



Lvl 6, 60 Marcus Clarke St.,  
Postal: GPO Box 1301  
Canberra ACT 2601  
ABN: 83 113 331 623

Tel: 02 6243 5120  
Fax: 02 6243 5143  
john.boshier@ngf.com.au  
www.ngf.com.au

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Dr John Tamblyn  
Chairman  
Australian Energy Market Commission  
Level 16, 1 Margaret St  
SYDNEY NSW 2000

By email: [submissions@aemc.gov.au](mailto:submissions@aemc.gov.au)

Dear Dr Tamblyn

### **AEMC Review of the National Transmission Planner Function**

I refer to your call for comments and feedback on the AEMC's National Transmission Planning Arrangements Issues Paper dated 9 November 2007.

This is a joint submission made by the National Generators Forum (NGF). We reiterate our strong support for the establishment of the NTP function, as we believe it has the potential to deliver substantive benefits to the market and its participants. At this stage in the Review process however, we are still coming to grips with a lot of the issues that should impact on the roles and responsibilities, organizational structure, institutional governance and strategy for implementation of the NTP and the extent to which its role should be both empowered and constrained by legislative and regulatory provisions.

In addition, the comments in this submission are based on a somewhat preliminary but nevertheless holistic view of the important role we believe the NTP should play in the industry that is clearly focused on sustainable achievement of the NEM Objective over time, and has a strong participant perspective in the way it goes about its work.

From a participant's perspective, we believe this approach to the establishment of the NTP function is vitally important to redress some of the current imbalance in the NEM in the relationship between TNSPs and each network user.

To the extent that the AEMC deviates from our suggestions and recommendations on each individual issue, this may well cause us to change our position on other issues affecting the NTP. The AEMC should bear this in mind when reviewing this submission.

This submission includes the following:

- A Summary Statement that attempts to encapsulate the key concerns and expectations of the NGF relation to the proposed establishment of the new NTP function;
- Attachment 1, which provides the NGF's specific responses to each of the AEMC's questions listed in the Issues Paper;
- Attachment 2, which summarises the NGF's preferred high level NTP model along side the 4 models put forward by the AEMC in the Issues Paper; and
- The general body of this submission, which attempts to provide more general insight into the reasoning behind our more specific responses in Attachment 1.

## **Summary Statement**

- 1. The NGF strongly supports the initiative by the MCE to establish an independent national transmission planning function within AEMO as a key component of the NEM market governance arrangements. Provided that it is implemented well, over time, the NGF believes it could make a very positive contribution towards achievement of the NEM objective by providing a more stable and predictable environment for all forms of infrastructure investment in the NEM, not merely for investment by the Transmission Network Service Providers.***
- 2. The COAG objective which prompted this initiative and the primary interests and concerns of the NGF as discussed throughout this submission are completely aligned; i.e. the creation of a stable package of institutional arrangements and regulatory settings for the NEM which, to the maximum extent practicable, promote economic efficiency and competitive neutrality between future generation and transmission infrastructure investments to meet the growing needs of the market.***
- 3. The NGF is generally supportive of the AEMC's proposed Review Process; however, we believe it would be considerably enhanced if the AEMC prepared what it considers is a clear "definition of the problem" that the NTP function is to fix, and then prioritises its assessment***

*criteria accordingly. In our view, the relative importance of the criteria varies from, at one extreme, being an essential prerequisite, to at the other, being only a secondary issue that should not materially impact on the core task of scoping the powers and responsibilities of the NTP.*

- 4. While recognizing that the core function of the NTP will be the preparation of the NTNDP, the NGF believes there would be considerable benefits for the market by creating the NTP not only for the role of independent national transmission planner in the NEM but also to provide strong technical leadership and coordination across the NEM in transmission investment planning practices and network operational planning coordination and to support the regulatory oversight of the TNSPs by the AER from a technical perspective. As a result, the NGF does not support any of the 4 proposed models for the NTP put forward in the Issues Paper. Instead, we favour an NTP Model in which the NTP planning role is broader than any of the options which the AEMC seems to be contemplating, and it would also have responsibility for a broader range of ancillary functions.*
- 5. Achieving the NEM Objective requires not only the establishment of a new national transmission planner but also the implementation of a new, more internally consistent and more transparent network planning process for uniform application across the NEM that both empowers all affected stakeholders and holds the TNSPs more accountable for their decisions and their overall performance. The NTP should play a pivotal role in the detailed development and implementation of that process, and monitor and report on the level of compliance with it on a regular basis, as well as apply it itself in the preparation of the NTNDP.*
- 6. The NGF believes the NTNDP should include full coverage of the “main power system” and consider a number of planning timeframes covering a total planning horizon which extends well beyond 10 years.*
- 7. The integrity of the NTP when carrying out this broad range of functions would be best served by an institutional governance structure that afforded it a high degree of independence from jurisdictions, the AEMC, the AER, AEMO, and TNSPs, and is designed and implemented in such a way that it could not be unduly influenced by any individual market participant or market stakeholder NGF.*
- 8. The NGF strongly supports Option 1 for the proposed framework of the RIT; i.e. the full cost benefit analysis approach. This is entirely*

***consistent with the adoption of a well-designed and implemented probabilistic planning methodology and allows the valuation of reliability benefits to be applied on a consistent basis for network investment decisions. The NGF accepts that some streamlining of the detailed methodology for applying the Test would be appropriate for lower cost/impact projects.***

***9. The NGF has no objection to the possibility of VENCORP and/or ESIPC planning functions being transferred to the NTP. However, if this occurs, quite separate governance structures should apply for each of these functions which are quite separate from those for the remainder of the NTP's functions, and those governance arrangements should provide for effective participant involvement along the same lines as currently apply in VENCORP.***

***10. The AEMC's Implementation Plan should focus on the establishment of the NTP entity, the creation of the legal and regulatory framework that is to govern its operations, the recruitment/selection process for its initial senior appointments only, and its initial funding arrangements. When this is completed, it should become the responsibility of the NTP itself to develop and action its own more detailed establishment plan, and be accountable directly to the SCO/MCE for its implementation.***

## **1. General**

The AEMC is to be commended on its preparation of the Issues Paper and the way it has identified and addressed the issues, drawing heavily on the submissions it received in response to the Scoping Paper. In this regard, we gratefully acknowledge the AEMC's inclusion in the Issues Paper of many of the matters we raised in our previous submission.

While we understand that the AEMC is constrained by the MCE Directive under which it is carrying out this Review, the Directive still retains a strong emphasis on economic efficiency and pursuit of the NEM Objective. The NGF's primary objective with the outcome of this Review and the implementation of the NTP arrangements, which is also entirely consistent with the NEM Objective, is to first achieve and then maintain a position of competitive neutrality in the NEM between future generation and transmission investment. This could also be extended to include potential investment in demand side initiatives where these are potential competitors with generation and transmission investment. We do not believe the MCE Directive in any way constrains the AEMC from achieving that objective.

In view of the utmost importance of this to us as investors in the generation sector of the NEM, we note the comments made by the “The Group” in response to the Scoping Paper on this matter:

*“Investment in transmission both complements and competes with investment in generation within the overall electricity supply chain. On the one hand, without certain or adequate transmission capability, a generator’s access to the market can be unduly constrained. On the other hand, uneconomic investment in excessive transmission capability can, at least in the medium term, undermine market prices and depress generator values. The threat of excessive transmission investment, if considered material, will be a major deterrent to much needed new generation investment into the future.*

*Adequate supply reliability is a product of adequate investment in both generation and network infrastructure. As the scoping paper notes at a high level, the role of the enhanced planning process is to “promote more strategic and co-ordinated development of the transmission network and to assist in optimising investment between transmission and generation across the power system”.*

*The Group supports this objective and is seeking an NTP process that will also contribute positively to the creation of a sustainable, commercially acceptable investment climate with appropriate risk allocation for both of these important forms of electricity infrastructure, thus promoting optimum economic efficiency in the industry in line with the statutory NEM objective.”*

## **2. Scoping the NTP Function**

In essence, the principle drivers for the establishment of the NTP function have been:

- A widely held perception principally amongst consumer NGF’s and Government officials that the current transmission planning and investment impedes efficient investment in the grid and has created a situation where the NEM is perceived to be a series of multiple State-based markets and not a single market with strong cross-border competition; and
- A perceived gap in current network planning arrangements whereby there are no clear accountabilities and responsibilities for cross-boundary network investments, and, in particular, for interstate interconnections.

The COAG Response to the Energy Reform Implementation Group’s recommendations however provides clear direction to the AEMC about the overall intent of the enhanced network planning process; i.e. *“to ensure a more strategic and nationally coordinated approach to transmission network development, providing guidance to private and public investors to help optimise investment between transmission and generation across the power system”.*

The NGF recognizes that a new national transmission planning process on its own is insufficient to deliver on COAG's objective. However, we agree that an effective and efficient, competitively neutral set of NTP arrangements is a necessary precondition.

The COAG response also provides further key pointers in the intent of the NTP arrangements in that it should "*provide an appropriate balance between the delivery of a coordinated and efficient national transmission grid, and local and regional reliability and planning requirements, and be flexible enough to respond to generation and load changes*", and that it will "*replace the current Inter Regional Planning Committee and Annual National Transmission Statement*".

This suggests that COAG has concluded that the NEM's current, shared responsibility approach to coordinated national planning needs to be replaced with a strong, centralized process managed by a single entity with a true national focus on the overall needs of the market. The NGF is in total agreement with this position. However, from our perspective, there are a number of other weaknesses associated with the current transmission planning and network operations practices and procedures in the NEM which a strong, technically competent and well-resourced NTP entity could overcome. Some of these perceived weaknesses include the following:

- The very substantial information asymmetry between the TNSPs and the economic regulator on one hand, and between the TNSPs and other market participants on the other. Participants often feel they are disempowered when dealing with the monopoly TNSPs, and that the TNSPs are more focused on managing the regulatory process than their service delivery obligations;
- Inadequate transparency concerning network related information which prevents third parties from being able to seriously analyse and question TNSP planning decisions and operational performance;
- Unclear allocation of responsibilities and rather ad-hoc and non-transparent coordination arrangements of transmission operations and transmission operational planning issues across TNSP boundaries; and
- Unclear distinction between the power system security management role and responsibilities of NEMMCO (or future AEMO) power system operations function and the network service provision function of TNSPs, particularly in areas associated with setting the limits of the network for secure operation, definition of credible contingencies, NCAS arrangements, protection coordination and the like.

All of these issues could readily be addressed and resolved by transferring additional responsibilities to the NTP and providing it with the requisite statutory authorities. To ensure that they were all addressed in a way that met the needs of the market, it would be critically important to create a governance structure for the NTP that accorded it an appropriate level of independence from both AEMO and the TNSPs. For its core transmission planning function, it would also be highly desirable that it was independent of Governments and the national regulatory bodies; i.e. the AER and the AEMC.

In summary, the establishment of the centralized NTP function at this time offers a unique and rather timely opportunity to address a number of other weaknesses in the current NEM regulatory and institutional framework for the benefit of market participants and consumers alike. The NGF urges the AEMC to take a leadership role throughout this review process with the aim of optimizing the overall value of the NTP in the NEM.

Finally, the NGF is also concerned that changes required to achieve competitive neutrality for future generation and transmission investment (and demand side response initiatives) in the NEM go beyond what can be addressed by the establishment of the NTP function. It also requires consistency between the way reliability is valued in both the market and the RIT, improved risk allocation between TNSPs and market participants in relation to network performance, and enhanced project planning responsibilities that require TNSPs to aggressively pursue, and if necessary, even sponsor themselves, non-network options that are clearly more economically efficient than network augmentation options.

The NGF believes the AEMC's report to the MCE at the conclusion of this Review should acknowledge the limitations of the NTP establishment in terms of achieving competitive neutrality for future NEM infrastructure investment and recommend what other changes in the NEM regulatory settings and institutional arrangements it believes would be needed to achieve COAG's objective.

### **3. *The NGF's Preferred NTP Model***

The AEMC has suggested 4 alternative NTP models which presumably attempt to capture the breadth of the views and suggestions that the AEMC received from stakeholders in response to the Scoping Paper.

