

12 November 2010

Mr John Pierce
Chairman
Australian Energy Market Commission
Level 5, 201 Elizabeth Street
Sydney NSW 2000

Via website: www.aemc.gov.au

Dear John,

Scale Efficient Network Extensions Rule 2010 – Options Paper

Grid Australia makes this submission in response to the Australian Energy Market Commission's (AEMC) Options Paper in relation to the National Electricity Amendment (Scale Efficient Network Extensions) Rule 2010.

Grid Australia supports commercially negotiated market-based solutions for the development of network extensions, where possible. These should not be inadvertently crowded out by any new, regulated arrangements. As a consequence, Grid Australia supports the AEMC's view that any Rule change made as a result of this process should be permissive and applied only following a request from a generator, rather than prescriptive.

Where a Rule change is made, Grid Australia supports a model which is a variant of Option 1. The key features of this model are set out in Table 1. The key differences between this model and the AEMC's Option 1 are:

- use of the SENE is classified as a negotiated service, and not a new category of service under the Rules;
- the capacity rights for generators on the SENE are the same as the bilateral negotiation arrangements that apply to the existing network;
- planning of the SENE only occurs once there is a connection enquiry lodged by a generator and the generator agrees to meet the planning costs; and
- forecasts of future generator connections are required to satisfy specific commitment criteria set out in the Rules or an AER guideline to manage the risk of asset stranding, in addition to the other measures proposed.

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Grid Australia Model (Variant of AEMC's Option 1)**

Key Design Features	
Classification of services	Use of SENE classified as a negotiated service
Trigger for considering a SENE	AEMO identifies zones. No mandated preliminary planning by NSPs. NSP identifies credible options only following a request from a generator who agrees to fund planning studies
Investment test	Implicit in NSP planning and committed connection arrangements ¹ Construction of SENE triggered by firm connection agreements covering X% of the costs of the SENE Forecasts of future generation would need to satisfy specific commitment criteria set out in the Rules or an AER guideline ²
Cost allocation and charging methodology	Generators pay a proportional average cost Customers underwrite risk but should face no cost over life of assets if generation enters as expected
Access provisions	To be negotiated between generators and NSPs
Regulatory oversight	AER has power of veto, AEMO reviews forecasts

Grid Australia looks forward to working with the AEMC and stakeholders in further developing the Rule change proposal. If you require any further information, please do not hesitate to contact me on (08) 8404 7983.

Yours sincerely,



Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

¹ As per the discussion in the AEMC's Options Paper, the size of the SENE is based on forecasts of how many generators would find it profitable to enter (taking into account scale efficiencies), as well as committed connection contracts, which demonstrate that generators find it privately profitable to connect.

² These criteria could be similar to those set out for 'committed' and 'anticipated' generation developments in the RIT-T and adopted by AEMO in developing the Electricity Statement of Opportunities (ESOO).

Scale Efficient Network Extensions Rule 2010

Response to AEMC Options Paper

12 November 2010

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1. Introduction and Overview

Grid Australia makes this submission in response to the Australian Energy Market Commission's (AEMC) Options Paper in relation to the National Electricity Amendment (Scale Efficient Network Extensions) Rule 2010.

Grid Australia has emphasised in previous submissions to the AEMC the importance of any changes to the Rules being proportionate, evidence-based, and practical. Any changes to the Rules should produce a demonstrable improvement in market outcomes in relation to the National Electricity Objective (NEO).

1.1 Key Points

The Transmission Frameworks Review (TFR) will cover many of the issues raised by the SENE Rule change, including connection arrangements. Grid Australia considers that it is important that these issues are considered holistically, and that the SENE Rule change should not pre-empt matters considered in the TFR.

Grid Australia supports commercially negotiated market-based solutions for the development of network extensions where possible. These should not be inadvertently crowded out by any new, regulated arrangements. As a consequence, Grid Australia supports the AEMC's view that any Rule change made as a result of this process should be permissive and applied only following a request from a generator, rather than prescriptive.

Where a Rule change is made, Grid Australia supports a model which is a variant of Option 1. The key features of this model are set out in the Table 1.1. The key differences between this model and the AEMC's Option 1 are:

- use of the SENE is classified as a negotiated service, and not a new category of service under the Rules;
- the capacity rights for generators on the SENE are the same as the bilateral negotiation arrangements that apply to the existing network;
- planning of the SENE only occurs once there is a connection enquiry lodged by a generator and the generator agrees to meet the planning costs; and
- forecasts of future generator connections are required to satisfy specific commitment criteria set out in the Rules or an AER guideline to manage the risk of asset stranding, in addition to the other measures proposed.

