

27 January 2012

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

Via website: www.aemc.gov.au

Dear John

Transmission Frameworks Review First Interim Report

Grid Australia welcomes the opportunity to provide a submission to the Australian Energy Market Commission's First Interim Report for the Transmission Frameworks Review (TFR). As the Commission is aware, Grid Australia represents the owners of all major electricity transmission networks in the National Electricity Market (NEM), and as such, its members have a direct and substantial interest in the matters addressed in the TFR.

The Commission has indicated that it is seeking evidence about the materiality of issues raised in the First Interim Report to help it identify the most appropriate pathway forward for transmission frameworks.

Grid Australia supports an approach that seeks to refine the options for analysis based on evidence of whether these options have a reasonable prospect of promoting the NEO. The attached submission provides the Commission with evidence about whether certain options are likely to promote the NEO.

Grid Australia agrees with the Commission that the review should focus on generator access, network planning and connections. This is because these issues have been subject to considerable debate over the life of the NEM and it is important that the TFR process resolves the approach that should be taken for each based on the evidence available.

Changes to generator access, network planning and connection arrangements have the potential to have material commercial implications for various market participants. Therefore, providing certainty on these important matters for the foreseeable future clearly would enhance the NEO.

To this end, Grid Australia endorses the Commission's preference for market based solutions to issues where possible. Grid Australia also supports the Commission's preference for using well designed commercial incentives to encourage efficient outcomes, where there is a case for regulation.



Grid Australia considers that the evidence to date suggests that the key features of the current arrangements are working. This view is supported by evidence demonstrating that generators are successfully connecting to the network, and shared network investment is being undertaken to accommodate new generation and load growth.

However, there are grounds for questioning the effectiveness of the unique arrangements in Victoria and further consideration is required of the approach adopted in this jurisdiction. Victoria's not-for-profit planner and split transmission responsibilities are unproven as an arrangement that can deliver additions of new generation, and associated transmission development, on the scale actually occurring elsewhere in the NEM.

The regions with proven performance are characterised by TNSPs that are profit-motivated and subject to incentive regulation. In these regions TNSPs can be held accountable for service delivery, the planning standards are transparent, and each TNSP carries out planning and investment for both shared network and connection services. In these regions TNSPs are able to efficiently manage trade-offs between augmentation and renewal investment, integrate planning processes and infrastructure delivery, and are commercially motivated to connect new transmission users.

This attached submission aims to assist the Commission with its fact-based analysis of the effectiveness of the current arrangements and the options for improvement. Accordingly, Grid Australia would welcome the opportunity to provide the Commission with whatever further information it might seek following the receipt of this submission.

Grid Australia looks forward to continuing to work with the AEMC and stakeholders through the further stages of the review. If you require any further information, please do not hesitate to contact me on (08) 8404 7983.

Yours sincerely

A handwritten signature in blue ink that reads "Rainer Korte".

Rainer Korte
Chairman
Grid Australia Regulatory Managers Group

Transmission Frameworks Review

Grid Australia Response to First Interim Report

27 January 2012

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1. Introduction and Overview

Grid Australia welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (the AEMC) First Interim Report for the Transmission Frameworks Review (TFR). As the AEMC is aware, Grid Australia represents the owners of all major electricity transmission networks in the National Electricity Market (NEM). As a result, its members have a direct and substantial interest in the matters addressed in the TFR.

The AEMC has indicated that it is seeking evidence about the materiality of issues raised in the First Interim Report to help it identify the most appropriate pathway forward for transmission frameworks. Grid Australia endorses changes to frameworks where they are demonstrated to promote the National Electricity Objective (NEO) and, therefore, supports an approach that seeks to refine the options for analysis based on evidence of whether these options have a reasonable prospect of promoting the NEO. This submission provides the AEMC with evidence about whether certain options are likely to promote the NEO.

Grid Australia agrees with the AEMC that the review should focus on generator access, network planning and connections. This is because these issues have been subject to considerable debate over the life of the NEM and it is important that the TFR process resolves the approach that should be taken for each based on the evidence available. Changes to generator access, network planning and connection arrangements have the potential to have material commercial implications for various market participants. Therefore, providing certainty on these important matters for the foreseeable future clearly would enhance the NEO.

To this end, Grid Australia endorses the AEMC's preference for market based solutions to issues where possible. Grid Australia also supports the AEMC's preference for using well designed commercial incentives to encourage efficient outcomes, where there is a case for regulation. The AEMC's final determination on Scale Efficient Network Extensions sets out this position where it stated:¹

The Commission considers this market based approach will promote efficient decision making given that participants that face market signals typically have greater incentives to ensure their investment decisions are well-informed and balanced against any associated risks. Efficient investment will help promote dynamic efficiency, lowering expected total system costs and, over time, leading to more efficient price and higher quality and service for consumers.

Grid Australia considers that the evidence to date suggests that the key features of the current arrangements are working. This view is supported by evidence demonstrating that generators are successfully connecting to the network, and shared network investment is being undertaken to accommodate new generation and load growth.

¹ AEMC, *Scale Efficient Network Extensions, Rule Determination*, 30 June 2011, Sydney p.53.

However, there are grounds for questioning the effectiveness of the unique arrangements in Victoria and further consideration is required of the approach adopted in this jurisdiction. Victoria's not-for-profit planner and split transmission responsibilities are unproven as an arrangement that can deliver additions of new generation, and associated transmission development, on the scale occurring in practice elsewhere in the NEM.

The regions with proven performance are characterised by TNSPs that are profit-motivated and subject to incentive regulation. In these regions TNSPs can be held accountable for service delivery, the planning standards are transparent, and each TNSP carries out planning and investment for both shared network and connection services. In these regions TNSPs are able to efficiently manage trade-offs between augmentation and renewal investment, integrate planning processes and infrastructure delivery, and are commercially motivated to connect new transmission users.

This submission aims to assist the Commission with its fact-based analysis of the effectiveness of the current arrangements and the options for improvement. Accordingly, Grid Australia would welcome the opportunity to provide the Commission with whatever further information it might seek following the receipt of this submission.

The remainder of this introduction and overview responds to the specific questions identified by the AEMC in Chapter 2 of the First Interim Report. This submission then elaborates on the issues raised in the First Interim Report in detail. Section 2 comments on the AEMC's assessment framework, section 3 provides evidence to demonstrate the success of the existing planning and connections frameworks, and the remaining sections address the AEMC's proposals for access, planning and connections respectively.

1.1 Response to specific questions posed by the AEMC

This section provides a response to the specific questions the AEMC indicated it is particularly interested in stakeholder views on.

1.1.1 Access packages

The AEMC has put forward five packages for further consideration, these are:

- Package 1: An open access regime
- Package 2: Open access with congestion pricing
- Package 3: Generator reliability standards
- Package 4: Regional optional firm access model

- Package 5: National locational marginal pricing

Which packages do you consider would best contribute to the achievement of the NEO, and more specifically, the objective of this review to minimise the expected total system costs faced by electricity consumers?

In this review the AEMC has set out the importance of efficient and timely investment in generation and transmission in minimising total system costs faced by electricity consumers over time. The efficient integration of these investments has also been identified as important in this regard.

Current transmission arrangements are essentially consistent in each of the jurisdictions outside of Victoria. The evidence indicates that the current framework under these arrangements has been successful in facilitating the connection of new generation to transmission networks, as well as associated transmission developments. This in turn casts doubt on whether access issues are providing a material barrier to generation entry. Indeed, in some jurisdictions, particularly Queensland and South Australia, there has been substantial new generation and associated transmission investment under the current transmission framework.

However, based on submissions to the Transmission Frameworks Review, it is apparent that there is concern about the current transmission access arrangements, particularly among generators operating in Victoria. The reasons for this warrant closer examination to determine whether or not these concerns are linked to the different transmission arrangements in that region. Despite the concerns raised by some generators, new generation investment has also occurred at a sufficient level in Victoria to meet the reliability standards recommended by the Reliability Panel.

Given that existing frameworks are generally working, Grid Australia considers that Package 1 (an open access regime) should be the default option for AEMC consideration. Implementing this package would serve to reduce a matter of considerable contention in the NEM; namely, the intention of clause 5.4A.

Of the other packages which deal directly with generator access, Grid Australia considers that Package 5 (locational marginal pricing for generators) is least likely to achieve the desired objective given its implementation costs and risks, and questions about the benefits that can be achieved under this option.

Grid Australia agrees with the reservations expressed by the AEMC and considers that Package 3 (generator reliability standards) is a relatively blunt tool that is unlikely to materially improve efficiency. In contrast, Package 4 (regional optional firm access) would appear to offer the most proportionate response should the evidence show that access issues pose a material barrier to efficient generation investment. Accordingly, the extent to which prospective congestion risks are deterring efficient generation investment should be a target of further analysis.

Grid Australia notes that Package 2 (open access with congestion pricing) goes to the question of ‘disorderly bidding’ and does not address generator investment incentives. However, further quantification of the operational efficiency benefits of Package 2 could help determine whether this should be pursued further in future.

**What evidence or anticipated outcomes are there to support this view?
Stakeholders should consider both:**

- Why this package is more likely to contribute to the achievement of the NEO than the other packages presented; and
- What evidence exists to suggest that the materiality of the problems identified would support adopting that package

As indicated in response to the previous question, Grid Australia considers that, on the whole, the existing frameworks are demonstrably delivering timely and efficient generator and transmission investment, at least in regions outside of Victoria. Given the existing framework also appears to be facilitating sufficient new generation investment in all regions it is hard to conclude that the access arrangements are deterring generation investment. Accordingly, Package 1 should be the default option for the AEMC to progress. Implementing this package has the benefit of overcoming the acknowledged uncertainty associated with the existing provisions in clause 5.4A.

