



UNITED ENERGY  
Distribution

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Dr John Tamblyn  
Chairman  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Dear John

**AEMC's Scoping and Issues Paper: Review of National Framework for Electricity  
Distribution Network Planning and Expansion  
(AEMC Reference EPR0015)**

**1. Introduction**

United Energy welcomes this opportunity to comment on the scoping and issues paper (hereafter referred to as the "Issues Paper") on the AEMC's review of national arrangements for distribution network planning.

United Energy agrees with the AEMC that the regulatory burden and costs imposed by planning requirements should be proportionate to the overall benefits provided through the regulated planning and investment decision-making process. We consider that the distribution planning arrangements should:

- provide market participants with useful information to guide their decisions; and
- facilitate the timely implementation of efficient solutions - be they non-network solutions or network investment - to emerging constraints.

This letter sets out United Energy's more detailed comments in response to the Issues Paper. For convenience, our comments are set out under the same headings as those appearing in the Issues Paper.

**2. Proposed scope and approach of the AEMC's review**

The Commission's proposed criteria for the review are set out on page 9 of the Issues Paper. United Energy considers that the proposed criteria are comprehensive and appropriate for the review.

In particular, United Energy is pleased to observe that the Commission has recognised (in the first criterion) the need for the national framework to incorporate and accommodate variations in the existing jurisdictional distribution planning arrangements and distribution reliability

standards. It will be important for the Commission to assess objectively the effectiveness of the existing arrangements in each jurisdiction, and to design a national framework which is capable of accommodating jurisdictional variations that reflect, for instance, different institutional arrangements across the jurisdictions<sup>1</sup>. In this regard, we note that it is likely to be inappropriate and impracticable for the review to propose the adoption of a nationally uniform set of arrangements drawing on elements from each of the existing jurisdictions.

United Energy strongly supports the inclusion of the second proposed criterion, that there should be an appropriate balance between the regulatory burden on DNSPs and the benefits to the broader market. In this context, it is noted that some of the proposals outlined in the August 2007 paper commissioned by SCO (and prepared by Allen Consulting Group and NERA) entailed very substantial cost increases for DNSPs. It will be important for the present review to examine the costs and benefits associated with any proposals that would materially increase the regulatory burden on distributors.

In this context, United Energy notes the fourth proposed criterion relates to the minimisation of the regulatory compliance burden for market participants operating in more than one region in the NEM. United Energy considers that it would be appropriate for this criterion to be applied more broadly across the review, to ensure that the regulatory compliance burden for all participants is minimised, having regard to the benefits that are expected to flow from the proposed national arrangements.

### **3. Annual planning requirements**

In Victoria, the DNSPs are responsible for planning and directing the augmentation of their distribution networks, as well as the transmission connection assets that connect their distribution networks to the shared transmission network<sup>2</sup>.

Accordingly, the Victorian Electricity Distribution Code (the Code) requires the Victorian DNSPs to publish information on emerging network constraints through two key planning documents:

- an annual Distribution System Planning Report, which provides high level information on emerging distribution network constraints and identifies, where possible, alternative network options for alleviating those constraints over a five year period; and
- the Transmission Connection Planning Report (TCPR), which is jointly prepared by the five Victorian DNSPs in conjunction with the SP AusNet and VENCORP (the Victorian TNSPs). That report also identifies emerging capacity constraints in the transmission connection facilities, and provides a vehicle for notifying non-network solution providers of potential opportunities.

These planning reports are currently made available on the DNSPs' websites<sup>3</sup>.

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<sup>1</sup> The allocation of responsibility for planning and directing the augmentation of exit transmission connection facilities is one such difference that will need to be accommodated. Further discussion of this issue is set out in section 3 below.

<sup>2</sup> Clause 14 of each Distribution Businesses' Distribution Licence sets out its transmission connection planning responsibilities.

