

**AEMC REVIEW OF THE ELECTRICITY TRANSMISSION
REVENUE AND PRICING RULES:
ISSUES PAPER ON REVENUE REQUIREMENTS**

Submission by the Electricity Transmission Network Owners

November 2005

ElectraNet ♦ Powerlink ♦ SP AusNet ♦ Transend ♦ TransGrid

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1. Introduction

This submission is made on behalf of the electricity transmission network owners ElectraNet Pty Limited, Powerlink Queensland, SP AusNet, Transend Networks Pty Ltd and TransGrid (the “TNOs”). Collectively, this group own and operate over 40,000 km of high voltage transmission lines and have assets in service with a current regulatory value in excess of \$9.1 billion.

The TNOs welcome the opportunity to respond to the Australian Energy Market Commission’s (the “AEMC”) Issues Paper on setting revenue requirements for transmission.¹ The TNO submission comprises two parts:

- the main body of the submission, which responds to the AEMC’s Issues Paper outlining the TNO positions with regard to electricity transmission revenue setting; and
- an accompanying set of ‘model rules’ for transmission revenue regulation, that illustrate how the TNO positions in relation to the AEMC’s Issues Paper might be implemented in the Rules. These rules have not been subject to extensive legal due diligence and are provided on a ‘without prejudice’ basis.

The main body of the submission is structured as follows:

- Section 1 – outlines the TNOs’ understanding of the Review context and objectives; and
- Section 2 – addresses the threshold issue of the extent of prescription that should be included in the Rules to best achieve the Market Objective and other requirements under the National Electricity Law (NEL).

Having considered the issue of discretion, the submission then addresses the remaining key issues identified by the AEMC:

- Section 3 – addresses the scope and form of regulation;
- Section 4 – addresses performance obligations and incentives and the approach to determining cost components;
- Section 5 – addresses regulatory procedures, by considering measures to encourage high-quality regulatory decisions; and
- Section 6 – addresses savings and transitional issues.

The main body of the submission includes an attachment with case studies and numeric examples to illustrate characteristics of electricity transmission and the differences between the Australian electricity transmission networks.

¹ AEMC, 2005, Review of the Electricity Transmission Pricing Rules Consultation Program – Revenue Requirements: Issues Paper, October.

The TNO submission argues that the AEMC's review should focus on transmission revenue regulation and be limited to the matters required by the NEL. In particular, TNOs consider that the current regulatory framework set out in the *Statement of Regulatory Principles* should be reflected in the Rules so that investors and industry stakeholders can rely upon it.

The TNO submission reinforces the areas of focus for the review put forward in our submission on the AEMC Scoping Paper. That is to:

- provide certainty that commitments under existing revenue cap decisions are adhered to;
- establish meaningful high level objectives and criteria within the Rules to guide revenue cap decisions;
- ensure that the Statement of Regulatory Principles (SRP) framework is reflected in the Rules at an appropriate level of detail;
- ensure that businesses have appropriate incentives and sufficient certainty to undertake long term efficient investment decisions;
- improve the revenue setting process by establishing in the Rules clear rights and responsibilities for both regulated transmission entities and the AER;
- clarify within the Rules the scope of services to be regulated by the AER; and
- establish in the Rules the extent of, and criteria for, the exercise of regulatory discretion by the AER.

In establishing the SRP regulatory framework in the Rules, the review should provide greater certainty in relation to:

- the basic model for deriving revenue caps, namely by adopting formally the building block approach;
- asset base valuation;
- the incentive framework applying to capital and operating expenditure;
- service incentive mechanisms;
- achieving long term stability in WACC parameters; and
- pass through arrangements and provisions governing the re-opening of a revenue cap.

TNOs welcome comments or further discussion with the AEMC and interested parties on the submission and the model rules.

