18 June 2002

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Australian Competition and Consumer Commission
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Dear Michael

ACCC Review of Regulatory Test for Electricity Transmission Planning

This letter sets out VENCorp's comments in relation to the ACCC's Issues Paper on the Review of the Regulatory Test, dated 10 May 2002.

1. Maximising net benefits

The ACCC's Issues Paper notes that the Regulatory Test involves an "extended" cost/benefit framework, with the aim of ensuring that an optimal outcome is identified "and not just any option that generates a net public benefit." VENCorp notes that this approach is consistent with basic investment decision analysis theory and practice, in which the objective is also to maximise the net present value of investment, having regard to the range of (sometimes mutually exclusive) investment options that are available.

VENCorp supports retention of this basic feature of the Regulatory Test, particularly given the following considerations:

- Network investment is characterised by high sunk costs. To ensure that such investment is likely to maximise economic efficiency, it is necessary to evaluate the economics of all network investment decisions having regard to the range of feasible alternative technologies, options and project timings, and to select the option that maximises net benefit.

- New network investment that is economically justified on the basis of maximising net market benefits may have a potentially significant impact on wholesale market outcomes. Under the Regulatory Test the financial impacts on individual market participants are, in effect, "netted off". VENCorp supports this approach, as it correctly deals with the issue of transfer payments between individual market participants. However, given that the regulated networks exist within the context of a competitive wholesale market, and given the impacts that new network investment may have on market participants, VENCorp considers it is important for a transmission investment decision analysis to be conducted in a consultative and transparent manner, and to demonstrate that the proposed investment is most likely to maximise the net market benefit over a range of plausible scenarios.

In view of these considerations, VENCorp does not believe that the Regulatory Test as it stands presents an inappropriately high hurdle for a proponent of regulated transmission investment.

The Issues Paper raises the question of whether the Regulatory Test might simply refer to a nominated Net Present Value hurdle instead of requiring a proponent to demonstrate that the proposed project is likely to maximise net benefit. VENCorp foresees considerable practical difficulties under a simplified "hurdle" approach. For instance, it raises questions as to who would set the hurdle, what the basis of such a hurdle might be, and what supplementary arrangements might be required to safeguard against inefficient investment. For these reasons, along with the other factors listed above, VENCorp would not support a move to lower the "hurdle" inherent in the present Regulatory Test by such means.

Finally, the Issues Paper poses questions as to whether the current test dealing with reliability driven augmentations[1] is appropriate, and whether reliability driven augmentations should be required to follow a similar process to market driven augmentation. In response, VENCorp notes that all of its augmentation proposals are assessed against part (b) of the Regulatory Test, which requires an objective assessment of the costs and benefits of an augmentation, having regard to a number of alternative projects, timings and market development scenarios.[2]

In 2001, VENCorp conducted a detailed review, involving public consultation, of its investment decision analysis methods and criteria.[3] That review considered the relative merits of:

- probabilistic economic investment evaluation approaches (i.e. those consistent with part (b) of the Regulatory Test); and

- more simplistic, deterministic approaches (i.e. those generally considered to be consistent with part (a) of the Regulatory Test).

The review concluded that VENCorp would continue to apply a probabilistic economic evaluation approach that is consistent with the requirements of part (b) of the Regulatory Test. VENCorp considers that such an approach provides the best framework for conducting a comprehensive and objective assessment of the economics of network augmentations and other options. On this basis, VENCorp considers that such an approach is more likely to lead to efficient network investment decisions.

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1 A "reliability augmentation" is defined in the Code as "a transmission network augmentation that is necessitated solely by inability to meet the minimum network performance requirements set out in schedule 5.1 or in relevant legislation, regulations or any statutory instrument of a participating jurisdiction."

2 In order to meet the requirements of the Regulatory Test, an augmentation must either:

(a) meet an objectively measurable service standard linked to the technical requirements of schedule 5.1 of the Code, and minimise the net present value of the cost of meeting those standards; or

(b) maximise the net present value of the market benefit.

All of VENCorp's augmentation proposals are assessed using part (b) of the regulatory test.

