MCE

Ministerial Council on Energy

CHAIR
STANDING COMMITTEE OF OFFICIALS
Telephone: (02) 6213 7693 Facsimile: (02) 6213 6894

Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Dr ~~Tamblyn~~ John

Rule change request – Scale Efficient Network Extensions

I refer to the letter of 10 December 2009 from the Hon Martin Ferguson AM MP, Chair of the Ministerial Council on Energy (MCE) detailing the MCE's response to the recommendations of the Australian Energy Market Commission (AEMC) in its Final Report on its *Review of Energy Market Frameworks in Light of Climate Change Policies* (the Report).

In the letter the MCE noted its intention to ask the AEMC to initiate Rule change processes recommended in the Report. The purpose of this letter is to formally request that the AEMC initiate a Rule change process for the creation of a framework to enable Scale Efficient Network Extensions.

The attached document provides additional information in support of this request.

Should you have any further enquiries, please contact Ms Kristen Palmer, Manager MCE Secretariat, on (02) 6213 6107.

Yours sincerely

Drew Clarke
Chair, MCE Standing Committee of Officials

15 February 2010

Enc.

MCE Secretariat
GPO Box 1564 CANBERRA ACT 2601
Telephone: (02) 6213 7789 Facsimile: (02) 6213 6689 E-mail: MCE@ret.gov.au

Rule Change Request – Scale Efficient Network Extensions

Implementation of the Rule Change Recommendations of the Review of Energy Market Frameworks in light of Climate Change Policies undertaken by the Australian Energy Market Commission

February 2010

Background and context

In August 2008, the Ministerial Council on Energy (MCE) directed the Australian Energy Market Commission (AEMC) to undertake a review of the existing energy market frameworks to determine if they required amendment to accommodate the planned introduction of the Carbon Pollution Reduction Scheme (CPRS) and expanded Renewable Energy Target (RET). The Terms of Reference asked the AEMC to review both electricity and gas markets across all jurisdictions and to provide detailed advice on the implementation of any changes required to those markets.

The AEMC published its Final Report on the Review of Energy Market Frameworks in light of Climate Change Policies (the Final Report) on 8 October 2009. The Final Report recommended the introduction of a new framework in the Rules for the connection of clusters of generators to electricity networks.

The MCE published a Response to the Final Report in December 2009 endorsing this recommendation and requesting that the AEMC progress the Rule change proposal in accordance with the Rule making process under the National Electricity Law (NEL). MCE recognises that in considering the rule change proposal the AEMC must consult widely and may decide to modify the proposed rule to more efficiently or effectively meet the National Electricity Objective. In considering the Rule change the AEMC is to have regard to the contents of the MCE Response.

The following information is provided in support of the Rule change request.

Rule Change Request

1. Proponent of the Rule change

The Ministerial Council on Energy
MCE Secretariat
GPO Box 9839
CANBERRA ACT 2601

2. Description of the Rule

The Final Report recommended that Rule changes be made to introduce a framework for Scale Efficient Network Extensions (SENEs).

The Rule changes are to introduce a framework for the efficient connection of generation to distribution and transmission networks where clusters of generators in the same locations are expected to seek connection over a period of time. The proposed Rule introduces a new framework for planning, charging and revenue recovery of SENEs and adjustments to the process for connections. An important element in this regard is a mechanism that minimises the risk to customers from SENE assets being under-utilised by generators.

Key features of the proposed Rule changes are:

- A requirement for the Australian Energy Market Operator (AEMO), as part of the National Transmission Network Development Plan (NTNDP), to identify possible geographic zones where there is the likelihood of substantial scale efficiencies emerging from the development of extensions to the relevant area. In identifying relevant zones AEMO is to have regard to factors that contribute to economies of scale, such as the viability and timing of future generation projects, and the size or length of the network assets required.

- A high level assessment by network businesses of the credible options for the development of extensions from SENE zones to their respective networks. Network businesses will be required to report publically on possible connection locations, capacities and indicative costs, taking into account any shared benefits and other implications for the shared network.

- A network business should undertake a Regulatory Investment Test when it perceives the network assets associated with a SENE can deliver possible benefits for the shared network.

- For each SENE identified, and following connection applications by generators, the relevant network business will be required to publish a planning report and associated connection offer. The planning report will set out the technical design and annual charges payable for an option based on the network business' best estimate of the profile of generation.

- The price for the service will be a capacity-based charge (applying the regulated rate of return) set on the basis of all forecast generators connecting and funding the full cost of the asset. The price in the SENE connection offer is to be derived on the basis of the analysis in the planning report. The SENE connection offer will also include non-price terms and conditions such as the preliminary delivery program and service performance requirements.