2. Review Context and Objectives

Key Points in this Section

- Collectively, the TNOs own over 40,000 km of transmission lines and have assets with a regulatory value in excess of \$9.1 billion. The TNOs will be the stakeholders who are most directly affected by the current review.
- An essential outcome for the review is a set of Rules that create a stable and certain regulatory environment. This is needed to ensure TNSPs can attract the substantial investment funds required to provide the level of service sought by participants or mandated in regulatory instruments.
- Certainty could be provided to investors and customers by ensuring the current framework is reflected in the Rules so that investors and other key stakeholders can rely upon it. The TNOs consider the AER's 'Statement of Regulatory Principles' should be appropriately described in the Rules to provide a stable regulatory environment.
- It is imperative that the AEMC focus squarely on the regulation of *electricity transmission*. The new Rules must support each TNSP's ability to meet its mandated reliability and other obligations. In addition, issues of regulatory consistency with other industries are not directly relevant, and the Rules need to take account of the distinguishing features of electricity transmission. These features include:
 - interrelationship between different parts of a network – making it difficult to divide the use of the shared network into separate services given the NEM design;
 - 'lumpy' expenditure requirements with substantial variation across time periods – making the use of 'index-based' approaches to regulation inappropriate, and making it difficult to design output-based financial incentives that provide meaningful incentives regarding investment decisions; and
 - substantial differences in cost drivers across the Australian TNSPs – implying that benchmarking techniques should not be relied upon for setting transmission revenues.
- The legal framework for the review confirms that the review should focus squarely on transmission, should be confined to defined matters and should take account of the other regulatory requirements on TNSPs.
- While the TNOs welcome the AEMC's themes of providing certainty for investors and using incentives to encourage efficient outcomes, we are concerned that:
 - the AEMC has not discussed the reliability of supply expectations of consumers (or the mandated obligations on many TNSPs) which drive nearly

all investment in transmission infrastructure;

- the AEMC appears to place substantial emphasis on the TNSPs’ discretionary investments, whereas non-discretionary reliability projects – the provision of which NEM Ministers and the NEL identify as one of the key roles of transmission – account for the vast bulk of transmission investment; and
- for discretionary projects (e.g. interconnector augmentations) it is important to take account of the totality of the measures that may be used to deliver incentives, including for example, the effect of the Annual National Transmission Statement. The TNOs also consider that incentives to undertake these projects will be improved through the additional certainty to investors proposed in this submission.
- The TNOs have developed model rules for the purpose of advancing debate on how these positions may be given effect. The model rules are included with the TNO submission on a “without prejudice” basis.

2.1 Context of the Review

The TNOs consider the AEMC Chapter 6 review should focus squarely on the regulation of electricity transmission.

Discussion

The legal framework governing the review makes it clear that other objectives like creating consistency in regulatory approach with the distribution and with the gas sector should be secondary considerations and not delay the necessary reforms to the Rules for electricity transmission.

Further, there are a number of distinguishing features of transmission, and transmission operating environments that must be considered when undertaking this review. For example, some TNSPs are subject to jurisdictional requirements regarding reliability, for which significant penalties exist for non-compliance. It would be inappropriate (and inconsistent with the relevant statutory guidance, discussed further below), for example, to treat an outcome mandated on the TNSP as a source of inefficiency that should be borne by the TNSP.

In its Issues Paper, the AEMC recognised some of the unique features of the electricity transmission sector and their implications for regulation, which the TNOs welcome. The distinguishing features of electricity transmission are addressed in greater depth further below.

Finally, as TNSPs are the most directly affected stakeholders, and the parties that actually undertake the investment in the transmission network (after determining their ability to recover that investment), we believe that TNO views should carry substantial weight in the final assessment of the appropriate package of Rules.

2.2 Certainty

An overriding concern of the TNOs in the current review is that the new Rules for setting transmission revenues should increase the degree of certainty in the regulatory framework in order to provide an environment that is more conducive to investment in long-lived transmission assets.²

Generally, there should be more prescription in the Rules. However, some discretion (guided by relevant criteria) should remain with the AER.

The Rules should contain increased prescription with respect to transparency, procedural and decision making requirements.

Discussion

Substantial investment will be required to maintain transmission services at the level of reliability sought by users and mandated in regulatory instruments. The capital invested in these assets may be at risk for upwards of forty years. A more certain environment for investors – that is, one in which there is an expectation of stability and predictability in regulatory decisions, and where the necessary checks and balances exist to encourage quality regulatory decision making – is essential to ensuring that the TNOs are able to continue to access the required investment funds.

The TNOs, therefore, welcome the AEMC’s view that regulatory certainty should be improved.³

The TNOs believe that adopting the regulatory framework set out in the Australian Competition and Consumer Commission’s (the “ACCC”) recently finalised Statement of Regulatory Principles (the “SRP”) by including the appropriate parts in the Rules, would provide the degree of certainty sought by investors.