In our opinion however, the proposed roles and responsibilities of the NTP in all 4 of the AEMC's options fall short of the NGF's preferred model. As discussed in Section 2 of this submission, we envisage the creation of an NTP organization that has a range of additional responsibilities beyond those required merely for the development and preparation of the NTNDP.

The NGF's position on this issue is summarized in Attachment 2 to facilitate direct comparison with the AEMC's options. The following discussion is intended to provide a more detailed understanding of the NGF's position under each of the headings listed in Table 8.1 of the Issues Paper:

#### **3.1. Duration**

The expected economic life of transmission infrastructure has long been well beyond 30 years and, with the advent of the competitive market, there are strong economic pressures to extend the useful life of generation infrastructure as well compared with industry practices of the past.

In these circumstances, planning scenarios need to contemplate possible futures well beyond a period of 10 years. Transmission planning is a classic case of large scale “planning under uncertainty”, a topic on which there has been a growing body of research work done over the past 15 years. Planning methodologies which recognize and deal with the value implications of risk and uncertainty have made significant advances over that 15 year period, but, to our knowledge, these have not as yet been adopted by TNSPs. Instead, the majority of TNSPs still favour the use of highly simplistic and quite arbitrary deterministic reliability criteria for making planning decisions. We do not claim to be experts on the subject of “planning under uncertainty” and therefore do not have a firm view of what time period should be used in the transmission planning process. What does seem sensible and logical to us however is that:

- The degree of firmness and specificity in any network development plan should increase as the lead time available before a decision must be made reduces;
- Options under consideration for near term decision in the planning process need to be developed and analysed taking into account all material economic value risks and uncertainties into the future. What is deemed to be material in these circumstances becomes a key determinant of how far into the future planning scenarios need to go in order to identify and quantify those value risks and uncertainties.
- The planning process in general and the development of the NTNDP should incorporate some work on possible long term futures for energy technologies, energy use and energy market evolution that would help to identify longer term risks being faced by the industry which may be exacerbated or mitigated by the near term plans for network expansion.

As a result, we suggest the NTNDP should be developed with somewhat different approaches to a number of different timeframes. Whereas in the short term, it would replicate the detailed plans of the TNSPs (and presumably draw heavily on those plans for minor works), in the medium and longer term timeframes it would be considerably less definitive. Of course, the duration of the planning scenarios needed to support the preparation of such an NTNDP would need to match the timeframes considered in the Plan.

### **3.2. Scenarios**

Consistent with the discussion in Section 3.1 above, the number of scenarios needs to be sufficient to satisfy the objectives of the planning process, and this is quite different for each of the planning timeframes.

For the short term planning task, the number of scenarios needs to be sufficiently large to capture all key causal effects of exogenous factors that have implications for the level of network services required, the expected costs and benefits of any particular project option, and the risks associated with each that the TNSP is expected to manage to the satisfaction of market participants and other stakeholders. The number of planning

scenarios which needs to be considered may well vary from one planning issue to another.

For the longer term, while there is greater uncertainty, the objective of the planning task is also considerably less onerous and arguably, the number of planning scenarios could be less and each of them less defined than is necessary in the short term.

Having said that however, we reiterate that we do not profess to be network planning experts and do not have strong fixed views on the issue. Suffice to say, the planning scenarios should be sufficient in number and defined in sufficient detail to provide the necessary inputs for a state-of-the-art planning methodology based on the latest advances in large scale “planning for uncertainty”.

### **3.3. How Should “National” be defined?**

In our view, the definition of “national” in terms of describing the proposed scope of the NTNDP should be precisely the same as the definition of the network covered by the “main power system” as defined for the purposes of setting the physical boundary of the NEMMCO/AEMO system security management responsibilities.

This however should not be interpreted to mean that the NTP must identify and thoroughly investigate every potential minor network investment proposal and develop its own views on the project options in respect of each. What it does mean is that the NTP should have access to all of the necessary models and information to undertake detailed planning studies across the entire main power system. At its discretion, it should be able to decide on the extent to which it is prepared to rely solely on TNSP inputs including minor investment proposals when undertaking those studies, provided that it openly discloses the decision to do this when it publishes its Plan.

If after some experience with this approach, either the TNSPs or other stakeholders have any material concerns with the way the NTP applies its discretion in this regard, it would then be appropriate for the AEMC to reconsider the issue and, if necessary, apply some limits to the NTP’s discretionary powers in this area. In any event however, proper planning studies to identify and address “national” planning issues still need to model the entire main power system.

Any attempt to distinguish between “national” and “local” transmission infrastructure would be quite arbitrary as the capability and performance of one would impact on the capability and performance of the other.

### **3.4. How Specific?**

As indicated previously in Section 3.1, for the short term timeframe, we would expect the NTNDP to fully replicate the detailed plans of each of the TNSPs. Anything less than this which attempts to limit the scope of the NTP planning task or avoid duplication of work undertaken by the TNSPs would seriously detract from the quality of the NTNDP and the

robustness of the NTP's conclusions and recommendations in respect of future development of the transmission network.

### **3.5. Over What Range of Assets?**

This issue has already been discussed on a number of occasions throughout this submission. The extent of the network coverage of the NTNDP should be the same as that covered by the NEMMCO's/AEMO's operational control area.

On the specific question of connection assets and replacement projects, these are areas where, in the first instance, the NTP should be free to apply its discretion as to whether or not there is sufficient materiality involved to merit the TNSPs' proposed plans being tested in these cases as part of the preparation of the NTNDP.

### **3.6. NTP Involvement in the Regulatory Test**

The overall governance and use of the Regulatory Test involves up to 6 different steps. They include:

- (i) Developing the policy settings for the development and application of the Test
- (ii) Its definition in the form of a regulatory instrument
- (iii) Development and promulgation of the detailed methodologies and guidelines for its application
- (iv) Its use as part of the decision-making process for new investments
- (v) Monitoring its use for compliance
- (vi) Enforcement action for non-compliance

Responsibility for (i) & (ii) above is somewhat confused in the current NEM governance arrangements. First, the MCE and its predecessor have taken an undue interest in the precise formulation of the Test and this review is another example of this. At the same time, whereas the Market Rules allocate responsibility for defining the Regulatory Test to the AER, the MCE has in fact asked the AEMC to redefine it as part of this Review. Hopefully, at the same time as the refined test following this review process is finalized and implemented, a more rational and stable set of governance arrangements will also be introduced. In this respect, we would expect to see less interference in the detailed definition and application of the Test from the MCE, and transfer of responsibility for defining the Test to the AEMC as an inter-related component of the competitive market design and the associated network access regime.

The NGF believes that the NTP should have involvement in each of (iii), (iv) and (v) above as follows:

- The NTP should have sole responsibility for developing and promulgating the detailed methodologies and guidelines for the application of the Test as part of a broader objective to achieve enhanced quality and much greater consistency and

transparency in the overall transmission planning practices and procedures in use across the NEM.

- The NTP should undertake a preliminary application of the Test for any major planning initiatives it wants to include in the NTNDP in the shorter timeframes that are not already being addressed by one of the TNSPs.
- The NTP should coordinate and oversee the application of the Test for all investment proposals where there are material cross-boundary issues involved in one or more of the planning options.
- The NTP should monitor compliance of TNSPs for each application of the Test and publish its findings.
- The NTP should also be available to provide advice and assistance to the AEMC and the AER on request in relation to their respective roles in development of policy settings, definition of the Test and enforcement action.

Under the current NEM governance arrangements, the Last Resort Planning Power resides with the AEMC, and it has access to the IRPC for advice as required before invoking the use of its LRPP powers.

With the advent of new national transmission planning arrangements as envisaged by the NGF, we would expect the need for retaining an LRPP arrangement in the NEM to diminish to the point where it is essentially redundant. In these circumstances, we are somewhat indifferent to the question of whether the power is retained by the AEMC or is transferred to the NTP. It could be argued that there may be some merit in retaining the power within the AEMC to increase the accountability of the NTP in the preparation of detailed aspects of the NTNDP; however, we have no strong views on this issue.

### **3.7. NTP Ancillary Functions**

This issue has already been addressed to some extent in previous sections of this submission, and those comments will not be repeated here. In Section 2, we identified a number of weaknesses in the current NEM arrangements and suggested that the NTP could be used to overcome them. Looking at each in turn:

#### *(a) Information Asymmetry*

A strong, technically competent NTP function with a detailed technical knowledge and understanding of the transmission network and the work practices and procedures of the TNSPs would provide considerable comfort to other market participants when dealing with the TNSPs. As monopoly providers of the services they deliver to the market, participants have no choice but to use them and little recourse in the event they are dissatisfied with the services that are provided.

The approach to incentive-based regulation being developed by the AER is focused on the overall performance of the TNSP and the financial impacts of the

incentive payments/penalties are spread across all of the TNSP's network users. This is a product of the communal approach to network access used in the NEM where, apart from the treatment of connection assets, access rights for individual network users are ill-defined and, for all practical purposes, the risks involved are virtually all allocated to the network user.

For this type of access regime, network users are entitled to expect there will be a high level of TNSP accountability for their performance, and a corresponding high degree of transparency associated with those performance risks which are being borne by network users.

The AER is ill-equipped to monitor and assess the technical practices and performances of the TNSPs. On the other hand, the proposed NTP would be ideally suited to the task; but any enforcement action resulting from the NTP's monitoring role would remain with the AER.

*(b) Access to Planning Data*

As a general principle, the NGF believes that participants and other stakeholders should have access to sufficient information to fully replicate the planning studies of the NTP and the TNSPs if they so desire. At the same time, the NTP needs access to all of the same information to be able to undertake its short term planning studies for the NTNDP.

The NGF believes that the NTP should be tasked with the responsibility to establish and maintain a comprehensive, up-to-date network planning database that is fully accessible to third parties. It should have the necessary powers to gather all of the technical and non-technical planning data used by the TNSPs, and organize it in the database in a readily accessible and usable form.

Any suggestions by the TNSPs that this data is somehow commercially confidential and access to it should be restricted for this reason is totally unacceptable to the NGF. There may be other legitimate reasons why some restrictions on access should be maintained, but these do not relate to the commercial interests of the monopoly network service providers. They are more likely to relate to the commercial interests of specific network users and/or security considerations.

*(c) & (d) Co-ordination across TNSP boundaries & Allocation of Responsibilities*

Currently, there appear to be a multiplicity of mechanisms for addressing the various coordination requirements across TNSP boundaries. They include:

- Bilateral arrangements between TNSPs;
- The Electricity Transmission Network Owners Forum;
- NEMMCO operations;
- NEMMCO planning;

- Various working groups convened by NEMMCO; &
- The IRPC.

The NGF believes there would be considerable merit in centralizing and rationalising all of these disparate arrangements into a coherent package of detailed, transparent policies and procedures developed and administered by the NTP. Firstly, we would expect to see the longer term planning (as opposed to operational planning) resources in NEMMCO transferred to the NTP along with SOO related responsibilities. Secondly, the IRPC would be scrapped and all IRPC related responsibilities, to the extent that they need to be retained, transferred to the NTP.

Thirdly, we would expect any and all NEMMCO functions that have a direct bearing on defining the technical envelope of the transmission network for secure operation to be transferred to the NTP, with the possible exception of those which are done dynamically as part of the real time system operations. Even in these cases, the NTP should have a direct involvement in the specification of these arrangements. Where TNSPs currently define network limits such as the thermal rating of lines and equipment, this would be monitored by the NTP.

The ultimate objective of the NTP in this respect should be to ensure that the market has access to the full economic capacity of the existing transmission infrastructure, and that all opportunities to enhance the useful capability of the network on a cost effective basis by improved policies, procedures and practices within NEMMCO/AEMO and each of the TNSPs are pursued aggressively in the future.

The NGF also supports the proposal that the MCE as well as the AEMC and the AER have access to the NTP for advice and assistance on matters relevant to their own roles and responsibilities in the NEM. Having said that however, we believe:

- The obligations on the NTP to provide such services should be kept to a minimum;
- The market generally should be advised whenever such advice and assistance is requested and/or provided;
- The service should be provided on a full cost recovery basis; and
- Unless there are compelling reasons as to why it would not be in the public interest, the specific nature of the advice and assistance provided in each case should be published.