In terms of your preferred package, are there any modifications that you would make, while maintaining the consistency of the package?

Grid Australia notes that there are a number of important matters of detail that would need to be considered should any of the packages be progressed further. A number of implementation issues are identified in the body of this submission.

Do any of the other packages presented merit further analysis and assessment?

As noted above, Grid Australia considers that based on the evidence to date the AEMC should focus on developing Package 1 further. However, where the AEMC is provided with evidence that there are material disincentives to generator investment, Package 4 is most likely to achieve the AEMC’s objectives. Also as noted above, it would be helpful to quantify more clearly the operational efficiency benefits that might arise from implementing Option 2.

Given the size of the costs and uncertainty of the benefits associated with Package 5 this package should not be considered further by the AEMC. In addition, Grid Australia recommends that the AEMC does not consider Package 3 further because it is a relatively blunt tool unlikely to deliver significant efficiency benefits.

As indicated above, while Package 2 would not address generator investment incentives, Grid Australia considers that this option could be applied to any of the

proposed packages and appears to be relatively straightforward to implement. Further consideration of this option is warranted to determine whether the benefits in operating efficiency gains are sufficient to warrant its adoption.

Are there any other packages for reform that we should consider and, if so, how would they better promote the NEO?

Given Grid Australia's view that the existing framework does not appear to provide a barrier to effective generator entry, no additional packages have been identified for further consideration. However, it may be beneficial to determine the reasons why the majority of concerns about access arrangements appear to originate from generators operating in Victoria.

1.1.2 Planning options

In relation to transmission planning the AEMC has put forward proposals for enhancements to existing frameworks as well as a number of options for more significant change to the framework. The proposals for enhancements to the framework are:

- Implementing a national framework for transmission network reliability standards for load
- Improving the consistency of the Annual Planning Reports (APR)
- Improving the transparency of the RIT-T
- Aligning the revenue resets of TNSPs, and
- Introducing reliability standards for interconnectors.

The four proposals for more significant reform of the planning arrangements are:

- Option1: Enhanced coordination of the National Transmission Network Development Plan (NTNDP) and APRs
- Option 2: Harmonised regime based on the South Australian arrangements
- Option 3: A single NEM-wide transmission planner and procurer, and
- Option 4: Joint venture planning body established by TNSPs.

Is there a case for changing the existing planning arrangements?, and if so, is there a case for enhancements to existing arrangements or more significant reform?

As previously articulated in responses to this review, Grid Australia's view is that while existing national planning arrangements are relatively new, they appear to be

delivering efficient and timely development of transmission networks within and across regions. In particular, recent developments such as AEMO's role as National Transmission Planner and the introduction of the Regulatory Test for Investment – Transmission are considered likely to be improving co-ordination of planning and investment decisions nationally. These arrangements are similar in each of the regions outside of Victoria.

This submission provides further evidence that such arrangements have proven to be successful in meeting the transmission investment requirements associated with large scale generation development and/ or higher rates of demand growth.

Grid Australia notes, however, that there is some uncertainty associated with the quite different arrangements in Victoria. The fact that the Victorian transmission system has had excess capacity for much of the life of the NEM, means there is little evidence or opportunity to demonstrate the effectiveness of that planning model in meeting more challenging investment requirements.

While the existing transmission framework operating in most jurisdictions appears able to deliver the desired outcomes, Grid Australia supports enhancements to the framework where these would promote the NEO.

Of the options presented, which do you consider merit further assessment?

On the whole, Grid Australia supports the enhancements put forward by the AEMC with respect to transmission planning. These proposals go towards the consistency of regulatory frameworks as well as effective information provisions. These are objectives that Grid Australia supports. In fact, Grid Australia recommends the AEMC considers further development of some of the proposed enhancements. However, Grid Australia notes that further consideration will be necessary specifically with regard to the proposals to align revenue resets for TNSPs and to introduce a reliability standard for interconnectors.

Grid Australia considers that a national view about transmission is necessarily more than simply ensuring efficient interconnector investment occurs. A national view for transmission also requires national consistency in such matters as the approach to network planning, setting reliability standards and the arrangements for connections. From a transmission network user perspective, particularly those with facilities in more than one region, it would be more efficient if similar arrangements applied in each region.

Accordingly, Grid Australia endorses the AEMC further investigating the introduction of Option 2, a harmonised regime based on the South Australian arrangements, in each NEM jurisdiction. Option 2 achieves a consistent approach to network planning across the NEM and coordination of decision making, while maintaining the capacity to use commercial incentives to encourage efficiency and hence the promotion of the NEO.

Grid Australia notes that an essential element to achieving a national view to transmission in this respect would be to bring Victoria into line with other NEM jurisdictions. Grid Australia also notes that the question of who should be responsible for demand forecasting under this option would be an important matter for each jurisdiction to consider and determine.

Grid Australia does not consider that the AEMC should give further consideration to Option 3 (a single NEM wide planner and procurer) or Option 1 (enhanced coordination of the NTNDP and APRs). Option 1 would maintain an inconsistent approach in Victoria compared to other jurisdictions, and so fails to achieve nationally consistent transmission arrangements. Option 1 also retains arrangements in Victoria that are yet to be proven in terms of delivering the scale of transmission development that could arise in response to future climate change policies .

Option 3 would essentially extend the current Victorian model across the NEM. Grid Australia considers that the separate responsibilities in Victoria under Option 1, and across the NEM under Option 3, including a not-for-profit planner, are likely to be detrimental to efficiency and significantly reduce the scope for effective commercial incentives to apply.

Furthermore, the separation of responsibilities under these options means that the necessary link between transmission planning and full accountability for service performance is not present. In addition, a not-for-profit planner and procurer of transmission preclude the use of financial incentives to deliver efficient outcomes. Finally, as already noted, there is no proven capacity for these arrangements to meet the investment challenges that may arise in response to climate change policies.

Are there any other options that should be considered?

Given that the existing framework, as it essentially applies in most jurisdictions, appears to be working well, Grid Australia has not considered any additional changes for consideration.

1.1.3 Connections proposals

The AEMC have put forward three proposals for change with respect to the connections framework:

- Proposal 1: Enhancement to dispute resolution
- Proposal 2: Enhancements to the negotiating framework, and
- Proposal 3: Prescribing transmission services.

Which options, if any, do you consider would best contribute to the achievement of the NEO and, more specifically, the objective of this review to minimise the expected total system costs faced by electricity consumers?

Grid Australia considers that the evidence to date suggests that the current arrangements are delivering new generation and load connections in most jurisdictions. Based on stakeholder responses, and the need for the current improvement activities being undertaken in Victoria, there are additional issues arising from the different arrangements in that region.

Given the track record on delivering new connections in most jurisdictions, Grid Australia considers that stakeholder concerns can be addressed, at least in part, by clarifying the framework to reflect existing practice in those jurisdictions. The AEMC's original intention for the framework, when introduced in 2006, should also be used as a reference point for this clarification. This includes its stated preference for market based arrangements and only regulating to the extent necessary to address market failure.

What evidence is there to support this view?

Grid Australia considers that the evidence to date points more towards the success of the framework rather than any failings.

The current framework has been in place since 2006. Numerous connections have been undertaken during that period by every TNSP in the NEM. Despite the number of connections there has not been an instance of a connecting party disputing the price or terms and conditions upon which services are provided via the NEM dispute process.

Regarding the contestability of services outside the boundary of the network, the evidence indicates there are relatively low barriers to generators or loads providing these services to themselves. This is supported by the numerous examples (set out in section 6 of this submission) of contestable provision of non-regulated services in each jurisdiction in the NEM.

While the existing frameworks appear to be delivering, it is acknowledged that stakeholders have expressed a number of concerns to the AEMC. While there is scope to improve the clarity of the Rules, submissions to the AEMC suggest that many of the frustrations of stakeholders may be strongly influenced by the arrangements in Victoria where there is a materially different application of the current framework.

It should also be recognised that the connection process is inherently complex requiring TNSPs to ensure that system performance requirements are met and that new connections do not unduly undermine agreements between TNSPs and existing customers.

Furthermore, it is only natural that generators would use the rule change process to improve their bargaining position. This is a predictable outcome from commercially motivated parties regardless of the current relative bargaining positions.

To summarise, having regard for these realities, it is unlikely, in practice, to ever meet the stated expectations of connection applicants. The more important public policy issue is whether or not the arrangements are delivering efficient investment outcomes thereby leading to the lowest sustainable prices for consumers. As noted above the evidence suggests this is occurring in most jurisdictions under current arrangements.

Are there any other options for improving the connections arrangements that we should consider and, if so, how would they better promote the NEO?

Grid Australia urges the AEMC to consider amendments to the Rules to clarify the intention and present application of the framework. Grid Australia considers that significant benefit can be derived from simplifying definitions, and re-organising the Rules so that there is a better interface between the connections process and other related provisions and processes.

The Grid Australia published guideline on the categorisation of transmission services² reflects this practice and is based on the AEMC's 2006 design of the framework as set out in Chapter 6A. As such this guideline provides a good starting point for clarifying the Rules.

² See:
http://www.gridaustralia.com.au/index.php?option=com_content&view=category&layout=blog&id=114&Itemid=230

2. Assessment framework

Key messages:

- The AEMC has proposed a generally sound assessment framework; however, it is important that its assessment remain consistent with the COAG transmission principles
- Grid Australia supports the AEMC's proposition that any proposed changes to frameworks should result in materially more efficient outcomes
- Grid Australia agrees with the AEMC that commercial incentives have an important role in encouraging efficient outcomes

Chapter 3 of the AEMC's First Interim Report describes the assessment framework it intends to apply when comparing alternative packages against the existing arrangements. Grid Australia believes that the AEMC has proposed a generally sound assessment framework that properly focuses on commercial incentives and appropriate risk management to achieve efficient outcomes. Grid Australia also agrees that implementation and transitional costs should not outweigh the benefits of moving to a new framework.