<sup>3</sup> Copies of United Energy's reports are available from:

[http://www.ue.com.au/industry/ind\\_Trans\\_Conn\\_Planning\\_Report\\_2004.asp](http://www.ue.com.au/industry/ind_Trans_Conn_Planning_Report_2004.asp)

The existing planning arrangements in Victoria have been in place for nearly a decade. Experience over that period demonstrates that these arrangements have been effective in fostering efficient development of the distribution networks and distributors' transmission connection facilities. On the basis of this experience, United Energy supports the retention of these current arrangements under a national framework.

In response to matters raised in the Issues Paper regarding annual planning requirements, United Energy notes that:

- The scope, nature and level of detail of the information which each DNSP is required to publish in its distribution and transmission connection planning reports are specified in clauses 3.4 and 3.5, respectively, of the Code. This information is comprehensive, and it is consistent with:
  - the requirements set out in the MCE's terms of reference for the review;
  - the objectives noted by the Commission in section 3.1 of the Issues Paper; and
  - the list of specific content requirements of planning reports set out on page 17 of the Issues Paper.

Experience suggests that the level of information that the Victorian DNSPs are required to publish in their distribution and transmission connection planning reports is useful and appropriate to stakeholders. That said, United Energy considers that there may be merit in including some additional information on fault level issues (in the transmission connection and distribution planning reports) on a case-by-case basis, where such issues may impact on the provision of network-based and non-network solutions to emerging constraints.

- It is doubtful whether any additional benefit would arise from the preparation of additional or separate reports or information packages for the purposes of advising non-network proponents of potential opportunities. This is because clauses 3.4 and 3.5 of the Code require the Victorian DNSPs' planning reports to:
  - consider feasible options for meeting forecast demand on the distribution network and at each transmission connection, including opportunities for embedded generation and demand management;
  - provide an indication of the cost of the preferred network solution; and
  - provide details of the availability of any contribution from the distributor (including where feasible, an estimate of its value), which is available to embedded generators or customers to reduce forecast demand and defer or avoid augmentation of a distribution network or transmission connection.

As already noted, the planning reports published annually by the DNSPs in Victoria have provided an effective means of advising non-network proponents of potential opportunities. The potential benefits of imposing further obligations on DNSPs to publish information should be weighed carefully against the additional administrative costs that such an obligation would entail.

- The costs associated with a requirement for DNSPs to include forecast average marginal distribution loss factors in the planning reports would be very high, and would be most unlikely to be offset by the benefits of publishing such information. DNSPs should provide information on forecast distribution loss factors (to assist particular stakeholders to calculate

the value of prospective investments) at the request of stakeholders and on a fee-for-service basis.

- The five-year Distribution System Planning Report should continue to be published annually in the last quarter of the year immediately prior to the first year of the relevant five-year planning period.
- The Australian Energy Market Operator's website would be a reasonable central location for the publication of DNSPs' planning reports.

#### **4. Project Assessment and Consultation Process**

##### **4.1 Form and coverage of the regulatory investment test for distribution**

In relation to the project assessment and consultation process, page 19 of the Issues Paper makes the following statement regarding the regulatory investment test:

“The new test should be transparent and inclusive of all interested participants and, importantly, be efficient and proportionate.”

United Energy strongly concurs with the Commission that the regulatory investment test should be both efficient and proportionate. In this regard, it is noteworthy that in considering the question of consistency between the national framework for distribution planning and the electricity transmission planning framework, the Commission also recognises (on page 9 of the Issues Paper) that:

“There are a number of differences between transmission and distribution to take into consideration. Distribution augmentations tend to be needed for reliability reasons and are less likely to deliver wider market benefits. Hence this may justify a less elaborate regulatory test for distribution than for transmission. The scale of projects for distribution projects is significantly smaller...”

These considerations suggest that it may be desirable to retain the present “reliability” and “market benefit” limbs of the regulatory test for distribution investment decision analyses. That said, it is noted that the AEMC's recent Policy Recommendation<sup>4</sup> regarding the amalgamation of reliability and market benefits in the regulatory investment test for transmission (RIT-T) was as follows:

“Project assessment shall be carried out under a cost-benefit framework. The purpose is to identify options which maximise the present value of net economic benefits (or minimise the present value of net economic costs) subject to meeting deterministic reliability standards (where they apply) (RIT-T Rules, clause 5.6.5B (b) and (c)).

