Appendix A:
National Transmission Planner - Draft Specification

1. Establishment of the National Transmission Planner

a. The AEMO shall undertake the functions of the National Transmission Planner (NTP).

b. To assist it in fulfilling the NTP functions, AEMO shall establish a National Transmission Planner Advisory Committee (NTP Advisory Committee).

2. Objective of the National Transmission Planner

a. The objective of the NTP is to promote the development of a strategic and nationally co-ordinated transmission network, having regard to the National Electricity Objective.

3. Functions of the National Transmission Planner

a. The NTP shall:

i) publish a final National Transmission National Development Plan (NTNDP) each year, commencing [31 December 2009];

ii) publish a database of supporting modelling assumptions, methodologies and analyses used in the preparation of the NTNDP;

iii) publish a database of transmission projects showing optimal timing and its dependence on the project value drivers

~~iii)~~iv) upon request by the AEMC, provide advice to the AEMC in relation to the last resort planning power;

~~iv)~~v) upon request by the AEMC, provide advice to the AEMC on matters relating matters to the development of a strategic and nationally co-ordinated transmission network; and

~~v)~~vi) Prepare and publish Congestion Mis-Pricing information [process around this function to be determined].

b. Upon request by the MCE, the NTP must conduct reviews into matters relating to the development of a strategic and nationally co-ordinated transmission network.

c. The NTP may:

i) make public submissions to TNSP consultations under the Regulatory Investment Test; and

ii) make public submissions to the AER in relation to revenue determinations for TNSPs ,

where such submissions relate to potential augmentations that improve the transmission capability of the National Transmission Flow Paths, having regard to any recommendations made by NTP Advisory Committee.

d. In undertaking its functions, the NTP must have regard to:

   i) best practice in transmission planning;

   ii) developments in technology that affect transmission development;

   iii) competitiveness and feasibility of fuel sources for generation;

   iv) Government policies that affect the energy sector including policies relating to climate change; and

   v) demand side, embedded generation and fuel substitution alternatives to transmission investment.

e. Where practicable, the NTP shall make publicly available all information generated in the course of undertaking its functions (subject to confidentiality provisions).

4. Annual Budget and Work-Plan

a. For each financial year starting from [1 July 2009], the NTP must provide to market participants details of its work-plan and budget for the undertaking of its functions.

b. The NTP budget shall be incorporated into the AEMO budget and recover through electricity market participant fees.

5. Establishment of Working Groups

a. The NTP may establish working groups to provide advice on specified aspects of the NTP functions.

6. Obligation on Jurisdiction Representatives

a. Upon request by the NTP, jurisdiction representatives must provide reasonable assistance to the NTP in undertaking its functions.

7. **National Transmission Network Development Plan**

a. The NTNDP must contain a review of the long term efficient development of the national network for, at a minimum , the next 20 years.

b. The scope of the NTNDP should include those transmission elements which, in the NTP's opinion, are part of or materially affect the transmission capability of the National Transmission Flow Paths.

c. The NTNDP shall:

i) identify a range of credible scenarios for the geographic pattern of electricity supply and demand for, at a minimum, the next 20 years;

ii) identify the National Transmission Flow Paths under each credible scenario for the period of the plan;

iii) identify the portions of the transmission and distribution networks that have been assessed as not having significant national impacts and the reasons for that assessment;

~~iii)~~iv) specify a National Transmission Flow Paths development strategy for each of the credible scenarios which, in the NTP's reasonable opinion, is consistent with:

(1) the co-optimisation of network and non-network investment;

(2) maximising market benefits; and

(3) compliance with relevant reliability standards.

d. Each National Transmission Flow Paths development strategy shall reflect a quantitative analysis of:

i) key transmission capability issues, including forecast constraints, which require action to enlarge or to increase the capability of the National Transmission Flow Paths to transmit or distribute active energy;

ii) options~~.~~, including network and non-network options, which, in the NTP's reasonable opinion, have the technical capability of addressing the identified key capability issues across identified NTFPs;

iii) market benefits associated with options identified in ii) above; and

iv) a high level assessment as to which set of options represents the efficient strategic development plan for the transmission network for each credible scenario, and how it relates to the broad development of the power system and its optimal timing depends on its particular value drivers.

e. The NTNDP shall review the major network investments that are valuable in the majority of the development scenarios in the 5 to 20 year time period and qualitatively describe what features of development scenarios would justify each of those investments, having regard to the primary value drivers[1].