Grid Australia agrees with the overall objective of achieving an efficient integration of transmission and generation services. In particular, Grid Australia supports the AEMC's framework for ensuring TNSPs are able to contribute to efficient outcomes. Grid Australia's strong view is that using well designed commercial incentives in combination with regulatory obligations will deliver efficient outcomes. An incentives based approach allows for the profit motivation of TNSPs to be harnessed for the benefit of all network users. In this context, as acknowledged by the AEMC, delivering efficient transmission outcomes also requires that TNSPs be required to take on reasonable and manageable risk only.

Grid Australia also supports the AEMC's proposition that proposed changes should result in materially more efficient outcomes. This position recognises that there is always uncertainty about the benefits and the full implementation costs when change is made. In addition, Grid Australia supports the AEMC's goal of a stable and predictable regulatory environment. Substantial changes to regulatory frameworks have an impact on the perceptions of certainty and predictability for investors within a regime. This further strengthens the need for the case for change to be based on material benefits. While Grid Australia supports the overall assessment framework proposed by the AEMC, it is concerned at the prospect that less weight may be given to the COAG principles for transmission services. These principles were specifically referenced in the MCE's terms of reference for the review on the basis that they reflect a number of important factors that need to be maintained with respect to transmission frameworks. Therefore, Grid Australia urges the AEMC to ensure it has appropriate regard to these principles throughout the remainder of the TFR.

3. Performance of existing frameworks

Key messages:

- Grid Australia considers that frameworks are generally robust and delivering outcomes consistent with those desired by the AEMC
 - There has been considerable investment in the shared network to meet load growth and to accommodate the entry of new generation
 - There have been numerous new generation and major load connections in each jurisdiction with no need to call upon the commercial dispute resolution mechanism
 - Recent developments such as AEMO's publication of the National Transmission Network Development Plan and the introduction of the Regulatory Investment Test for Transmission are considered likely to improve co-ordination of planning and investment decisions nationally.
- Assessing the performance of the arrangements in Victoria is more challenging given its network has not yet faced significant challenges and the planning standard does not support a transparent assessment of outcomes. In addition, the tripartite arrangements for connection related services appear to be causing considerable commercial complexity for connecting parties.
- While existing frameworks in most regions appear to be robust, Grid Australia agrees that models for enhancements to frameworks should be investigated further where there is a case to do so.

As indicated in previous submissions to the AEMC, Grid Australia considers that the frameworks for transmission, as they operate in regions outside of Victoria, are generally robust and are delivering outcomes consistent with those sought by the AEMC. This section separates Grid Australia's assessment of the performance of the existing frameworks between the access and planning arrangements, and the connection arrangements, noting that these aspects each has an effect on perceptions of the incentives for generation and load investment.

While, on the whole, existing frameworks appear to be robust as they operate in most jurisdictions, Grid Australia acknowledges that there is nevertheless merit in further considering models and options that have a prospect of promoting the NEO based on the evidence available.

3.1 Success of the transmission access and planning arrangements

As acknowledged by the AEMC key aspects of the current transmission planning arrangements are relatively recent and evidence of their performance is limited.

However, most features of the current arrangements have been operating since NEM commencement and this provides a source of additional evidence of the success of

current arrangements operating in most regions. Furthermore, as the AEMC recognised, the absence of shared network access rights for generators has been in operation since NEM commencement. Therefore, the performance of the arrangements in operation since NEM commencement is again instructive.

This evidence indicates that there has been significant investment in transmission when it is needed, high levels of reliability in the transmission network, minimal price separation between regions, and the cost of congestion appears to be very small. It also suggests that generators have not been deterred from investing because of the future risk of being constrained off by transmission congestion.

While transmission planning frameworks have been amended in recent years this has been to improve co-ordination of planning and investment decisions nationally, for example through the introduction of AEMO's annual National Transmission Network Development Plan. It has also resulted in an increased focus on market benefits as a result of development of the regulatory test process to establish the recently implemented Regulatory Investment Test – Transmission. The significance of these new arrangements is considered further below.

These developments have had largely incremental impacts on transmission investment planning arrangements operating within most regions. Apart from Victoria, the arrangements are largely similar in each region and have been so since NEM commencement. Specifically, each TNSP has both planning and investment responsibilities with performance accountability against transparent planning standards.

Asset development occurs on a contestable basis, augmentation and replacement investment is co-ordinated within the same entity, and regulatory incentives are applied to encourage efficient investment, maintenance and operations. The proven performance of such arrangements in these regions since NEM commencement is therefore relevant and instructive.

Queensland is one of the regions operating under the model described above. Grid Australia considers the success of the current framework for planning and access is best demonstrated by that region because it has had the most significant investment challenges to face. Arguably, the challenges are similar to those likely to arise as new generation sources develop in response to climate change policies.

In Queensland, since NEM start, energy consumption has increased by 90 per cent and peak demand by 110 per cent. Over this period there have been 18 generation connections, 18 major load connections, and 43 distribution supply point connections. Generators have responded to market signals (indicating load growth), invested, and have been connected to the transmission network in a timely and efficient manner.

Queensland also has had a significant geographical challenge to meet this growth given the transmission network spans approximately 1700 km from Cairns to the Gold Coast, as compared to Victoria which is highly centralised. In the face of this

challenge the Queensland system has grown by around 4,000 circuit kilometres, generation reserves have been in excess of minimum levels defined by AEMO, and customers have experienced a level of network reliability consistent with expectations set following the 2003-04 Summer, which triggered the Somerville enquiry..

However, the performance of the transmission planning frameworks in Victoria is less clear. At the time of the commencement of the NEM, the core transmission system in Victoria had substantial excess capacity, largely the result of expenditure decisions in the 1980's. This has meant that, to date, there has been little need for new transmission line investment in that jurisdiction. This has also been influenced by the relatively centralised nature of the transmission network in Victoria. The consequence of these factors is that the effectiveness of Victorian framework has not really been tested to date.

In addition, it is difficult to test objectively whether an appropriate level of transmission investment has occurred in Victoria given the lack of transparency of planning standards and the fact that the AER no longer assesses revenue proposals for AEMO in Victoria. While it is difficult to identify evidence of the Victorian framework's success or otherwise, Grid Australia notes that the majority of stakeholders that have expressed concern with transmission access issues are based in Victoria.

3.2 Significance of recent changes to the planning arrangements

Grid Australia considers that although only preliminary evidence is available, recent changes to the planning arrangements to improve co-ordination of planning and investment decisions nationally appear to be successful.

A key feature of the amended frameworks is AEMO's role as the National Transmission Planner. AEMO supports the development of nationally efficient transmission planning by publishing its annual National Transmission Network Development Plan (NTNDP). The NTNDP gives a long-term strategic overview of the national system's development, with particular focus on current and future network capability and the National Transmission Flow Paths connecting the NEM regions. The NTNDP and TNSP Annual Planning Reports (APRs) inform each other, allowing for a national approach to transmission planning which also gives regard to localised network requirements.

Recent changes have also resulted in an increased focus on market benefits as a result of development of the regulatory test process to establish the recently implemented Regulatory Investment Test – Transmission.

3.3 Success of the connections framework

The experience in Queensland with respect to new connections of load and generation has also been experienced to different degrees in the other NEM jurisdictions. The table below provides the number of generator connections and

major load connections in each jurisdiction since the commencement of the current arrangements.

Table 1: Generator and Load Connections since 2006

Jurisdiction	Generation Connections	Major Load Connections
Queensland	7	12
NSW*	4	1
Victoria	2	0
South Australia	9	4
Tasmania	2	4

* Not including major loads connected to the Ausgrid transmission network

In addition, a significant number of new generation and load connections are scheduled for connection across the NEM within the next two years.

The success of the existing framework is also demonstrated by the fact that despite the volume of connections that have occurred across the NEM, the commercial dispute resolution framework has not been used since its introduction in 2006.

Grid Australia notes that the clear implication of the number of generation connections in each jurisdiction is that access concerns do not appear to be creating risks sufficient enough to be a barrier to entry across the NEM.

Grid Australia notes, however, that the tripartite arrangements for connections in Victoria involve considerably more commercial complexity for connecting parties compared to other jurisdictions. Indeed, the difficulties associated with the structural arrangements in Victoria have at least in part caused AEMO to initiate a review to improve the connections framework in that jurisdiction.³

While Grid Australia acknowledges the efforts of AEMO in this area, the root cause of the complexity in the Victorian connection arrangements is the structural separation of transmission roles, with one of those roles being performed by a financially disinterested party. Hence, the only way to solve the structural problems in Victoria is to make a structural change to the institutional arrangements causing the problems. Conversely, changes to contestability arrangements presently being contemplated in Victoria, and referred to in the AEMC's First Interim Report, appear to be moving a further step away from achieving consistency across the NEM.

³ See: http://www.aemo.com.au/planning/connection_initiatives.html

4. Proposed access packages

Key messages:

- Grid Australia considers that the evidence to date indicates that the current framework is providing incentives for efficient generation entry.
- The AEMC should consider Package 1 (an open access regime) as the default option (rather than no change) given the benefits of clarifying the arrangements with respect to clause 5.4A
- Where the AEMC identifies evidence of barriers to efficient generation investment, Package 4 (regional optional firm access model) appears to best achieve the objectives of the AEMC
- Packages 3 (generator reliability standards) and 5 (national locational marginal pricing) should not be progressed further by the AEMC:
 - Package 3 is a blunt tool that is unlikely to materially improve efficiency
 - The costs of implementing Package 5 are considerable, while the overall efficiency benefits are questionable
- Grid Australia notes that Package 2 would not address generator investment incentives; nevertheless, this option appears to be relatively straightforward to implement should the AEMC identify a need for this change

As identified in section 1.1.2 of this submission, the AEMC has put forward five packages for reform with respect to network access. Grid Australia considers that the relevant question the AEMC is seeking to answer with respect to the proposed packages is whether the current frameworks encourage efficient new generation investment. As identified in section 3 of this submission, Grid Australia considers that the current framework has been successful in delivering new generation investment and the associated investments on the shared network.