Under the RIT-T, mandatory reliability obligations would be met by the option that had the highest positive net present value (NPV) or lowest negative NPV. Where there is no underlying mandatory reliability obligation (an issue solely motivated by the delivery of market benefits) then the test would be met by the option which had the highest positive NPV (RIT-T Rules, clause 5.6.5B (c)(11).

Where deterministic standards exist, only the incremental reliability benefits delivered in addition to the level of reliability required by the standard will have to be quantified for the purpose of the RIT-T (RIT-T Rules, clause 5.6.5B (c) 7).”

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<sup>4</sup> AEMC, *National Transmission Planning Arrangements: Final Report to MCE*, 30 June 2008, page 44.

United Energy considers that the regulatory test for distribution (RIT-D) should provide for project assessment to be carried out under a cost-benefit framework that recognises and accommodates the investment requirements driven by any applicable deterministic standard. In this regard, the approach to amalgamating reliability and market benefits in the RIT-T could probably also be applied in the development of the RIT-D.

In relation to other matters canvassed in the Issues Paper regarding the RIT-D, United Energy considers that:

- The RIT-D should continue to apply to augmentation capital expenditure only and should not be extended to apply to replacement capital expenditure.
- The threshold for undertaking a public RIT-D should be no less than the current threshold of \$5 million which applies in the RIT-T. To minimise regulatory and administrative costs, the threshold should probably be subject to indexation (at the CPI) rather than periodic review.
- Page 21 of the Issues Paper notes that any prospective project below the threshold would not be required to undertake the project assessment process. United Energy concurs with this statement, noting that:
  - the company faces incentives under its price control to minimise its total costs - and therefore to undertake only efficient investment in its network; and
  - the company also has incentives to facilitate efficient non-network solutions to constraints<sup>5</sup>.

United Energy considers that the incentive properties of these arrangements should provide sufficient assurance to stakeholders that efficient (non-network and network) solutions will be implemented where the prospective project is below the RIT-D threshold. In addition, it is noted that the AER would typically examine the effectiveness of DNSPs' capital budgeting and investment governance processes as part of each five-yearly regulatory determination. Those reviews, coupled with the publication (and public scrutiny) of annual planning review reports should provide further assurance that DNSPs implement efficient network development solutions, regardless of whether or not a particular solution has been subjected to a formal RIT-D assessment.

- The detailed design of the RIT-D and associated consultation processes should have regard to customer connection timeframes, and should not result in unnecessary delay to connections, particularly those which require deep (shared transmission network) augmentation.

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<sup>5</sup> These incentives are explained in the Essential Services Commission's Final Decision on Embedded Generation (Guideline 15) dated 27 July 2004. Broadly, the Guideline provides for the retention by the distributor of a share of the network cost savings that arise when the connection of embedded generation leads to a deferral of network investment. The Final Decision notes that distributors have incentives under their price controls to actively seek cost savings, and they have sufficient incentives to negotiate an appropriate sharing ratio of avoided distribution costs with embedded generation proponents. For further details see:

<http://www.esc.vic.gov.au/public/Energy/Regulation+and+Compliance/Codes+and+Guidelines/Guideline+no+15+electricity+industry+-+connection+of+embedded+generation/Guideline+no+15+electricity+industry+-+connection+of+embedded+generation.htm>

- United Energy notes that in Victoria, the distributors' annual distribution and transmission connection planning reports have provided effective vehicles for conveying information to non-network providers about potential opportunities. It is therefore an open question as to whether any additional benefit that may arise from the imposition of an obligatory RFP process would offset the additional administrative costs and the potential for delays to investment. These matters should be carefully considered by the AEMC in its design of the consultation processes for the RIT-D. If an RFP process is to be mandated, United Energy considers that the threshold for application of the process should be that same as that applying to the RIT-D itself; that is, no less than the current threshold of \$5 million which applies in the RIT-T.

