



ACCC Review of the Regulatory Test for Transmission Investment

Response to Discussion Paper

March 2003

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Review of the Regulatory Test

1 Introduction

SPI PowerNet is pleased to provide further input to the ACCC's review of the Regulatory Test. These comments complement our submission to the previous consultation phase, since our views were expressed in some detail in that response. This submission addresses the more specific aspects that were raised in the ACCC discussion paper dated 5 February 2003.

2 Summary Comments

As identified in our previous submission, SPI PowerNet considers that the provision of an economic level of transmission services is critical to the operation of an effective and efficient electricity market. SPI PowerNet, like many industry participants and commentators is concerned that the trend is towards under-investment in transmission in the NEM, and that this may ultimately impact not only on the efficiency and economic benefits provided by the NEM, but also on the security and reliability of electricity supplies to customers, at least under extreme loading conditions. This trend appears to have occurred in many de-regulated electricity sectors throughout the world.

Therefore, SPI PowerNet agrees that a review of the Regulatory Test is necessary and that appropriate analysis is undertaken and any necessary changes made to ensure that sufficient transmission investment occurs in the future. It is crucial that the test fulfil its potential to facilitate efficient transmission investment as part of the transmission regulatory arrangements. It is important that it meets this objective in the most effective manner, and does not result in a complex and lengthy process that delays the implementation of necessary investment.

However, the Regulatory Test is only one aspect of the transmission investment regime. A review of the Regulatory Test by itself cannot be expected to overcome the constraints or limitations imposed on transmission investment by the current regulatory regime and transmission approvals processes. SPI PowerNet considers that the overall arrangements are in need of reform. Other elements of the arrangements that need to be considered include:

- Governance of transmission planning and investment decision making;
- The knowledge of market participants and their incentives to be active participants in the transmission investment and approvals process;
- Uncertainty in the role of transmission and the regulatory arrangements relating to investment in transmission;
- The signals for transmission investment provided in the energy market and the ability of market participants to factor these into their own investment decisions; and
- The poorly defined service provided to market participants by a new transmission facility.

Returning to the specific issues of the Regulatory Test (as one limb of the Regulatory Test) as presented in the Commission's Discussion Paper, our view in summary is as follows:

- The "market benefits" test should remain as a true economic benefits test, and should not be changed to include a "competition benefits" test;
- Ultimately there should be no separate treatment of projects considered through the "market benefit" analysis or the "reliability augmentation" limb of the Regulatory Test. However we consider that current approaches to the analysis of benefits contain imperfections, particularly in relation to the value of reliability. Our concern is that these may lead to a systematic under-valuing of transmission augmentation;
- Whilst the inclusion of a competition benefits test may have intuitive appeal, we do not consider that it is possible to include a rigorous and objective test. However, it might be possible to develop an indicator that could be used to justify a marginal project;
- It would not be appropriate for a transmission proponent to make a judgment concerning market power and seek approval for a project on the basis of a perceived competition benefit. If such a process is to be adopted it could only fall within the responsibility of policy decision making at a Government level.

3 Context For The Regulatory Test

In subsequent sections we expand on our views on the Regulatory Test mechanism, however it is important that these are recognised as applying within a specific context. In

particular we wish to reiterate SPI PowerNet's position on the transmission investment framework, the role of the Regulatory Test within that framework, and the changes that may be necessary to ensure that it can meet its objectives.

3.1 Transmission Investment Framework

SPI PowerNet considers that transmission governance, and its reform, is the key to an economic and effective transmission investment regime.

The transmission investment process should in principle be more commercially focussed, in that the process should provide a level playing field for the investment decisions that are made by competitive market players. This necessitates scenario analysis based around uncertainty in future behaviour, with commercial interests taking investment decisions on this basis.

The transmission investment process could, and should, rely more heavily on market participants' acceptance of transmission investment options, including their agreement to meet costs. This can only occur if retailers and end-use customers have a greater level of understanding of the costs and risks associated with inadequate transmission so that they can carry out a rigorous cost/benefit analysis. An integrated transmission owner/planner has an incentive to work proactively with customers to develop innovative and cost effective solutions, and to assist market participants make rational transmission investment decisions. However, this incentive would be strengthened if this was the primary mechanism for transmission investment decision making, rather than relying on recourse to regulated transmission development options.