The SRP was developed through substantial consultation over a number of years. The key conclusions remain widely supported by industry stakeholders, and have recently been adopted by the Australian Energy Regulator (the “AER”). As a result, revenue setting rules that reflect the key features of the SRP as a package would add substantially to stability in the regulatory regime, and should be given substantial weight by the AEMC. Accordingly, the TNOs consider that the focus of the current review should be to ensure the current framework is reflected in the Rules.

Nonetheless, as the AEMC has highlighted, a key decision to be made is the extent to which the regulatory regime should be prescribed in the Rules and what discretions should remain with the AER.

² The rules for which the AEMC is required to make rules under section 35(1) of the NEL cover the setting of transmission revenues as well as setting transmission prices, as well as the procedural requirements for those decisions. The Issues Paper focuses on the setting of transmission revenues and the procedural requirements for that decision. The comments in this submission address only the setting of transmission revenues.

³ Issues Paper, op. cit., p.9.

While the TNOs support the adoption of the regulatory regime embodied in the SRP and an increased degree of prescription of the key elements of the regulatory framework, we consider that some discretion (guided by relevant criteria) should remain with the AER. In particular, where the relevant practice is new and scope for refinement of thought is likely.

The TNOs also consider that improvements to the implementation and operation of the regulatory regime are required. Currently, the transparency, procedural and decision making requirements that apply under the Rules are minimal. Enhancements to these requirements would improve the disciplines on the AER to make quality decisions, and as a result, provide substantial benefits to all stakeholders.

2.3 Alignment of TNO/ Market Participant Interests

Incentives directed towards decisions or outcomes that the TNSPs can effectively control and manage – and that provide a fair sharing of gains achieved – should be an important part of the regulatory regime for transmission.

Reliability is a significant driver of expenditure in the network. The potential role for incentive arrangements must be considered within this context.

Discussion

A second theme identified by the AEMC was to align the long-term interests of TNSPs with those of other market participants.⁴ TNOs take this as a reference to ensuring that financial and other incentives encourage TNSPs to provide their services in a manner consistent with the market objective.

The TNOs welcome this focus and consider that well designed financial incentives – that is, incentives directed towards decisions or outcomes which the TNSPs can effectively control and manage and that provide a fair sharing of gains achieved – should be an important part of the regulatory regime for transmission.

Here the importance of reliability to the long-term interests of market participants should be highlighted. The NEM Ministers have identified one of the three key elements of a national transmission system as ‘a secure and reliable transmission network’,⁵ and the Market Objective also directs attention specifically towards ‘the reliability and security of electricity supply’.⁶

The TNOs are concerned, however, that the AEMC places little emphasis upon reliability as an investment driver and appears to assume that the TNSPs have substantial discretion over the investment programs undertaken. TNSPs have little discretion regarding reliability investments and some TNSPs face substantial penalties for a failure to meet prescribed reliability requirements. Reliability-related programs, together with other non-discretionary investments (namely, environmental and safety), account for nearly all of a TNSPs’ investment program. The potential role for

⁴ Issues Paper, op. cit., p.9.

⁵ MCE, 2005, Statement on NEM Electricity Transmission, May, p.1.

⁶ NEL, s.7.

incentive arrangements related to investment programs must be considered within this context.

When considering the discretionary component of regulated investment programs (eg. interconnector augmentations), it is important to take account of the totality of measures that currently exist or have recently been implemented, which may be used to deliver those incentives. In particular, the MCE initiated changes to produce the Annual National Transmission Statement (ANTS), align the content of Annual Planning Reports and the forthcoming implementation of the Last Resort Planning Power, are intended to provide discipline in consideration of interconnector investments. It is important that these arrangements be given a chance to work. The TNOs also note that the improvement in the clarity, certainty and transparency of regulatory approach as proposed in this submission is designed to ensure that barriers to these projects arising from regulatory risk are minimised.

2.4 Timeframe

It is essential that new Rules for transmission revenue regulation be completed and implemented as soon as practicable.