~~e.~~f. The NTNDP shall include relevant historical time series information on the following matters:

i) patterns of congestion and mis-pricing:

(1) in system normal network conditions; and

(2) in network conditions other than system normal; and

[1] It would be assumed that any projects in the 1-5 year period would be fully addressed in the TNSP annual planning statements.

ii) realised transmission capability across existing national transmission flow paths as referenced in the NTNDP.

~~f.~~g. The NTNDP shall include a consolidated summary of the investment plans of TNSPs as set out in the most recent Annual Planning Reports and provide a detailed commentary on the consolidated summary. The commentary must inform on how the consolidated summary relate to the current and previous transmission network development strategies.

8. Preparation of the NTNDP

a. The NTP Advisory Committee must prepare and submit to the NTP a draft NTNDP.

b. The NTP Advisory Committee must consult on the credible scenarios and assumptions to be used in preparing the draft NTNDP.

c. The NTP must publish for consultation the draft NTNDP by 30 September each year, starting from 30 September 2009.

d. The NTP Advisory Committee must, in the course of preparing the draft NTNDP, consult each year with registered participants and interested parties in relation to:

i) the data and assumptions to be used for the preparation of the NTNDP; and

ii) the range of credible scenarios for supply and demand for inclusion in the NTNDP.

e. In preparing the draft NTNDP, the NTP Advisory Committee must consider the following for each development scenario:

i) the quantity of electricity which flowed, the periods in which the electricity flowed, and constraints, on the national transmission flow paths over the previous financial year or such other period;

ii) the forecast quantity of electricity which is expected to flow, and the periods in which the electricity is expected to flow, the magnitude and significance of future network losses and constraints on the current and potential national transmission flow paths over the current financial year or such other period;

iii) the projected capabilities of the existing transmission network and the network control ancillary services required to support existing and future transmission network capabilities;

iv) relevant intra-jurisdictional developments and any incremental works which may be needed to co-ordinate national transmission flow path planning with intra-jurisdictional planning; and

(v) such other matters as the NTP, in consultation with the particular jurisdictions consider are appropriate.

f. In preparing the draft NTNDP, the NTP Advisory Committee must have regard to:

i) the Annual Planning Reports published in the year in which the NTNDP is being prepared;

ii) the Statement of Opportunities published in the year in which the NTNDP is being prepared;

iii) the Gas Statement of Opportunities published in the year in which the NTNDP is being prepared; and

iv) the most recent allowed revenue determination for each TNSP.

g. The NTP must ensure that interested parties have a minimum of 20 business days from the date on which the draft NTNDP is published to make submissions to the NTP Advisory Committee on the draft NTNDP.

h. The NTP must ensure that submissions received on the draft NTNDP are published.

i. The NTP Advisory Committee must prepare and submit to the NTP a final NTNDP.

j. In preparing the final NTNDP the NTP Advisory Committee must have regard to the submissions received on the draft NTNDP as well as the matters contained in clauses **e** and **f** above.

k. The NTP must publish a final NTNDP by 31 December each year, starting from [31 December 2009].

l. The NTP must specify in the final NTNDP how it has had regard to the NTP Advisory Committee proposed draft and final NTNDP.

m. Each jurisdiction representative shall provide such assistance as the either the NTP or NTP Advisory Committee reasonably requests in connection with the preparation of both the draft and final NTNDP.