- The proposed SENE project is to undergo public and independent scrutiny to test the forecasts and assumptions made by the network business. Following the publication of the SENE connection offer, any party, by submission to the Australian Energy Regulator (AER), will have thirty business days to comment on its contents. AEMO will be obliged to undertake an assessment of the profile of new generation assumed by the network business within the same time period.

- The proposal is to undergo an assessment process by the AER. Where the AEMO makes a favourable assessment of the forecast of new generation, the AER would have the option of making an assessment then a determination disallowing the proposed connection offer. In undertaking its assessment the AER is to consider the information and any comments provided by AEMO and shall actively engage with affected parties, including retailers.

- Generators will be free to sign the connection offer once the AER has determined that its contents will not be disallowed, or after a period of time in which no determination has been made by the AER. After generators sign the connection offer, network businesses can commence construction of the SENE. Network businesses will be able to start recovering revenue from generators once the SENE service is commissioned.

- Customers will be exposed to some of the costs of the SENE if generators arrive late or do not materialise, but will receive payments if generators arrive early or in excess of forecasts. The revenue earned by network businesses will be set to be constant (in real terms) over the economic life of the asset. Therefore, customers will initially fund some spare capacity but will be repaid over time.

- Individual generators will be provided with an opportunity to negotiate different terms and conditions for aspects of the connection offer. Generators that negotiate adjustments to the connection offer will need to fund the incremental costs that this incurs. Aspects that generators can negotiate can include:

    - revisions to the price to reflect who bears the risk of outturn cost changes (under the connection offer generators bear the risk);

    - service performance above the minimum provided in the connection offer; and

    - the preliminary construction program and associated milestones.

- The AEMC is to complete a review of the SENE arrangements five years after the date of the first NTNDP to identify SENE zones. The objective of the review is to report on the extent that the framework is achieving the delivery of efficient connection options where potential scale economies are present. The review is to provide advice to the MCE on improvements that can be made to better facilitate the policy objective.

Appendix G of the Final Report contains a draft Rule for the implementation of SENE's. The MCE submits the draft Rule as a Rule change proposal, subject to the modifications contained in its Response to the AEMC's Final Report of December 2009.

These include the MCE proposal that the Rule should include provisions that give the SENE planners (i.e. Network Service Providers, NSPs) an internal incentive to prudently size SENEs to ensure appropriate discipline is applied to develop accurately sized proposals.

The MCE notes that the AEMC will conduct further consultation on the proposed Rule in accordance with the standard Rule change process.

3. Nature and scope of the issue that is proposed to be addressed

The expanded Renewable Energy Target (RET), and to a lesser extent the Carbon Pollution Reduction Scheme, will stimulate investment in new renewable generation capacity. Due to the characteristics of the fuel resources for renewable generation, its entry is likely to be clustered in certain geographic areas. In most cases these are expected to be remote from the shared network. This is because suitable wind, solar or geothermal sites are often remote from the network. However, generation clusters can also form in areas that are not remote from the shared network. Whilst new generators may develop in clusters, it is unlikely they will be ready to connect at the same time, and they are more likely to seek connection over a period of several years.

The existing connection framework makes it difficult for a network business to develop a connection solution that would be efficient for multiple connecting parties in the same location over a period of time. When connections cannot be coordinated or built to an efficient scale, there is a risk of inefficient duplication in network assets and potential delays in connection. Given the size of the assets required to connect some forms of renewable generation, and the economies of scale available in network provision, the cost impact on customers from such inefficiencies may be large.

Building optimally sized extensions to accommodate future connections requires someone, such as the network business, to take the risk that future generation capacity may not materialise. The existing framework does not provide network businesses with a commercial incentive to build network connections to an efficient scale to accommodate anticipated future connections. If the predicted generation does not eventuate, the network business would have a connection asset but no-one to recover the cost from, leaving it with a "stranded asset". It is also unlikely that the initial connecting party would be willing to pay for the excess connection capacity given it is likely to facilitate the future connection of a competitor.

4. How the proposed Rule will or is likely to contribute to the achievement of the National Electricity Objective

"The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—

(a) price, quality, safety, reliability and security of supply of electricity; and

(b) the reliability, safety and security of the national electricity system."

Overcoming the risk of inefficient duplication

The proposed Rule aligns the risk associated with building SENEs with other regulated network services. This is achieved by requiring customers to underwrite the risk in place of network businesses or generators.

Through this arrangement the SENE model overcomes the lack of commercial incentive for network businesses to bear the risk of building assets to efficient scale in advance of future connection commitments. Overcoming this lack of incentive reduces the scope for inefficient duplication of assets and ensures that economy of scale benefits can be realised. As a consequence, the arrangement is likely to contribute to the achievement of the NEO as it will promote efficient investment in electricity services. Efficient investment of this kind will promote the long term interests of customers with respect to the price of supplying electricity.