## 4.2 Decision-making criteria

As noted on page 104 of the AEMC's November 2006 Final Determination on reform of the regulatory test principles, "there is an inescapable exercise of discretion in reasonable decision-making". Accordingly, the specification of the RIT-D decision criteria should recognise that the decision signals produced by any cost-benefit test are intended to provide an aid to decision making. In this regard, it is worth noting that the 2008 Transmission Connection Planning Report explains the approach applied in the economic assessment of transmission connection investment (where mandatory reliability obligations are not in place) as follows:

"The quantity and value of energy at risk is a critical parameter in assessing a prospective network investment. Probabilistic network planning aims to ensure that an economic balance is struck between:

- the cost of providing additional network capacity to remove any constraints; and
- the cost of having some exposure to loading levels beyond the network's capability.

In other words, recognising that very extreme loading conditions may occur for only a few hours in each year, it may be uneconomic to provide additional capacity to cover the possibility that an outage of an item of network plant may occur under conditions of extreme loading. The probabilistic approach indicates that network augmentation should take place only when loading has increased to the extent that the estimated value of energy at risk justifies expenditure on the transmission system to reduce the level of energy at risk.

This approach provides a sound actuarial estimate of the expected net present value to consumers of terminal station augmentation. However, implicit in its use is acceptance of the risk that there may be circumstances when the planned terminal station capacity will be insufficient to meet actual demand. The extent to which investment should be committed to mitigate that risk is ultimately a matter of judgment, having regard to:

- the results of studies of possible outcomes, and the inherent uncertainty of those outcomes;
- the potential costs and other impacts that may be associated with very low probability events, such as single or coincident transformer outages at times of peak demand, and catastrophic plant failure leading to extended periods of plant non-availability; and
- the availability and technical feasibility of cost-effective contingency plans and other arrangements for management and mitigation of risk."

Thus, while the Victorian distributors apply an economic cost-benefit approach in assessing transmission connection investment, that approach does not blindly apply simple, mechanistic

criteria. Rather, the approach recognises that strong scale economies exist, and that an “economic” level of investment may leave consumers exposed to potentially very high costs if a low-probability event occurs and results in outages of key transmission connection assets at times of peak demand.

United Energy suggests that the decision criteria to be applied under the RIT-D (in circumstances where mandatory reliability obligations are not in place) should be sufficiently flexible to enable matters such as the risk to supply reliability to be taken into consideration in determining the timing and scale of action to alleviate a constraint.

### **4.3 Assessment of projects that span the boundary between transmission and distribution**

Page 21 of the Issues Paper notes that in relation to project assessment:

“Another issue is the appropriate boundary between transmission and distribution projects. From time to time there are augmentations to the distribution network that require related works to the transmission network. In some instances, options for addressing projected limitations on the transmission network may involve transmission and distribution alternatives.

These projects raise issues in terms of the appropriate project assessment process. The approach proposed for the RIT-T is that projects are classified by the original intent of the augmentation. For example if there is a need to augment to relieve a distribution constraint which ultimately causes a transmission augmentation, then that project be assessed purely under the distribution project assessment process.”

United Energy concurs with the approach proposed in the Issues Paper. Responsibility for completing an investment test in relation to a project should be determined having regard to the original intent of the augmentation. Thus, if augmentation is required to relieve a distribution constraint and/or a transmission connection constraint, and that project involves augmentation of the shared transmission network, then the entire project should be assessed under the distribution project assessment process (RIT-D). Under such arrangements, United Energy proposes that:

- In Victoria, where DNSPs are responsible for planning and directing the augmentation of transmission connection facilities, the RIT-D should explicitly cover transmission connection assets.
- The DNSP would be responsible for undertaking the RIT-D, which would apply to an entire project including distribution, any transmission connection, and any shared transmission network components.
- TNSPs would be required to provide cost and other relevant information to assist the DNSP in conducting the RIT-D.
- TNSPs would be able to comment on, and participate in the application of the RIT-D to any particular project through the public consultation process.
- Where shared transmission assets are included within the scope of a project that has been subject to a RIT-D, and the project satisfies the requirements of the RIT-D, then the relevant TNSP should be deemed to have met its obligations to conduct a RIT-T (in respect of the shared transmission network assets) and consequently, the resulting shared transmission

network assets would provide prescribed transmission services in accordance with the Rules.

