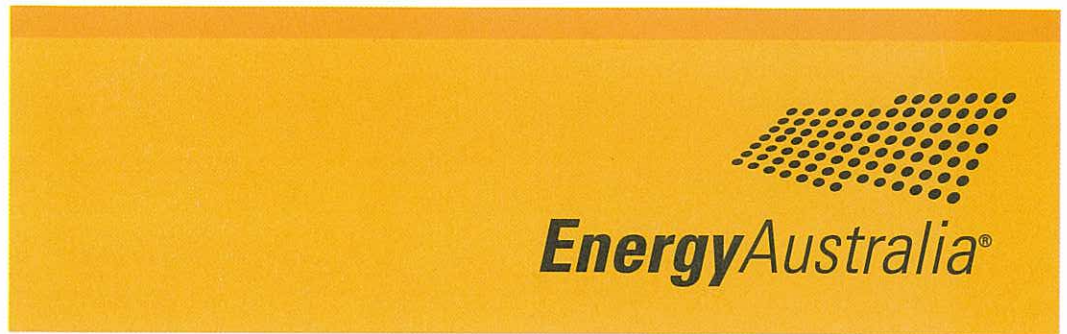


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16 June 2009

Dr John Tamblyn  
Chairman  
Australia Energy Market Commission  
Level 5, 201 Elizabeth Street,  
SYDNEY NSW 2000

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

Dear Dr Tamblyn

### **AEMC Review of Distribution Network Planning and Expansion**

Thank you for the opportunity to participate in review workshops the AEMC hosted on 27 May and 4 June 2009. Given the significant level of investment required in the industry over the next regulatory period, it is timely to review the framework for Distribution Network Planning and Expansion to enable the most efficient deployment of limited resources.

EnergyAustralia notes that the consultation, including the framework and terms and timeframe were clearly laid out and understood, and we were particularly pleased with the workshop that was conducted by the AEMC on this issue as it was particularly insightful and a useful forum to raise issues with the AEMC.

This submission is made in response to an invitation by the Commission's officers to clarify and document EnergyAustralia's position, as outlined at the recent workshops. The delay in providing this our submission is due to the complexity of the issues covered by the review, and due to our commitment to provide thorough and productive comments that will be useful to the Commission as it refines its positions during this review process.

This submission is in two parts. Firstly, EnergyAustralia wishes to make some general comments concerning the consistency and emphasis of the reviews. Secondly, the attachments contain more detailed explanatory comments concerning suggested changes to the AEMC's Indicative Framework Specifications and include marked up versions of the AEMC's document that reflect our comments.

EnergyAustralia is concerned that the principal focus of the AEMC's review of the Framework for Distribution Planning and Expansion appears to be the imposition of an excessively broad and onerous range of reporting and information requirements for DNSPs, aimed at rectifying some perceived disadvantages experienced by DSP proponents. This does not seem to be in accord with the AEMC's stated objective of developing a regime where the costs arising from the processes and regulatory requirements are proportionate to the benefits.

Moreover, much of the information that the AEMC proposes to include in the planning reports is already prepared and published for other purposes, principally for annual jurisdictional and AER reporting. The MCE requested



that overlaps of this nature be considered, but there is no evidence that the AEMC has considered this. Such duplication of reporting is inappropriate and unnecessary. Where jurisdictional and AER requirements cover reporting on aspects such as network management and reliability performance, this information should not be duplicated in a report whose principal objective is informing industry players of upcoming network constraints. We discuss these matters more fully in the attachment.

During the last five year determination period, EnergyAustralia has undertaken in the order of \$2 billion in growth-related capital expenditure. EnergyAustralia undertakes a Demand Management Investigation process for each augmentation project with an estimated cost greater than \$1million<sup>1</sup>.

To put the scale of potential DSP benefits into context, approximately \$135 million of the \$2 billion growth-related capex has been impacted by non-network alternatives with \$7.8 million of benefit achieved (savings in capital investment), and \$5.6 million spent in direct costs to achieve the savings. Based on these figures, improved decision making delivered a net \$2.2 million savings, which is about 4% of the value of investments subject to Demand Management (DM) processes and 0.11% of total growth related capital expenditure within the period.

Importantly for the AEMC's current considerations, the non-network options that were undertaken occurred as a result of EnergyAustralia's DM process and none have emerged as a result of NER consultation or from the publication of the Annual Electricity Supply Development Report, which is akin to the AEMC's proposed Distribution Annual Planning Report.