9. Information

a. Once a year, the NTP may issue an information request to TNSPs (NTNDP Information Request) seeking information that the NTP reasonably requires for the preparation of the NTNDP.

b. The requested information in a NTNDP Information Request must be in addition to the information that the TNSPs must provide to the AEMO under the Rules.

c. The NTP must prepare and publish NTNDP Information Request guidelines.

d. From time to time the NTP may amend or replace the NTNDP Information Request guidelines following consultation with TNSPs.

e. As soon as practicable after it receives a NTNDP Information Request, a TNSP must provide the requested information in the manner and form set out in the NTNDP Information Request guidelines.

f. As soon as practicable after a TNSP becomes aware of any revisions to information provided under the NTNDP Information Request, the TNSP must inform NTP of the revisions and provide the revised information and reasons for the revisions.

g. From time to time, the NTP may request further information (in addition to that provided under a NTNDP Information Request) from the TNSPs which it reasonably requires for undertaking its functions. Upon receipt of such a request, the TNSP must provide to the NTP such information.

h. The NTP must have proper regard to the cost and burden placed on TNSPs in producing any information required by the NTP under a NTNDP Information Request or under **g** above.

10. NTNDP Database

a. The NTP shall develop and maintain a publicly accessible database of key assumptions and methodological approaches used in preparing the NTNDP.

b. The database shall include:

i) fuel cost assumptions to be used ($/GJ for gas; $/tonne for coal, conversion efficiency);

ii) capital cost assumptions to be used for generation;

iii) carbon cost assumptions;

iv) demand forecasts;

v) methodologies and guidelines adopted by the NTP in the conduct of its functions; and

vi) any other relevant data and information.

c. The database shall be updated from time to time to ensure continuing accuracy.

10A. Information provided by the NTNDP

Each NTNDP shall provide for each development scenario

(i) a description of the most effective assets required to meet transmission requirements

(ii) the optimal timing of those assets assuming the development scenario occurred with perfect foresight of investors

(iii) a quantitative description of how the optimal timing of each transmission option would depend on the material drivers of value (such as local or regional demand levels, embedded generation capacity, demand side withdrawal capacity, fuel costs) as appropriate to the reliability or market benefits which make it a contributor to least cost in each development scenario

The level of detail in the functional description of value shall be consistent with the level of analysis conducted to determine the need for the proposed transmission assets. The level of detail shall be expected to increase as lead time decreases.

11. Membership of NTP Advisory Committee

a. The NTP Advisory Committee is to consist of:

i) a person appointed by AEMO as a member who is also appointed to act as the Chairperson; and

ii) [two to four] members appointed by AEMO.

b. AEMO shall make such appointments by no later than [31 Dec 2008].

12. Additional Functions of the NTP Advisory Committee

a. In addition to the functions set out in **8** above, the NTP Advisory Committee:

i) upon request by the NTP, shall provide advice to the NTP on any matter to the exercise of its functions set out in 3 above;

ii) upon request by the AEMO, shall provide advice to the AEMO on the preparation of the (electricity) Statement of Opportunities.

iii) may make recommendations to the NTP, regarding:

(1) public submissions to TNSP consultations under the Regulatory Investment Test; and

(2) public submissions to the AER in relation to revenue determinations for TNSPs,

where such submissions relate to potential augmentations that improve the transmission capability of the National Transmission Flow Paths.

b. Upon receipt of a direction by the NTP, the NTP Advisory Committee must conduct a review, or provide advice (as the case may be), into any matters relating to the development of a strategic and nationally co-ordinated transmission network.

13. Terms and Conditions of Appointment for NTP Advisory Committee

a. The Chairperson and other members of the NTP Advisory Committee will be appointed for a period up to 3 years on terms and conditions as to remuneration and other matters specified in the instrument of appointment.

b. Existing members of the NTP Advisory Committee are eligible for re-appointment.

c. The appointment of the Chairperson shall be on a full time basis.

d. On the office of a member of NTP Advisory Committee becoming vacant, a person must be appointed by AEMO to the vacant office.

e. A member of NTP Advisory Committee who is appointed as the Chairperson must remain independent of:

i) the regulatory authorities exercising functions or powers under the National Electricity Law, and

ii) businesses engaged in the industries regulated under the National Electricity Law.