Grid Australia does not consider that there is a need for the RIT-T to form part of the SENE arrangements, given that customers are not intended to ultimately fund the

extension. Incorporating the RIT-T in the SENE arrangements is likely to delay the investment to connect generators, given current uncertainty in relation to key parameters in the RIT-T assessment.

However, if the AEMC does decide to pursue a model which involves the RIT-T, Grid Australia supports Option 3. Under this approach the RIT-T is applied to incremental investment, and investment which satisfies the RIT-T is then funded by customers. This approach is more consistent with the current arrangements and has a higher likelihood of practical success in being applied.

Table 1.1
Grid Australia Model (Variant of AEMC's Option 1)

Key Design Features	
Classification of services	Use of SENE classified as a negotiated service
Trigger for considering a SENE	AEMO identifies zones. No mandated preliminary planning by NSPs. NSP identifies credible options only following a request from a generator who agrees to fund planning studies
Investment test	Implicit in NSP planning and committed connection arrangements ¹ Construction of SENE triggered by firm connection agreements covering X% of the costs of the SENE Forecasts of future generation would need to satisfy specific commitment criteria set out in the Rules or an AER guideline ²
Cost allocation and charging methodology	Generators pay a proportional average cost Customers underwrite risk but should face no cost over life of assets if generation enters as expected
Access provisions	To be negotiated between generators and NSPs
Regulatory oversight	AER has power of veto, AEMO reviews forecasts

¹ As per the discussion in the AEMC's Options Paper, the size of the SENE is based on forecasts of how many generators would find it profitable to enter (taking into account scale efficiencies), as well as committed connection contracts, which demonstrate that generators find it privately profitable to connect.

² These criteria could be similar to those set out for 'committed' and 'anticipated' generation developments in the RIT-T and adopted by AEMO in developing the Electricity Statement of Opportunities (ESOO).

Finally, the AEMC has asked whether combinations of options should be considered. Grid Australia does not support any combination of options (e.g. Options 1 and 3), as this has the potential to result in services of essentially the same nature being subject to different economic tests and to different cost recovery arrangements.

2. Any New Framework should be Permissive and Proportionate

2.1 Grid Australia supports market-based approaches

Grid Australia supports commercially negotiated market-based solutions for the development of network extensions where possible. The key advantage of such arrangements is that they shield customers from the risk of underwriting stranded developments. They can also be completed on a timelier basis since they do not require a formal regulatory approval process.³

Grid Australia understands that the AEMC is considering Rule changes that would provide a permissive framework that may be selected by generators in considering alternatives for connecting to the network. Such a framework would not place obligations on the NSPs until there is a specific request from the initial generator (or group of generators) to apply the framework. The AEMC recognises that the circumstances in which generators may decide to pursue connection through any new framework may be limited.

Grid Australia has previously highlighted the importance of existing market-based solutions not being inadvertently 'crowded-out' by a new framework. Grid Australia therefore supports any new framework introduced in the Rules being permissive rather than prescriptive.

2.2 Rule changes should be proportionate

Grid Australia has also emphasised in previous submissions to the AEMC the importance of any changes to the Rules being proportionate, evidence-based, and practical. Any changes to the Rules should produce a demonstrable improvement in market outcomes in relation to the NEO.

Grid Australia agrees that there are potential hurdles facing co-ordination of multiple generator applications to capture potential transmission scale economies. However, the lack of hard evidence of shortcomings in the current arrangements means that there is a real possibility that any new framework may, in practice, end up being used

³ Market-based solutions are most effective where a small number of parties are seeking connection via a network extension. They are generally not effective in providing efficient shared transmission services.

only in limited circumstances. It is therefore important that any Rule changes remain proportionate.

It is also important that any new framework is kept as simple as possible. Where changes introduced by the new Rules are complex, they are more likely to raise practical implementation risks. This ultimately threatens the effectiveness of the arrangements. Any changes to the Rules should complement existing arrangements, rather than replace or complicate them. This will be an important consideration for the AEMC in evaluating the alternative options.

2.3 Overlap with the Transmission Frameworks Review (TFR)

The TFR will cover many of the issues raised by the SENE Rule change, including connection arrangements.

Extensions to connect new areas of generation raise similar issues to other network developments to address transmission constraints. In both cases, major areas of potential benefit for the market in undertaking such investment are that it ‘unlocks’ lower cost generation sources and alters the pattern of future generation in the market.

Grid Australia considers that it is important that these issues are considered holistically and that the SENE Rule change should not pre-empt matters considered in the TFR. In this regard, Grid Australia supports the AEMC’s approach of assessing the proposed options in terms of their flexibility to accommodate any framework changes that may result from the TFR.⁴

There are also important interactions between the arrangement for SENEs and the arrangements for augmentation of the shared network, particularly under options which incorporate the application of the RIT-T economic test. These interactions have implications for the practicality of these options, and are discussed further in section 4.2.3.