EnergyAustralia considers that it is important that the thresholds for the regulatory tests for transmission and distribution be consistent and that any review of these thresholds should be undertaken together to ensure that consistency between the thresholds is maintained during any review process. Our view is that given the size and nature of EnergyAustralia's capital program, a regulatory test should not be required for projects where the costs are less than \$5 million.

EnergyAustralia is very interested in maintaining an ongoing dialogue with the AEMC during the development of the national framework for distribution network planning and expansion. We appreciated discussing these matters with AEMC officers last week and would welcome further discussion as required. Should you have any questions in relation to this submission please contact Ms Catherine O'Neill on 9269 4171.

Yours sincerely



**TREVOR ARMSTRONG**  
Executive General Manager  
System Planning & Regulation

#### **Attachments**

1. Indicative Framework Specification Explanatory comments
2. Indicative Framework Specification – Annual Planning Process and Reporting Requirements
3. Indicative Framework Specification – Regulatory Investment Test for Distribution and Dispute Resolution Process

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<sup>1</sup> This threshold has been set based on EnergyAustralia's knowledge relating to past experience with DM options, an assessment of the likelihood that cost effective DM solutions exist, the potential deferral timeframes and the time typically available for implementation.



## Attachment - Indicative Framework Specification

### Explanatory comments

The following section on planning of distribution networks has been provided for context purposes.

#### Planning of distribution networks

Different planning processes are used by DNSPs at various levels within their distribution networks. The distribution network may be regarded as having two broad levels, within which different but consistent processes are used for planning:

- **The sub-transmission network** comprises the 132, 66 and 33 kV levels of a distributor's network and conveys electricity from the transmission connection points to zone substations, which supply the High Voltage network. Some major customers are directly connected to the sub-transmission network. The existing DNSP planning processes associated with the relatively small number of sub-transmission network investments are covered in NSW by jurisdictional requirements and are amenable to the Annual Planning Process envisaged by the AEMC. This includes the preparation of Annual Planning Reports and, where necessary, joint planning with TNSPs to optimise network development.

EnergyAustralia believes an appropriate definition of the subtransmission network to be as follows: *"Sub-transmission assets include substations and switching stations connected with primary voltages of 132, 66 and 33 kV and having secondary voltages of 11 KV or greater and 132, 66 and 33 kV cables and lines which supply these substations."*

It should be noted that the DNSP's sub-transmission network forms a subset of the regulated distribution network business.

- **The Medium and LV network** comprises the lines and associated distribution substations and customer connections. The Medium Voltage (MV) network operates at voltages of 22 and 11 kV and in some instances at 33 kV. The low voltage network operates at a voltage of 415/220V (three/single phase).

There is a vastly greater number of individual assets within the medium and LV system – in EnergyAustralia's case there are over 2,500 MV feeders connecting more than 29,000 distribution substations. As the planning process must consider the loads and ratings of the numerous sections of MV feeder supplying each distribution substation, the planning processes do not involve annual forecasting and assessment of the need for augmentation – a review of MV feeders is carried out on a cyclical basis every few years, whilst distribution substations and the LV network are augmented in response to metered load and periodic surveys or to customer connection enquiries.

The planning processes used by DNSPs for the components of their networks below the zone substation busbar are therefore not amenable to the Annual Planning Process or reporting arrangements envisaged by the AEMC. In the Framework Specification, we have included a definition for the sub-transmission network and have replaced many of the previous references to distribution network to reflect this practicality.

For the purpose of joint planning, the interaction between a TNSP and DNSP generally involves the interface between the transmission and sub-transmission networks. Direct connections between the transmission network and the distribution network as described above are small in number and new connections are, relatively, less common.



## **Regulatory Compliance**

EnergyAustralia is concerned that the matters covered by the Indicative Framework documents will become the subject of compliance review by the AER once they have been incorporated in the Rules. Whilst it is appreciated that at this stage the document is a work-in-progress, many of the requirements need to be framed in a more specific manner, to enable ready checking of compliance. For example, under section 7g of the Regulatory Investment Test Framework, the DNSP “must publish any preliminary or supplementary information where such information is likely to enhance the ability of interested parties to engage constructively in the project specification report consultation process”. Such a high level objective cannot readily be subjected to a compliance regime.

