper – Inter-regional Transmission Charging (25 August 2011)

Comments on Questions

Question 1: Is the assessment criteria identified in this Discussion Paper appropriate for developing a uniform national inter-regional transmission charging methodology?

Yes

Question 2: Is the criteria for assessment proposed appropriate for assessing the various options for a uniform national inter-regional transmission charging regime?

The Office of Energy Planning and Conservation (OEPC) is in agreement with the criteria proposed by the AEMC in assessing inter-regional transmission pricing options. More specifically, the OEPC considers there are a number of key principles that should apply to the calculation of inter-regional transmission charges. These include:

- Application of transmission charging methodologies on a nationally consistent basis unless it can be unequivocally demonstrated that differences in methodologies will have no material impact, either now or in the future. Each of the proposed options allow for consistent application, which is an improvement on the original Load Export Charge (LEC) which was based on each jurisdiction's varying intra-regional transmission charging methodologies.
- Application of a smoothing mechanism to deal with volatility in electricity flows. The original LEC included prescribed non-locational and common service transmission service postage stamp components, which are calculated on the basis of energy flows which can vary significantly from year to year. This is a significant issue for Tasmania where electricity production is highly dependent on rainfall into hydro catchments, resulting in the potential for volatile inter-regional flows and thus inter-regional transmission charges. Each of the currently proposed options may have some proportion of the inter-regional transmission charge based on electricity flows. If this is the case, some form of smoothing mechanism needs to be introduced such that charges do not vary significantly and unpredictably from year to year. This would provide greater price certainty which is certainly an issue for Tasmanian consumers and generators.
- Inter-regional transmission charges must not include costs not directly relevant to the provision of transmission services in the adjoining jurisdiction. The AEMC discussion paper indicates that under the original LEC, approximately 20% of the Victorian Easement Land Tax ($93 million) would be transferred to Tasmania and South Australia. It is inappropriate for this state based tax, which has nothing to do with provision of transmission services outside Victoria, to be passed through to other jurisdictions. Any inter-regional transmission charge must not include such costs.
- Regardless of the final inter-regional transmission charging methodology, TNSPs should not be required to negotiate / agree in isolation on any components of the methodology. Such negotiation / agreement should be carried out on a nationally consistent basis and be overseen by an independent body, such as the AER. This will avoid inconsistencies between different jurisdictions and reduce susceptibility to gaming. (Note this is distinct from application of an agreed methodology by TNSPs.)

- It is important that any inter-regional transmission charging methodology should capture, if possible and within reason, broader network and macro-economic benefits (such as improved reliability).
- It is OEPC's view that it is more important to establish some form of inter-regional transmission pricing now even if not perfect rather than wait until a 'perfect' process can be developed. Any problems with the initial regime can always be addressed in a review after a few years.

Question 3: If a uniform national CRNP methodology were chosen, should the components of the methodology be specified in the NER or else left to the TNSPs to determine?

- As discussed in the previous question, TNSPs should not be required to negotiate / agree on any components of an inter-regional transmission charging methodology in isolation.
- It would be more appropriate and effective for the components of a uniform national CRNP methodology to be specified in the NER, due to:
    - A lack of specification potentially resulting in issues around TNSPs agreeing on the components of a national uniform methodology; and
    - A lack of specification potentially leading to greater administrative costs.

Question 4: If a uniform national CRNP methodology were chosen, which components need to be determined as part of a uniform national CRNP methodology?

- All material components, which may include:
    - Whether to use 10 or 365 days and whether to use system peak or element peak for CRNP modelling.
    - Modified v non-modified CRNP.
    - Basis for and timing of asset valuation.
- However, it may be that these different options for each component do not amount to material impacts. The fact that there are differences between TNSPs intra-regional pricing methodologies does not mean that they are material, although it is difficult to predict if differences may become material in the future.
- As discussed in the response to Question 2, components should be nationally uniform.

Question 5: If an inter-regional transmission methodology was chosen which required a consistent form of CRNP methodology, would the standard CRNP or modified methodology be the most appropriate to use for inter-regional transmission charging?

- While a standard CRNP may be easier to implement in a uniform manner, a modified CRNP provides better locational signalling and is therefore more aligned with driving efficient utilisation of the network. Establishment of line ratings for all TNSPs by an independent body would remove potential "subjectivity" differences between TNSPs.
- There are differences in the application of the modified CRNP between those jurisdictions that apply it. In Tasmania, Transend has a "partially" modified CRNP for intra-regional charging, with the modified CRNP methodology only applying to radial lines. A consistent national approach would be preferred.