### **3.8. Governance**

In view of the broad role for the NTP being proposed by the NGF in this submission, we believe the NTP's governance arrangements should ensure that it:

- Has all the necessary statutory powers to carry out its role effectively and efficiently;

- Is properly accountable to all key stakeholder groups for its performance; and
- Has a high degree of independence from participating jurisdictions, TNSPs, AEMO operations, AEMC and the AER.

In these circumstances, the NGF advocates the establishment of the NTP as a separate entity from AEMO, but with well developed links to the AEMO operations functions. In our view, it would be consistent with the MCE Directive to establish the NTP function “within AEMO” by in effect having AEMO provide much of the administrative and logistical support required by a separate NTP for its day to day operation.

Precisely what legal form should be used would probably depend to at least some degree on the legal structure of AEMO itself. The NGF is largely indifferent about the relative merits of a statutory body versus a not-for-profit company structure as both are equally capable of providing the level of independence required.

#### **4. *VENCorp & ESIPC Planning Functions***

The NGF has no fundamental objection to bringing the transmission planning powers and responsibilities of either or both of VENCorp and ESIPC under the umbrella of the NTP. However, we do not accept that they should simply be absorbed within the NTP as an adjunct to the NTNDP preparation process.

In the proposed regulatory framework, TNSPs will retain full accountability for their network investment decisions, and, provided they have sufficient reason to do so, they may deviate from the proposed NTNDP, presumably because, in the particular circumstances of a specific planning need, the TNSP believes it would be prudent to deviate from the NTP’s baseline planning assumptions or alternatively it takes a different view about the expected costs and/or risks associated with the various options.

These are all potentially quite legitimate reasons for localized deviations from the NTNDP, and presumably, the decision to do so would only be made after appropriate consultation with the local stakeholders and more detailed analysis than the NTP would be able to undertake for all projects across the NEM.

These same localised issues could still arise in Victoria and South Australia, and the way in which these “local” or “regional” TNSP related planning powers and responsibilities are exercised should still provide ample opportunity for local input, and even direct participant involvement in investment decision-making as is currently the case in VENCorp with active industry people sitting on the VENCorp Board. If either of these State-based planning roles is transferred to the NTP, the NGF expects to see the current State-based industry involvement in the governance of those specific functions along the lines of those at VENCorp retained.

Secondly, it would be desirable to make some minor amendments to the roles of, and the relationship between, the NTP’s State-based planning function and the network owners so that participant negotiations with the TNSPs could be streamlined and one

party (on the TNSP side) had the full authority and responsibility to finalise the detailed network connection arrangements.

## ***5. The NGF's Responses to the AEMC's Specific Questions in the Issues Paper***

The NGF's responses to the specific questions asked by the AEMC in its Issues Paper are listed in Attachment 1 of this submission. At this stage, we have not attempted to prioritise the various matters raised in the Issues Paper, but merely provide responses except where the NGF:

- Is essentially indifferent to the issue; or
- Believes it does not have the necessary knowledge or understanding of the issue or how to address it so as to be able to make any useful contribution.

While in most cases, each question has been answered separately, the answers are based on the broad views and sentiments reflected throughout this submission. In different circumstances, our position with respect to some of these detailed responses may be considerably different.

## ***6. Other Issues***

### **6.1. Transitioning to the New Regime**

As with all major reform initiatives, it is generally not practical or even desirable to target a complete and final solution to the problem being addressed in a single step. The AEMC would be well advised to give consideration to prioritization of the issues it is dealing with, and contemplate recommending a staged approach to the establishment of the NTP and a progressive expansion of its powers and responsibilities over a number of years. This approach was adopted for the establishment of both the AER and the AEMC and may well be appropriate in this case as well.

From the NGF's perspective, the preparation of the first NTNDP would be the final step in the progressive build-up of the role and responsibilities and the corresponding planning resources and expertise of the NTP.

In our view, if the NTP were to focus initially on development and promulgation of the transmission planning methodology and the detailed guidelines and methodologies for applying the RIT, this would provide early tangible benefits for the market. All of these tasks need to be completed and bedded down appropriately in any event before it would be worthwhile attempting to prepare the first NTNDP.

Secondly, the first priority in the development of the NTNDP ought to be on the short term planning timeframe. As the NTP then develops and refines the planning approaches and methodologies for the medium and long term timeframes, these can be progressively incorporated into the NTNDP.

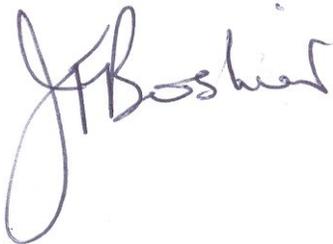
## 6.2. The AEMC's Proposed Implementation group

The NGF is generally supportive of the AEMC's proposed working group approach for overseeing the establishment of the NTP. However, there are 2 issues associated with this process that are worthy of comment:

- An implementation group of this type and/or additional advisory group assisting the process are not a substitute for broad-based stakeholder consultation, and, to the maximum extent practicable, all of the meeting agendas, discussion papers and the like produced throughout the process should be published on a timely basis; and
- The contents of the work plan for establishment of the NTP should focus on putting in place the required legislative and regulatory framework for the NTP, setting up the NTP's initial funding arrangements, recruiting the initial commissioners/directors and its executive team, and arranging a comprehensive familiarization program for the appointees. From that point on, the NTP should take direct responsibility for the detailed establishment of its organization, and be accountable for this directly to the SCO/MCE.

We would be pleased to discuss any of the matters raised in this submission with you or your staff in more detail at your convenience if you wish, and if you have any questions regarding this submission, please contact me on (02) 6243 5120.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'J Boshier', with a large loop at the end of the signature.

John Boshier  
Executive Director  
National Generators Forum

## The NGF Response to the Specific Questions Raised in the AEMC NTP Issues Paper

Topic	• AEMC Questions	The NGF Response
Review Process	<ul style="list-style-type: none"> <li>Its proposed approach to the Review and its decision making criteria</li> </ul>	<p>The NGF is generally supportive of the AEMC's proposed approach to the Review and its suggested decision-making criteria, but we are concerned that they are insufficient to provide strong guidance in determining the preferred role and scope of the proposed NTP function.</p> <p>Firstly, we suggest that the AEMC should prioritise the decision-making criteria – some are prerequisites, while the remainder may be more or less important than one another depending on one's perspective and policy priorities. Looking at each in turn:</p> <ul style="list-style-type: none"> <li><i>Consistency with MCE directive</i> – prerequisite, but there is some flexibility in the way the AEMC chooses to interpret it</li> <li><i>Solutions which promote more efficient outcomes over time, and which are proportionate to the materiality of the problems being addressed</i> – this criterion seems to confuse 2 separate issues – the need to seek economically efficient outcomes and the desire to minimize planning time and costs</li> <li><i>Application of good regulatory practice and design</i> – this is a secondary issue – the primary focus must be to achieve a highly effective planning process that satisfies the needs and concerns of all stakeholders. The regulatory aspects of how this is enforced and how it interfaces with the economic regulation of the TNSPs should not be material factors in the design of the planning process itself.</li> <li><i>Application of effective corporate governance and accountability principles</i> – The NGF considers this to be a high priority issue</li> <li><i>Minimisation of implementation costs and risks</i> – including costs associated with any duplication of functions – While we agree with this in principle, the NGF has serious concerns about how these criteria may be interpreted to push the AEMC towards a quite inappropriate outcome. The costs and risks of bad planning decisions extend way beyond the TNSPs – they can affect all major stakeholders and, to the extent that those affects are material they should be recognized in the cost benefit analysis of any specific project proposal. Also, merely because JPBs and/or TNSPs current undertake a particular function is not a valid reason for excluding it from the proposed duties of the NTP. It may well be much cheaper for the NTP to undertake an activity on a national basis instead of each JBP or TNSP attempting to do it separately at a State level.</li> </ul>

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		<p>Secondly, the NGF believes that the AEMC should provide a very clear definition of all of the issues and problems that the AEMC's preferred solution is intended to address. This should draw heavily on the MCE directive, but it should also take account of the findings of previous NEM reviews as well as the views expressed by stakeholders in response to the Scoping Paper.</p> <p>Thirdly, the NGF proposes that, before the AEMC publishes its preferred solution, it be subjected to an expert independent assessment of how well it satisfies the AEMC's decision-making criteria and how well it addresses each aspect of the AEMC's definition of the problem, and that this is published at the same time as the proposals for participants to examine.</p> <p>The NGF supports the establishment of an Implementation group, but its role should be to assist in the development of detailed plans etc. and not to be used as an excuse to preclude ample opportunity for individual stakeholders to input into the process at appropriate times. All papers, reports, meeting agendas and detailed decisions regarding implementation should be published on a timely basis, and further opportunities provided on a regular basis for stakeholders to air their views and concerns about any of the detailed implementation arrangements.</p>
	<ul style="list-style-type: none"> <li>• The materiality of the problems being addressed in this Review.</li> </ul>	<p>Satisfactory resolution of the transmission planning issue is important to all stakeholders and in particular it is absolutely fundamental to the interests of all generators. It is now almost 20 years since the National Grid Management Council first considered the issue of the possible establishment of a single national transmission company, and, in spite of all of the major achievements in the reform of the industry since then, the principal drivers of that review still remains unresolved today.</p> <p>At the heart of the issue lie 3 key network planning related problems:</p> <ul style="list-style-type: none"> <li>• The tension between market-based drivers of investment for both the production (supply side) and use (demand side) of electricity and the regulatory drivers of investment in transmission (with the exception of merchant links) and distribution, when in fact they are very often competitors with one another</li> <li>• The traditional territorial and rather narrow, risk averse and historical engineering focus of the network businesses that seriously undervalues potential non-network solutions and impedes the development of cross-border solutions to specific planning problems</li> <li>• Regulatory settings for the market and network access arrangements that clearly discriminate in favour of regulated network investment solutions at the expense of other alternative investments including merchant generation, merchant transmission and/or demand side response.</li> </ul> <p>From the NGF's perspective, the risk and uncertainty created by the current transmission planning regime has a</p>

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		<p>material impact on the cost of capital for all new generation investment, the ultimate cost of which is probably more significant in the overall cost of delivered energy services than any adverse impact it may have had on the cost of transmission.</p> <p>The network planning process combined with the economic regulatory regime for network businesses should aim to emulate the investment outcomes for energy infrastructure that one would expect to see if a fair and efficient competitive market environment could indeed be established across all sectors of the energy industry and energy supply chain.</p> <p>Investment in generation on average over time should outweigh transmission network investment in the NEM by a factor of at least 4 to 1 and therefore developing and implementing a planning regime, the outcomes of which are reasonably predictable for any given set of market conditions and investment opportunities will substantially improve the efficiency of the NEM.</p>
Definition of National Impacts	<ul style="list-style-type: none"> <li>Whether the Commission is correct to assume that the scope of the NTP must be limited to a sub-set of 'national' planning issues if it is to be consistent with the MCE's direction?</li> </ul>	<p>The NGF considers the AEMC's interpretation of the MCE Directive is unnecessarily narrow. None of the specific restrictions or limitations in the Directive requires the AEMC to be so limiting.</p> <p>The key restrictions are the requirements to preserve the jurisdictional roles of VENCORP and ESIPC, and to maintain "an accountability" for TNSPs for their investment decisions, operations and performance. While there are other requirements in the Directive, they do not materially constrain the AEMC's deliberations on the split of responsibilities for transmission planning between the NTP and JPBs/TNSPs in favour of the NTP.</p> <p>The overriding sentiment of the MCE Directive is to design, develop and implement an overall transmission planning process and allocate roles and responsibilities accordingly so that the overall arrangements maximize economic efficiency in the NEM on a medium to long term basis. To the extent that this justifies an expanded role for the NTP vis. a vis. the roles and responsibilities of the JPBs and/or the TNSPs, then in our view, it is incumbent on the AEMC to recommend this subject only to the specific limitations referred to above.</p> <p>The NGF strongly supports the view that there are a range of other areas where an expanded role for the NTP would provide substantial benefits for the market including:</p> <ul style="list-style-type: none"> <li>Assuming some of the network related functions currently undertaken by NEMMCO System Operations;</li> <li>Providing a technical leadership role for all network related planning across the NEM in all areas where there may be potential substitutes for traditional transmission network investment;</li> <li>Monitoring the technical performance of TNSPs in their network operations and asset management roles; &amp;</li> <li>Ensuring extremely high standards of transparency on all aspects of transmission planning, investment, operations and asset management are established as part of the regulatory framework and are adhered to</li> </ul>