Rather, EnergyAustralia proposes that the processes involved should be the subject of compliance checking by the AER and that this requirement to publish supplementary information be contained in a Non-network Facilitation Procedure.

## **Content of the Distribution Planning Report**

EnergyAustralia is concerned that the proposed content of the Distribution Planning Report goes well beyond its intended purpose; forecast distribution network constraints and investments to address emerging constraints. A number of the matters proposed for inclusion in the report are already published in other documents to meet other regulatory obligations and therefore question the value of duplicating this information in an annual planning report. We note that whilst the MCE did not limit the scope of the report, it did request that the cost of providing information be balanced with the potential benefit to its users.

Examples of information that is not considered appropriate for inclusion in the report are:

- asset management practices, which are already the subject of a comprehensive, annually updated network management plan in NSW;
- the contemplation of high stress events, which have already been directly factored into the jurisdictional design planning requirements in aspects such as the Probability of Exceedance level of forecasts and into the Network Management Plan, which includes the planned response to contingencies such as bushfires;
- the reporting of reliability performance, which is already the subject of both AER and jurisdictional reporting requirements; and
- The reporting of quality of supply performance, where there are substantial costs and practical difficulties in determining compliance.

The proposed content of the Distribution Planning Report also needs reconsideration to preserve a logical flow. A number of the items under the 7.d heading of load forecast relate to the capacity of elements of the sub-transmission network and should form part of the following section 7.e. on system limitations section.

EnergyAustralia presently plans and operates both distribution and dual function transmission assets. EnergyAustralia consider that the dual functionality of its transmission assets does not warrant the publication by EnergyAustralia of an Annual Transmission Planning report, in addition to the proposed Distribution Planning report. It is submitted that the Rules should allow EnergyAustralia to report on the planning of both its Transmission and Distribution assets in its Annual Distribution Planning Report.

## **DNSP approval of the Distribution Planning Report**

The Distribution Planning Report contains information of an operational nature, in that it will contain a great deal of information concerning distribution demand and energy forecasts and the assessment of system limitations and their impact.



EnergyAustralia believes it is not appropriate to require a report of this nature to be certified by the Chief Executive Officer and a Director. No reasons have been put forward as to why as a matter of governance, certification by a Director is either necessary or appropriate. Such a certification would carry with it a very detailed assurance process in relation to detailed operational matters that are not generally the subject review by directors. This assurance process would include an internal audit of the content of the report against the DNSP's regulatory instruments, internal forecasting, planning and implementation as well as policies developed in response to regulatory instruments and requirements. Instead, EnergyAustralia believes that senior management certification of a report of this nature is more appropriate from a governance perspective. EnergyAustralia proposes that the Distribution Planning Report should be approved by the Executive General Manager - Network or an equivalent officer that has overall responsibility for planning the DNSP's capital and operating expenditure programs

### **Jointly planned augmentations**

The AEMC has proposed the concept of a "joint network investment" being identified as a result of joint planning by a TNSP and a DNSP or by two DNSPs. It goes on to further specify that such an investment should be the subject of the Regulatory Investment Test for Transmission. The AEMC appears to have proposed a process that is directed at resolving issues unique to the Victorian jurisdiction and its treatment of transmission connection assets. The AEMC's terminology "joint network investment" carries a connotation of cost sharing which is not necessarily the case. EnergyAustralia believes the term "jointly planned network investment" is a more appropriate descriptor.

Within NSW, the current joint planning arrangements are believed to have been demonstrated to work satisfactorily. In making this comment, we note that the tests for Distribution and Transmission are effectively the same test. Joint planning in NSW has routinely been carried out since before the commencement of the NEM and has resulted in the least-cost development of a range of augmentations such as:

- Investments driven in the transmission system by the requirements of the connected sub transmission (eg. increased capacity, capacity at a new location or replacement of sub-transmission assets with transmission); and
- Investments driven in the distribution network by the requirements of the transmission network (eg. increased interconnection on the sub-transmission network, or the requirement for voltage support).

The respective business within whose network the augmentation is required to take place has the responsibility for carrying out the development to the agreed time frame, including obtaining the necessary approvals (such as the Regulatory Investment Test). The responsibility for funding has to date been the responsibility of the NSP in whose system the augmentation takes place, although this need not necessarily be the case. EnergyAustralia recommends that this arrangement for the allocation of responsibilities be preserved in the distribution planning framework.