SPI PowerNet believes there are deficiencies with the alternative independent planner model. In particular the independent planner does not have sufficient incentive to identify and demonstrate the full scope of benefits of a transmission investment, and has no incentive to ensure that market participants are fully aware of the risks that they face. In this environment there is a tendency for a market participant to oppose investment because, whilst it has knowledge of the costs of investment, it will not be fully informed regarding the benefits of investing and risks associated with not investing. Nevertheless, the risks that result from a lack of investment such risks are borne by the market participant but the independent planner is not exposed to them.

We recognise the concerns raised with the market driven transmission investment approach, including the potential for market failure if all transmission investment is to rely on a competitive transmission planning regime, or conversely the concerns regarding potential over-investment in the event that all transmission is developed on a regulated basis and planned by the transmission owner. For these reasons there should be an independent planning review body that could provide oversight of the transmission plans

developed by TNSPs. This body would not act as the approver of transmission investments, but could provide advice to the TNSPs, market participants and regulators on the need for an investment. This would include the ability to provide a view on the need for an investment that is planned by a TNSP, or the need for an investment that had not been identified and constructed by a TNSP.

Developing the concept of the independent review body further, the advice of this body could serve as information to regulators who could use this as key to the accountability imposed by a subsequent network optimisation review. In the event that the independent planning body specifically questioned the need for an investment the TNSP would still be able to make the decision to proceed, but the regulator would have a signal to question the need at the time of optimisation. Alternatively, if the independent review body accepted the case for the investment as prudent at the time then it should be protected from subsequent optimisation.

We recognise that the above proposals represent a significant shift from the present arrangements for transmission. However, in SPI PowerNet's view such arrangements would provide very significant benefits. We would appreciate the opportunity to meet with you to describe the concept in more detail together with the improvements it could provide to the effectiveness of the market.

3.2 Importance Of Context For This Review

SPI PowerNet recognises that the comments provided in section 3.1 go beyond the scope of the issues that are raised in the Commission's discussion paper. However, the above discussion is important since this different framework would provide an alternative and more commercial approach to dealing with some of the issues, particularly those relating to the competition benefits of a transmission investment. If market participants were to have a greater decision making role with respect to transmission investment, based on an improved understanding of the impacts of a transmission proposal they should be able to take a view on the competition benefits that they expect from the proposal, and be prepared to make an investment decision on this basis. This is a preferable alternative to a regulated approach for assessing competition benefits.

The approach outlined changes the focus on the role of a "competition benefits" test within the Regulatory Test. We consider this to be the appropriate mechanism by which competition benefits can be introduced into the transmission investment regime. As discussed in detail in section 4.3 SPI PowerNet considers that it is not possible to develop an objective "competition benefits" test that can be applied by TNSPs, and this provides further impetus for changing the transmission investment regime in the manner that we have proposed.

The issues raised in the Commission's discussion paper must still be addressed since the net market benefits test would still provide the basis for analysis carried out by TNSP proponents, and ultimately the review as conducted by the independent review body.

4 Comments On ACCC Discussion Paper

This section deals specifically with the issues and questions addressed in the ACCC Issues Paper.

4.1 Option 1: Minor Amendments

We support the Commission's proposals under this option. Consistency with the changes to the application of the test introduced by the Network and Distributed Resources code change package in early 2002 is necessary. We note that these do not alter the concept of the test, but serve to streamline its application.

The Commission's paper discusses two additional issues that we also wish to comment on.

4.1.1 Asset Replacement

We agree with the Commission's assessment regarding asset replacements. They do not constitute augmentation of the network and accordingly the Regulatory Test is not applicable to this category of works. However, expenditure against network management activities must also be prudent. We accept TNSP responsibilities to deliver this outcome and accountability via the Commission's role in reviewing the expenditure program, which would normally occur at the subsequent revenue review.

4.1.2 Optimisation

The Commission's paper identifies optimisation as a specific mechanism to ensure accountability in regulated network investment. As discussed in section 3 we consider that an effective optimisation mechanism coupled with appropriate governance arrangements could provide the basis for an effective transmission investment regime. This should provide incentives to TNSPs making the investment decisions and provide accountability via the independent view of an independent and expert review body that would "inform" the regulatory decision making processes.