Should the AEMC identify evidence that indicates there may be barriers to efficient generation investment, Grid Australia encourages the AEMC to undertake detailed modelling and testing of preferred options for change. Doing so will allow stakeholders to obtain confidence that the assessment of likely benefits is credible and the costs associated with transition and implementation are clearly scoped and identified.

The remainder of this section will address each of the access packages put forward by the AEMC in the context of their ability to achieve the desired goals and identify where further consideration may be necessary. In addition, where appropriate, Grid Australia comments on the additional package put forward by International Power GDF Suez in its submission of 16 January 2012.

4.1 Package 1: An open access regime

As previously noted, Grid Australia agrees with the AEMC that it has not been provided with persuasive evidence to date that existing arrangements are not providing reasonably effective outcomes. Given this view, Package 1 should be treated as the default option by the AEMC. Movements away from this package should only be carried out where there is evidence that the benefits of the change outweigh the costs.

The main advantage of Package 1 is that it retains the successful features of the existing framework while also clarifying the arrangements with respect to a contentious aspect of the Rules, namely the operation of clause 5.4A. This clarification is long overdue and will serve to establish realistic initial expectations of connection applicants and, thus, reduce the frustration and costs associated with negotiating connection arrangements.

Grid Australia also wishes to point out that implementing Package 1 would be very low cost and as a consequence would be a ‘no regrets’ option for the AEMC. In addition, implementing this package would not preclude a move to other packages at a later date should the case to do so become evident.

4.2 Package 2: Open access with congestion pricing

Grid Australia agrees that Package 2 would be relatively simply to implement and would likely improve the efficiency of dispatch outcomes by reducing the incentive for disorderly bidding. However, it is not clear how large the overall efficiency benefits would be from this outcome given it may simply result in wealth transfers between generators, or between generators and customers. Accordingly, additional quantification of the potential operating efficiency benefits that would arise from implementing this option would be helpful.

In addition, if the AEMC determines that the resolution of long-term congestion and generator access are necessary to improve generator investment incentives, Package 2 would not overcome these problems.

4.3 Package 3: Generator reliability standards

The benefits of Package 3 would be that it would improve the certainty of the service levels available to generators. In doing so, it would also improve the transparency of network investment decision making by making it clear that investment will be undertaken to meet a pre-defined standard for generators.

Package 3, however, is a relatively blunt tool for providing generators with increased certainty with respect to network access. Therefore the size of the efficiency improvements that can be achieved under this package may be limited.

- Generators are likely to place different values on the certainty of access. Package 3 is, to a large extent, a one-size-fits-all approach. This may, therefore, lead to under or over-investment relative to the preferences of individual generators. The different preferences of generators with respect to levels of access may also introduce difficulties in setting the standard to the extent that it is difficult, or impossible, for the standard to meet the access needs of any party relative to the costs incurred.
- Grid Australia considers that it is also not clear that this option would provide a strong locational signal given the intention that there by only one price per zone. As a consequence, it may be possible that generators could still locate in a higher cost part of a zone but pay the same charge as if they had located in a lower cost part of the zone.

If a generator facing reliability standard were introduced it would likely lead to additional transmission investment. Therefore, the AEMC needs to ensure this investment is efficient and the marginal costs involved are reflected in prices to the right parties.

Given the obligation relates to generator preferences it is reasonable that they be exposed, to the extent feasible, to the transmission costs caused by their decisions. It is also important in this context for generators to pay network charges so that customers are not seen to bear the costs of any additional transmission investment required.

Grid Australia notes that a number of more detailed implementation issues would also need to be resolved.

- Grid Australia agrees with the AEMC that given the uncertain timing of generator entry, an important requirement of such a scheme is to ensure that TNSPs are able to recover the efficient cost incurred within a regulatory period to meet a generator facing reliability standard. Either the contingent projects mechanism or determining a ‘standard amount’ may be suitable, provided that TNSPs are not left with an inability to recover efficiently incurred costs.
- Grid Australia agrees that further consideration will need to be given to the appropriate role for the RIT-T as well as the functions of the National Transmission Planner (NTP) and Last Resort Planning Power (LRPP) under this approach. If a generator facing reliability standard were to be introduced, the benefits of these tools are likely to relate mainly to the assessment of interconnectors.
- While further detail is required on the application of incentives under Package 3, Grid Australia notes that the AEMC should be cautious that it does not inappropriately link a mandatory standard with an incentive scheme. Where the mandatory standard is set efficiently, an additional incentive mechanism may

serve only to encourage over-investment to reduce the risk of the standard being breached.

- The management of connection of new generators is an issue that needs to be resolved should Package 3 be progressed further. Grid Australia notes that other jurisdictions with generator facing reliability standards, such as Western Australia, have had difficulties with access queues. If options that allow a temporary breach of standard when a new generator connects were considered further, the impact this has on any incentive scheme in operation will also need to be considered further.

4.4 Package 4: Regional optional firm access model

Grid Australia considers that where evidence indicates there are barriers to efficient generator investment, Package 4 has a number of merits including that:

- It ensures that the level of firmness provided to generators reflects the value that they place on that firmness
- Compared to the existing arrangements, it has the potential to provide clearer locational signals for generators that have firm access as well as for those who do not, and
- It has the benefit of providing a market based solution and is, therefore, also consistent with the AEMC's approach in relation to Scale Efficient Network Extensions (SENEs).

However, implementing Option 4 would give rise to material costs and imply a significant change to current arrangements. In addition, a number of complex issues would need to be resolved before this package could be implemented, which include:

- The approach to assigning rights will need to be further considered, including whether rights should be tradable. In addition, there is a need to ensure that the ability to either opt-in or opt-out of rights does not encourage opportunistic behaviour by generators. For example, generators may seek to take advantage of excess capacity for load and only purchase a firm access product when there is the prospect of a new generator connecting. This behaviour may serve to impose costs on a new generator depending on the approach taken to pricing access.
- Grid Australia considers that the approach proposed for compensation appears to be relatively simple to implement and is likely to have merit. However, given the shared and meshed nature of the network there would likely be benefits in testing whether compensation actually paid by generators accurately reflects their contribution to other generators with an access right being constrained off.

- There are likely to be advantages and disadvantages regarding the different proposed approaches to generator charging. As a consequence, the AEMC will need to turn its mind to difficult questions such as: whether generators should be signalled the cost of an asset versus the ‘bring forward’ cost; and whether charges should apply upfront or over time. Grid Australia is willing to assist the AEMC to understand the implications of different potential charging methods.
- The AEMC has suggested that part of this package would involve a refinement of the incentives on TNSPs for service performance. While the AEMC’s approach is not yet well defined, Grid Australia supports the appropriate use of financial incentives to promote outcomes that are consistent with the NEO. However, Grid Australia notes there would be a number of complex issues that need to be analysed for any incentive scheme applied under this package, including:
 - If the scheme is linked to the availability of network capacity, the AEMC should be aware that this is influenced by many factors. Therefore, there is a need to ensure that the scheme places only appropriate risk onto TNSPs and maintains their capacity to recover efficient costs.
 - Grid Australia also notes that for the NEO to be advanced, the rewards and penalties under any scheme need to be linked to actual market benefits and not simply to wealth transfers between generators, or generators and customers.

In the context of designing an effective incentives framework, Grid Australia encourages the AEMC to have regard to the Joint Expert Report on capital expenditure incentives provided as an attachment to the Energy Network’s Association’s submission to the economic regulation Rule changes proposed by the AER.⁴

Grid Australia notes that the alternative package proposed by International Power GDF Suez appears largely to be a variation on Package 4 with the addition of Package 2. The key difference in the International Power package to Package 4 appears to be the approach to dispatch of generators without an access right. Grid Australia considers that the approach proposed by International Power appears to introduce an additional complexity into dispatch that is unlikely to improve efficiency over-and-above a compensation arrangement. In addition, it is not clear that there would be substantial benefits from also introducing a congestion pricing mechanism if Package 4, or some variant, were to be introduced.

⁴ See: <http://aemc.gov.au/Media/docs/Energy%20Networks%20Association-715fa3b5-4c38-40c7-a929-8cd21f3da049-0.pdf>

4.5 Package 5: National locational marginal pricing

Grid Australia agrees with the AEMC that Package 5 would represent a fundamental change from existing market arrangements. Given there is considerable uncertainty and disagreement about the extent of the problem it would be difficult to make a case for such a fundamental change. In addition, Grid Australia notes that the capacity for this approach to provide consistent signals for generation locational decisions may be questionable.

In particular, it is noted that there is extensive academic analysis that indicates that there is a systematic disconnect between the short term signals created under locational marginal pricing and the value this creates for capacity rights, and the cost of network augmentations. For instance, a study by Jaskow and Tirole found that when the realistic attributes of transmission networks are taken into account the efficiency of market driven transmission investment is undermined.⁵

Under a stringent set of assumptions, the merchant investment model has a remarkable set of attributes that appear to solve the natural monopoly problem traditionally associated with electricity transmission networks. We extend the merchant investment model to incorporate imperfections in wholesale electricity markets, lumpiness in transmission investment opportunities, stochastic attributes of transmission networks and associated property rights definition issues, the effects of behavior of transmission owners and system operators on transmission capacity, maintenance and reliability, coordination and bargaining considerations, forward contract, commitment and asset specificity issues. Incorporating these more realistic attributes of transmission networks and the behavior of transmission owners and system operators undermines the attractive properties of the merchant model and leads to inefficient transmission investment decisions.