With regard to the application of the Regulatory Information Test, the Transmission Test should be preserved for instances where there is some likelihood that the augmentation will influence main transmission network and interconnector flows and thus have a material market effect. Hence, the Distribution Test is more appropriate for the majority of jointly planned applications, where the augmentation is driven by distribution requirements. Examples include:

- distribution assets;
- dual function assets;
- transmission connection assets; and
- transmission investments required to ensure that a distribution network meets the minimum power system security and reliability standards or to replace distribution assets



EnergyAustralia considers that the distribution test should be applied to augmentations driven by distribution needs, even where the augmentation occurs in the transmission network. This is because the proposed tests for transmission and distribution will now differ, in that the transmission test requires transmission augmentations to consider market benefits. This is problematic for distribution driven augmentation where market benefits are limited or non-existent. The above is consistent with the draft rule determination on the Regulatory Investment Test for transmission.

It should be noted that joint planning arrangements are also required where a DNSP's network has a sub-transmission connection to another DNSP's network or where it shares a single transmission connection point with another DNSP. In the latter circumstance there will be a need for tripartite discussions involving adjacent DNSPs and the TNSP.

From a drafting perspective the present Rules do not consider the possibility that a single NSP will have Transmission and Distribution assets. EnergyAustralia presently plans its transmission and distribution assets as a single network. The proposed Rule changes should not require EnergyAustralia to modify its holistic approach to planning to demonstrate that joint planning of its distribution and transmission assets is being carried out.

#### **Distribution Network Advisory Committee**

EnergyAustralia is not clear of the role, responsibilities and mandate associated with the establishment of a Network Advisory Committee and therefore is not in a position to support such a Committee.

#### **Non-network Strategy**

Many of the items for publication which constitute the AEMC's proposed non-network strategy are generally supported as reasonable, and broadly align with existing actions taken by EnergyAustralia. However, it should be noted that these items constitute a facilitation *process* for eliciting the development of non network proposals, rather than a strategy. EnergyAustralia therefore proposes the terminology "Non-network Facilitation Process" to describe this document.

EnergyAustralia does not support the requirement that this Non-network Facilitation Process be approved by the AER and with the AER having a broad discretion with respect to such approvals. It is likely that placing an approval role with the AER will increase the regulatory burden in demonstrating compliance and receiving approval. As with other matters, the AER's role should be to monitor DNSPs' compliance with the Rules and the Regulatory Investment Test. The Rules should be sufficiently detailed to specify the requirements of the strategy such that compliance could be effectively monitored by the AER without the need for any additional approval process.

In regards to proposed provisions concerning the publication of proposals and case studies and a register of interested parties, EnergyAustralia understands it would be necessary for each NSP to advise individuals before registering as interested persons that their details will be on a public register, and/or provide an option of not being on a public register or not disclosing all details. EnergyAustralia proposes an alternative arrangement involving reporting in summary form and having the register available for AER inspection.

#### **Timing of Distribution Annual Planning Report**

In the context of preparing an annual report, it should be noted that because of the considerable resources involved, EnergyAustralia completes the review of its sub-transmission summer forecast annually by September (ie. 6 months after the season concerned) and then uses this as one input to review the necessary augmentation of the network. Whilst an APR published in December could contain subtransmission forecasts based on the previous summer demand, there would be insufficient



time to review proposed development options for inclusion in the report. The APR would therefore be based on previous summer forecast (18 months previous) and would be updated where time allowed.

### **Regulatory Investment Test for Distribution**

The envisaged Regulatory Investment Test for Distribution (RIT-D) is not a single economic analysis test but a process involving project and option assessment, consultation and analysis. Whilst EnergyAustralia agrees that least cost analysis of investment options is appropriate for all types of investment (including replacement), we consider that the RIT-D process should be confined to network augmentations.

EnergyAustralia invests in its network to satisfy a variety of drivers. In many instances, an individual investment will be driven by more than one objective. In the current sub-transmission capital program, investments comprise approximately:

- 20% to replace assets which have reached the end of their serviceable lives;
- 20% to augment the capacity of the network for new load growth;
- 40% combine both asset replacement and capacity enhancement; and
- 20% are to meet duty of care, safety, environmental and other requirements.