However, there remains considerable uncertainty concerning the application of optimisation. Completion of guidelines for optimisation and clarification of its role as part of the overall transmission investment regime is urgently required to give some confidence in the application of this concept, both to the market at large and to TNSPs specifically.

4.2 Option 2: Clarifications

SPI PowerNet supports the general thrust of this option, which seeks to clarify elements of the Regulatory Test that may be considered ambiguous and open to interpretation. We support this option in conjunction with the clarifications proposed under option 1.

We make the following comments on the specific proposals identified by the Commission under option 2.

4.2.1 Substitutability Of Alternative Projects

The discussion paper makes reference to the term “similar outcomes” as being a characteristic of substitutability. We consider that this term itself may be ambiguous and should be clarified. Presumably the term refers to the extent to which the alternative project addresses the specific base need. An alternative interpretation may be that it refers to the extent to which the quantified costs and possibly the value of benefits exhibit similarity.

4.2.2 Use Of VoLL As Value Of Unserved Energy

The discussion paper does not reflect the long-standing debate that continues in relation to the appropriate determining factors for the value of unserved energy. We consider that the \$10,000/MWhr does not, and is not intended to represent the actual value of unserved energy to customers. It is used primarily as a risk management and liability allocation mechanism for energy trading.

In assessing the benefits against a defined need, a value of unserved energy that is reflective of the actual cost to customers is necessary. Otherwise it is possible that the solution will not satisfy the assessed need in an economic manner.

Whilst market participants may contend that the value of unserved energy under the Regulatory Test should be consistent with VoLL on the basis that a higher figure would be advantageous to transmission solutions we do not believe this to be the case. The Regulatory Test requires alternative projects to be assessed, which will include generation options, and for the purpose of the test a consistent value would be used. Within the market itself customers should have the appropriate incentive based on the value that they place on energy not supplied or energy at risk to contract with generators or take whatever other steps they may think are appropriate to manage their exposure.

SPI PowerNet has made a submission into VENCORP’s recent consultation process on this matter. Our submission examines this issue in greater detail and is attached to this document for your reference.

4.2.3 Guidance In Application Of The Test

SPI PowerNet believes the Regulatory Test should be sufficiently prescriptive to maximise its effective application and facilitate efficient network investment. In particular it should provide whatever guidance is possible to minimise disputation, but in doing this it must not compromise the inclusion of all market benefits provided by transmission. It is recognised that some of these benefits are difficult to quantify nevertheless they cannot be ignored if an effective transmission investment regime is to be achieved. We suspect that there have been instances where cost-benefit analyses have not captured all the benefits.

A detailed listing and treatment of benefits would be desirable to ensure that all the benefits are captured and are maximised and that the pure resource cost basis of the test is not compromised by potentially less robust aspects. Further, the test should permit the proponent to incorporate additional benefits that may be identified over and above those that fall within the categories identified in guidelines if these can be demonstrated as providing real benefits in relation to specific augmentation proposals. To ensure effectiveness of the test we suggest that the cost-benefit evaluation should be two tiered, the first incorporating the definition of benefits included within authorised guidelines, with provision for a second tier that would enable the proponent to include any additional benefits that may be identified.

4.2.4 “Reliability Augmentation” Limb

Ideally, and ultimately, there should be no separate criteria for the assessment of “reliability augmentations”. The “market benefits” analysis is inherently capable of capturing reliability benefits since it is possible to explicitly value the benefits of improved reliability.

The use of deterministic redundancy levels to prescribe transmission reliability levels has traditionally been used as a surrogate for the more complex analysis of benefits offered by consideration of a quantified value of reliability. Ideally the deterministic criteria should provide a consistent outcome since the criteria should be economically justified in their own right. In other words, if rigorous economic cost/benefit analysis concludes that a deterministic planning criterion is generally economic, then this can be applied with some confidence for transmission investment decisions without the need to repeat the complex and often subjective analysis that is required on a case-by-case basis.

It is apparent that the deterministic redundancy levels being applied under the “reliability augmentation” limb imply a value of reliability that is greater than is used for the “market benefits” limb of the Regulatory Test. SPI PowerNet considers that this difference arises mainly due to omission of a number of potential benefits in the “market benefits” analysis, which may lead to a systematic undervaluing of transmission augmentation.