The Options Paper contains a substantive discussion in relation to the interpretation of the current Rules in areas which may currently be unclear and where practice and the wording of the Rules may currently differ. The AEMC notes that there may be scope to clarify the existing framework. Specific areas highlighted by the AEMC include:⁵

- the relationship between assets and the services they provide;

⁴ AEMC, Options Paper, p. 8.

⁵ These issues and interpretations are discussed in section 5 of the AEMC’s Options Paper.

- the current ambiguity in the Rules regarding whether an asset funded by a generator may become subject to economic regulation (for example, if load seeks to connect) and whether the generator would be entitled to compensation in this event;
- the link between the application of the RIT-T and the definition of prescribed services, including for above-standard services that provide system-wide benefits; and
- the link between an investment satisfying the RIT-T and the subsequent allocation of costs for the relevant services.

An important outcome of the TFR should be an improved level of clarity in the Rules in relation to these (and other) issues, where this is shown to be necessary. This current Rule change consultation process is not the appropriate forum for clarifying all of these perceived concerns. However, it is important going forward that this debate is had and, if necessary, that the Rules are clarified. The matters discussed by the AEMC relate to areas in which there appears to be some scope for interpretation, and Grid Australia does not necessarily endorse all of the interpretations put forward by the AEMC.

Notwithstanding the above, the link between the application of the RIT-T and the subsequent classification of services and cost recovery arrangements are areas which are highlighted by several of the options discussed by the AEMC in the context of this Rule change. Grid Australia provides some specific comments on these issues in the context of the discussion of the alternative options in section 4. Depending on the option(s) adopted by the AEMC, it will be important to clarify these linkages in the drafting of any Rule changes to prevent further inconsistencies and ambiguities arising in the Rules as a result of the introduction of the SENE arrangements.

3. **Grid Australia Model: A Variant of Option 1**

If the AEMC determines in accordance with the NEO that there is a demonstrated need to change the current arrangements, Grid Australia supports a variant of the original SENE model under which extensions are treated as negotiated services and sit outside of the RIT-T process.

The AEMC has set out two variants of the original SENE model in its Options Paper:

- **Option 1**, reflects the original SENE model, with the addition of a cost threshold trigger which requires that at least 25% of the total capital costs of the network extension must be underwritten by firm connection agreements with generators before a SENE is constructed; or

- **Option 2**, goes further than Option 1 and includes not only a 25% cost threshold trigger, but also requires the extension to meet an ‘economic test,’ which is proposed to be the same as the test currently conducted under the RIT-T. Option 2 also replaces mandated compensation arrangements for SENEs with negotiated access provisions between generators and the NSPs.

Grid Australia supports a model which is a variant of Option 1. The key features of this model are set out in Table 3.1.

The key differences between this approach and the AEMC’s Option 1 are:

- use of the SENE is classified as a negotiated service, and not a new category of service under the Rules;
- the capacity rights for generators on the SENE are the same as the bilateral negotiation arrangements that apply to the existing network;
- planning of the SENE only occurs once there is a connection enquiry lodged by a generator and the generator agrees to meet the planning costs; and
- forecasts of future generator connections are required to satisfy specific commitment criteria set out in the Rules or an AER guideline to further manage the risk of asset stranding.

It is unclear from the AEMC’s Options Paper how much (if any) of the detail set out in the AEMC’s earlier Draft Rule for Connecting Generation Clusters⁶ is also included within the scope of the AEMC’s suggested Option 1. At this stage, Grid Australia does not endorse any aspects of the variant of Option 1 beyond the key features set out in Table 3.1.

⁶ AEMC, *Final Report – Review of Energy Market Frameworks in light of Climate Change Policies*, September 2009, Appendix G.

Table 3.1
Grid Australia Model (Variant of AEMC's Option 1)

Key Design Features	
Classification of services	Use of SENE classified as a negotiated service
Trigger for considering a SENE	AEMO identifies zones. No mandated preliminary planning by NSPs. NSP identifies credible options only following a request from a generator who agrees to fund planning studies
Investment test	Implicit in NSP planning and committed connection arrangements ⁷ Construction of SENE triggered by firm connection agreements covering X% of the costs of the SENE Forecasts of future generation would need to satisfy specific commitment criteria set out in the Rules or an AER guideline ⁸
Cost allocation and charging methodology	Generators pay a proportional average cost Customers underwrite risk but should face no cost over life of assets if generation enters as expected
Access provisions	To be negotiated between generators and NSPs
Regulatory oversight	AER has power of veto, AEMO reviews forecasts

3.1 No role for the RIT-T

Under this approach, extensions to connect multiple generators would be fully-funded by the connecting generators and treated as negotiated services, in a similar manner to current connection services.