Grid Australia considers that the risks of prohibitive implementation costs under this option are high and may serve to undo much of the good work undertaken to develop a robust transmission investment framework to date. For example, Grid Australia understands that the implementation costs of introducing full nodal pricing and financial transmission rights in Texas ballooned from an estimated \$60 million to over \$730 million. Therefore, should this option be progressed further, Grid Australia encourages the AEMC to undertake detailed modelling and testing of the robustness of the perceived benefits and any costs associated with transition and implementation.

If the AEMC did obtain evidence that provided a compelling case that Package 5 is warranted, a number of important issues would need to be resolved, including:

- How to implement a single national TNSP so to preserve the benefits associated with providing incentives for profit motivated entities

⁵ Jaskow, P.L., Tirole, J., *Merchant Transmission Investment*, NEBR Working Paper No. 9543, February 2003, p.1.

- How to set the ‘baseline’ levels of capacity for auction
- The treatment of new generators, in particular, ensuring barriers to entry are not inadvertently created
- The interaction between auction proceeds and customer charges, and
- The approach to setting an uplift payment.

Given the difficulties associated with this option, the uncertainty about whether it would actually deliver materially better outcomes and the lack of evidence that the size of the problem warrants such a change, Grid Australia proposes that the AEMC not undertake further analysis of this proposal.

5. Options for reforming planning arrangements

Key messages:

- Agree that the existing planning arrangements appear to be working well and achieving desired outcomes
- Agree that most of the proposals for *enhancements* to the existing arrangements have merit, however, further consideration is required with respect to the following options:
 - The alignment of revenue resets for TNSPs, and
 - Reliability standards for interconnectors
- Of the more substantive options for change, Grid Australia endorses the AEMC undertaking further analysis to progress Option 2, a harmonised regime based on the South Australian arrangements. Grid Australia notes that if Option 2 was pursued, the question of who is responsible for demand forecasting will be a matter for jurisdictions to consider
- Conversely, Grid Australia does not consider that Options 1 and 3 warrant further investigation by the AEMC. Option 3 would extend the apparent shortcomings in the Victorian model across the NEM (including the separation of key roles and preclusion of incentive regulation) and Option 1 would continue the current inconsistency between Victoria and the remainder of the NEM and hence not achieve a consistent national approach to transmission.

Grid Australia agrees with the AEMC that the existing planning arrangements appear on the whole to be working well and delivering the desired outcomes. As indicated in section 3 above, the evidence shows that existing arrangements applying in most jurisdictions deliver transmission investment and accommodate substantial new generation, even in growth challenged regions such as Queensland.

In addition, average congestion costs remain relatively low at less than 1 per cent of traded energy and are showing no upward trend. Grid Australia also notes that, as the AEMC is aware, while coordinating transmission and generation investments is challenging in a vertically separated market, measures intended to assist with this co-ordination have been recently introduced, such as AEMO's role as the NTP and the new RIT-T. There is no evidence to suggest these arrangements have been detrimental to already successful arrangements and, at face value, appear to be improvements.

Grid Australia's view on the effectiveness of the current frameworks, however, should not be seen to preclude support for enhancements to the framework where a case can be made.

This section first discusses the "enhancements" proposed by the AEMC followed by the options for more substantial change.

5.1 Enhancements to existing arrangements

Grid Australia considers that most of the proposals put forward by the AEMC have merit and warrant further consideration. Grid Australia notes that for some of the proposals further analysis is required to clarify their costs and benefits.

Moreover, Grid Australia believes that in some instances the proposed enhancements could be further developed, as considered in section 5.1.6 below.

5.1.1 National framework for reliability standards

Grid Australia notes that the AEMC has restated its previous recommendation to the MCE for a national framework for transmission network reliability standards for load. Grid Australia continues to support the introduction of a national framework for transmission network reliability standards consistent with the outcomes of the AEMC 2008 review and the 2010 update. Among other matters, economically based standards expressed deterministically would assist in holding TNSPs accountable for service performance.

5.1.2 Consistency of APRs

The AEMC has identified some inconsistencies in the format of Annual Planning Reports (APR), including the approach to taking account of issues raised in the NTNDP. Grid Australia supports improving the consistency of APRs.

5.1.3 Improved transparency of the RIT-T

The First Interim Report indicates that RIT-T analysis may be more transparent if it estimated the impacts of an investment on consumers and generators. The perceived benefit is that stakeholders might be better able to understand why some investments do not progress.

Grid Australia is open to the option of improving the transparency of the RIT-T and is aware of the need to assist stakeholders in better understanding the outcomes of the planning framework, including the application of the RIT-T. To that end, TNSPs are already actively seeking to identify where more information can be provided to stakeholders, including information on significant pre-feasibility studies that may be undertaken, such as the recent analysis undertaken by ElectraNet and AEMO on possible new interconnector capacity between South Australian and Victoria.

5.1.4 Alignment of revenue resets

The AEMC has proposed that the revenue resets of the TNSPs be aligned so as to better facilitate the development of a system-wide investment plan.

Grid Australia notes that at the heart of the AEMC's proposal is the observation that investments on one NSP's network can affect the transfer capability on parts on its

neighbouring NSP's. As a consequence, Grid Australia supports the intent of the AEMC's proposal and, therefore, is open to exploring this enhancement further.

Having said that, Grid Australia considers that there are a number of issues with the proposal that warrant further consideration.

First, Grid Australia notes that the practical benefit from further alignment of revenue resets may be limited. Grid Australia notes that there is already a degree of alignment in the timing of revenue resets between the majority of the transmission businesses. In addition, under the unique Victorian arrangements, the AER does not assess augmentation proposals in Victoria. As such, little benefit would be expected beyond the alignment of revenue resets in NSW and Queensland.

In addition, it is also important to understand that the AER is not a regulatory investment approval body. Its role is to provide TNSPs with sustainable and effective incentives to make efficient investment, which includes ensuring that TNSPs are provided with adequate revenue to finance the investment that is reasonably expected during the regulatory period. This role does not extend to determining which actual investments should be undertaken during a regulatory control period.

In addition, most of the projects where coordination would be beneficial are likely to be sufficiently large to be classified as contingent projects, and hence excluded from the general revenue allowance. Therefore, a better use of the contingent projects mechanism may be a superior mechanism for coordinating the funding of interconnector investments and related works.

Lastly, Grid Australia notes that the interdependence of networks exists between connected transmission networks as well as between connected transmission and distribution networks. Indeed, to date, the extent of investment subject to joint planning between TNSPs and DNSPs has generally far exceeded the extent of investment subject to joint planning between TNSPs. Therefore, Grid Australia considers that the benefits of alignment of revenue resets may be higher between transmission and distribution and, to the extent necessary, this should be given further consideration by the AEMC.

5.1.5 Reliability standards for interconnectors

The proposal to introduce reliability standards for interconnectors was put forward by International Power and would require capacity on interconnectors to be maintained to a certain level. Grid Australia is open to the option of exploring reliability standards for interconnectors.

However, before reliability standards for interconnectors are introduced, Grid Australia considers that the AEMC needs to be convinced that this measure is warranted and would not result in inefficient over-investment in order to maintain an uneconomic standard. In this regard, Grid Australia notes that the AEMC has

indicated that the extent of price separation between regions does not appear to be material.

Grid Australia notes, in addition, that proposed increased transparency in relation to the application of the RIT-T may also address some of the concerns associated with proposed upgrades to interconnectors.

5.1.6 Further development of proposed enhancements

The proposed ‘Consistency of APRs’ enhancement could be developed further into a formalised collegiate approach between the organisations with transmission planning responsibilities in the NEM. Grid Australia is open to the benefits of this approach being given further consideration.

5.2 Options for more significant reform

The AEMC has put forward four options for more significant reform of the planning arrangements:

- Option 1: Enhanced co-ordination of the NTNDP and APRs
- Option 2: A harmonised NEM-wide regime based on the South Australian arrangements
- Option 3: A single NEM-wide not for profit transmission planner and procurer, and
- Option 4: A single NEM-wide for profit joint venture planning body.

Grid Australia has considered these proposals against specific criteria based on the AEMC’s assessment framework and Grid Australia policies. The assessment criteria identified are that the option should:

- Promote of efficient investment decisions
- Facilitate competition in construction and financing
- Provide a national view of transmission investment
- Provide timely investment approval and delivery
- Allow connection and related shared access to be considered together efficiently, and
- Minimise transition costs and uncertainty impacts.

The remainder of this section will describe these criteria and Grid Australia’s assessment of the proposals against them.

5.2.1 Promotion of efficient investment

Achieving the promotion of efficient investment means that:

- Capacity constraints are built out in a timely way when congestion costs are inefficient, and
- Existing transmission capacity is maximised through operational measures and financial incentives.

By placing the responsibility for network planning and operations within a single, or related, profit motivated party, Options 2 and 4 best meet this criterion given they:

- Allow the use of financial incentives to encourage costs to be minimised, harnessing the expertise of the TNSPs
- Maintain accountability for efficient service delivery in every region in the NEM
 - Outcomes in this respect are re-enforced through well targeted financial incentives for service performance
- Allow for efficient trade-offs between augmentation and asset renewal decisions, and
- Allow for efficient trade-offs between asset investment and operation and maintenance decisions.

Grid Australia considers that Option 1 can also achieve these aims in most jurisdictions aside from Victoria, where there is a split of responsibilities between the planner and network owner and operator.

Option 2 would promote efficient investment by retaining the existing independent third-party input into investment decisions from AEMO, in its current role as the National Transmission Planner. In this role, AEMO participates in revenue setting decisions and inputs into RIT-T assessments for those TNSPs operating as for-profit organisations.

