

18 December 2007

Dr John Tamblyn  
Commissioner  
Australian Energy Market Commission  
PO Box H1666  
AUSTRALIA SQUARE NSW 1215

Dear John

**Submission on the National Transmission Planning Arrangements Issues Paper**

Thank you for the opportunity to make this submission regarding the establishment of a new transmission planning function for the National Electricity Market (NEM).

The following key issues have been addressed in response to the issues paper:

- **Governance Arrangements for the National Transmission Planner (NTP):** NEMMCO has successfully achieved synergies, exploited dependencies and has not experienced any operational and planning resource conflicts with the Annual National Transmission Statement (ANTS). Similar arrangements would also work for the Australian Energy Market Operator (AEMO) and the NTP functions.
- **Scope and Content of the National Transmission Network Development Plan (NTNDP):** Comments are provided on a range of issues related to the scope and content of the NTNDP drawing on our experience with the ANTS.
- **NTP Information Powers:** The Rules should provide powers for the NTP to obtain information, with matching Rules obligations on the TNSPs and other Registered Participants to provide information.
- **Relationship between the NTNDP and the Statement of Opportunities (SOO):** The SOO and the NTNDP should be published separately.
- **First Publication Date for the NTNDP:** A cut-down version of the NTNDP, based on the 2009 ANTS could be published in April 2010, and annually thereafter.
- **Inter-regional Planning Committee (IRPC) roles:** IRPC technical functions will need to continue, but obligations should be on individual organisations rather than a committee.

- **Other tasks currently performed by Jurisdictional Planning Bodies (JPBs) /Transmission Network Service Providers (TNSPs):** The emergency response and communication functions listed in the issues paper are operational roles that should belong to operational area of AEMO.
- **Inter-Regional Charging Arrangements:** The NTP could be in a position to make an assessment of relative cross-border benefits of a transmission augmentation.

Our submission consists of this covering letter and an attachment containing detailed responses in the areas listed above.

For further details regarding any of the matters raised in this submission please contact David Bones on 07 3347 3041.

Yours faithfully

  
**Brian Spalding**  
Chief Operating Officer

Enc. Attachment 1

# National Transmission Planner

## Response to Issues Paper

### 1. Purpose

On 9 November 2007 the Australian Energy Market Commission published its Issues Paper on National Transmission Planning Arrangements. This document provides NEMMCO's response to the issues paper.

### 2. Governance Arrangements for the NTP

The Commission has suggested there may be potential conflicts of interest and resources between the planning and operational roles if the National Transmission Planner (NTP) is part of the Australian Energy Market Operator (AEMO). NEMMCO currently effectively performs both planning and operational roles and, as NEMMCO does not have any procurement decisions, has not experienced any conflicts in these roles.

These checks and balances have ensured that appropriate focus is maintained on planning activities including the production and development of the SOO/ANTS.

NEMMCO successfully exploits considerable synergies and dependencies between the planning and system operations functions. This is facilitated by both roles residing within the one organisation. The synergies and dependencies include:

- sharing power system and market information;
- more efficient constraints development for current and future systems;
- sharing tools and expertise for modelling and simulation of the power system;  
and
- developing common tools and sharing expertise for market modelling used for operational purposes (such as drought studies) and planning (the ANTS).

### 3. Scope and Content of the NTNDP

#### Flexibility in the framework defining the NTNDP

While the Rules will need to define the overall national planning framework, they should allow sufficient flexibility for the scope and production processes for the NTNDP to develop over time. The annual consultation of the ANTS has provided an appropriate means of delivering necessary refinements. Flexibility could be built into the NTNDP process through:

- using consultation to establish the range of scenarios included;
- stipulating in the Rules a minimum forecast period but allowing for it to be extended beyond the minimum if necessary; and
- not requiring gas planning to be included in the NTNDP, but not precluding this development over time.

#### Content of the NTNDP

For the NTNDP to add value, it must include practically achievable projects that satisfy regional statutory planning criteria and are likely to satisfy the Regulatory Investment Test (RIT). If the NTNDP does not apply the same criteria it is unlikely that it will identify projects similar to that from the TNSPs and therefore it will lack credibility. This suggests that the selection criteria used to decide which projects are included in the NTNDP should be consistent with the RIT.

The NTP will need to draw on information from TNSPs to develop the NTNDP but should have the freedom to develop conceptual augmentations of its own. NEMMCO's experience has been that it has not always been possible to source conceptual augmentations from TNSPs to address sources of congestion identified in the ANTS.

To potentially capture additional market or national benefits, as well as considering those potential extensions to the network that enhance the power transfer capability of the existing transmission network, the NTP should be allowed to consider potential extensions that:

- improve Generator access to undeveloped energy sources or
- create new interconnections between regions (for example Queensland to South Australia);

Using the project cost to decide whether a project should be included in the NTNDP would be problematic because the benefit of a project can significantly outweigh its size or cost. It would be unfortunate if higher benefit, lower cost projects were excluded.

Rather than specifying a threshold based on the project cost or its impact, the role of the NTP would be clearer if the scope of the NTNDP was defined by establishing the drivers for the projects to be included (for example, maximising market benefit while facilitating adequate supply reliability). All projects that are consistent with that purpose should be allowed inclusion in the NTNDP.

Describing the projects in the NTNDP in terms of 'transmission network' as defined in the Rules is preferable to a voltage threshold because the transfer capability of the main grid can be limited by the capability of lower voltage parallel paths and the most cost effective upgrade might be to a lower voltage element.

### Reporting Mechanism

The current use of National Transmission Flow Paths (NTFPs) in the ANTS is as a reporting mechanism that allows the grouping of results outputs. Other reporting mechanisms might be chosen that work equally well.