Question 6: If an inter-regional transmission methodology was chosen which required a consistent form of methodology for determining the operating conditions for cost allocation, would the 10-day system peak methodology or 365-day element peak methodology be the most appropriate to use for inter-regional transmission charging? Or, is there another more preferable alternative?

- In Tasmania, most of Transend's major customers are continuous operations with flat loads. This type of load profile is better suited to the existing 365 day element peak methodology in place in Tasmania. The 10 day system peak methodology may lead to volatility in locational price if major industrial customers change their behaviours.
- Alternatives should be investigated. For instance the 10 day system peak methodology is based on an arbitrary number of days which are selected by the TNSP and thus using a different number of days should be considered to see if it has any advantages.
- The 365 day element peak methodology is more equitable and less subjective as it removes TNSP discretion in choosing the number of peak days.
- For whichever method is chosen, care needs to be taken to avoid unwanted incentives. It is possible with the 10 day system peak methodology to provide an incentive to customers to reduce demand on those days and thus overall product output. This would have wider macroeconomic ramifications.

Question 7: To the extent that there are any differences between TNSPs' measure of demand for setting and calculating prescribed locational and non-locational TUoS services, and prescribed common transmission service prices and charges, is it necessary to have a single measure of demand in order to achieve a uniform inter-regional transmission charging regime?

- As discussed in the response to Question 2, there should be national consistency in the application of inter-regional transmission charging methodologies.

Question 8: To the extent that there are any differences between TNSPs' asset valuation methodologies, is it necessary to have a single methodology to achieve a uniform inter-regional transmission charging regime?

- Refer to the response to the previous question.
- If option 2 or 3 becomes the preferred option, asset valuation will need to be consistent for those methodologies to be applied.
- Asset valuations are non-trivial exercises and it is important to avoid excessive work and duplication of effort. However, a TNSP could choose an approach that is biased towards allocating more costs to a neighbouring region. It may be advisable to have external independent party to check that the methodology for asset valuations is not materially biased in such a way.

Question 9: If a LEC were chosen, would the modified LEC be preferable to the original LEC proposed in the draft Rule determination?

- The modified LEC would be preferable to the original LEC as it is based on application of a consistent methodology. This is on the proviso that the benefits of carrying out an additional uniform national CRNP methodology outweigh the additional administrative costs of doing so. In particular, administrative costs will be higher for those jurisdictions that apply a different methodology in

calculating intra-regional charges to that used for calculating the nationally consistent inter-regional charges.

Question 10: If a LEC were chosen, would there any other difficulties in applying the modified LEC?

- Customers / stakeholders may find differences in methodology between intra and inter regional charging confusing, adding to an already complex system of calculating prescribed transmission charges.

Question 11: Is the modified LEC preferable to the other inter-regional transmission charging options proposed in this Discussion Paper?

- The OEPC has no strong preference for any one option over the other options. Of key concern is that the final option best meets the assessment criteria and principles (outlined in response to Question 2) resulting in an efficient and equitable inter-regional transmission charging methodology.
- The preferred option should be subject to extensive modelling over an extended time period (taking into account varying energy flow patterns between jurisdictions) before it becomes the final option. Analysis and commentary on the modelling results needs to be limited to consideration of the charges as being fair and equitable, rather than as an opportunity for individual jurisdictions to "strike the best deal" at the expense of other jurisdictions.
- On balance, option 1 (modified LEC) is a strong candidate for being the preferable option. It applies an inter-regional transmission charging methodology on a nationally consistent basis, and it attempts to balance providing a signal for future investment with minimising distortions to current use of the network. The following considerations should be taken into account for option 1:
    - If postage stamped components are included, they must not include non directly relevant costs.
    - A smoothing mechanism needs to be included to deal with volatility in electricity flows.
- A stated disadvantage of option 1 is the inability to levy inter-regional transmission charges on non-adjoining regions. Option 3 (NEM-wide CRNP) attempts to address this short-coming by applying the inter-regional CRNP methodology across all NEM regions simultaneously. It is not clear to what extent non-adjoining regions utilise each other's transmission assets. This needs to be modelled to determine to what extent the issue is material. If it is significant then option 3 would become a strong candidate for being the preferable option.