Given that customers are not intended to ultimately bear the cost of the SENE, Grid Australia does not consider that the inclusion of an economic test (based on the same test used in the RIT-T) is warranted, in addition to AEMO and AER oversight and the proposed cost threshold trigger. The RIT-T test is applied to other network investments to justify the cost of the investment being permanently met by customers

⁷ As per the discussion in the AEMC's Options Paper, the size of the SENE is based on forecasts of how many generators would find it profitable to enter (taking into account scale efficiencies), as well as committed connection contracts, which demonstrate that generators find it privately profitable to connect.

⁸ These criteria could be similar to those set out for 'committed' and 'anticipated' generation developments in the RIT-T and adopted by AEMO in developing the Electricity Statement of Opportunities (ESOO).

as part of a prescribed service. This is not the situation being proposed for SENE investments. In addition, as recognised by the AEMC⁹, incorporating the RIT-T economic test introduces risks of delays to connection, as it requires additional analysis incorporating potentially controversial assumptions which may be disputed (see section 4).

3.2 Mitigating asset stranding risk

Grid Australia recognises that under Option 1 or a variant of it, customers face the risk of permanently funding part of the extension where actual generator connections turn out to be fewer (or later) than initial forecasts. AEMO's proposed oversight role of the NSPs' forecast generation profiles is part of the proposed arrangement for managing this risk. The AEMC's proposed 25% cost threshold trigger provides a further mechanism to address this risk.

Grid Australia notes that the selection of a particular percentage (whether 25%, more, or less) is essentially an arbitrary 'judgement call'. The higher the selected threshold, the lower the risk to customers that they will be required to permanently fund part of an extension.

Under the proposed Grid Australia Model, forecasts of future generation would need to satisfy specific commitment criteria set out in the Rules or an AER guideline to provide a further avenue for managing the risk of asset stranding.

In particular, in order to be incorporated in these forecasts, 'committed' and 'anticipated' generation developments would need to meet similar criteria to those set out in the RIT-T¹⁰ and adopted by AEMO in developing the Electricity Statement of Opportunities (ESOO). These include that the proponent has either obtained (or is in the process of obtaining): land; required planning consents; contracts for supply and construction of the necessary components; and the necessary financing arrangements.

3.3 Access rights should be negotiated

The AEMC notes in its Options Paper that leaving compensation arrangements in relation to access to the SENE to be negotiated between the NSPs and generators removes a significant layer of complexity from the proposed SENE framework and would be more consistent with the existing arrangements.¹¹ The AEMC incorporates

⁹ AEMC, Options Paper, p65.

¹⁰ RIT-T, clauses (18) and (19).

¹¹ AEMC, Options Paper, p65.

such an approach in its Option 2. The AEMC also highlights that the issue of generator access to the transmission network is a key component of the TFR and mandating compensation as part of the SENE arrangements has the potential to create inconsistencies with the outcome of that review.

Grid Australia supports the AEMC's assessment and considers that capacity rights in relation to the SENE should be negotiated under the same Rules applying to the existing network.

3.4 Connection enquiry to trigger NSPs' planning

The AEMC's earlier proposed Rule¹² required the NSPs to undertake a degree of preliminary planning in relation to any SENE zones identified by AEMO in their network area, prior to any generator making a specific enquiry for connection to that SENE zone. The result of this preliminary planning was intended to be the identification of credible options for network development to SENE zones, which would be published in the NSPs' Annual Planning Reports (APRs) or on their websites. This high level assessment was to include connection locations, capacities and indicative network costs, as well as the impact of each credible option on the shared network.

Grid Australia considers that the value of such preliminary planning for all identified SENE zones is limited given the relatively narrow circumstances in which generators may decide to lodge an application for a SENE. Conducting such pre-planning in relation to all SENE zones identified by AEMO, in the absence of any firm indication of interest from generators to connect in that area, is likely to divert planning resources from the consideration of other generator connection enquiries. It would also result in additional costs, which will ultimately be borne by customers in the event that no generators sign-up for the SENE arrangement for a particular zone. Any benefits associated with timelier generator connection under the SENE arrangement as a result of this pre-planning are likely to be limited, and may be offset by longer timeframes for non-SENE connections.

Furthermore, in order to develop an indicative cost estimate, the NSPs need to make an estimate of future generation. The AEMC discusses the detailed modelling of future generation outcomes that it anticipates that NSPs would undertake as part of developing these forecasts, in terms of future pool price outcomes and the assessment of the profitability of future generators. Grid Australia considers that such analysis, prior to there being a firm indication of interest from a generator in connecting to that SENE zone, is disproportionate.

¹² AEMC, *Final Report – Review of Energy Market Frameworks in light of Climate Change Policies*, September 2009, Appendix G.