Of all of the options, Option 3 performs the worst against these criteria. The problems with Option 3 include that:

- the not-for-profit status of the investment decision maker precludes the use of financial incentives to encourage efficiency in capital expenditure decisions.
- Responsibilities are split between different entities for:
 - augmentation decisions and replacement decisions
 - shared network and connection investment, and

- augmentation investment and operation and maintenance decisions.
- which limits substantially the capacity for efficient trade-offs to be adopted.

In addition, given the AER no longer undertakes revenue determinations for augmentations in Victoria there is no independent assessment, or third party check, that AEMO's expenditure proposals are efficient and prudent. This serves to reduce the transparency of the framework in Victoria and also means that the AER is unable to assess augmentation expenditure alongside replacement expenditure and operating and maintenance expenditure.

Grid Australia notes that this current circumstance exists despite concerns raised in the past by the regulator with respect to the quality of the analysis undertaken by VENCorp under this model. With respect to the last revenue determination undertaken for VENCorp the consultants assessing VENCorp's proposal made the following observation:⁶

PB states that the process VENCorp uses follows a “relatively simplistic approach”, commenting that VENCorp has not attempted to account for any interdependencies between projects and has not modelled any of the forecast projects as part of its technical load-flow analysis.

On this matter the AER then went on to say:⁷

The approach taken by VENCorp in preparing its forecast planned augmentation expenditure lacks the degree of rigour typically applied in the development of a revenue proposal. In particular, the AER notes that VENCorp’s use of the ten-year outlook methodology for the purposes of its revenue proposal does not appear consistent with the planning approach VENCorp itself will apply in its EAPR process in the regulatory period to which the proposal relates. The EAPR process will involve detailed probabilistic analysis over the first five years of the forecast period, and scenario based indicative probabilistic analysis only from years six to ten.

5.2.2 Facilitates competition in construction and financing

Competition in construction, and incentives for efficient financing of construction, assist in ensuring the costs of delivering projects are efficient. Options 2 and 4 best facilitate competition in construction contracts. Under these options such contracts are almost always established by TNSPs via competitive tender. This is encouraged by AER scrutiny of capital expenditure forecasts and regulatory incentives to minimise capital expenditure.

Efficient financing is also encouraged under Options 2 and 4 via incentive based revenue cap regulation. The regulator sets revenues in all regions based on the weighted average cost of capital (WACC) faced by a benchmark network service

⁶ AER, *Draft Decision, VENCorp transmission determination, 2008-09 to 2013-14*, 30 November 2007, p.78.

⁷ Ibid.

provider. In regions outside of Victoria, TNSPs have a commercial incentive to raise finance required for augmentation projects efficiently in order to profit from incurring lower financing costs than those assumed when revenue caps are set.

Under Option 3, and Option 1 in Victoria, while construction can be tendered Grid Australia contends that based on the experiences in Victoria to date, the outcomes of this tendering are likely to be less competitive when compared to tendering that would occur under Options 2 and 4. This is largely because of requirements that either limit the scope of potential providers, or difficulties that increase the costs of providing services in Victoria.

As an example, in Victoria, due to the separation of responsibilities, it is more difficult for a transmission business to undertake actions to accommodate possible future transmission needs. For instance, it would be implausible for all TNSPs that may tender for an augmentation project to be confident of the ability to acquire easements for possible line routes.

This reality creates considerable uncertainty regarding the timing of a project as well as its costs, including the costs of compensating land owners. This contrasts with arrangements in other regions where a TSP will have oversight of both the acquisition of substation sites and line easements as well as administering the tenders for the construction of the relevant assets on this land or easements.

In addition to the factors that limit competition for construction of augmentations in Victoria, there is also limited competition with respect to financing projects. Again, these limitations of the Victorian regime would be compounded under the proposed Option 3.

Indeed there is a very real risk that Option 3 would extend a suboptimal arrangement to the rest of the NEM.

5.2.3 National view of transmission investment

A truly national perspective of transmission planning requires sufficient focus on interconnector and major flow path requirements in addition to local knowledge of transmission needs outside of these major flow paths. This also includes arrangements that facilitate the co-optimisation of generation and transmission investment.

Option 4 would best provide a national perspective of transmission planning given it would enable a fully national view, while best incorporating the local knowledge of individual TNSPs.

Grid Australia considers all the other options are likely to be effective under this criterion. In this regard, Grid Australia points towards the role of AEMO and the NTNDP under the present arrangements. In addition, adopting Option 2 would simplify future moves to Option 4 should this, ultimately, prove more beneficial.

5.2.4 Timely investment approval and delivery

Framework changes should at worst not slow down current regulatory approval processes, and where possible, make them more efficient. In addition, it is important that the framework does not impede investment in response to urgent needs.

Option 2 would best address this criterion by extending to Victoria arrangements that have proved effective in high growth regions. Among other matters these arrangements give the responsibility for all network investment (shared network augmentation, asset replacement, and connection related investment) to a single party. Accountability within a single party allows efficient coordination and trade-offs contributing to reduced transaction costs associated with investments. Option 4 may also allow for timely investment approval and delivery with a well set up framework.

Conversely, Option 3 would extend arrangements nationally that are unproven with respect to timely transmission investment planning, approval and delivery in high growth scenarios involving large scale development. It would also extend known problems with the tender process in Victoria nationally. Option 1 would retain the current Victorian transmission arrangements putting at risk the ability to achieve timely investment approval in that region, should this prove necessary in the future.

5.2.5 Allows connection and related shared access to be considered together efficiently

Shared network investment can either be reactive or proactive to connections. Therefore, for investment to be efficient for connections, as well as for the shared network, these decisions need to be coordinated. It is important also from the perspective of the connecting party that connection and shared access is considered together so to minimise transaction costs.

Grid Australia considers that Options 2 and 4 would enable co-ordination between connection and shared network investment given both of these roles would be undertaken by a single, or related, profit motivated party. Again, the separation of roles under Options 3, and Option 1 in Victoria, effectively preclude connection and shared network investment decisions being considered together efficiently. The tripartite arrangements for connections also have a considerable impact on the ability to deliver connections and associated shared network investments in a timely fashion.

5.2.6 Minimise transition costs and uncertainty impacts

Framework changes will typically involve implementation costs. In addition, changes will also introduce uncertainty into a framework that may have a subsequent impact on factors such as generation investment. Such costs and potential complexity should only be incurred where the benefits of the change are likely to outweigh these costs.

Grid Australia considers that Options 1 and 2 would best achieve this objective. Option 1 involves minimal change to existing frameworks while the changes required

for Option 2 would be incremental for all jurisdictions aside from Victoria. The incremental nature of these changes also means that there would be minimal impact on uncertainty regarding transmission frameworks. Conversely, the costs of implementation are likely to be significant with respect to Options 3 and 4. These options require fundamental change to existing institutional frameworks. The extent of these changes would also introduce considerable complexity and associated uncertainty.

5.2.7 Summary of assessment against criteria

Table 2: Summary of assessment against criteria

Assessment Criteria	Option 1	Option 2	Option 3	Option 4
Promote efficient investment decisions	Partly achieves	Achieves	Fails	Achieves
Facilitate competition in construction and financing	Partly achieves	Achieves	Partly achieves	Achieves
Provide a national view of transmission investment	Mostly achieves	Mostly achieves	Mostly achieves	Achieves
Provide timely investment approval and delivery	Partly achieves	Achieves	Fails	Achieves
Allow connection and related shared access to be considered together efficiently	Partly achieves	Achieves	Fails	Achieves
Minimise transition costs and uncertainty impacts	Achieves	Mostly Achieves	Fails	Fails

Of the harmonised NEM-wide options for reform, Option 2 and Option 4 best meet the key assessment criteria. However, Option 4 is likely to require significant transition and implementation costs. These costs are likely to outweigh the benefits when compared to Option 2. In addition, moving to Option 2 would assist in moving to Option 4 in the future should this prove to be beneficial.

Also a national view about transmission is necessarily more than simply a question of ensuring efficient interconnection investment occurs. National consistency in transmission arrangements requires such matters as consistency in planning for all transmission assets, and common arrangements for connection of new customers.

Given the benefits evident in Option 2, Grid Australia endorses this model and encourages the AEMC to develop this proposal further. Option 2 enables the coordination of decision making while maintaining the capacity to apply commercial incentives to encourage efficiency in TNSP's operations and investment, thus promoting the NEO.

However, Grid Australia notes that the question of which entity should be responsible for demand forecasting as required to fully implement Option 2 would be a matter for each jurisdictional government to decide upon. Grid Australia also notes that an

essential element to achieving national consistency would be to bring the Victorian arrangements into line with other jurisdictions. It is recognised that this would require more substantial change in that jurisdiction.

Conversely, Grid Australia considers that the separation of responsibilities, the lack of financial incentives, and the lack of independent oversight of augmentation proposals severely limits the effectiveness of Option 3, and in Victoria, of Option 1. The implication of these limitations is an inability to make necessary trade-offs to achieve efficient investment, an inability to properly apply commercial incentives, and significant complications and delays with respect to the coordination of connection and shared network investment.