3 VENCorp published three papers during that review. These were: *Consultation Paper: Electricity Transmission Network Planning Criteria,* February 2001; *VENCorp Response to Submissions: Electricity Transmission System Planning Criteria*, May 2001; and *Advice to Stakeholders: Conclusion of Consultation Process on Electricity Transmission Network Planning Criteria*, July 2001. These papers are attached and are also available on VENCorp's website. VENCorp invites the ACCC to review these papers as part of its present review of the Regulatory Test.

VENCorp questions whether an approach based on part (a) of the Regulatory Test (namely, least-cost compliance with deterministic standards) provides an equally comprehensive means of assessing the economics of proposed augmentations alongside other options. VENCorp therefore questions whether the net present value of the market benefit is maximised when investment decisions are justified simply on the basis of least-cost compliance with deterministic standards.

Clearly, parts (a) and (b) of the Regulatory Test should be consistent with one another, and should deliver the same decision signals when applied to the same augmentation proposal. This suggests that at the very least, any definition of "reliability augmentation" that forms the basis of a network investment decision criterion should itself be established pursuant to a rigorous and comprehensive economic justification. It is VENCorp's understanding that no such analysis has yet been undertaken to establish the underlying economic basis of deterministic standards that might be used to justify new network investment.

In view of this, VENCorp strongly suggests that a review of the definition of "reliability augmentation" and any associated standards in Schedule 5.1 of the Code should be undertaken by an independent body, and clarified as a matter of urgency.

2. Implications of applying different investment criteria across the national market

It is VENCorp's understanding that some TNSPs have interpreted Schedule 5.1 as mandating an "n-1" level of reliability. As noted above, VENCorp does not apply a deterministic approach to evaluating network investment decisions. Instead, VENCorp applies an economic test, which balances the augmentation costs against the expected benefits such as: reductions in unserved energy, incremental fuel and capital cost savings and reduced transmission losses, having regard to the costs of non-network alternatives.

In some circumstances, the deterministic approach applied in other jurisdictions will lead to a higher level of investment than that which is justified economically using VENCorp's evaluation approach.

The adoption of materially different planning criteria by different TNSPs raises questions as to the basis of inter-regional TUoS charges. This issue is likely to be of most concern to Victoria because by paying inter-regional TUoS charges Victorian transmission customers may, in effect, contribute to the costs of "n-1" reliability in other States. VENCorp therefore urges the ACCC to carefully consider the issue of inter-regional consistency of transmission investment criteria.

3. Competitive impacts of network investment

The Issues Paper questions whether the Regulatory Test should be altered to reflect greater competition in a region from the introduction of network investment.

In response, VENCorp notes that the Regulatory Test nets off transfer payments between wholesale market participants that may arise due to weak competition or the exercise of market power by some participants. Accordingly, it might be suggested that:

- the test does not value a significant benefit of transmission, being competition benefits; and

- removal of transmission constraints can reduce the market power of some participants, resulting in closer alignment of prices and costs, and thereby delivering potentially significant benefits to end users.

Notwithstanding the inherent appeal of these arguments, VENCorp considers that any proposal to modify the Regulatory Test to encompass the consideration of issues relating to concerns about the level of competition and market power in the wholesale market should be very carefully examined.

In this regard, it is noteworthy that clause 3.1.4(b) of the Code states that the wholesale market rules are not intended to regulate anti-competitive behaviour which is subject to the relevant provisions of the Trade Practices Act and the Competition Codes of participating jurisdictions. It would not be unreasonable to argue that the intent of this provision should also apply to regulated TNSPs. Such an argument would posit that:

- the regulation of anti-competitive conduct, and the resolution of issues relating to perceived misuse of market power are the responsibility of the competition regulators;

- the Regulatory Test should be applied in the context of a market in which the existing level of market power has, in effect been pre-determined by policy-makers; and therefore

- promoting network investment that aims to increase competition, or to induce changes in transfer payments between one group of market participants and another is a matter for policy-makers and not TNSPs.

Moreover, it might reasonably be argued by some participants that new investment in regulated transmission that does not satisfy the requirements of the present Regulatory Test, but which is justified on the basis of increasing competition represents a form of intervention in the wholesale market.

VENCorp considers that broadening the scope of the Regulatory Test to attempt to capture the benefits of greater competition raises policy issues that should be addressed separately and transparently by the Jurisdictions.