#### **4.4 Costs and benefits to be included in the RIT-D**

United Energy would not favour the inclusion of a list of costs and benefits in the NER. The Rules should codify the principles of the RIT-D. If necessary, more detailed prescription governing the application of these principles should be provided through guidelines developed by the AER in consultation with interested parties.

### **5. Dispute resolution process**

The question of the scope of dispute resolution regarding a TNSP's project assessment was examined in detail by the AEMC in its 2008 review of national transmission planning arrangements. Page 61 of the AEMC's Final Report to MCE on the National Transmission Planning Arrangements stated:

“Under the RIT-T, it is proposed that the AER's role in determining a dispute is limited to assessing whether parties have correctly applied the RIT-T in accordance with the Rules, and to directing the TNSP to amend its analysis consequently, if required. The AER's role should not, in the Commission's view, be a merits review.”

The Commission's reasoning regarding to this matter is soundly based. Consistent with the arrangements proposed by the AEMC (and accepted by the MCE) in relation to the RIT-T, the scope for disputes of a RIT-D should be restricted to matters of compliance with the Rules only and not the merits of a DNSP's project assessment.

### **6. Other issues**

#### **6.1 Substitutability of network and non-network solutions**

United Energy seeks to encourage efficient non-network solutions. Indeed, as already explained in section 4.1 of this submission, the company has incentives under the present regulatory framework in Victoria to actively facilitate the deployment of efficient non-network solutions.

Under the service incentive (S factor) scheme in place, United Energy also faces strong financial incentives to maintain and improve the reliability of its distribution network. This important point is recognised on page 23 of the Issues Paper, which states that:

“Another issue to note in relation to potential non-network proponents providing non-network solutions is the guarantee of implementation when required. For example, if a non-network solution is provided, but not delivered when required the DNSP is impacted negatively. DNSPs typically require comfort by requiring a contractual arrangement to avoid being exposed to such events. This potentially raises issues in relation to the timing/schedule of a RFP process, in that if a non-network solution proves to be the desirable option to relieve a constraint, there may a need conduct a separate process of contractual negotiation between a DNSP and non-network proponent.”

It is United Energy's experience that the ability of a non-network solution provider to assume risk under the service incentive scheme is a key determinant of whether that solution provides a viable and efficient alternative to network investment. Subjecting individual investment proposals to a mandatory RFP process is unlikely to address the issue of the ability of non-

network solution providers to take on S-factor risk in order to offer a viable substitute for network investment.

## **6.2 Exemption of “urgent” investments**

The Issues Paper notes that in its recommendations for the RIT-T, the AEMC proposed that urgent and unforeseen investment be exempt from the project assessment process. This was to ensure that the new arrangements do not reduce or adversely affect the ability for urgent and unforeseen transmission investment to be delivered.

The lead time for distribution reinforcement projects is likely, in many cases, to be considerably shorter than that for transmission reinforcement. Prima facie then, there should be provisions in the national distribution planning framework for the exemption of urgent and unforeseen investment from the RIT-D consultation process. The RIT-T Rules provide a good starting point for considering the design of the exemption provisions that should be included in the RIT-D. In relation to the design of such provisions, United Energy agrees with the AEMC that any exemption would need to be drafted in a manner that prevents any opportunity for the DNSPs to exploit the exemption.

As noted at the outset, United Energy strongly supports efficient and workable distribution planning arrangements. The arrangements should facilitate the timely implementation of efficient solutions (be they non-network solutions or network investment) to emerging constraints. They should also entail costs which are proportionate to the overall benefits.

United Energy looks forward to continuing to participate in the AEMC’s review, and the company looks forward to providing more detailed input to the review as it progresses. In the meantime, should you or your staff have any queries regarding this submission, please contact me on (03) 8540 7818.

Yours sincerely

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