6. Current connection arrangements and proposals for change

Key messages:

- As indicated in section 3, current evidence indicates that the connections framework as it applies in most regions appears to be successfully accommodating new generation and load connections
- Grid Australia considers that the concerns of stakeholders could best be addressed through a clarification of the Rules. Grid Australia's current practice reflects a view that the AEMC intended the regime for connection related services, to be that:
 - services at the transmission network connection point (practically, those assets within the boundary of the substation) are a negotiated service. These are subject to a negotiate / arbitrate regime because only the TNSP can provide these services
 - ‘extensions’ beyond the substation are non-regulated because they are contestable
- A review of the economic characteristics of connection-related services demonstrates that this classification of services, and the consequent regulatory approach, remains valid
- To the extent there are market power issues regarding the possible future use of a non-regulated service this does not provide a justification for regulation of contestable assets from the outset
 - The proper solution is an access regime that comes into operation if and when the access issue arises
 - While a national third party access framework exists, there may be benefits in a specific NEM regime
- The AEMC’s distinction between providing ‘assets’ and ‘services’ is questionable, Grid Australia interprets an obligation to provide a ‘service’ as necessarily implying an obligation to be capable of providing the service (i.e. providing an asset or non-network solution)
 - For services outside the boundary of the network there is genuine contestability for both construction, and operation and maintenance
 - Grid Australia has serious concerns with any requirements for TNSPs to operate and take responsibility for someone else’s asset
- Grid Australia also supports a refinement of the procedural requirements in relation to connection related services

Grid Australia considers that the volume of new generation and major load connections that have been undertaken since the introduction of the current

connections framework demonstrate that the connections framework does not pose a barrier to efficient generation and load entry in the NEM.

In particular, the entry of new generation has meant that there has been no shortfall in reserve capacity in the NEM to date. In addition, Grid Australia considers that the fact that the arbitration process for negotiated transmission services has never been used is evidence of the success of the framework to date. Given this, a case has not yet been made to for the proposed solutions in this area.

Connecting a large generator or load to the network is a complex process. This is because each connection is bespoke. Every generator and every load has different commercial drivers and requirements with respect to a connection. TNSPs must not only deal with an applicant's needs and timeframes but also the needs of the system in arranging a connection. This will include technical standards and system security requirements. Despite these inherent difficulties, Grid Australia members are managing such arrangements and continuing to seek improvement in their approach to connections.

Grid Australia also notes that many of the frustrations expressed by stakeholders are likely to be strongly influenced by their experiences in Victoria. Victoria has different connection and connection negotiation arrangements to all other NEM jurisdictions.

The Victorian arrangements inexorably involve additional commercial complexity for the connecting party with the need to firstly deal with two parties (i.e. AEMO and SP AusNet) in the provision of connection services. Secondly, additional contractual complexity in risk allocation and liabilities is unclear between the parties, particularly as AEMO is immovable in its positions as it has no flexibility to deal with risk due to it being structured as a not-for-profit entity.

It should also be recognised that the connection process is inherently complex requiring TNSPs to ensure that system performance requirements are met and that new connections do not unduly undermine agreements between TNSPs and existing customers.

Furthermore, it is only natural that generators would use the rule change process to improve their bargaining position. This is a predictable outcome from commercially motivated parties regardless of the current relative bargaining positions.

To summarise, having regard for these realities, it is unlikely, in practice, to ever meet the stated expectations of connection applicants. The more important public policy issue is whether or not the arrangements are delivering efficient investment outcomes thereby leading to the lowest sustainable prices for consumers. As noted above the evidence suggests this is occurring in most jurisdictions under current arrangements.

6.1 Clarification of the original intent of the framework

Grid Australia accepts that the current Rules may not clearly specify the boundary of what is regulated under the Rules and what is not. In addition, the fact that Chapter 5 of the Rules includes both technical and commercial issues may also lead to confusion, noting that technical issues address safety and system-wide reliability issues, while commercial considerations tend to be of primary concern to only the negotiating parties..

Grid Australia considers that clarification of the procedural and regulatory treatment of connection related services in the Rules would be desirable to better implement the AEMC's intention in 2006 when the framework was first introduced. Refinement so as to clarify the original intent of the framework is likely to significantly improve outcomes and the perceived issues with the framework. Clarifying the Rules should serve to better define the boundary of the transmission network/ system so it is clear that the network regulation finishes at the boundary of the transmission system, which is the network plus connection assets. Clarifying this boundary consistently within the Rules will therefore clarify where economic regulation has a mandate to operate and where it does not.

Where refinement is undertaken, however, Grid Australia considers it is important to maintain the current functional and economic characteristics of the services. The Grid Australia guideline on the categorisation of services is a good starting point in this regard given it reflects Grid Australia's understanding of the AEMC's intention for the Rules.⁸ In addition, the Grid Australia guideline on the connections process may also assist the AEMC in clarifying the process for undertaking connections in practice.⁹ Grid Australia is keen to assist the AEMC with this task and is also looking to develop possible drafting changes to give effect to this intention.

The following section steps through Grid Australia's understanding of the intent of the AEMC's framework in its 2006 decision on the economic regulation of transmission services and the rationale for that framework.

6.2 Service definition and the form of regulation

Grid Australia agrees that the economic principles developed by the Expert Panel are appropriate for the AEMC's assessment and should be maintained. These principles form the basis for the regulatory framework in the Rules and therefore the Grid Australia guideline on the categorisation of services. The form of regulation factors, set out in the NEL, also is an important consideration for the AEMC, noting again that these factors are based on the Expert Panel principles.

⁸ See:
http://www.gridaustralia.com.au/index.php?option=com_content&view=category&layout=blog&id=114&Itemid=230

⁹ See: http://www.gridaustralia.com.au/index.php?option=com_content&view=article&id=147&Itemid=236

As noted by the AEMC in the First Interim Report, the general principle behind the form of regulation factors is that more intrusive forms of regulation should only be applied where substantial market power is evident. Conversely, where there is contestability or the scope for meaningful negotiation, less intrusive forms of regulation should apply.

This approach reflects that more intrusive regulation is costly and should only be employed where the scope for efficiency gains are substantial, including where the administrative costs of case-by-case negotiation are high (e.g. where there are lots of customers). This approach also reflects the AEMC's approach to developing the current framework, in its Final Decision on the Economic Regulation of Transmission Services Rule it stated:¹⁰

The definitions specified in the Revenue Rule therefore reflect the Commission's view that it is important for the Rules to establish clearer definitions and classifications of different services according to the degree of market power involved in their supply and to clearly specify the form of economic regulation to be applied to each class of service. This approach is consistent with the findings of the Expert Panel.

It is Grid Australia's view that the AEMC's intention when drafting the current Rules was that the rules-criterion for deciding whether a particular service is negotiated or non-regulated is a purely physical one. At the time, the AEMC decided on the form of regulation that applies in the physical sense by considering the scope for contestability. However, once a physical definition was determined, the contestability criterion falls away and the framework relies upon physical boundaries to determine the form of regulation. While the AEMC has referred to this approach as a 'minimalists approach' it in fact reflects a thorough consideration of the economic characteristics of the relevant services.

In order to demonstrate the appropriateness of the existing approach, the remainder of this section:

- Describes each of the relevant services associated with a connection
- Identifies their economic characteristics, and
- Identifies the form of regulation Grid Australia considers applies under the current Rules.

¹⁰ AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, Rule Determination, 16 November 2006, p.38.

6.2.1 Prescribed transmission services

Description of the service

Prescribed transmission services are:

- Shared transmission services to a standard level of services – this makes up the bulk of this service
- Shared transmission services that exceed standard levels to the extent they provide system wide benefits
- Services required by legislation, or AEMO, or to ensure the integrity of the transmission system
- Connection services or shared transmission services to facilitate a connection to another NSPs network¹¹, and
- Grandfathered connection services (i.e. pre-9 February 2006).

In practice, prescribed transmission services include the provision of assets and operating and maintenance works related primarily to the transmission system that ensures a secure and reliable supply to customers.

Economic characteristics of the service

Prescribed transmission services are subject to substantial economies of scale and scope. This means that it is more efficient for one supplier, rather than two or more, to provide the service. As a consequence, suppliers are afforded substantial market power in their provision. In addition, these services are built for the ultimate benefit of millions of customers with whom individual negotiation would be impractical and significantly costly.

Form of regulation

Prescribed transmission services are subject to a total revenue cap set by the AER under chapter 6A of the Rules. Pricing is in accordance with the TNSPs approved pricing methodology and the requirements of the Rules.

6.2.2 Negotiated transmission services

Description of the service

Negotiated transmission services are services within the boundary of the existing network supplied by TNSPs, they include:

¹¹ Excluding Market Network Service Providers, such as Basslink

- Shared transmission services that exceed the ‘standard’ levels of service, excluding those with system wide benefits
- Connection services to a network users (excluding those to another NSP’s network¹², and
- Network use of system charges paid by a connection applicant for the provision of transmission user network access under Rule 5.4A.

In practice, negotiated transmission services include assets at the transmission network connection point, which will include assets such as connection bays and protection equipment, and the maintenance and operation of those assets. In addition, it will also include any above standard works required on the shared network such as remote end protection equipment changes in order to maintain the required Rules based on jurisdictional standard of supply for customers.

Economic characteristics of the service

Negotiated transmission services exist within the boundary of the network and are therefore not generally capable of contestable supply. As such, typically they can only be provided by a TNSP. In addition, these services can be clearly defined and attributable to a specific party. The parties that seek to connect to a transmission network tend to be large and well-resourced companies and organisations that have considerable experience in negotiating arrangements. The nature of the parties subject to negotiation means that there is a considerable degree of countervailing market power in their provision. The characteristics of negotiated transmission services mean that transaction and regulatory costs can be reduced through direct negotiation between affected parties.

Form of regulation

Negotiated transmission services are subject to a negotiate/ arbitrate form of regulation. Where there is a dispute during negotiations parties are able to use a commercial arbitrator for the quick resolution of the dispute. In practice, arbitration is a fall-back intended to create a credible threat to encourage a negotiated outcome. As indicated previously, this arbitration option has not been used since the introduction of the framework.

Negotiations between TNSPs and prospective network users are to be conducted in accordance with an approved negotiating framework based on principles in the Rules.

¹² Note, however, that Market Network Service Providers, such as Basslink, should not be included in the exception for NSPs.