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		<p>by all of the relevant parties including the NTP.</p> <p>Also. In terms of the extent of network coverage addressed by the NTP, in our view, any distinction between inter-regional and intra-regional impacts of network planning decisions is largely artificial in any event.</p>
	<ul style="list-style-type: none"> <li>Whether a definition of 'national' that limits NTP scope to planning issues which relate to constraints which (materially) involve interconnector flows is practical and workable?</li> </ul>	<p>Even if the AEMC decides to limit the scope of the NTP to "national" issues only, the NGF considers it quite impractical to limit the NTP to only consider "constraints which (materially) involve interconnector flows".</p> <p>Forward projections of interconnector flows themselves can only be ascertained by comprehensive modeling of the main power system across the entire NEM. To undertake this properly, the NTP should have unqualified access to all transmission planning data from all JPBs and TNSPs across the NEM, and they should undertake national transmission planning studies using a full model of the entire transmission network including any major sub-transmission elements that are deemed to be part of the "main power system".</p> <p>Also, a complete understanding of the factors causing the constraints and the conditions under which they apply, particularly when the constraints are not caused by thermal limits, can only be gained by a comprehensive analysis of the entire network.</p> <p>In these circumstances, it defies logic to suggest that the NTP should be strictly limited in what it reports on compared with all the potential issues that may arise from a network planning perspective as it undertakes its planning studies. With the possible exception of the TNSPs, other market stakeholders would be keen to hear the NTP's views on all of the material issues it identifies, particularly where these are at odds with the conventional wisdom being espoused by the JPBs and/or the TNSPs.</p>
	<ul style="list-style-type: none"> <li>Whether the current definition of National Transmission Flow Paths should be used in defining the scope of the NTP functions?</li> </ul>	<p>No - see above</p>
	<ul style="list-style-type: none"> <li>What other practical options exist for clearly and unambiguously defining the scope of planning issues within</li> </ul>	<p>The NGF believes that the only practical approach is to allow the NTP to develop a comprehensive transmission development plan that addresses the needs of the entire main power system. This however does not preclude the NTP from using, as input into the development of that plan, detailed information on proposed minor works and connections so that its analysis is primarily focused on major project requirements.</p> <p>The extent to which the NTP is prepared to rely on input from the TNSPs without undertaking detailed analysis of its own is a matter of judgment which is best left to the NTP to exercise at its discretion, provided that it</p>

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	<ul style="list-style-type: none"> <li>the scope of the NTP?</li> </ul>	discloses in the NTNDP where it has exercised this option.
Range of Scenarios * Level of Detail in the NTP	<ul style="list-style-type: none"> <li>What range of scenarios should be required to be considered within the NTNDP?</li> </ul>	<p>The NGF strongly supports the adoption of a probabilistic approach to network planning and investment decision-making. To do this effectively, the range of scenarios needs to cover the broad spectrum of possible market outcomes, and be capable of being weighted so that the expected costs and benefits of any proposed planning solution can be evaluated.</p> <p>The planning methodology and cost benefit analysis also needs to deal specifically with the risks associated with extreme events and the probability of their occurrence. In some cases, it is quite likely that, even though a pure economic assessment may suggest the risk mitigation costs for alleviating or preventing such events may not be worthwhile, from a public policy perspective, mitigating such risks may be considered worthwhile. The planning scenarios used need to enable this type of analysis to be done and enable potential risk mitigation measures to be identified.</p> <p>Prospective investors in new generation projects need to be able to gain a detailed understanding of the grid-related lead time requirements for any new major generator investment at any commercially sensible location across the market. Arguably, the NTNDP should provide indicative information in this respect, but ultimately detailed lead time information would need to be provided by the relevant TNSP.</p> <p>Finally, the planning scenarios should be sufficient to provide a reasonably good understanding of the costs and risks associated with both over- and under-investment in the network, and provide an indication of how best to plan the expansion of the network in a cost effective manner taking into account the plausible range of uncertainty dealing with projected load growth by location, potential plant expansion by location, technology risk and relative fuel price trends that could materially affect future generation patterns across the grid etc.</p>
	<ul style="list-style-type: none"> <li>What level of detail should the NTNDP include in relation to options for, or solutions to, planning issues within its scope?</li> </ul>	<p>The NTNDP needs to be reasonably precise in defining the planning issue to be solved, but then for long term issues, it only needs to provide relatively high level information of a broad range of alternative means of solving that issue.</p> <p>However, as the lead time available to solving the issue reduces, the plan would need to be more discerning about the options and be more definitive about the information it provides about each of those options. In this regard, in between successive NTNDPs, presumably, it would collaborate with the relevant TNSPs and potential providers of alternative services to narrow down and firm up the options so that, progressively over time, the NTNDP contains much more definitive information as the time draws near to when a decision needs to be made.</p>
	<ul style="list-style-type: none"> <li>In what specific ways</li> </ul>	While it is difficult to quantify the value added that would be created by it, the NGF believes that the overall

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	<p>might the NTP add value through greater involvement in the planning process, and how material would this added value be?</p>	<p>transmission network planning and investment decision-making in the NEM would be considerably enhanced by the following:</p> <ul style="list-style-type: none"> <li>• The NTNDP should include a comprehensive long term strategy for managing the acquisition and use of transmission easements outside of the metropolitan areas of the major cities where extensive undergrounding is not commercially feasible;</li> <li>• All jurisdiction based transmission planning criteria and planning methodologies should be scrapped and replaced with a single consistent package of national planning criteria and methodologies developed and published by the NTP;</li> <li>• The NTP should act as the coordinator for all cross-boundary activities between TNSPs that impact on network capability – this would extend beyond network planning issues to also address operational coordination arrangements;</li> <li>• The NTP should create and maintain a comprehensive transmission network planning database that is accessible by third parties and is sufficiently detailed to enable those third parties to duplicate the planning studies of the NTP and expand on those studies to investigate other potential planning solutions that had not been considered by the NTP. To the extent that TNSPs choose to use planning data that differs from that used by the NTP, this should also be accessible via the NTP database; &amp;</li> <li>• The NTP should, on a regular basis, scrutinize the detailed planning practices of each of the JPBs and TNSPs to assess their compliance with the published national planning criteria and methodologies and publish the results of these assessments. This will help clarify for other stakeholders where TNSPs may be deviating from the NTNDP, and it would also provide useful input information to the AER for its economic regulation role.</li> <li>• The NTP should publish detailed guidelines and methodologies for the application of the RIT and monitor its use by the JPBs/TNSPs and report on any non-compliance.</li> </ul> <p>Achieving consistency and a high quality performance across the NEM in transmission planning practices and application of the RIT would be valuable to market participants and would, in our view, make a material contribution towards the achievement of the NEM Objective.</p>
Scope of the NTP	<ul style="list-style-type: none"> <li>• To what degree should the three areas of power generation, gas</li> </ul>	<p><i>Power Generation:</i> As a general principle, transmission planning and investment should neither preempt nor crowd out future economically efficient generation projects. That being said however, the NTNDP needs to consider a time horizon well beyond the time period for which firm commitments have been made for further generation capacity expansion. Therefore, it is inevitable that the planning scenarios considered in the</p>

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	<p>transmission, and electricity distribution be in the scope of the national plan, and what specific functions should the NTP have to give effect to this?</p>	<p>preparation of the NTNDP will need to contemplate the possibility of new generation project options at various logical locations across the network and prepare options for the provision of expanded network services to cater for those options.</p> <p><i>Gas Transmission:</i> The NTNDP should, as a minimum, at least identify where additional gas transmission would be a realistic alternative to augmenting the capacity of the electricity transmission network. The current access arrangements for electricity and gas transmission are fundamentally different and, as the demand for gas fired power generation grows, there is the potential for this to be developed in locations that systemically bias infrastructure investment in the direction of electricity transmission even though the underlying economics would suggest that gas transmission should be the preferred alternative. The NTNDP should at least identify the materiality of this issue and assess whether changes to one or other of the access arrangements is needed to remove the investment bias. In essence, the approach to planning needs to be competitively neutral w.r.t. competitive investment in the electricity and gas markets.</p> <p>The NGF has not formed a view as to whether there would be merit in further integration of national gas transmission planning into the NTNDP beyond what is described above. In essence, there is little need for centralized planning of the gas transmission network. Each element is individually controllable, the access rights can be clearly defined and readily traded, and the introduction of more transparent market trading hubs will provide adequate market signals that will drive new pipeline investments wherever and whenever required. Any centralized gas transmission planning role should merely focus on identifying and publishing information about emerging market opportunities for new pipeline investment.</p> <p><i>Distribution:</i> The NTNDP should only be concerned with that component of the distribution network that is deemed to be part of the “main power system” and is therefore a substitute for transmission and falls within AEMO’s operational control area.</p>
	<ul style="list-style-type: none"> <li>To what extent should planning of embedded generation, demand side management and NCAS provision be within the scope of the Plan, and what specific functions</li> </ul>	<p>As a general principle, the NGF believes that the NTNDP should treat non-network solutions/NCAS on equal terms with any proposed network options for solving identified planning problems, and that there should be consistency across the NEM in the processes and the rigour by which these unconventional options are explored as part of the transmission planning process. We have proposed elsewhere in this submission that the degree of specificity with which the NTNDP should consider options depends upon the lead time available before a final decision needs to be made.</p> <p>As part of its technical leadership role, there may be merit in the NTP taking a lead role in developing and refining procedures for identifying practical non-network options, recruiting them, contracting with them to provide the required network support services, and then operating them to maintain the integrity of the network</p>

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	<p>should the NTP have in this regard?</p>	<p>as intended.</p> <p>In addition to considering the application of NCAS over the long term planning horizon in the NEM and including this in the NTNDP where appropriate, the NGF believes that the NTP should also take responsibility (from AEMO operations) for determining how much NCAS should be contracted and where to support the network and then go about procuring it. Part of this process should be to define the economic worth of any specific NCAS at any given time and set of market conditions and implement as competitive an acquisition process as possible to acquire those services where they would clearly add value (i.e. there would be a clear margin between the cost of acquiring such services and their economic worth).</p>
	<ul style="list-style-type: none"> <li>In what specific ways might the NTP add value if its remit were wider than electricity transmission planning, and how material would this added value be?</li> </ul>	<p>Gas transmission and electricity transmission (and to a limited extent large distribution projects) are potential substitutes for one another, and all things being equal, gas transmission is generally considerably cheaper than electricity transmission. This suggests that there may be merit in extending the NTP’s remit to include national gas transmission planning and integrating this into the NTNDP preparation. However, the added value of this would be difficult to define. Clearly, the need for centralization of gas transmission planning is minor compared with that for the electricity transmission network.</p> <p>A technical leadership role in network planning, a coordination function on planning and operational matters across TNSP franchise boundaries and a TNSP monitoring function would also, in our opinion, add considerable value. For example, we would expect to see any undue conservatism in transmission asset ratings and operational practices to be removed over time.</p>
	<ul style="list-style-type: none"> <li>Whether the coverage of network assets for the NTNDP be limited to main grid augmentations, and if so, how should “main grid” be defined?</li> </ul>	<p>Already addressed previously in this submission</p> <p>The NTNDP needs to look at all aspects of the network that makes up “main power system” (as defined for operational purposes) on a holistic basis. The highly meshed nature of the network precludes any simple differentiation between “main” and “other” network elements, and the Plan should not differentiate between asset replacements and augmentations. Over time, essentially all investment in the network has the potential to impact positively or negatively on the economics of future investment options as demand grows, generation technologies change, and energy flow patterns across the network change accordingly.</p>
	<ul style="list-style-type: none"> <li>The appropriateness of applying a threshold test (\$ value or MW) to determining the</li> </ul>	<p>Already addressed previously in this submission – the NGF believes it would be inappropriate to exclude coverage of any aspects of the transmission and distribution networks that are deemed to be part of the “main power system” for operational purposes.</p> <p>The Plan should address all network planning issues across the “main power system”, but, at its discretion, the NTP may decide to rely entirely on input from TNSPs in relation to minor works. The reasons for doing so do not</p>