Question 12: If a Cost Sharing option was chosen as the inter-regional transmission charging approach, which methodology should be used to identify the assets which allow for inter-regional flows? For instance, could the assets be determined by a load flow analysis?

- Load flow analysis is likely to produce the best representation of assets being utilised for inter-regional movements. A central administering body would ensure a consistent approach is followed in all jurisdictions.

Question 13: Which assets should be covered in an inter-regional transmission charging arrangement? Should the cost of existing transmission assets used to allow for inter-regional flows be included? Should there be a technical threshold applied in order for assets to be included?

- From an equity and efficiency perspective, all assets identified through load flow analysis should be included in the calculation of inter-regional transmission charges. Jurisdictions with extensive existing assets that support inter-regional flows could be disadvantaged if only new assets are included.
- Including existing assets is more consistent with intra-regional charging methodologies.
- There are difficulties though in including some existing assets. For example, Basslink exists purely to support inter-regional flows, however it is currently unregulated (classified as a Market Network Service Provider – MNSP) and is subject to a long term contractual arrangement over its use and financing.

Question 14: In allocating costs under a Cost Sharing option, what methodology should be used? For instance, should it be allocated on a simple split based on the size of a TNSP's customer base?

- As discussed in the response to Question 2, TNSPs should not be required to negotiate in isolation on any components of the methodology. Consequently case by case negotiations between TNSPs are not preferred.
- A simple split based on customer base is simple and non volatile but doesn't reflect actual usage of the network.
- Load flow modelling analysis may be preferable, but there will be volatility from year to year, which should be subject to some form of smoothing mechanism.
- A combination of simple split and load flow analysis could be used to provide some usage pricing and less volatility.

Question 15: Under a Cost Sharing option, how should the costs be recovered from customers? For instance, should it be recovered on a postage stamp or locational basis?

- If the charge is determined by a simple split based on customer base then maintaining that simple split all the way through to individual customers may be the preferred option due to consistency. It is difficult to argue why you need to locationally price the charge when it was derived without reference to locational usage. Similarly, if the charge was determined on a load-flow basis, then charges should be collected from customers on a load-flow basis.
- How TNSPs pass on costs is not the main issue.

Question 16: Would a Cost Sharing option be preferable to the other options proposed?

- See response to Question 11.
- Option 2 represents a considerable departure in methodology from existing intra-regional methodologies, and other proposed options for inter-regional charging. There is considerable merit in having consistency between the derivation of the inter-regional charge and the intra-regional charge. Having two different regimes adds complexity and raises questions as to why two regimes exist.
- Clearer definition of this option and modelling of inter-regional transmission charges is required before a position can be reached on this options suitability.

Question 17: Would it be possible to apply a CRNP methodology on a NEM-wide basis? If so, what difficulties would be faced?

- No comment on whether it is possible, although as the AEMC has highlighted it would be administratively more complex and costly. The benefits of capturing non-adjoining region inter-regional transmission flows and appropriately allocating these costs needs to be balanced against the additional administrative costs (although if the NEM-wide CRNP methodology under option 3 was applied by a central body then administrative costs may not be significantly higher than those under option 1 – see response to Question 18).

Question 18: If so, how easy would it be for the transmission businesses in the NEM jointly to implement a NEM-wide CRNP methodology?

- It would be preferable for a NEM-wide CRNP methodology to be applied by one coordinating body, rather than collectively by TNSPs. Grid Australia, as the representative body of most of the TNSPs could undertake this coordinating role.

Question 19: Would a NEM-wide CRNP methodology be preferable to the other options proposed?

- See response to Question 11.
- If utilisation of non-adjoining region transmission assets is material, then option 3 becomes a strong candidate for being the preferable option. Even if utilisation is not material now, it may be at some future time. This could be monitored on a regular ongoing basis, where if materiality is demonstrated, then a decision is made on the merit of switching to a NEM-wide CRNP methodology.
- Similar to option 1, some form of smoothing mechanism would need to be included to deal with volatility in electricity flows.

Question 20: Are there any options for a uniform national inter-regional transmission methodology (other than the three options presented in this Discussion Paper) that should be considered?

- The original LEC methodology could still be considered (although non directly relevant costs would need to be excluded), at least to provide a comparison when modelling of all options is undertaken.