### Distinction between Reporting Mechanism and Extent of Modelling

The NTP needs to be given access to information to model those aspects of the power system necessary for it to develop the NTNDP. It is important to distinguish between the reporting mechanisms and the extent of the network which must be modelled to achieve reasonable results.

For example in market simulations, to model the power system capability correctly, the network needs to be represented as well as it is in the dispatch systems. In the ANTS market simulations all system normal network constraints represented in the NEM pre-dispatch system are modelled<sup>1</sup> while the results are reported on a higher level or NTFP basis. This distinction is important because experience has shown that inadequate network modelling can result in over- or under-estimation of power transfer capability leading to inaccurate estimates of market benefits.

It is also essential to model generation development when undertaking transmission planning as they are inter-dependent.

### Relationship between the NTNDP and the transmission planning process

The NTP will rely extensively on provision of information from TNSPs and therefore a cooperative relationship between the NTP and TNSPs is important. To achieve this it would be advantageous if there were incentives (rather than just obligations) for TNSPs to contribute to the development of a high quality NTNDP.

For example, could the inclusion of a project in the NTNDP simplify the passage of a project through the approvals process (the RIT in the AEMC's issues paper)? If such an option were adopted then the Commission would need to consider how this relates to the level of detail, the level of assessment and the scope of scenarios in the NTNDP.

Could the consultation process for the NTNDP include requests for information on non-network alternatives to projects evaluated as part of the NTNDP? A TNSP proposing a project equivalent to one in the NTNDP might then be able to avoid the need for a further requests for information, thereby simplifying the approvals process.

## **4. NTP Information Powers**

### Information from TNSPs and other Registered Participants

The information provision requirement depends on the scope of the NTNDP. For instance, if the development of the NTNDP requires the NTP to develop its own conceptual augmentations, it would need access to a larger amount of information from TNSPs than if the NTNDP was just a compilation of projects submitted by TNSPs.

The Rules should provide appropriate powers for the NTP to request the necessary information from TNSPs and other Participants to produce the NTNDP, and matching obligations on TNSPs and other Participants to provide the requested information.

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<sup>1</sup> Pre-dispatch formulation is used as the dispatch formulation relies on having real-time SCADA inputs which are not available in market simulations.

### Sharing of information between AEMO and the NTP

Depending on the scope of the NTNDP, the tools and data sources currently accessed by NEMMCO may need to be accessible to both AEMO and the NTP. Currently the ANTS draws heavily on market and power system information held by NEMMCO.

### **5. Relationship of the NTNDP with the SOO**

Currently the SOO and the ANTS are published as a single document. The SOO and the ANTS and, to a greater extent, the NTNDP serve different purposes in the NEM.

The SOO is primarily an informational document with limited analysis of collected data to produce supply demand outlooks. The value of these outlooks is maximised if the information collection and publication dates are as close as possible. This informational role of the SOO is more closely related to the reliability management role of AEMO than the NTP role.

The ANTS uses the input information gathered for the SOO and a significant amount of additional information to allow simulation of the future investment in and the operation of the NEM. This simulation process requires extensive analysis which takes time. While combining the SOO and ANTS into the same document offers benefits of a consolidated information source it does delay the publication of the supply demand outlooks.

The NTNDP may well require more analysis than the ANTS. It is appropriate to separate the SOO and NTNDP to allow a publication date for each to be selected which maximises the value of each document.

### **6. First Publication Date for NTNDP**

There are a number of interacting factors that should be taken into account when considering transitional arrangements:

- The AEMO and the NTP are to be established by the end of June 2009 by which time NEMMCO will have transitioned into the AEMO. The SOO and ANTS are normally published in October of each year and it would be appropriate for the AEMO to finalise and publish the 2009 SOO/ANTS in October.
- The analysis for the NTNDP may be a somewhat iterative process that draws on previous results as a starting point for the next set of results. Therefore it is suggested that the NTP will need to produce a cut-down version for its first plan. The cut-down plan could be the starting point for consultation on the NTNDP.

One possible solution that takes account of these factors might be:

- AEMO publishes the SOO and ANTS in October 2009;
- AEMO brings forward subsequent SOO publications closer to the end of the financial year, with the SOO drawing information for the simulated outlook and supply demand outlook from the most recent NTNDP;
- NTP publishes a cut-down version of the NTNDP based on the 2009 ANTS results in April of 2010 as part of a public consultation on the role and contents of the NTNDP;
- NTP publishes the NTNDP annually in April from 2011.

## **7. Inter-Regional Planning Committee**

The technical coordination roles of the IRPC are of value to the market and will need to continue under the new arrangements. Obligations codified in the Rules should be on individual organisations rather than groups, because it is difficult to make groups accountable for the actions of individual organisations<sup>2</sup>.

There are technical working groups, created without Rules obligations, which maintain active Participant involvement through common interest and work just as effectively as codified groups, so it may be unnecessary to define an IRPC replacement group in the Rules.

## **8. Other tasks currently performed by JPB/TNSPs**

Co-ordination of Emergency Response and Communication under the Responsible Officer Role and Maintenance of load shedding schedules and Sensitive Loads are operational roles which should reside with the operational area of AEMO.

## **9. Inter Regional Charging Arrangements**

If the TUOS regime were to be related to the benefits derived from an augmentation then the NTP as an independent technical body would be in a position to make an assessment of the relative cross-border benefits from a proposed project.

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<sup>2</sup> This is illustrated by the existing Rule 5.6.5(f) and (g) which place obligations on the entities nominated to provide members of the IRPC rather than the IRPC.