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	<p>coverage of network assets in the NTNDP?</p>	<p>readily lend themselves to the application of a hard and fast limit based on MW or \$ or any other simple measure of size. It will depend on such things as materiality of the issue, the range of realistic options available to address it and their relative costs, and the potential impacts of the solution adopted in this case on future investment options for solving other network planning issues at a later time.</p>
	<ul style="list-style-type: none"> <li>Whether the forecast period for the NTNDP should be longer than the minimum ten years?</li> </ul>	<p>The economic life of both generation and transmission infrastructure in the NEM is generally well in excess of 30 years. In these circumstances, the forecast period for the NTNDP needs to contemplate a planning period of at least 20 years and preferably longer; however, the range of plausible futures looking out beyond 20 years is extremely broad and it would be nigh on impossible to undertake detailed probabilistic planning studies over such timeframes. Nevertheless, longer term scenario planning should be used at the very least to gain a useful insight into the range of uncertainty surrounding the long term benefits of any alternative investment proposal. Traditional CBA studies by TNSPs have generally focused on the initial 10 years of the economic life of any particular investment proposal, but they then largely ignore the huge uncertainty surrounding the ongoing economic benefits of the investment by assigning it a residual value at the end of the 10-year period based on a straight line depreciation of the asset value over its full economic life.</p>
	<ul style="list-style-type: none"> <li>The relationships between the NTNDP and other planning documents.</li> </ul>	<p>The NGF believes that all national electricity planning documents should be integrated into a single planning document which has internal consistency across all of its various parts. The MCE Directive already suggests that the ANTS will be replaced by the NTNDP, and the SOO and the NTNDP are each addressing specific aspects of the overall infrastructure needs on the main power system over various timeframes.</p> <p>They should be rolled into a single planning document that addresses a number of specific timeframes and the approach for identifying and addressing planning issues in each of those timeframes are likely to be quite different.</p> <p>The long term (say 15 years plus) will necessarily be quite high level, focus on broad market needs and trends and the range of uncertainty surrounding them, and cost effective options for addressing those needs. This may point to more specific issues that should be factored into planning decisions over the shorter timeframes.</p> <p>The medium term (say 5 – 15 years) should be more detailed, involve full network analysis to identify specific planning issues and when they would arise under each planning scenario, and give preliminary information on the options for resolving those issues. This may also point to specific projects in the short term plan that should take into account one or more specific planning issues that are likely to emerge in the 5- 15 year timeframe.</p> <p>The short term (say up to 5 years) more or less corresponds with the time horizon for the economic regulation of the TNSPs by the AER. For this period, in our view, the NTNDP should be very specific, project based, and comparable with the detailed plans of the JPBs and TNSPs. Even though the TNSPs would not be bound to</p>

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		<p>comply with the NTNDP, the NTNDP would highlight any material differences between the NTNDP and the detailed plans of the JPBs/TNSPs, and attempt to identify why those differences have emerged. This information would be highly instructive for all other NEM stakeholders and would also provide useful input to the AER for its regulatory supervision of the TNSPs.</p>
	<ul style="list-style-type: none"> <li>Whether the NTNDP also contain research on issues relating to transmission network planning?</li> </ul>	<p>As part of its proposed role of providing technical leadership in the transmission sector, the NGF strongly supports the NTP undertaking research studies into long term transmission technology trends and their potential application in the NEM. This should also apply to other material economic and social issues that have the potential to impact on the transmission network businesses and their risk management needs.</p> <p>On the other hand, we do not support any suggestion that the NTP directly sponsor advanced technical research into transmission related technologies or equipment or it be a source of funding for medical or other research on the effects of transmission lines and equipment. As a result of its long term studies, it may develop views on the need for such research efforts and publish those findings. However, its role should not extend beyond that point. There are already well established institutions and processes for directing Australia's public spending on research and its relative priorities.</p> <p>The primary purpose of its long term research studies should be to inform the preparation of the NTNDP. However, the research studies themselves do not necessarily have to coincide with the preparation of the NTNDP and the resultant research papers could be published quite separately from the NTNDP.</p>
NTP Relationship with TNSP Planning	<ul style="list-style-type: none"> <li>The possible options for additional involvement for the NTP with respect to the planning carried out by the JPBs.</li> </ul>	<p>As stated previously in this submission, the NTP should prepare and publish detailed national network planning criteria and methodologies that the JPBs and the TNSPs would be expected to adopt. These would replace all of the different planning criteria and methodologies now in use at each JPB and TNSP, thus ensuring a nationally consistent approach to transmission network planning across the NEM.</p> <p>The NGF believes that, with the advent of the NTP, the concept of a JPB with transmission planning responsibilities at a State level would be redundant, and the only reason for its retention would be a political desire at the State level to restrict the role and influence of the NTP within the State. The remaining planning functions of JPBs such as EPISC and VENCORP are merely a substitute for the TNSP planning function where the transmission owner has been privatized and this role should continue. Even if either of these bodies is disestablished and the responsibilities for it transferred to AEMO, the NGF considers that particularly the governance of such functions should remain separate from the governance of the NTP's "national" responsibilities.</p>
	<ul style="list-style-type: none"> <li>Whether making</li> </ul>	<p>Requiring the TNSPs to explain any deviations from the NTNDP would enhance TNSP accountability to network</p>

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	<p>TNSP provide statements to explain any deviations from the National Plan would impinge on the TNSPs accountability and would be beneficial to market participants.</p>	<p>users and the AER. In no way would it impinge on the TNSP’s authorities and responsibilities to provide network services; however, it would provide greater transparency surrounding TNSP planning and decision-making, and redress, even if only to a relatively small extent, the very significant information asymmetry between the TNSPs and market participants.</p>
Additional Functions	<ul style="list-style-type: none"> <li>• How should the current IRPC functions be incorporated into new national planning transmission arrangements?</li> </ul>	<p>The NGF believes that, with the establishment of the NTP, the IRPC should be scrapped and all of its roles and responsibilities should be subsumed or replaced by new functions within the NTP. The NTP should have, as part of its functions, a broader coordination role for all cross-boundary interactions between TNSPs affecting network capacity on either side of their franchise boundaries. Where beneficial, the NTP should establish consultation committees and working group as required for the NTP to liaise with all relevant stakeholders regarding issues and procedures within its area of responsibility. However, this should not extend to establishment of committees like the IRPC which attempted to share responsibilities across multiple organizations.</p>
	<ul style="list-style-type: none"> <li>• It is necessary and/or beneficial for the NTP to have advice from the state JPBs in exercising the IRPC functions, especially the technical work performed under the umbrella of the IRPC.</li> </ul>	<p>Clearly, there will be occasions where the NTP would benefit from advice from a range of market stakeholders, and, in particular, TNSPs. However, with the establishment of the NTP, in our view, the role of the JPB (as distinct from the planning function of each TNSP) on transmission related matters is largely superfluous.</p>
	<ul style="list-style-type: none"> <li>• Should such functions (i.e. Co-ordination of Emergency response and Communication under the</li> </ul>	<p>The NGF believes that these functions should be transferred to AEMO. Emergency response requirements however are more operationally focused and, depending on the type of emergency, can affect many different aspects of the energy markets. A holistic approach to managing emergencies will be required within AEMO. Suffice to say, we remain to be convinced that the administration of these particular components of emergency management would be enhanced by being directly linked to the NTP’s planning function.</p>

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	<p>Responsible Officer Role; maintenance of Load Shedding Schedules and Sensitive Loads) be transferred to the NTP?</p>	
	<ul style="list-style-type: none"> <li>• Are there other similar functions that could be transferred to the NTP?</li> </ul>	<p>The NGF believes that the NTP should:</p> <ul style="list-style-type: none"> <li>• Assume responsibility for coordination and managerial oversight of all cross-boundary transmission operational planning issues such as coordination of protection settings, maintenance scheduling, communications and information exchange protocols and the like;</li> <li>• Scrutinise the network limits set by TNSPs for their network assets and publish by exception its findings;</li> <li>• Take prime responsibility for development and publication of network related constraint equations for use in the NEMDE, and work with the AEMO Operations function to facilitate the use of same in NEMDE with the capacity to supplement those equations in real time as required in the event that a market condition arises for which there is no appropriate pre-prepared constraint equation set; &amp;</li> <li>• Assume responsibility from AEMO Operations for investigating and reporting on network related operations incidents – this should include not only those incidents that are visible because of their direct impacts on the market, but also other potentially serious operations incidents that had no material impact on the market, but would have under a different set of market conditions.</li> </ul>
	<ul style="list-style-type: none"> <li>• Whether such additional functions be assigned to the NTP? [i.e. (a) Advice to MCE, (b) NCAS planning and procurement, (c) Responsibility for State Load Forecasts, (d) Monitoring the</li> </ul>	<p>(a) <i>MCE advice</i> – The NGF does not believe that this should be enshrined as a statutory or regulatory obligation of the NTP. However, the service could be provided on a fee for service basis, and we would expect that market participants would be made aware of any such requests and, unless there are compelling reasons to the contrary, any such advice would be published.</p> <p>(b) <i>NCAS planning and procurement</i> – already addressed previously in this submission</p> <p>(c) <i>Responsibility for State load forecasts</i> – the NGF believes that national forecasts prepared by, or on behalf of, the NTP should be used as the basis for developing a national plan, and the forecast should be sufficiently detailed to support the development of the plan. This would necessitate for example demand forecasts down to the terminal station level (as well as detailed information from DNSPs concerning potential load transfers between terminal stations). However, the national forecast cannot be binding on the TNSPs, and this may be</p>

Topic	• AEMC Questions	The NGF Response
	<p>technical performance of TNSPs and their networks, (e) Generic Constraint equations for use in the NEMDE, (f) Advice to TNSP on Easements procurement]</p>	<p>one reason why TNSP plans deviate from the NTNDP. On the other hand, from a participant’s perspective, there would be considerable merit if a coordinated and consistent approach to regional load forecasting were it to be adopted.</p> <p><i>(d) Monitoring the technical performance of the TNSPs and their networks</i> – The NGF is strongly supportive of the NTP assuming this role for a variety of reasons:</p> <ul style="list-style-type: none"> <li>• It will provide market stakeholders with access to an independent assessment of the technical capability and performance of the TNSP businesses. This is a role which it is unrealistic to expect the AER to perform on its own. However, any enforcement action arising out of NTPs monitoring of the TNSPs would be the responsibility of the AER.</li> <li>• By the NTP being given this role, it makes it absolutely clear that the NTP must have complete and unfettered access to all planning, design, operations and asset management information held by TNSPs, and it must have access to sufficient powers to ensure that it can get what ever information it needs on a timely basis to perform this function properly.</li> <li>• By undertaking this function, the NTP will be able to gain a very detailed knowledge base of the entire transmission network and a deep understanding of its operational complexities and concerns. Without such a knowledge base, it is likely to be at a substantial disadvantage in its interactions with the TNSPs, in much the same way as all network users are now when dealing with the TNSP monopolies.</li> <li>• This knowledge base will also enhance the quality of the NTNDP prepared by the NTP, and should minimize the deviations between the NTNDP and the TNSP plans caused by simple errors and omissions.</li> </ul> <p><i>(e) Generic constraint equations for use in the NEMDE</i> – already addressed previously in this submission. While strongly supporting this proposal however, the NGF believes that long term reliance on hundreds of generic constraint equations for managing the security of the power system and manual handling of these equations in real time in the NEMDE is arguably not in the best interests of consumers and not in accord with the NEM objective. Reliance of generic constraint equations could be substantially reduced by moving to the application of a full network model in the NEMDE.</p> <p><i>(f) Advice to TNSPs on easement(s) procurement:</i> - Compulsory acquisition of easements relies on the use of statutory powers granted to TNSPs via State based legislation. Procuring new easements is becoming progressively more difficult over time from various reasons, and therefore it will be incumbent on network planners to optimize the use of the easements they already have and minimize the need to procure new ones. At the same time, any major new easement requirements for long distance transmission across State borders needs to flagged well ahead of time. Arguably also, the true opportunity value of easements should be reflected</p>

