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Elizabeth Ross Scale Efficient Network Extensions Australian Energy Market Commission PO Box A2449 Sydney South NSW 1235



Consultation on request for rule change - Scale Efficient Network Extensions

Dear Ms Ross

An assessment of the potential to unlock renewable energy resources of the Eyre Peninsula, South Australia, is being undertaken by Macquarie Capital, WorleyParsons and Baker & McKenzie. The scope of the assessment includes a review of the technical and commercial business case for new transmission investment in this region. We're calling this the 'Green Grid' initiative.

We understand the draft SENE rule has been proposed as a response, in part, to the need to facilitate efficient investment in network extensions in order to connect new and future generation opportunities. We welcome this proposed reform by the Ministerial Council on Energy and the AEMC.

We have identified a specific issue that would benefit from policy certainty. The issue relates to the annual fee that generators connected to a SENE could be expected to pay and, specifically, whether the calculation of the fee would be based on the life of the generator's connection to the SENE or the economic life of the SENE itself.

Asset Life

We agree with the MCE proposal that SENE annual charges should be matched to the SENE asset life. This approach is the optimal way to achieve the National Electricity Objective to 'promote the efficient investment in, and efficient operation and use of electricity services for the long term interests of electricity consumers'.

However, the economic life of a SENE is likely to exceed the economic life of renewable energy generation projects. The two most common renewable energy generators, wind turbine generators and solar facilities, generally have engineering asset lives of 20 and 30 years respectively. However, the economic life of a SENE is likely to be between 40 to 55 years. The mismatch in asset life raises the question of what payment commitments are placed on generators connecting to a SENE.

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There would appear to be three scenarios, namely:

Generators connecting to a SENE would commit to pay an annual SENE charge:

- 1. that recovers the cost of the SENE across its economic life, but only applies to the generator for the duration of the generator's scheduled connection to the SENE (e.g. the life of the renewable generation plant); or
- that recovers the cost of the SENE across its economic life, and applies to the generator for the duration of the SENE economic life, but includes a tradeable SENE capacity right for the economic life of the SENE that can be sold to other generators; or
- 3. that recovers the cost of the contracted SENE capacity across the duration of the generator's scheduled connection to the SENE.

Macquarie submits that the first option creates the most optimal outcome to promote the efficient investment in transmission assets for the long term interests of electricity customers.

Option 1

The purpose of the proposed SENE rules is to benefit customers through lower energy prices by more efficient development of transmission assets. Currently, in order to lower the levelised cost of renewable energy generation, debt funding is arranged alongside equity to reduce the overall weighted cost of capital. In order to attract non-recourse project financing, lenders require robust financial analysis that demonstrates that revenues generated from a project will adequately support operating and capital costs, financing costs, coverage ratios and repayment of debt principal by the end of a project's asset life.

This is best achieved under the first option, as the annual SENE charge that the generator will be required to pay will match the engineering life of the renewable generators.

The key issue with the first option is 'stranded asset risk' once the initial generator's asset life expires. This risk should be adequately mitigated through the planning forecasts by AEMO and the discretion provided to the AER to review SENE projects. Once the initial generator asset life has ended, the local TNSP is best placed to arrange subsequent generating assets to utilise the capacity for the SENE (either current or additional generators).

Option 2

This option would require generators to be liable for the full engineering life of SENE assets and will create a contingent liability for generators that may limit the availability of project financing for generators, or will require generators to reserve funding throughout the project in order to meet the contingent liability. Under either scenario, this is likely to result in sub-optimal financing arrangements that would increase the overall cost of capital and hence the levelised costs of renewable energy generation for the SENE.

It is arguable that the tradeable financial right to use the SENE may mitigate this contingent liability; however, it is likely that the financial right will be heavily discounted due to uncertainty of generation capacity demand at the end of generator's asset life. Moreover, this creates asymmetry in risk-sharing, as the initial generators bear the full risk of whether future generation assets will connect to the SENE.

Option 3

This option would require initial generators to bear the full cost of the SENE asset during the life of the renewable energy project. This would create 'free rider' problems, as the initial generators bear the full cost of the SENE asset. Moreover, it would increase the SENE annual charge since it will need to be recovered over a shorter time frame.

The impacts under Options 2 and 3 are likely to result in underinvestment in SENE assets and renewable generation facilities.

Summary

Macquarie submits that in the interests of investment certainty to meet Australia's renewable energy targets in a cost efficient manner for electricity customers:

- the SENE annual charge recoverable by network providers should be equally spread over the SENE economic life;
- generators should be liable for the SENE annual charge only for the scheduled duration of their connection to the SENE (generators would bear the risk of ceasing to generate before this scheduled end date);
- AEMO and the AER are best placed to analyse the risks of stranded assets in the initial assessment of the SENE and after taking into account the likely economic life of the generation projects connecting to the SENE;
- electricity customers are the ultimate beneficiaries of lower energy costs and reliable transmission assets, and should accordingly bear the risks of a future shortfall in the generation capacity in the later years of the SENE economic life.

We would be pleased to meet with your officers to discuss this issue in more detail.

Yours sincerely

Executive Director

Macquarie Capital Advisers

Brer Adams Senior Manager

Macquarie Capital Advisers