Ensuring efficient assets are built

The objective of the planning framework in the proposed Rule is to encourage a design of a SENE that embodies a robust forecast of future generation connection requirements. This will include a consideration of the suitability of the location, the potential of the fuel resource, as well as the timing and size of generation connections.

The proposed Rules require AEMO and network businesses to each have a role in planning SENEs. This recognises the two components of the planning framework:

- a strategic component involving identification by AEMO of potentially economic geographical locations for SENEs; and

- a design component involving the identification by network businesses of possible remote connection line locations, capacities, and indicative costs, taking into consideration possible implications for the shared network.

The process for AEMO enables SENE development to be strategically focused on locations with the best prospects for developing efficient outcomes in the NEM. Therefore, resources are not wasted developing options that are unlikely to have significant benefits for the NEM. This promotes the NEO through efficient investment in electricity services.

Requiring network businesses to provide information on possible SENE asset specifications, their indicative costs, and then detailed design, will enable potential new generators, and other relevant stakeholders, to make more informed investment decisions. More informed investment decisions should lead to more efficient investment decisions, and as a result, the promotion of the NEO.

Minimising the risk to customers

The assessment framework included in the proposed Rule, encompassing three elements, is sufficiently robust to ensure that customer risk is minimised and efficient investment that promotes the long term interests of consumers occurs. These elements are as follows:

- The first element of the framework to protect customers is that at least one generator has to decide to connect to the SENE. Since a SENE cannot be built until generators have agreed to connect to it, if no generators find it privately beneficial to connect, the SENE will not proceed. This is the efficiency test that applies to SENEs and is the same test that applies to standard connections. That is, where the private benefits from generation entry exceed the costs, it is assumed generation entry will benefit society. Additional arrangements are required, however, because for SENEs an assessment needs to be made about whether future generators will also find it privately beneficial to enter.

- The second element that protects customers is that AEMO, a well informed participant, makes an assessment of the NSP's generation forecast. Stakeholders are also provided with an opportunity to comment at this time. This ensures that the proposed project is subject to well informed scrutiny by an independent body and interested parties.

- The third element that protects customers is the option for the AER to disallow the project should it consider, based on the information before it, that the generation forecast or cost estimates are not sufficiently robust. The ability to disallow a SENE project, along with the other elements described above, forms the basis of the administrative arrangements that protect the interests of customers.

In combination, the framework described here will promote the NEO by minimising the risk of stranded assets to customers while also facilitating investment in efficiently sized connection assets.

5. Expected benefits and costs of the proposed change and the potential impacts of the change on those likely to be affected

Costs

The proposed Rule includes a number of new requirements on market participants. For instance, network businesses and AEMO will have new planning obligations, while the AER will have to undertake an additional assessment function. There is a risk of the proposed Rule increasing the administrative burden on these market participants without delivering commensurate benefits.

The framework seeks to minimise the prospect of parties having to undertake additional functions where benefits are unlikely. This is because the model is primarily market driven. This means that the detailed planning and assessment process does not commence until generators express interest in a SENE and the network business considers there is a reasonable likelihood of an efficient SENE being developed.

AEMO and network businesses have pre-planning roles. While these are additional obligations on these parties, they are necessary to ensure a strategic approach to planning and to provide interested stakeholders, in particular, generators with sufficient information to undertake efficient decision making.

Most significantly, the proposed Rule also introduces a new cost to customers. While customers will benefit through lower energy prices from investment in more efficient connection assets, this benefit needs to be greater than the costs of underwriting the stranded asset risks. As described above, there is a comprehensive assessment framework that seeks to ensure that customers only bear the standard risks when the benefits outweigh the costs of doing so.

Benefits

The key benefit from the proposed Rule is that it will reduce the risk of duplication in connection assets and promote efficiently sized connection assets. As a result, customers will benefit through more efficient investment decisions, and ultimately, more efficient energy prices.

There are a number of other benefits associated with the proposed Rule, these include:

- facilitating a more strategic approach to planning through the involvement of the AEMO;
- improved transparency and decision making by market participants through the requirement for publication of information by AEMO and NSPs; and,
- maintenance of efficient locational signals by charging generators for the share of assets they use.

The MCE's Response to the Final Report accepts that the benefits associated with the new framework are likely to outweigh the costs. In the absence of this framework, and the role for customers, there is a likelihood of connections being planned and built independently at much higher total cost to customers. This is because the costs associated with inefficient connection assets for clusters of new generators is likely to be substantial.

Potential Impacts

Customers could be adversely affected by the proposal without effective safeguards to ensure only scale efficient network extensions proceed. The roles and functions of AEMO, NSPs and the AER will be critical in ensuring that scale efficient network extensions are promoted through this rule change proposal.