Topic	• AEMC Questions	The NGF Response
		<p>in the CBA of any new transmission investment proposal, even if it is merely an asset replacement. For all of these reasons the NGF believes there would be some merit in including in the NTNDP, a more coordinated long term approach to the acquisition and use of transmission easements, particularly outside of the main cities. This goes well beyond merely providing “advice to TNSPs on easement(s) procurement”.</p>
Regulatory Investment Test	<ul style="list-style-type: none"> <li>The proposed broad framework for developing a new RIT?</li> </ul>	<p>The NGF strongly favours Option 1 – A Full Cost Benefit Approach. As the AEMC rightly points out in its Issues Paper, an economic value can be readily assigned to reliability such that it can then be appropriately recognized in a full CBA, obviating the need for 2 separate tests. Option 3 in our view would not comply with the MCE Directive; it simply puts a new name on the current practice of having 2 separate tests.</p> <p>While we have some reservations about a number of the simplifications and the valuation of reliability used in VENCORP’s current approach to probabilistic planning, in our view, it is a more logical and rational basis for planning, and an RIT based on Option 1 would be entirely consistent with the application of a probabilistic planning approach.</p> <p>The focus in the RIT should not be on achieving a precise definition of the range of costs and benefits. Some costs and benefits are extremely difficult if not impossible to define quantitatively for inclusion in a conventional CBA, and, more importantly, even those that can be quantified must be based on projections and various assumptions about the future, all of which having varying degrees of uncertainty. The success of both the new transmission planning approach and proposed new RIT will depend largely on how well each of them recognizes and deals with the true range of uncertainty surrounding the future costs and benefits of any particular investment proposal.</p> <p>The NGF is also of the view that the AEMC should consider, as part of this Review, the appropriate allocation of responsibilities for the new RIT. Currently under the Market Rules, it is the role of the AER to develop and publish the Regulatory Test and associated guidelines. We believe there may be merit in transferring responsibility for defining the Test to the AEMC and then transferring the development and publication of detailed guidelines and methodologies for applying the Test to the NTP, but requiring the NTP to collaborate with the AER and the AEMC along the way.</p> <p>Finally, application of the RIT should apply in all cases of regulated transmission investment wherever there are realistic alternative options for addressing the planning issue that the proposed investment is to address. This of course does not preclude the use of a streamlined test for lesser projects.</p>
	<ul style="list-style-type: none"> <li>The Commission’s observations on the</li> </ul>	<p>The NGF is in general agreement with the AEMC’s proposals for the desirable characteristics of the RIT. It would lead to more consistency and transparency in the application of the test and therefore, if implemented well, provide some reduction in the regulatory risk for market participants compared with that arising from the</p>

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	desirable characteristics of an RIT?	way TNSPs choose to interpret and apply the current Regulatory Test. Having said that however, the NGF will reserve its final view on this question pending publication of the AEMC's draft proposals regarding precisely what costs and benefits are to be considered within the RIT.
	<ul style="list-style-type: none"> <li>Whether the scope of situations subject to the RIT should include network reconfigurations and replacement expenditure?</li> </ul>	Reconfigurations and replacement projects (including reconfiguration and refurbishment projects) clearly should be subject to the RIT because the decision to go ahead with such projects also involves projections and assumptions about the future that should be properly assessed, and other alternative options considered, subject to there being sufficient lead time available. The exclusion of such projects to date could be regarded as an anomaly of the current framework.
	<ul style="list-style-type: none"> <li>Whether the RIT should mandate the types of impacts to be included in any project assessment;</li> </ul>	For consistency in its application, it would be desirable for the RIT to mandate the range of potential costs and benefits to be considered as well as how the range of uncertainty surrounding each should be taken into account in the assessment.
	<ul style="list-style-type: none"> <li>Approaches to valuing reliability benefits</li> </ul>	The Value of Customer Reliability (VCR) approach is reasonably well accepted and there are well established approaches now for measuring it. VENCORP and AER have set up arrangements that allow transmission planners to take into account quite specific locational VCR's permitting flexibility of valuation necessary for considering augmentations to specific sensitive loads, e.g. CBD. That said, the NGF believes the technical methodology has not yet been adequately developed by VENCORP and the greater resources that a national planner can bring to bear on this methodology could enhance it even further. Although VCR may not always be consistent with VoLL, a VCR approach is more likely to maximize achievement of the NEM objective by ensuring that augmentations are based on the principle of competitive neutrality with market driven investment as opposed to a deterministic approach.
	<ul style="list-style-type: none"> <li>What the list of mandated impacts should be, and whether in particular competition and risk management impacts</li> </ul>	<p>The quantitative analysis of the expected value of costs and benefits and the range of uncertainty surrounding each can only address those costs and benefits that can be ascribed an economic value. As a general principle, the NGF would not support any attempt to quantify so-called "externalities" for inclusion in the RIT. These are generally implied in the cost of specific planning proposals in any event.</p> <p>The NGF does not support any attempt to incorporate so-called competition benefits in the RIT over and above what is already taken into account in the normal assessment of overall market efficiency as measured by a</p>

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	<ul style="list-style-type: none"> <li>should be included.</li> </ul>	<p>conventional CBA approach. The AER has estimated that the combined capital spending by the TNSPs across the NEM will be of the order of \$1.08 billion in 2007/08, which is equivalent to some 12% of the Regulated Asset Base of the transmission network. Allowing for 3% asset replacement and 4-5% of peak demand growth, this suggests the costs of transmission per unit of demand in the NEM are rising in real terms, and at an even higher rate on a per kWh of delivered energy basis. And this is occurring at the same time as generation across the NEM is becoming more dispersed. Rather than encouraging even greater levels of transmission investment than we already have in the NEM, we should be putting much more emphasis in both the regulatory framework and operational procedures on maximising the use of the existing transmission infrastructure, and incentivising the TNSPs to improve their performance.</p> <p>The Issues Paper is unclear about what it means by the term “risk management benefits”. If this is suggesting that there is some added benefit for the market by removing congestion that is not already captured by the conventional CBA, then this would be a matter of concern to the NGF. This issue is a highly complex one that is an integral part of the overall congestion management problem, and should not be addressed as an isolated issue. Suffice to say, the NGF questions any attempt to deal with the risk management problems associated with network congestion by building more network infrastructure. Addressing the issue of network access certainty and ensuring TNSPs are allocated the risks concerning network access where they are clearly the best ones to manage them would be a more sensible and economically efficient approach to addressing this issue.</p>
	<ul style="list-style-type: none"> <li>How, specifically, will a more comprehensive routine assessment of costs and benefits by TNSPs impact on planning timescales – and to what extent can this be addressed through the commitment of additional resources by TNSPs?</li> </ul>	<p>In our view, the application of a more comprehensive regulatory test should not adversely impact on planning timescales. From our perspective, we want the RIT to be implemented in such a way that the expected outcome of its potential application in any given set of circumstances is much more predictable (and therefore carries less regulatory risk) than the current test and the way it is applied by TNSPs.</p> <p>Therefore, we would expect the NTP to publish very specific guidelines regarding how TNSPs should go about the process of quantifying all of the costs and benefits and associated uncertainties with each option, and how those should be processed in the RIT. This would include details on the use of thumbnails etc. to streamline the application of the RIT for lower cost/impact projects.</p> <p>Provided that the TNSPs comply with the guidelines (and it should be a function of the NTP to scrutinize each application), there should be less room for disputation than there is now, in which case the elapsed time for completing the process should be less than it is today even if the amount of work involved is greater.</p>
	<ul style="list-style-type: none"> <li>How should the</li> </ul>	<p>This is a question of detail that it is quite premature at this stage. When the full definition of, and methodology</p>

Topic	• AEMC Questions	The NGF Response
	<p>concept of proportionality be reflected in how the RIT is applied?</p>	<p>for applying, the RIT for major projects is available and has been finalised after consultation with interested stakeholders, only then in our view would it be timely to consider how this overall process could best be streamlined or made scaleable for other lesser applications without jeopardizing the integrity of the Test. Given the nature and timing of this Review, it may be more appropriate to leave this to the NTP to address as part of the detailed establishment of the new NTP function. In any event, any threshold below which a more streamlined approach might apply should take into account not merely the estimated cost of the project but also the estimated value impacts it is expected to have on specific participant groups, particularly those that are adversely affected by the proposal.</p>
	<ul style="list-style-type: none"> <li>• Whether, the Commission is correct in its view that the existing text in the Rules determining the scope of 'national' benefits is sufficient for the purposes of the new RIT?</li> </ul>	<p>We are unaware of any definition in either the Market Rules or the Regulatory Test which defines "national" benefits.</p> <p>"Market Benefits" are defined in the current Regulatory Test by the AER to include:</p> <ul style="list-style-type: none"> <li>(a) changes in fuel consumption arising through different generation dispatch;</li> <li>(b) changes in voluntary load curtailment;</li> <li>(c) changes in involuntary load shedding using a reasonable forecast of the value of electricity to consumers;</li> <li>(d) changes in costs caused through: <ul style="list-style-type: none"> <li>(i) differences in the timing of new plant;</li> <li>(ii) differences in capital costs;</li> <li>(iii) differences in the operational and maintenance costs; and</li> <li>(iv) differences in the timing of transmission investments;</li> </ul> </li> <li>(e) changes in transmission losses;</li> <li>(f) changes in ancillary services costs;</li> <li>(g) competition benefits being net changes in market benefit arising from the impact of the option on participant bidding behaviour; and</li> <li>(h) other benefits that are determined to be relevant to the case concerned.</li> </ul> <p>Subject to adequate guidelines being developed and implemented and their application being scrutinized to ensure consistency in application, the NGF is generally happy with the above definition. However, instead of a "catch-all" provision (i.e. sub-point (h)), we would prefer that this be removed and replaced with more specific provisions if indeed there are any that warrant inclusion.</p>

Topic	• AEMC Questions	The NGF Response
		We are satisfied with the inclusion of competition benefits in the above list as defined by the AER in their current guidelines for applying the Regulatory Test.
	<ul style="list-style-type: none"> <li>If the current Rules remain, whether there would be benefit in expanding the operational guidelines on determining national benefits?</li> </ul>	<p>To the extent that guidelines for the application of the RIT could be expanded compared with the AER's current guidelines for applying the Regulatory Test would add more certainty in the way the RIT is used and reduce the likelihood of disputation, then it should be encouraged.</p> <p>In our view, the current guidelines provide far too much discretion to TNSPs to manipulate and potentially distort any application of the Regulatory Test to the extent that it could influence the outcome. We recognize that it would be virtually impossible to devise a RIT regime that could guarantee it will be applied with integrity and total objectivity in all cases. It is for this reason that we strongly believe there would be considerable merit in the NTP preparing quite detailed guidelines for applying the RIT including quite specific arrangements for streamlining its application where appropriate, and then having a scrutinizing or monitoring role over the TNSPs' application of the RIT in virtually all cases.</p>
	<ul style="list-style-type: none"> <li>What additional information should be released to support identification of options?</li> </ul>	Some idea of the level of "network support" payments that may accrue to a non-network solution at a very early stage in the planning process may act as a spur to the development of non-network options by third parties. The release of additional information in this respect at a very early stage in the planning process however may, on its own, be insufficient because of the disparity in funding between TNSPs (who are able to recover their network planning costs in full via their regulated revenue stream) and third parties (who don't have access to such funds).
	<ul style="list-style-type: none"> <li>What options must be included in the assessment?</li> </ul>	In addition to any network related project proposals that might be sponsored by the TNSP, detailed consideration of potential generation and demand side options as potential alternatives to all major projects should be mandatory. We recognize that, in some cases, the benefits of such measures may be limited to deferral of major network investments. However, they should still be considered and not excluded on the grounds that there is no "project sponsor". If necessary, the TNSP should be required to act as the project sponsor. Having said that, the commercial viability of these other options will depend on their economic value to be derived from a multiplicity of uses, only part of which would be its network support role. Therefore, it would be desirable for the TNSP to dispose of any controlling interest in such non-network options as soon as practicable.
	<ul style="list-style-type: none"> <li>Whether the NTP should advise the TNSPs on the range</li> </ul>	Under the proposals being suggested by the NGF, the NTP role would already be quite extensive. In addition to preparing the NTNDP, it would also publish a considerable amount of material about the network planning methodologies to be applied and the use of the RIT. It would also have a monitoring and reporting role over