It is noted that the ACCC's Issues Paper raises the question of whether the benefits associated with additional capacity to meet peak demands in a region should be included in the assessment of a new interconnector. In response, VENCorp believes that such benefits can be readily incorporated into the Regulatory Test as it presently stands, provided that an assessment is undertaken compared with a "Do Nothing" option, and that note (1)(b)(ii) of the regulatory test is amended to provide for the market benefit to be evaluated using the marginal value of supply reliability to consumers, rather than the VoLL wholesale market price cap.

4. Network and distributed code resources change package

The ACCC's Issues Paper notes that during its consideration of the network and distributed code resources change package: "some parties raised concerns about the checks and balances in place to prevent a TNSP misusing its monopoly position and preventing the appropriate consideration of non-network options."

In response, VENCorp observes that the network augmentation processes set out in the Code provide for a reasonably high degree of transparency and consultation throughout the decision-making process. Given this, any issues relating to perceived misuses of monopoly power (through inappropriate consideration of non-network options by TNSPs) are probably most effectively dealt with through regulatory compliance and enforcement action on a case-by-case basis, rather than through greater prescription of the Regulatory Test.

5. Consideration and inclusion of alternative options

VENCorp considers that the requirements of the Regulatory Test that relate to the number and type of non-network alternatives that must be considered under the test should be clarified. It is VENCorp's view that the Regulatory Test should require a TNSP to consider alternatives that:

- either have a clearly identifiable proponent, or
- have a reasonable and real chance of actually becoming an alternative without significant technological advances or process improvements taking place.

In addition, it is considered that the Regulatory Test should be clarified to ensure that all incremental costs of alternative options are included in the evaluation. For instance, the results of the Regulatory Test may be biased if the incremental (i.e. avoidable) costs of uncommitted options are treated as sunk (i.e. unavoidable costs). VENCorp considers that there should be some demonstrable and objective proof of project commitment required in order for costs associated with a particular option to be treated as sunk (and thereby excluded from the evaluation). This, in turn requires the definition of "committed projects" to be clarified. It is suggested that the criteria used in the NEMMCO Statement of Opportunities (i.e. that the project has Board or bank approved financing and planning permits in place) may be appropriate.

Finally, the ACCC's Issues Paper also raises the question of whether a market test period, in which unregulated alternatives to network investment are given a specified time to respond to constraints identified by the TNSP should be introduced into the test. VENCorp does not have any strong objections to such arrangements in principle, however, it is noted that any such arrangements would have to be implemented in a manner that fully recognises the following factors:

- VENCorp itself is the monopoly provider of shared network services in Victoria, and has contractual obligations to its customers (namely the distribution businesses) to maintain defined levels of network service as demand grows. In order to meet its contractual obligations, VENCorp is required to augment the transmission network from time to time, or otherwise have a firm offer of network support services from a provider of an alternative solution to the constraint.

- The timing and duration of a "market test period" must be set in a manner that recognises the uncertainties associated with forecasting load growth, identifying emerging constraints, and timing any remedial action so as to optimise economic outcomes.

- The timing and duration of a "market test period" must be set in a manner that recognises the lead-time associated with network-based solutions to emerging network constraints.

- The implementation of a "market test period" must therefore not result in an increased risk of delays in the assessment and timely implementation of options to alleviate emerging constraints.

6. Treatment of externalities

Externalities are external benefits and costs that are not captured through normal market mechanisms. Accordingly, externalities are not explicitly considered in the application of the Regulatory Test. Externalities may include factors such as environmental, regional, political and social impacts, through to the effects of a particular augmentation in reducing the community's exposure to terrorism, natural disasters or other catastrophic events.

Following its 2001 review of its network planning criteria, VENCorp confirmed that it would continue to adhere to its policy of not including externalities in the economic evaluation of transmission investment decisions. However, VENCorp adopted a policy of providing information on externalities associated with its investment decisions, so that Government, market participants and other stakeholders may be informed of such issues, where they may have a bearing on the investment decision.

VENCorp suggests that the scope of the Regulatory Test should be expanded to require TNSPs to provide relevant information on externalities associated with its investment decisions.