6.2.3 Non-regulated services

Description of the service

Non-regulated services fall outside the boundaries of the existing network and are those services that are genuinely capable of being supplied in a practical and economic sense by TNSPs or third parties. More specifically, non-regulated services are provided by means of assets between the substation containing the transmission network connection point equipment and the generator or directly-connected load.

Economic characteristics of the service

Those services treated as non-regulated exhibit genuine contestability and low barriers to entry, noting that requirements still exist to ensure the safe and secure operation of the electricity system. For the avoidance of doubt, contestability refers to the ability for other suppliers to be able to enter a market and supply a service.

Evidence of the contestability of services outside the boundary of the network is evident in the numerous examples of parties other than TNSP providing these services, including:

- Dalrymple to Wattle Point 132kv line owned by a generator in South Australia
- Davenport to Olympic Dam 275kV line owned by BHP Billiton in South Australia
- Olympic Dam to Prominent Hill 132 kV line owned and operated by Prominent Hill mine in South Australia
- Middleback to Iron Due 132 kV line owned and operated by ETSA Utilities for OneSteel in South Australia
- Smithton to Woolnorth 110kV line owned by a generator in Tasmania
- Bendeela PS 330 kV line owned by a generator in New South Wales
- Colongra PS 330 kV line to Munmorah owned by a generator in New South Wales
- Uranquinty PS 132 kV lines to Uranquinty substation owned by a generator in New South Wales
- Capital Wind Farm 330 kV line to Capital Wind Farm substation owned by a generator in New South Wales
- BMA - 132kV and 66kV private networks adjacent to Moranbah (Utah 1 and Utah 2) 66 kV Private Networks in Queensland
- Goonyella Riverside Expansion 132kV Private Network in Queensland, and

- Mortlake – Origin Energy owned assets in Victoria.

The contestable provision of non-regulated services reflects that the barriers to providing services outside the boundary of the existing network are relatively low. This is mainly because there is no requirement for generators or loads to hold a transmission license in order to own and operate transmission assets incidental to their connection. In addition, under the new registration exemption guideline, generators would be exempt from requiring registration as a TNSP.¹³

Form of regulation

There is no economic regulation that applies to non-regulated services under the Rules. This is due to the fact that these services are contestable and this provides an appropriate protection to network users for their efficient provision. In this context, it is also appropriate that there is no obligation for TNSPs to provide these services given they exist outside the boundaries of the existing network and can be provided by other parties.

6.3 Distinction between assets and services

A number of stakeholders have raised the issue of the distinction between assets and services. Grid Australia considers these concerns reflect confusion between ownership and service provision. In addition, some of the confusion is likely to be due to arrangements in Victoria where service provision and asset provision have been separated in an artificial way.

Grid Australia considers it is important to clarify that an obligation to provide a connection ‘service’ necessarily implies an obligation to be capable of providing the service (i.e. by means of providing necessary assets or non-network solutions). A service based definition is useful in this regard given assets can provide multiple services.

Grid Australia agrees that there is scope for a connecting party to agree that separate parties construct and operate relevant assets. However, this would occur subject to commercial negotiation and require the party operating the assets to be comfortable to do so given it may have had limited involvement in the design of the assets.

Therefore, if a third party constructs assets associated with a non-regulated service it is free to contract with other parties to provide that service by means of the assets constructed. The operation of the service is clearly contestable as it could be undertaken by a TNSP, DNSP or some other third party. The contestability in this respect indicates that TNSPs do not have monopoly power over the operation and maintenance of an asset as asserted by Origin Energy in its submission to the Directions Paper.

¹³ AER, *Electricity Network Service Provider Registration Exemption Guideline*, 16 December 2011, p.14.

Grid Australia notes that some generators have expressed a preference to be able to build an asset and then require a TNSP to operate and maintain the asset. Grid Australia considers that there are a number of serious issues with this proposal, including:

- This approach would provide an incentive for generators to build assets to a very low standard given this would be a low cost option. This standard would likely be lower than would be required by TNSPs constructing the asset with a view to long term operation and maintenance of the asset.
- If the assets were then passed onto TNSPs they would be required to take on a liability for assets that are potentially below the specification that are required by the TNSP. This would put undue risk and cost onto TNSPs.
- TNSPs take on a tax liability for assets gifted to them. TNSPs should not be required to take on this tax burden without adequate compensation.

6.4 Future access to assets associated with network connection

Grid Australia notes that the AEMC has raised the issue of the arrangements for future access to assets associated with network connection. The AEMC's main observation appears to be that it is not clear whether there is access regulation that may come into operation if there is a subsequent generator or customer that wants to connect to an existing non-regulated service.

At the outset Grid Australia observes that there is no issue in relation to non-regulated services that are subsequently required for the provision of prescribed transmission services. Specifically, clause 6A.6.2 of the Rules includes a mechanism to enable non-regulated assets to be used to provide prescribed transmission services by allowing some of the unregulated asset to be brought into the RAB if it is owned by a TNSP.

Any payments negotiated with a third party owner for providing the service would simply be treated as normal capital or operating expenditure (all of which would need to pass the RIT-T). Grid Australia notes in addition that parties are able to handle commercially the distribution of the benefits and typically where TNSPs provide the assets there is a clause in agreements that ensure that benefits flow back to generators where part of an asset is included in the RAB.

To the extent there is the potential for market power issues to arise with future access to a non-regulated transmission asset, this potential does not provide a justification for regulation at the outset. The provision of any services outside the boundary of the existing network to the first generator is clearly contestable and so there is no rationale for up-front regulation.

The proper solution to a potential future access issue is an access regime that comes into operation if and when the access issue arises, and for that regime to be suitable

for the purpose. Grid Australia notes, however, that it is still not clear that there would be an access issue given that non-regulated services outside the boundary of the substation to the generator or load generally involve relatively small assets (around 500m in length) and if a TNSP owned the asset it would have a strong commercial incentive to connect additional generators.

Grid Australia notes that, nonetheless, there is already an access regime that may come into effect if an access issue arose regarding a non-regulated service. This is the national access regime under Part IIIA of the *Competition and Consumer Act 2010*. Grid Australia notes that use of the national regime might be perceived as cumbersome and an alternative may be a specific regime in the NEL/ NER similar to the one that operates in the gas framework. However, to the extent that any consideration is given to introducing a specific regime for access to non-regulated transmission assets, Grid Australia urges the Commission to pay close regard to how like issues are addressed in the National Gas Law / National Gas Rules, which include that:

- services are only open to regulation where a market power test is passed, noting that the NGL/ NGR test is closely modelled on the test in the national access regime, and where this test is administered in the first instance by an entity that is separate to the regulator (namely the National Competition Council)
- the application of third party access respects fundamental importance of the commercial arrangements that underpinned the transmission infrastructure in the first place, including to preserve
 - the legitimate contractual entitlements of the generator that underpinned the development, and
 - the commercial outcomes for both parties under the commercial arrangements that underpinned the development.

6.5 Proposals for change to the economic regulation of connection services

The AEMC has put forward a number of proposals to address the perceived problems with the connections framework. However, Grid Australia does not support any of the proposals as they do not appear to address any problem which has been identified. Indeed, the proposals are more likely to degrade rather than improve outcomes by removing the ability for TNSPs (and others where services are not regulated) to provide flexible connection arrangements which customers value.

TNSPs find that each customer (generator or load) has its own particular commercial drivers and requirements, which result in bespoke connection and access agreements. The existing framework enables TNSPs and their customers to negotiate

unique combinations of terms including liquidated damages, force majeure, technical layout, liability, counterparty risk, form of security and delivery times.

As articulated above, the AEMC's preferred approach should be to simplify and clarify the intent of the existing framework so that the boundary of the existing network and system, and hence those services subject to economic regulation, is clear and based on their economic characteristics.

6.5.1 Enhancements to dispute resolution

The proposals to enhance the dispute resolution framework involving the establishment of a specialist arbitration body and/ or by reducing the costs of access cannot be justified by the evidence provided to date. The AEMC is correct in noting that one explanation for the lack of use of the current dispute resolution process is that:

"the materiality of concerns with the negotiating process has not been significant enough to incentivise a party to seek recourse"

Furthermore, the possibility that a body within the AER be nominated to arbitrate disputes between commercial parties needs to be approached with particular caution. The AER has no demonstrated expertise or experience with commercial negotiations of this type, and its ability to weigh up commercial factors relevant to effective arbitration is likely to be severely constrained. As a result, there is a risk of poor commercial outcomes and an inability to meet the required timeframes, which as the AEMC has identified, are necessarily tight.

The merits of requiring an even split of costs between parties is also not clear. Allowing the arbitrator to set the terms of cost-recovery for a dispute resolution process serves to reduce the scope for vexatious claims and means that those at fault incur appropriate costs.

6.5.2 Enhancements to the negotiating framework

Grid Australia observes that in most instances the AER approved negotiating frameworks for the TNSPs have been in operation for only a short time and it is likely to be too early to suggest that this framework has failed. In addition, Grid Australia considers that the strengthened negotiating framework proposed by the AEMC is likely to unnecessarily increase the costs of regulation. Indeed, the potential exists that under this proposal the costs of regulation for the relevant services would be higher than if they were provided as prescribed transmission services.

This is particularly the case given the bespoke nature of network connections means it is difficult to provide information that is relevant for every connection. However, Grid Australia does support standardisation in processes or information provision where there are clear benefits in doing so.

6.5.3 Prescribing transmission services

Proposal 3 would migrate all connection-related services from the category of negotiated transmission services to prescribed transmission services. Making connection services prescribed is inappropriate as it would not properly reflect the economic characteristics of the services. In addition, it would also:

- Reduce desirable flexibility that is negotiated under the current arrangements
- Lead to end-use consumers subsidising the costs of new single customer connection services, and
- Potentially provide some generators with preferential treatment, and therefore, distort signals for efficient generator entry.