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	<ul style="list-style-type: none"> <li>of possible options to be assessed under the RIT.</li> </ul>	<p>both of these TNSP functions. In these circumstances, there would seem to be little merit in also giving the NTP an advisory role which would be designed to somehow influence which options the TNSP considers.</p> <p>TNSPs will have no choice but to consider the contents of the NTNDP in any event and explain any deviations from it that they choose to implement. All of this of course excludes the LRPP which is addressed later on in this submission.</p>
	<ul style="list-style-type: none"> <li>Whether, and why, the valuation of reliability benefits is consistent with the practical application of a deterministic reliability standard framework?</li> </ul>	<p>Any deterministic reliability standard when it is applied in any given set of circumstances implies a value of reliability. The implied value can vary greatly depending upon the circumstances in which it is applied. As such it is in effect a gross simplification which results in very different levels of the imputed value of reliability across the grid, determined not by the economic preferences of network users but rather by the cost characteristics of the network itself. In summary, a probabilistic assessment can be used to determine and apply deterministic standards in a flexible manner, with a clear role for economic valuation of reliability benefits.</p>
	<ul style="list-style-type: none"> <li>Whether there is a need for a more specific decision criterion for the revised project assessment process?</li> </ul>	<p>A specific decision criterion that properly recognizes the expected value of costs and benefits associated with any particular project proposal and also takes account of the range of uncertainty associated with each would remove some of the subjectivity inherent in the current arrangements, and, as a result, reduce the likelihood of disputation with disaffected market participants.</p>
<p>NTP Role in Applying the RIT</p>	<p>The Commission is keen to understand in more detail what stakeholders consider to be the strengths, weaknesses and wider implications of these four broad options [i.e. (a) Lead a process of co-ordinating and disseminating information on good practice in undertaking the RIT; (b)</p>	<p>As is quite evident elsewhere throughout this submission, the NGF believes that the NTP should be responsible for each of (a), (b) &amp; (c). It should also oversee the preparation of the RIT for major cross-boundary projects where 2 or more TNSPs are involved.</p> <p>The NTP should be the pre-eminent transmission planning body in the NEM with a clear leadership role on all aspects of network planning. It should set the standards (in terms of planning procedures and practices) that other transmission planners must meet and it should play a key role in monitoring and reporting on their performance in this respect.</p> <p>Depending upon the amount of project related detail included in the NTNDP, the NTP may also need to apply the RIT on a preliminary basis in those cases where the NTNDP identifies a preferred option. On the other hand, for minor near term projects, it may opt to simply rely on the work of the TNSPs.</p>

Topic	• AEMC Questions	The NGF Response
	<p>Recommend or specify certain elements of a methodology to be applied in undertaking the RIT; (c) Ensure compliance with how the RIT is applied; or (d) Take primary responsibility for undertaking the RIT in certain circumstances], and in particular views on the following questions:</p>	
	<ul style="list-style-type: none"> <li>• What value might the NTP add to the RIT process under each of the different broad options identified above?</li> </ul>	<p>While the TNSPs are monopoly businesses and are subject to external regulatory oversight by the AER, in reality there is a very significant information asymmetry between the TNSPs and the AER. For a range of reasons associated with the physics and the technology of transmission networks, the lumpy nature of their investments, the linkage between generation investment and transmission investment, and the community wide impacts of poor reliability in the transmission network, regulatory oversight of transmission businesses is more challenging than it is for their distribution counterparts.</p> <p>By establishing the NTP as the pre-eminent transmission planner in the NEM with the technical resources and expertise and access to the necessary information, it can play a very useful role in improving planning practices across the NEM and providing an independent technically-focused monitoring role of TNSP planning and operating performance. With a technically competent, independent party with no vested interests in the TNSP businesses performing these roles in a highly transparent way, participants will have considerably more confidence in the overall framework of TNSP accountability to the market, and they will also be much better informed and equipped to manage their interactions with the TNSPs. It should also reduce the potential for dispute between TNSPs and market participants in relation to both planning decisions and operational issues.</p>
	<ul style="list-style-type: none"> <li>• What particular aspects of an RIT methodology might the NTP specify or</li> </ul>	<p>The NGF believes the amount of discretion available to TNSPs in the RIT methodology should be minimized to both reduce the opportunities for the RIT to be manipulated and ensure consistency in the way it is used across the NEM.</p>

Topic	• AEMC Questions	The NGF Response
	<ul style="list-style-type: none"> <li>recommend?</li> </ul>	
	<ul style="list-style-type: none"> <li>How binding should the views or recommendations of the NTP be on the party with primary responsibility for undertaking the RIT?</li> </ul>	<p>As discussed above, the RIT methodology as published by the NTP should be binding.</p>
	<ul style="list-style-type: none"> <li>How might a 'compliance and monitoring role interact with the AER's role of monitoring and enforcing compliance with the Rules?</li> </ul>	<p>The NTP role would be limited to monitoring and reporting. If it believed that there may be a breach of the Market Rules by the TNSP in terms of its planning practices and/or application of the RIT, this would be referred immediately to the AER for attention and potential enforcement action.</p>
	<ul style="list-style-type: none"> <li>However it is not clear to the Commission if there is value in the NTP taking over the AER role in monitoring the application of regulatory tests.</li> </ul>	<p>From a participant's perspective, the NTP's technical expertise would add considerable value c.f. the AER's more legalistic and regulatory enforcement focus. The NTP reporting would also add more transparency to the process.</p>
Last Resort Planning Power	<p>Given the development of a National Transmission Planner the Commission seeks feedback from interested stakeholders as to:</p>	

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	<ul style="list-style-type: none"> <li>The purpose for the LRPP under the new arrangements;</li> </ul>	<p>A power to merely direct a party to undertake an RIT has minimal value in the new arrangements. However, there is probably no material downside in retaining the LRPP. The NGF believes that if the new national planning arrangements as envisaged in this submission are implemented successfully, the LRPP will quickly become more or less a redundant feature of the overall regulatory framework.</p>
	<ul style="list-style-type: none"> <li>Who should be responsible for the LRPP;</li> </ul>	<p>The NGF is indifferent to the issue of whether or not the power should be retained by the AEMC or transferred to the NTP. If it is retained by the AEMC, presumably it would only act after receiving advice on the matter from the NTP.</p>
	<ul style="list-style-type: none"> <li>The status of the advisory role of the IRPC to the LRPP; and</li> </ul>	<p>Under the new arrangements, the IRPC should be scrapped.</p>
	<ul style="list-style-type: none"> <li>Any other comments regarding the application of the LRPP under the new arrangements.</li> </ul>	<p>If the new planning arrangements are successful and fully embraced by the TNSPs, then, in our view, the LRPP role will quickly become redundant. The last resort planning power would only be invoked in the event that a TNSP was totally incompetent or its planning assumptions were totally at odds with those of the NTP/AEMC (depending upon where the LRPP power resides). The NTPs oversight of TNSP activities should ensure that any problems are addressed before the situation deteriorates to the point where invoking the LRPP is required.</p>
Urgent or Unforeseen Investments	<ul style="list-style-type: none"> <li>Why, specifically, different options for an RIT (and the role of the NTP in that process) might result in urgent or unforeseen investment being delayed?</li> </ul>	<p>No comment</p>
	<ul style="list-style-type: none"> <li>How would the RIT (and the role of the NTP in that process) need to be</li> </ul>	<p>No comment</p>

Topic	• AEMC Questions	The NGF Response
	<ul style="list-style-type: none"> <li>redesigned to assess the source of any such delay?</li> </ul>	
RFI Process for Reliability Options	<ul style="list-style-type: none"> <li>Need for a proponent for reliability driven options; and</li> </ul>	<p>This raises quite a fundamental question about what the true role and responsibilities of TNSPs are in the provision of monopoly network services for the market. Arguably, TNSP's should be obligated to take an aggressively active role in seeking out proponents for non-network solutions and maximizing the chances of them being successful. This could even extend to sponsoring such options themselves to get them into play, and, if they go ahead, then selling down their interest in them</p> <p>Only then would it be reasonable to require a proponent for any option not sponsored directly by the relevant TNSP, whether it be a reliability option or otherwise</p>
	<ul style="list-style-type: none"> <li>Appropriateness of the RFI process to "reliability investments"</li> </ul>	TBC
Revenue & Pricing Framework	<ul style="list-style-type: none"> <li>The costs and benefits of aligning the timing of TNSP revenue determination, in the context of different models for NTP functions and NTNDP content – and in the light of the considerations identified as relevant by the Commission?</li> </ul>	No comment
	<ul style="list-style-type: none"> <li>Whether, and why, the current (or amended) contingent</li> </ul>	No comment

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	<ul style="list-style-type: none"> <li>projects mechanism represents an adequate alternative to the alignment of transmission revenue resets?</li> </ul>	
	<ul style="list-style-type: none"> <li>How should the relationship between the AER and the NTP be defined?</li> </ul>	No comment
	<ul style="list-style-type: none"> <li>What should be the basis upon which advice is provided, and what should be the status of any such advice? How should this be specified in the Rules?</li> </ul>	No comment
	<ul style="list-style-type: none"> <li>What value will such arrangements add to the process of revenue determinations, and are they consistent with the COAG requirements in respect of process timescales?</li> </ul>	No comment
NER Changes	<ul style="list-style-type: none"> <li>Whether the implementation of the</li> </ul>	No comment

Topic	• AEMC Questions	The NGF Response
	<ul style="list-style-type: none"> <li>new arrangements will require any consequential amendments to Chapter 6A of the Rules?</li> </ul>	
Inter-regional Charging	<ul style="list-style-type: none"> <li>Whether the current arrangements for inter-regional transfers between TNSPs are sufficient to support the co-ordinated development of a national grid?</li> </ul>	<p>Current procedures are highly subjective, non-transparent, politically driven and do nothing to promote the NEM objective. We note that such arrangements have only been applied to one region to date (SA), underlining their highly arbitrary nature. A process for price settlement between TNSPs was an integral part of the original transmission pricing proposals developed by the NGMC in the early 1990s. While the remainder of those original network pricing arrangements is still largely intact in the Market Rules today, the settlement between TNSPs was never introduced primarily for political reasons.</p> <p>Ironically the current arrangements which involve a negotiated settlement between jurisdictions, is so opaque that it probably has minimal positive or negative effect on grid development. However, the NEM objective with its emphasis on maximizing economic efficiency would suggest that grid development would be enhanced by a less arbitrary approach which allocated the costs of grid expansion to those who benefit from it.</p>
	<ul style="list-style-type: none"> <li>What would be the best approach to implementing a more formal inter-regional charging mechanism?</li> </ul>	<p>In the absence of a standardized network cost allocation process which also grants well-defined access rights to network users across the NEM, any mechanism to define inter-TNSP network charges will be somewhat arbitrary. An alternative way of looking at this issue is to suggest that the method of charging for monopoly network services across the NEM should not be a function of who owns and controls each part of the network. If the AEMC is able to find and implement a fair and equitable network pricing methodology to apply across the NEM, inter-TNSP settlements will be an automatic by-product of its implementation.</p>
NTP Governance	<ul style="list-style-type: none"> <li>An appropriate form and composition for the NTP to carry out its functions; and</li> </ul>	<p>The NGF believes that the NTP should be a separate organization with statutory powers and responsibilities that are independent of AEMO, and that it should take over AEMO's system planning functions and even a number of functions of AEMO system operations. It would have its own Commissioners/Board of Directors. At the same time however, there are strong arguments in favour of establishing the NTP as a body that is administered by AEMO. The appropriate form of the organization under this arrangement may depend on the form of AEMO, which, as we understand it, is not yet finalized.</p> <p>Given the nature and scope of the proposed NTP functions the NGF is proposing, a full-time Commissioner/Chairman/Executive Director and 2 part-time Commissioners/Directors would suffice. While it</p>