7. Incorporating the marginal value of reliability into the analysis

Note (1)(b)(ii) on the methodology to be used in the Regulatory Test states:

> "In determining the market benefit, the value of energy to electricity consumers as reflected in the level of VoLL should be considered."

VENCorp interprets VoLL in this context to mean the VoLL wholesale market price cap. VENCorp recognises that one of the outcomes of applying this value of VoLL is that it ensures a competitively neutral assessment of mutually exclusive generation and regulated network options to alleviate a constraint within the framework of the Regulatory Test.[4] However, VENCorp also notes that the available evidence strongly suggests that the present wholesale market price cap significantly under-states the marginal value of supply reliability to consumers.

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[4] The VoLL price cap represents that maximum reward that is available to generators from the wholesale market for enhancing supply reliability.

This matter was examined in some detail in VENCorp's 2001 review of its network planning criteria. Following that review, VENCorp advised all interested parties[5] that:

> "VENCorp would continue with its existing policy relating to the use of the $10,000 "VoLL" wholesale market price cap in transmission investment decisions. However, the Board has directed management to undertake further research into the valuation of customer reliability. The Board has also amended the policy to enable sensitivity testing of the transmission investment decision signal to be undertaken for a composite (market-wide average) valuation of customer reliability of up to $28,000 per MWh, on the basis that this value is:
>
> - a reasonable estimate of the value of supply reliability to consumers, derived from the study undertaken by Monash University in 1997; and
> - is consistent with the value implied by the "deterministic" generation reliability standard set by the Reliability Panel.
>
> The policy has also been amended to enable the application of sector-specific valuations of customer reliability in transmission investment decisions, where this is appropriate."

VENCorp is presently undertaking further research into consumer interruption costs and the valuation of customer reliability in transmission investment decision analysis. That research is considering, among other things:

- the validity of the "VoLL" wholesale market price cap as an indicator of the value of customer reliability that should be applied in transmission investment decision analysis;
- the need to maintain neutrality between centrally-coordinated transmission investment decisions and commercial decisions of wholesale market participants; and
- the practicability and merit of applying sector-specific estimates of the value of customer reliability.

As noted in VENCorp's consultation paper on network planning criteria, the purpose of "VoLL" is to represent the cost to consumers of involuntary supply interruption. Therefore, attenuating the "VoLL" value used in transmission planning (to a value equal to the wholesale market price cap) gives rise to the risk of distortions in transmission investment decisions.

VENCorp considers that the ACCC's present review of the Regulatory Test should seek to address and resolve this matter.

8. Other issues

Based on its experience in applying part (b) of the Regulatory Test, VENCorp has identified a number of modelling and practical issues, which should be addressed by the ACCC during this review. These issues are outlined below:

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[5] VENCorp, *Advice to Stakeholders: Conclusion of Consultation Process on Electricity Transmission Network Planning Criteria*, July 2001.

- Where practical, a common source of data (for instance, SRMC values, generator forced outage rates, interconnection capacities, demand forecasts, etc.) should be made available for any party to apply the Regulatory Test. The universal availability of such data may reduce the likelihood of disputes arising during the application of the Regulatory Test.

- Clearer guidance is required as to the appropriate discount rate to be used, because there is evidence of a relatively wide range of base discount rates being applied in recent assessments. The Regulatory Test should require the application of a range of discount rates that is consistent with a commercial WACC reflecting the market risk of the augmentation. The prevailing regulatory WACC for commercial (market risk-bearing TNSPs) may provide a reasonable guide as to the appropriate discount rate. Sensitivity testing, involving varying the discount rate between plausible upper and lower bounds, should also be carried out.

- The weighting of scenarios used to estimate a consolidated present value of the net benefits should be subject to further guidance. At present, it is possible for a TNSP to "engineer" the outcome by introducing a number of scenarios at one particular end of the spectrum, and by weighting all scenarios equally, to achieve a desired result. It is noted that CIGRE has recently published a paper relating to this issue, titled "*Techniques for Power System Planning Under Uncertainties*", and which may be of use to the ACCC in its consideration of this matter.

Should you have any queries in relation to any of the matters raised in this submission, please contact Joe Spurio (03) 8664 6613.

Yours sincerely

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