As part of the regulatory proposal and distribution determination process, it is necessary for us to demonstrate the prudence and efficiency of this program to a regulator.

EnergyAustralia does not consider that applying the test is appropriate for investments required to meet duty of care, safety, environmental and related requirements or for replacement projects where there is no significant change in system capacity. In EnergyAustralia's extensive experience, a non-network option to supply the (usually large) block of load supported by an existing aged asset is not viable.

A principal function of the RIT-D process is to demonstrate the effective consideration of non-network options and to consult over demand side options. It follows that in instances where both capacity enhancement and asset replacement is proposed, the threshold for the test should apply to that portion of costs attributable to enhancing the capacity of the network, rather than to the whole cost of the investment.

As regards the process, it is not clear to what extent the process will be set out in the Rules and to what extent it will be prepared by the AER. EnergyAustralia submits that all procedural matters addressed in the three stages of the framework should be set out in the Rules and only the detail of the actual economic analysis should be prepared by the AER as is currently the case.

EnergyAustralia agrees that it is appropriate for the Test to permit the single assessment of an integrated set of distribution augmentation investments required to meet a particular system limitation. For example, a new zone substation and the lines which interconnect it with the existing sub-transmission network assets would be considered as a single investment. However the Test should not be required to assess many of the routine maintenance and replacement programs that DNSPs carry out, such as programs for the replacement of poles or pole top transformers,

### **Quantification of Market Benefits and Costs in the Regulatory Investment Test**

In EnergyAustralia's experience, since the initial implementation of the Regulatory Investment Test, market benefits of the type described by the AEMC are not material for distribution investments. We anticipate that for the vast majority of future distribution augmentations, market benefits will not be material.



For the Test to be implemented by DNSPs without undue administrative burden, it is proposed that the Test should allow, rather than mandate, the consideration of market benefits. This will facilitate consideration of issues or losses where appropriate, but would avoid making the Test unnecessarily onerous when such issues are not relevant considerations.

### **Review of cost thresholds**

Provision for the regular review of cost thresholds associated with the Regulatory Investment Test is welcomed. However, there are two additional provisions that should also be made:

- The threshold levels for the Transmission and Distribution Regulatory Investment Tests should be reviewed by the AER at the same time to ensure consistency; and
- There should be transitional provisions, to allow for the completion of the Test procedures where a distribution network augmentation has been identified and the existing consultation process has been commenced. Such provision should enable the DNSP to continue consultation in accordance with the Test thresholds in place at the time of commencing consultation if it is more efficient to do so.
- EnergyAustralia considers that, given the size of its program and the successful implementation of demand management projects already demonstrated by EnergyAustralia, that a regulatory test should not be required for projects with a cost of less than \$5 million.

### **Project Specification Threshold Test**

EnergyAustralia supports the concept of introducing a staged approach to the assessment of whether a Regulatory Investment Test is appropriate in specific circumstances. In many ways, this proposed approach is similar to the Demand Management Screening Test that EnergyAustralia performs in the currently regulatory period and which it believes is effective in identifying constraints where non-network options are feasible and where further more detailed investigation is appropriate.

### **Project Specification Stage**

EnergyAustralia believes it is not appropriate or feasible for the DNSP to list all credible options in the project specification and define and cost them in some detail. The primary purpose of this report appears to be to specify the possible system augmentation requirement in a way that will enable the proponents of non-network alternatives to readily consider whether their alternative is feasible, without putting forward the DNSP's view of what those options should be.

### **Dispute resolution**

The procedures that the AEMC has proposed for dispute resolution are broadly acceptable. As with the Regulatory Investment Test for Transmission, it is believed that the grounds for dispute should be whether the DNSP has followed the requirements of the Rules and the Regulatory Investment Test; that is the dispute process should be a compliance rather than a merits based review.

Given that the NER will provide the national framework for the planning and expansion of distribution networks, it is appropriate that any dispute resolution regime is limited to process-related disputes and not extended to a merits-based dispute process that reviews the planning decisions made by a DNSP. The AEMC's proposal to allow as grounds for a dispute the DNSP's decision on classification of a proposed distribution investment as a reliability augmentation falls into this category and goes beyond the dispute provisions for Transmission. Reliability augmentations normally arise from the need to satisfy jurisdictional design planning requirements and should not be subject to dispute.