Grid Australia therefore considers that planning by network businesses under the SENE model should only be triggered by a specific generator enquiry in relation to a SENE zone. This approach fits well with a view of the arrangements as ‘permissive’ and recognition that in practice there may be few applications for connection under the SENE model.

Grid Australia also supports the comment made by AEMO¹³ that the timeframes under the SENE model for developing the planning report and connection offer are too short and that some flexibility should be provided in the Rules.

The alternative options (Options 3, 4 and 5) set out in the AEMC’s Options Paper do not incorporate any ‘pre-planning’ phase. Grid Australia does not consider this to be a practical shortcoming under these alternatives as the consideration of building capacity in excess of a single generator’s requirements is only triggered by a generator connection enquiry.

3.5 Practical implementation issues

Grid Australia recognises that there are a number of practical implementation issues associated with the SENE model that remain to be worked through prior to the introduction of any Rule changes. These implementation issues have been highlighted in earlier Grid Australia submissions to the AEMC in relation to this Rule change and include:

- Under the SENE model, the asset stranding risk depends on forecasts of the specific *location* of future generation, as well as forecasts of the overall *quantity* and *timing* of future generation;
- Timeframes need to be flexible enough to accommodate planning and approval issues prior to commitment to proceed to construction;
- The treatment of future load connecting to a SENE needs to be set out clearly in the Rules;
- The arrangements for future interconnection between a SENE and the prescribed services shared network needs to be clear;
- Network assets typically have lives in the order of 50 years, compared to the shorter lives of many new generation projects (e.g. 20-25 years is typical for wind farm projects). The Rules would need to be clear which asset life to use in calculating the SENE charges; and

¹³ AEMO, Submission to the AEMC’s Consultation Paper on Scale Efficient Network Extensions, p8.

- The detailed arrangements in relation to pricing for use of the SENE need to be worked through, including the timing and scope of any reviews to initial prices over time.

Finally, in drafting the Rules to facilitate a SENE arrangement of the form of the proposed variant to Option 1, Grid Australia continues to emphasise the importance of clearly defining SENE services as a negotiated service. This would ensure that SENE extensions are treated in a similar manner under the Rules to current connection services, and avoids introducing additional and unnecessary complexity into the Rules via the introduction of a new, third category of regulated service. The importance of ensuring clarity and consistency in the definitions used in any Rules resulting from this Rule change process cannot be over-stated.

This is not a straight-forward task and the AEMC must ensure that sufficient attention is paid to the detailed drafting and how it fits within the overall Rules framework. It would be beneficial to actively engage stakeholders in reviewing the detailed Rules in order to minimise the opportunities for inadvertent discrepancies to be introduced. Grid Australia would be happy to work closely with the AEMC in undertaking this task.

4. Options Involving the RIT-T

Options 2, 3, 4 and 5 put forward in the AEMC's Options Paper all involve the application of the RIT-T (at least the economic test component) as part of the arrangements for connecting multiple generators.

Grid Australia does not consider there is any need for the RIT-T to form part of the SENE arrangements, given the intent that customers should not ultimately fund the SENE. Incorporating the RIT-T in the SENE arrangements is likely to delay the investment to connect generators, given current uncertainty in relation to key parameters in the RIT-T assessment.

If the AEMC does pursue a model which involves the RIT-T, Grid Australia supports Option 3. Grid Australia considers that this approach is more consistent with the current arrangements and has a higher likelihood of practical success in being applied, as discussed further below.

4.1 Inclusion of the RIT-T within the SENE framework

Options involving the RIT-T give rise to a number of (related) questions:

- Should the RIT-T consultation process apply, or only the economic test under the RIT-T?
- Should the RIT-T be applied to the entire network extension, or only to incremental capacity above the stand-alone capacity for the initial generator(s)?

- Should the RIT-T assessment also include any deep network augmentation required to relieve congestion in the shared network?
- Where an extension passes the RIT-T, should the costs of the investment be treated as a prescribed service and be borne by customers, or should the costs ultimately be paid by generators, as for other connection services?

These questions are considered in turn below and highlight implementation issues associated with some of the options set out in the AEMC's Options Paper, and the linkages between the combinations of features within a particular option.

Grid Australia's earlier supplementary submission and the related case study highlighted that the RIT-T outcome is highly dependent on the assumptions made about future carbon prices and the impact of the LRET on the future pattern of generation investment. The current high level of uncertainty in relation to these assumptions makes the RIT-T analysis potentially contentious and open to dispute. The AEMC recognises in its Options Paper that the significant commercial interests that are tied to the outcome of SENE assessments increases the chances that disputes will be raised.¹⁴ This in turn has the potential to delay the investment which this Rule change is seeking to facilitate.

Grid Australia considers that this provides a good reason for exercising caution in embedding the RIT-T assessment process as part of the arrangements for connecting multiple generators. This caution applies not just to the application of the RIT-T consultation process, but also goes to the heart of the RIT-T economic test itself.