f. No more than one of the other [two to four] non-chair members can be a member of the AEMO Board.

g. The members of NTP Advisory Committee must have sufficient knowledge, experience and abilities relating to power system –planning. The membership of the NTP Advisory Committee should represent a diverse mix of appropriate skills and expertise.

h. The AEMO may remove any person from the office of a member of NTP Advisory Committee at any time during his or her term in the following circumstances:

   i) the person become insolvent or under administration;

   ii) the person becomes of unsound mind or his or her estate is liable to be dealt with in any way under a law relating to mental health;

   iii) the person resigns or dies; or

   iv) the person fails to discharge the obligation of that office imposed by the Rules.

14. Meetings of NTP Advisory Committee

a. The Chairperson must preside at a meeting of the NTP Advisory Committee.

b. A quorum of the NTP Advisory Committee consists of the Chairperson and another [1 or 2] members.

c. A decision concurred in by [two or three] members at a meeting of the NTP Advisory Committee is a decision of the NTP Advisory Committee.

d. Each member present at a meeting of the NTP Advisory Committee has 1 vote on a question arising for decision.

OTHER REQUIRED RULE CHANGES FOR NTP IMPLEMENTATION

15. Planning and Development of Network

Proposed that provisions are added to clause 5.6.2 that

a. requires NSPs to have regard to the most recent NTNDP~~ational Plan~~ when conducting their annual planning review; and

b. require NSPs to comment in their Annual Planning Reports on the how their planning scenarios relate to the development strategies contained in the most recent NTNDP~~ational Plan~~.

Furthermore, each TNSP in conducting their annual planning reviews shall review the assessment of the potential for projects to deliver net economic benefits to the market, and where conditions have changed update the assessment of value drivers and their impact on the timing of the planned network projects.

16. The Transfer of IRPC Functions to AEMO

With regard to the functions previously performed by the IRPC, AEMO must undertake the following functions.

Technical assessment of network augmentations

a. The AEMO shall develop and publish, and may vary from time to time, an objective set of criteria for assessing whether or not a proposed transmission network augmentation is reasonably likely to have a material inter-network impact, in accordance with the Rules consultation procedures. In developing the objective set of criteria referred to in this clause, the AEMO must have regard to the views of jurisdiction representatives

b. The AEMO shall, upon receipt of a written request, ~~–~~prepare an augmentation technical report to determine:

   i) the performance requirements for the equipment to be connected;

   ii) the extent and cost of augmentations and changes to all affected transmission networks; and

   iii) the possible material effect of the new connection on the network power transfer capability including that of other transmission networks;

c. The AEMO may by written notice request an TNSP to provide the AEMO with any additional information or documents reasonably available to it that NTP reasonably requires for the purpose of preparing an augmentation technical report.

d. The AEMO must have regard to the views of jurisdiction representatives when preparing such technical augmentation reports

Inter-Network Test guidelines

e. The AEMO shall publish guidelines to assist *Registered Participants* to determine when an *inter-network test* may be required, in accordance with clause [5.7.7(k]);

Control and protection settings for equipment

f. The AEMO shall resolve disputes between NSP and registered participants in relation to parameter settings for control and protection equipment

Inter-Network Test Programs

g. Jurisdictions Representatives must made recommendations to AEMO in relation to draft test programs in accordance with clause 5.7.7(o) and (q)

17. Transfer of IRPC Functions in relation to providing assistance for the preparation of the SOO.

a. Clause 3.13.3 (s) to be changed to:

In preparing a Statement of Opportunities, the AEMO can reasonably request assistance and information from each Jurisdiction representative.

Jurisdiction representative is " a representative from any entity that has been nominated by the relevant Minister of a participating jurisdiction as having transmission system planning responsibility in that participating jurisdiction"

18. Changes to AER revenue determination process under Chapter 6A

a. TNSP must provide explanation on whether their revenue proposals are consistent with the most recent NTNDP and if not, provide detailed reasons for any variance

b. AER will be have regard to the NTNDP and any public information from the NTP, among other factors, in making revenue determinations