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		<p>would be a body that is administered by the AEMO, its core planning functions should be ring-fenced from AEMO's market and system operations functions, and any communications across that boundary should be required to meet very high standards of transparency.</p> <p>The NGF has no objection to the NTP planning staff also doing the JBP/TNSP planning functions that may be transferred to the NTP from ESIPC or VENCORP, but the management and organizational governance of such State-based planning activities should have the same State-based orientation and participant involvement as the system it replaces. In these circumstances, the Commission/Board structure suggested above for the NTP would need to be supplemented accordingly.</p>
	<ul style="list-style-type: none"> <li>• How board/committee/panel members and office holders should be appointed and for how long.</li> </ul>	<p>The NGF would support an appointment process for the 3 commissioners/directors that closely parallels the appointment of AER and AEMC commissioners, with the following:</p> <ul style="list-style-type: none"> <li>• The MCE should seek the advice and assistance of a joint Government/Industry Panel in the recruitment and screening of potential appointees</li> <li>• All appointees must be completely independent of the TNSPs, the AEMC, the AER and NEM participating jurisdictions.</li> <li>• Appointees should collectively have the technical competence to undertake their role effectively and efficiently</li> <li>• Appointments should be staggered to ensure continuity, and be for a period not exceeding 5 years with the option for reappointment for a second successive term only.</li> </ul>
	<ul style="list-style-type: none"> <li>• The level of independence required for the NTP to carry out its functions.</li> </ul>	<p>The NGF believes that it is vital for the NTP to have a high degree of independence from TNSPs and AEMO operations. It is much less important for it to be independent of any individual network user. However, if network users are included in the governance structure, then it would need to be on a balanced basis and with a strict code of practice regarding potential conflict of interest issues.</p> <p>It is also important for its independence that it should have its own budget separate from AEMO, with clear and transparent arrangements for allocating the costs of shared services. Its budget and method of cost recovery would be approved by the AER, with the revenue collection being administered by the AER, principally via the spot market settlement process.</p> <p>The NGF also believes that it should be accorded the same degree of independence as a regulator should be, and therefore it would be quite inappropriate for the AEMC, the AER or the jurisdictions (individually or collectively) to pressure the NTP other than through its normal accountability to parliament under the NEL. That is, neither governments nor regulators should attempt to interfere in the day to day functions of the NTP or to</p>

Topic	• AEMC Questions	The NGF Response
	<ul style="list-style-type: none"> <li>Appropriate forms of accountability for the development of the NTNDP.</li> </ul>	<p>unduly influence NTP decisions or reports.</p> <p>To the extent that the jurisdictions want or need to apply policy constraints to the NTP, this should be done through the NEL and sub-ordinate legislation such as the Market Rules.</p> <p>The development of the NTNDP and the remaining functions of the NTP as proposed by the NGF would become a key element of the NEM transmission access regime and have a significant impact on the future development and operation of the network. In these circumstances, while the NTP will be accountable to the participating jurisdictions via the provisions of the NEL (powers of appointment and dismissal of commissioners/director, regulatory oversight by the AER, annual reporting requirements etc.), it may also be worthwhile to have a periodic independent performance review of the NTP and the national planning framework to assess its overall effectiveness against the NEM objective. This could be initiated by the MCE on an ad-hoc basis, or alternatively it could be formally assigned to the Productivity Commission to undertake on a regular basis on behalf of the MCE.</p>
Consultation	<ul style="list-style-type: none"> <li>What should be the consultation arrangements between the relevant stakeholders and the NTP. Should these consultation arrangements be documented in the NER or another instrument?</li> </ul>	<p>The NGF reserves its position on this issue pending further clarification of precisely what the scope of the functions and responsibilities of the NTP will be. However, whatever the consultation arrangements are determined to be, they should be documented in a form which binds the NTP to comply with them. This does not necessarily mean that they must be fully documented in the NEL, the NER or the Market Rules.</p>
Costs & Charges	<ul style="list-style-type: none"> <li>Should the NTP have a separate budget and accounting requirement?</li> <li>As the contemplated NTP functions deal with electricity</li> </ul>	<p>Already addressed previously in this submission - yes.</p> <p>For the NTP as currently contemplated by the AEMC, there is no justification for allocating NTP costs to gas market participants. However, if it is ultimately decided that some limited form of national gas transmission development planning should be integrated with the NTNDP, then some contribution from the gas industry would</p>

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	<ul style="list-style-type: none"> <li>transmission only, should gas market participants also contribute to the NTP's costs?</li> </ul>	<p>probably be appropriate. In any event, this is a secondary issue that should have no bearing on determining the appropriate functions, powers and responsibilities of the NTP.</p>
Legislation & Rules	<ul style="list-style-type: none"> <li>The appropriate balance between the NEL and NER for defining the NTP's role and functions; and</li> </ul>	<p>As we propose the creation of a legal entity that is separate from AEMO, the NEL would presumably address all functions, powers and responsibilities of the NTP together with the appointment/dismissal of Commissioners/Directors and key accountability arrangements, while the NER and subordinate rules and guidelines would address all remaining procedural and administrative matters. Essentially however, this is a legal matter and we are primarily concerned with the outcome being proposed and less concerned about how it would best be implemented.</p>
	<ul style="list-style-type: none"> <li>Should the NTP functions be subject to the Rule Change Process.</li> </ul>	<p>The scope (and limitations) of NTP powers and responsibilities are key policy matters that should arguably be enshrined in the NEL. To the extent that these need to be expanded in more detail to conform to the overall regulatory framework for the TNSPs and to bestow rights and responsibilities on parties other than the NTP, this could well require some aspects of NTP functions to be included in the Market Rules.</p>
Information Access	<ul style="list-style-type: none"> <li>Whether, and if so how and where, should the information requirements of the NTP be defined?</li> </ul>	<p>Information gathering powers should be defined in subordinate legislation under the NEL. Obligations on TNSPs and others as required to comply with legitimate information requests from the NTP should be subject to comparable enforcement action to similar such information requests of the AER.</p>
	<ul style="list-style-type: none"> <li>What, if any, powers should the NTP have to request or require information? And what obligations should parties have in respect of any such requests or requirements? Where</li> </ul>	<p>Already addressed previously in this submission</p>

Topic	• AEMC Questions	The NGF Response
	<ul style="list-style-type: none"> <li>should these rights and obligations be defined?</li> </ul>	
	<ul style="list-style-type: none"> <li>What should the relationship be between information held by AEMO and information available for use by the NTP?</li> </ul>	<p>As stated previously, in principle, all information flows across this ring-fencing boundary between the NTP and AEMO market and system operations should be highly transparent. However, given the commercial nature of some participant information and certain market information, the transparency requirement may be satisfied by merely publishing the nature and timing of some information flows across that boundary rather than publication of the information itself.</p>
NTNDP	<ul style="list-style-type: none"> <li>The appropriate first publication date for NTNDP; and</li> </ul>	<p>The NGF has no firm view on this matter. Arguably, the preparation of the first NTNDP is a lower priority issue than achieving a nationally consistent approach to transmission planning across each of the JPBs/TNSPs and implementing the NTP monitoring and reporting role.</p> <p>It will take some time before the NTP can establish the resources, the knowledge base and the information flows that will enable it to produce a high quality and complete NTNDP. This suggests there will need to be an appropriate establishment period, not just for the creation of the new NTP structure but also for the full development of its internal infrastructure and network planning capability.</p>
	<ul style="list-style-type: none"> <li>The appropriate approach to developing the first NTNDP and what level of industry consultation should be allowed.</li> </ul>	<p>This is a detailed implementation question that would be better addressed at a later time. The NGF therefore reserves its position on this issue.</p>
Advisory Panels	<ul style="list-style-type: none"> <li>Should the NTP have the ability under the Rules to establish advisory panels? And what should the status/transparency of such panels be?</li> </ul>	<p>As a general principle, the NGF would advocate a similar arrangement for the appointment of advisory panels for the NTP as is finally adopted for the AEMO.</p>

Topic	• AEMC Questions	The NGF Response
Transition Arrangements	<ul style="list-style-type: none"> <li>What are the main reasons why a 'hard' cut-over to the new arrangements might not be feasible, or otherwise appropriate?</li> </ul>	<p>The concept of a "hard" cut-over" implies that a whole new set of arrangements would come into effect at a single point in time. This is quite unrealistic. Each component of the new arrangements will have a different priority and presumably a different implementation timetable.</p> <p>The 3 key implementation milestones will be:</p> <ol style="list-style-type: none"> <li>1. The changeover to the new RIT process</li> <li>2. The promulgation of new transmission planning methodologies and processes (and associated reliability standards/investment thresholds)</li> <li>3. The preparation of the first NTNDP.</li> </ol> <p>From the NGF's perspective, implementing (1) and (2) above should be higher priority issues for the new NTP than (3). Getting the first two right and appropriately bedded down across the NEM will then provide a sensible base on which to move on to the development of the first NTNDP. At this point however, we have no feel for what would be appropriate target dates for the above milestones.</p>
	<ul style="list-style-type: none"> <li>What specific transitional measures might be required to resolve any such difficulties with a 'hard' cut-over to the new arrangements?</li> </ul>	No comment
	<ul style="list-style-type: none"> <li>What are the reasons why transition from the current Regulatory Test to a new Regulatory Investment Test might require explicit management?</li> </ul>	No comment
	<ul style="list-style-type: none"> <li>What issues would need to be provided</li> </ul>	No comment

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	for in such a transition plan?	
Illustrative Models of the NTP	The Commission would welcome submissions in respect of these illustrative models [see separate Table 8.1 overleaf], and any relevant variants or alternatives (including hybrids formed of different aspects of the illustrative models), with reference to the criteria discussed in Chapter 1:	Attachment 2 encapsulates the NGF's overall view of its proposed model for the NTP compared with the 4 options put forward by the AEMC.

## Illustrative Models for the National Transmission Planner &amp; the Preferred NGF Model

	Model 1	Model 2	Model 3	Model 4	The NGF Model
<b>1. CONTENT of PLAN</b>					
<b>a) Duration</b>	20 years	10 years	As Model 2	10 years	20 years plus
<b>b) Scenarios</b>	Wide – high and low probability scenarios	Narrow – focus on high probability scenarios	As Model 2	Highly focused – such that particular investment solutions can be identified	Wide – but with sufficient detail to identify investment solutions at a high level
<b>c) How is ‘national’ defined?</b>	As today – focus on NTFPs	Threshold impact on interregional flows	As Model 2	As Model 2	The NTNDP should address the all parts of the network that make up the “main power system” as defined by the operational control area of AEMO
<b>d) How specific?</b>	Describes network capability and discusses conceptual augmentations identified by TNSPs	Describe network capability Own modelling and identify possible projects	As Model 2 – plus identify solutions if task delegated to it by TNSP	Describe network capability Identify options and best augmentation solutions	Describe network capability Identify planning issues and options for the long term and preferred solutions for the short term
<b>e) Over what range of assets?</b>	Network augmentations	Network augmentations (and substitutes for network augmentations)	Network augmentations (and substitutes). Increase gas network and generation focus	Same as Model 3 plus planning of NCAS	Same as Model 4 plus most asset replacements
<b>2. NTP INVOLVEMENT in REGULATORY TEST</b>	No involvement in application of regulatory test. NTP takes over IRPC advisory role on LRPP	NTP identifies and publishes information on national market benefits. NTP ability to exercise LRPP	As Model 2 – plus obligation to run Reg Test if delegated to it by TNSP	Has obligation to run Reg Test in respect of solutions it identifies. LRPP function disappears.	Develop detailed methodology for applying the RIT and thumbnails where appropriate for streamlined applications Scrutinise all TNSP applications of the RIT and publish the findings but AER retains all regulatory functions Oversee preparation of the RIR for cross-boundary projects [Indifferent re LRPP arrangements]
<b>3. NTP ANCILLARY FUNCTIONS</b>	Existing IRPC functions Advice to AER role limited	Existing IRPC functions Advice to AER role limited	As Model 2 plus developing common planning methodology and coordinates inter-regional investments.	As Model 3 plus general advice to MCE and Publication of the SOO	As per Model 4 but with a much broader technical leadership, cross-boundary planning & operational coordination and technical monitoring role of the TNSPs No non-transparent advice to the AER; but AER will have access to any and all NTP reports etc.
<b>4. GOVERNANCE</b>	Administrative body within AEMO reporting to (and appointed by) AEMO board.	Defined (ring fenced) Board/Panel/ Committee within the AEMO with independence	Defined Board/Panel/ Committee or Defined Office Holder (ring fenced) within the AEMO with independence	Statutory authority or office holder – appointed through process specified in enabling legislation.	As per Model 4 – needed to assert its authority over the TNSPs and maintain independence from AEMO operations