4.2 Key features of these options

The key features of the four RIT-T options put forward by the AEMC, as they relate to the questions above, are set out in Table 4.1 and are summarised below:

- **Option 2:** The extension is required to meet an 'economic test,' which is proposed to be the same as the test currently included in the RIT-T assessment.¹⁵ The test is applied to the extension alone and not the deep network augmentation. Where the extension satisfies this test (as well as a 25% cost threshold trigger), the SENE would be constructed. Ultimately,

¹⁴ AEMC Options Paper, p50.

¹⁵ Note: The AEMC describes the economic test as 'performing a similar function to the current RIT-T' in that it will demonstrate that there are 'demonstrable net market benefits associated with the SENE.' (AEMC Options Paper, p65). However it is not clear whether the economic test would compare the net market benefit associated with the SENE with that associated with alternative investment options, which is the focus of the RIT-T assessment.

generators would pay for the extension as a negotiated service, provided generation materialises as forecast.

- **Option 3:** Generator(s) pay the stand-alone cost of the extension. The RIT-T is then applied to incremental capacity relating to the extension and any associated deep network augmentation. Where the incremental investment passes the RIT-T, the costs are paid for by customers as part of prescribed services, together with any deep network augmentation costs;
- **Option 4:** As for Option 3, with the exception that where the incremental SENE investment passes the RIT-T it is the connecting generators who also ultimately face this cost, with customers only bearing the cost as an interim measure prior to future generation connection. Customers bear the cost of any deep network augmentation which passes the RIT-T;
- **Option 5:** The RIT-T is applied to the entire SENE extension and to any associated deep network augmentation. Where the investment passes the RIT-T, the entire SENE costs are paid for by generators (via a new category of generator prescribed services) whilst the deep network augmentation costs are paid for by customers.

Grid Australia supports the AEMC's clarification at the public hearing that the adoption of any such model would represent a permissive framework in the Rules, and would not be prescriptive. That is, the incremental application of the RIT-T (under options 3 or 4) would only apply where the initial generator(s) requested or agreed to adopt that approach in preference to entering into a normal bilateral connection arrangement.

4.2.1 **Should the RIT-T consultation process be applied, as well as the economic test?**

The AEMC makes the observation in its Options Paper that the time taken to undertake the consultation process associated with the RIT-T as prescribed in the Rules may be incompatible with the need to develop connections to multiple generators in a timely fashion.¹⁶

The new RIT-T process incorporates extensive consultation, which in turn increases the timeframes required to evaluate investment options and, ultimately, increases the lead-time required for all transmission investments. The AEMC highlights that the RIT-T process takes at least 17 months and could take more than two years where an NSP's conclusions are disputed.

¹⁶ AEMC, Options Paper, p50.

Table 4.1: Comparison of Options Involving the RIT-T Economic Test

Option	Does RIT-T consultation process apply?	Does RIT-T apply to whole extension?	Does RIT-T include deep network?	Who pays?
2	✗	✓	✗	Generators
3	✓	✗ (Incremental only)	✓	Generators (stand-alone costs) Customers incremental SENE & deep network
4	✓	✗ (Incremental only)	✓	Generators (all SENE) Customers deep network
5	✓	✓	✓	Generators (all SENE) Customers deep network

Notwithstanding this point, Grid Australia understands that the enhanced consultation processes are intended to provide further comfort that the costs that customers are ultimately going to bear represent an efficient choice of investment. It is important to preserve this principle in relation to the approach adopted for network extensions to connect multiple generators. Where customers are ultimately going to permanently fund the investment, then the consultation process element of the RIT-T should apply, just as it does to investments in the shared network. Where the costs of the investment will ultimately be borne in full by the connecting generators, this process element of the RIT-T can be separated from the economic test element and need not be applied to the investment. This would enable the assessment to be completed on a timelier basis.¹⁷

Grid Australia considers that this principle should be recognised in further Rule developments, and notes that the AEMC's characterisation of the approaches in the Options Paper does reflect the above principle.

4.2.2 Should the RIT-T be applied to the entire SENE or only incremental investment?

The second question relates to the scope of the investment subject to the RIT-T: Specifically, whether the RIT-T should be applied to the entire network extension, or only to incremental capacity above the stand-alone capacity for the initial generator(s)?