The value applied to represent the “value of unserved energy” (discussed in 5.2.2 above) is an example of where undervaluing can occur. Other aspects are discussed in our response to the VENCORP consultation on the Value of Customer Reliability (see attachment 1). Figures applied in some assessments are clearly not reflective of the actual economic value placed on supply, or of socio-economic imperatives concerning supply reliability. This is of concern to SPI PowerNet, and is consistent with our own observations where the Regulatory Test has been applied.

As noted under section 5.2.3 some of the benefits arising considered to be “reliability” benefits are difficult to quantify. However, it is likely that these benefits can be identified qualitatively. The Commission’s proposal relating to the reliability limb of the test recognises this, requiring the TNSP to disclose information in respect of a reliability augmentation that would assist in identifying the objective, need, implications and benefits of the augmentation. Further work may be required to ensure that all the benefits of a proposed transmission investment are captured in the economic test and included with an appropriate value. This aspect needs to be considered in more detail and will be essential to ensure that consistent transmission planning criteria can be adopted across the NEM. We believe that the economic test may deliver very different outcomes than has been observed to date, when all the benefits of the augmentation are included.

In the meantime the reliability limb may need to be retained until such time that there is sufficient confidence in the approach used to evaluating all benefits, including the specific value of reliability.

4.3 Option 3: Competition Benefits

SPI PowerNet considers that the primary test should remain as a market benefits test. This test incorporates all impacts of changes to the underlying cost structure within the market, i.e. all economic benefits according to analysis of resource costs.

In SPI PowerNet’s view the estimation of additional benefits that may arise from increased competition between market participants is extremely subjective (but real and material nonetheless). Many of these benefits arise from an assessment that market participants have market power and are then reliant upon developing a view on how participants having the ability to exercise market power will respond to increased competition. Game theory may provide a mechanism to model potential outcomes, however we are concerned that the techniques remain in the theoretical domain and the outcomes of studies performed in respect of specific market situations would remain theoretical outcomes based on controversial assumptions.

Further, it does not appear to be appropriate that the TNSPs assume the role of determining whether market power exists and the most appropriate way to alleviate costs to market participants. It would be unrealistic to presume that TNSPs would be considered independent by market participants, or that significant disputation would be avoided. Accordingly, it is our view that it is not appropriate to modify the regulatory test as the primary mechanism for addressing the market power issue. We consider these issues are best resolved through broader market design changes and changes to ownership structures.

Notwithstanding the above, SPI PowerNet considers that the assessment of competition benefits of network augmentation could facilitate the identification of remedies in such circumstances, however this should be conducted separate to the Regulatory Test and by government at the NEM policy-making level.

The Commission has identified several means whereby the potential for market participants to exercise market power may be quantified. These include the Lerner Index and the Residual Supply Index. Whilst the Commission has identified the current immaturity of these indicators they appear to form a basis for a measure of competition. Certainly the inclusion of a subjective index in an objective cost benefit analysis would be problematic. However, this may not preclude the use of an indicator to determine in favour of a transmission augmentation where the Regulatory Test conclusions were close but not decisive. A mechanism for this application would need to be developed.

If well developed measures for observing potential market power were in place it may be possible for NEM policy makers to identify proposals that would specifically enhance the level of competition where potential market power is identified by determining the most cost effective means to alleviate the market power and to determine the implementation mechanism. This would require the analysis of competition benefits to be as transparent as possible. On this issue we do not accept that an independent planner should have the role of making a market power assessment, unless they were truly independent of the market. For example, this would preclude the market operator from carrying out this function.

The need for such policy level intervention may be reduced if market re-design, including redefinition of the role of transmission, occurs in the future. As noted in section 3 of this submission, our vision for future transmission arrangements in the NEM includes a more market driven network augmentation framework, where the TNSP co-ordinates directly with coalitions of market participants to bring about network augmentations. The role of transmission becomes integrated into the market and can respond to market signals accordingly.

5 Concluding Remarks

Within the current framework for transmission in the NEM SPI PowerNet supports the basic design of the Regulatory Test.

However, we believe that much of the criticism levelled at the test should be redirected toward inherent problems in the NEM that must be addressed. In particular, reform in the framework for the participation of transmission in the NEM is a priority issue to ensure that efficient levels of investment occur.

Our comments in this submission have also sought to address particular issues raised by the Commission's discussion paper.

Attachment 1

Response To VENCorp Consultation On The Value Of Unserved Energy

(refer separate file)