Options 2 and 5 set out in the AEMC's Options Paper apply the RIT-T economic test to the entire network extension. Grid Australia's earlier case study of the application

¹⁷ Variants of Options 4 and 5 which restricted the application of the RIT-T to the SENE component alone would not need to include the RIT-T consultation process (as well as the RIT-T economic test), as the costs in this case would be fully met by the generators.

of the RIT-T to a network extension to connect wind generation¹⁸ highlighted that such an ‘unbounded’ application of the RIT-T is potentially problematic, as it is difficult to determine what other investments should be included in the assessment. For example, is an extension to connect multiple wind generators in one location in South Australia to be compared with other options to connect generators to that SENE zone or with extensions to connect generation in another location in South Australia? Should the assessment also include potential network extensions to connect other multiple generators in, for example, Queensland and Victoria?

The difficulties in clearly establishing a boundary around the analysis, and the commercial interests of competing generators, are likely to make the RIT-T analysis contentious and potentially open to dispute. As a result, Grid Australia considers that there are practical difficulties in applying the RIT-T economic test under Options 2 and 5.¹⁹ This risk is heightened for Option 5 as the RIT-T consultation process is applied as well as the RIT-T economic test.

Where the RIT-T is applied to incremental capacity relating to an extension to connect a specific generator (or a group of generators), the alternative options included in the analysis are clearly bounded, and relate to variants of the underlying extension. This results in the RIT-T becoming easier to apply. Options 3 and 4 both reflect this incremental approach, and so do not face the same difficulties as Options 2 and 5 in determining the scope of the analysis.

4.2.3 Should the RIT-T assessment also include deep network augmentation?

The third question also relates to the scope of the investment subject to the RIT-T, but in this case, whether the RIT-T assessment should extend to any associated deep network augmentation? Specifically, deep network augmentation may be required in order to relieve congestion in the shared network to enable the dispatch of the generators connecting to the extension.²⁰

¹⁸ NERA, *Case Study of the Network Extension – Public Report*, July 2010.

¹⁹ Grid Australia notes that the AEMC raises in its Options Paper the possibility that the economic test applied under Option 2 could be ‘narrower’ than that used in the RIT-T, and focused only on the costs and benefits of the proposed SENE to a defined area (AEMC Options Paper, p. 38). As noted above, it is unclear from the description in the Options Paper whether the AEMC envisages that the test would consider the net market benefit of a SENE compared to other investment options. Grid Australia considers that these narrower approaches would be inconsistent with the NEO, which is concerned with NEM outcomes as a whole. A SENE may increase market benefits in one area of the NEM whilst reducing them in another, potentially resulting in a negative impact on the NEM overall.

²⁰ Note that it may not be economic for deep network augmentation to relieve all of the constraints on generator dispatch.

Grid Australia's SENE case study highlighted the importance for the RIT-T analysis of the connecting generators actually being dispatched in order to result in market benefits from lower cost fuel dispatch, lower carbon emissions and the deferral of future generation investment.²¹ Where the generators connecting to the SENE are constrained, then the RIT-T would include the full costs of this investment, without the corresponding market benefits. As a result, it is highly possible that the SENE-only investment would not pass the RIT-T. This could be the case for options where the whole of the SENE is included in the analysis, but where deep network augmentation is excluded (i.e. Option 2).

Deep network augmentation is included in the RIT-T assessment proposed under Options 3, 4 and 5.

There is an advantage in considering both the network extension element to connect multiple generators and the deep network augmentation component at the same time. Where there are potential network constraints affecting generator dispatch, it provides greater assurance to the connecting generator that the deep network augmentation passes the RIT-T and will go ahead.

However it is not *necessary* for the RIT-T to be a formal part of the network connection process. Under the bilateral commercial negotiation process, the generator's acceptance of a connection offer may be contingent on a conditional RIT-T assessment that shows that deep network augmentation to relieve shared network constraints passes the RIT-T. The AEMC notes in its Options Paper that under the existing connection process, NSPs consider and plan any incremental investments that would deliver wider market benefits at the same time as they are planning the connection.²² A similar approach could be adopted as part of developing the SENE extensions (i.e. under the proposed variant to Option 1). The AEMC has also noted that under the proposed SENE Rules, the NSPs would have an obligation to consider and publish the impact of the SENE on the existing network.

4.2.4 How should the costs of investment that passes the RIT-T be recovered?

The options set out by the AEMC also differ in terms of the parties who ultimately pay for the costs of the option that satisfies the RIT-T economic test.

In general, where an investment satisfies the RIT-T, it is treated as a prescribed service and the costs are recovered from customers. The AEMC has emphasised in its Options Paper the lack of an explicit linkage in the Rules or in previous AEMC

²¹ This assumes that the connecting generators are a lower cost fuel source and have lower carbon emissions than the generators that they replace. As discussed above, this assessment may well be contentious.

²² AEMC, Options Paper, p34.

decisions between the application of the RIT-T and both service classification and subsequent cost recovery.

However, to date practical experience has been that investments that have passed the RIT-T have been classified as prescribed services, with the costs of the investment being recovered from customers. The MCE has also highlighted that where all or part of a SENE passes the RIT-T then it would be permanently funded by customers.²³ Grid Australia highlighted in section 2.3 the desirability of the AEMC ensuring that the Rules are clear on these linkages, in order to provide sufficient certainty to NSPs in relation to cost recovery of their investments.

Given this practical experience, Grid Australia considers that it would be desirable for the cost recovery arrangements to be consistent for all transmission investments which pass the RIT-T. This is in line with the goal of ensuring that any new arrangements do not complicate or undermine existing arrangements, and that changes are proportionate. In effect, the RIT-T can be considered as a test of when it is justified for the costs of an investment to be met by customers.

As a principle therefore, where an investment satisfies the RIT-T, the costs of that investment should be recovered from customers. Option 3 satisfies this principle; Options 2, 4 and 5 do not.

Under Option 3, the risks of customers being required to fund additional capacity which in the end is not used is addressed through the requirement in the RIT-T analysis to consider alternative 'reasonable scenarios'. In the case of a SENE extension, these alternative scenarios would include different forecasts for the quantity of generation connecting to the extension. Where these forecasts are substantially higher than the capacity of generation which has committed to paying for the SENE, then this scenario is likely to be given a lower weighting in the analysis, as it is more uncertain.

Where the AEMC considers it desirable for the costs of extensions to connect generators to be recovered from generators (rather than customers), for consistency with current connection arrangements, the model adopted should not incorporate the RIT-T. This reasoning would again support adopting a variant of Option 1 (as the only option not incorporating the RIT-T economic test).

There is also an overlap between the incorporation of deep network augmentation as part of the RIT-T assessment and who pays. Given that customers generally pay for shared network services, a holistic approach would again favour customers paying for all investment that passes the RIT-T where the RIT-T assessment included not just

²³ Ministerial Council on Energy, December 2009, *Review of Energy Market Frameworks in Light of Climate Change Policies, Response to Australian Energy Market Commission's Final Report*, p4.

investment in relation to the SENE investment, but also associated deep network augmentation. This would be the case under Option 3.

Under Option 4, where the RIT-T assessment includes shared network augmentation but where generators ultimately pay for all of the SENE investment (i.e. the initial stand-alone investment and incremental capacity that satisfies the RIT-T), the cost-recovery arrangements would become split between generators and customers. This introduces a complication and a departure from current practice. The same would be true under Option 5, where the cost recovery arrangements would need to distinguish between the SENE component of the RIT-T (ultimately recovered from generators) and the deep network component (recovered from customers).²⁴

Finally, Option 5 in particular appears to introduce changes that would not be proportionate to the issue being addressed, as it would require a new concept of 'generator prescribed transmission service' to be introduced. The issue of whether generators should pay for transmission services is a fundamental one and would be better addressed on a holistic level as part of the TFR.

5. Summary

Grid Australia supports commercially negotiated market-based solutions for the development of network extensions where possible. These should not be inadvertently crowded out by any new, regulated arrangements. Grid Australia therefore supports the AEMC's intention that the introduction of any new framework should be permissive (i.e. applied only where requested or agreed to by the connecting generator), rather than prescriptive.

If the AEMC decides that changes to the current arrangements are needed, Grid Australia supports a variant of the original SENE model, under which extensions are treated as negotiated services and sit outside of the RIT-T process. This model shares many of the high-level features of the AEMC's Option 1, but with the following key modifications:

- The Rules should make clear that services provided by a SENE are negotiated services, similar to current connection services;
- The capacity rights for generators on the SENE should be the same as the bilateral negotiation arrangements applying to the existing network; and

²⁴ The AEMC recognises in its Options Paper the additional complexity inherent in these proposals (AEMC Options Paper, p49).

- There should be no mandated preliminary planning role for the NSPs prior to a connection enquiry to a specific SENE zone being made by a generator, who also agrees to fund those studies; and
- Forecasts of future generator entry should be required to satisfy specific commitment criteria set out in the Rules or an AER guideline to manage the risk of asset stranding in addition to the other measures proposed.

If the AEMC decides to pursue a model which involves the RIT-T, the following principles should be borne in mind:

- Customers should fund that portion of the investment that passes the RIT-T, in line with existing practice;
- Since customers are funding the investment, the full RIT-T consultation process should apply, as well as the RIT-T economic test; and
- The RIT-T should be applied to incremental investment relating to a specific SENE extension, to avoid the problems of an 'unbounded' RIT-T application.

These principles support the adoption of Option 3, in preference to the other options incorporating the RIT-T (i.e. Options 2, 4 and 5).

Finally, the AEMC has asked whether combinations of options should be considered. Grid Australia does not support any combination of options (e.g. Options 1 and 3), as this has the potential to result in services of essentially the same nature being subject to different tests and to different cost recovery arrangements.