Discussion

It is essential that new Rules for transmission revenue regulation be completed and implemented as soon as practicable. Another extended period of consultation over fundamental regulatory approaches will not provide the necessary certainty for investment. In addition, the current Rules do not provide appropriate and unambiguous direction to the AER. Many of the current Rules are high-level principles that offer little guidance, contain contradictions and arguably also reduce the extent to which the new market objective clarifies the guidance to the AER. As a further complication that the AEMC has identified, there are also questions as to whether existing regulatory practices are properly accommodated within the Rules.

The *National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005* (the “NEL”) established a very challenging timeframe for the AEMC to introduce the new Rules, which the TNOs consider reflects a concern of policy makers about the unsatisfactory nature of the guidance to the AER contained in the Rules.

The TNOs welcome the AEMC’s decision to separate its review between the issues associated with revenue regulation and those related to pricing and to allow the timeframes to diverge. However, the task of developing and implementing new Rules for transmission revenue regulation itself is large. To meet this timeframe, it is essential that the AEMC limit its consideration to matters that fall squarely within the scope of this review. It is also important for the AEMC to focus carefully on the guidance for the AER that needs to be established in the Rules.

2.5 The TNOs' Model Rules

The TNOs have developed a set of model rules, and ask that these be carefully considered in the development of the proposed Rules.⁷

Discussion

In order to assist the AEMC's consideration of how regulatory principles should be translated into Rules, and to stimulate wider debate on the appropriate form of the Rules, the TNOs have developed a set of model rules for the setting of transmission requirements, which accompany this submission. Specifically, the model rules have been drafted to replace all of Part B of Chapter 6 of the Rules, with the exception of clauses 6.2.1, 6.2.5 and 6.2.6(b)-(e). It is also assumed that clause 6.1.1 would be deleted.

These model rules provide a practical translation of the TNOs' views on the extent of prescription considered to be required in the Rules generally, and on the specific matters where prescription is justifiable. They also illustrate the TNOs' views as to the appropriate procedural and decision-making criteria that should be included in the Rules.

The TNOs would welcome the AEMC's examination of the model rules (attached) in considering the regulatory approach proposed by the TNOs, and would also welcome comments or further discussion with any interested parties on the model rules.

2.6 Legislative Framework for the AEMC Review

The legislative framework for the AEMC review implies the following:

- the review is focused on regulating electricity transmission, not broader regulation issues;
- the review of electricity transmission revenue and pricing has a limited scope;
- existing reliability standards must be accommodated by the review; and
- the new Rules should be more prescriptive than the present Rules, while allowing the AER discretion, where appropriate.

Discussion

The AEMC is required by the NEL to make new Rules with respect to transmission revenue and pricing by 1 July 2006 (section 35(1)). The scope of the Rules the AEMC is required to make pursuant to this requirement is limited, extending only to matters specifically set out in the NEL (Schedule 1, items 15-24), namely:⁸

⁷ These model rules have not been subject to extensive legal due diligence, and hence are provided on a 'without prejudice' basis.

⁸ There are matters addressed in Chapter 6 of the current Rules that are not listed in items 15-24, including provisions relating to information provision by transmission entities (Chapter 6,

- setting regulated revenues for transmission providers and methodologies relevant thereto (items 15, 17 and 20) including:
 - treatment of investments and relevant methodologies thereto (items 18, 19);
 - valuation of assets (item 21);
 - determination of depreciation, operating costs and allowed returns (item 22); and
 - incentives for transmission entities to make efficient operating and investment decisions (item 23);
- the regulation of prices charged for transmission systems and the methodology for determining those prices (item 16); and
- procedures for making a transmission determination by the AER, including rights to make submissions, requirements to give reasons and specified procedural steps (pre-determination conferences) (item 24).

The obligation on the AEMC to self-initiate Rules for these matters is a special case – apart from this obligation, the AEMC can only self-initiate Rule changes in limited circumstances.⁹

The criteria that the AEMC is required to apply when considering the new Rules are also clearly prescribed. The AEMC is required to be satisfied that the relevant Rule will or is likely to contribute to the achievement of the national electricity market objective, which is as follows (NEL, section 7):

The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system.

In addition, the AEMC must be satisfied that the Rule meets the following specific criteria:¹⁰

- provide regulated transmission entities with a reasonable opportunity to recover the efficient cost of meeting their regulatory obligations;
- provide effective incentives to make efficient investments and provide services efficiently; and

clause 6.2.5) and ring fencing requirements (clause 6.20). A ‘catch-all’ item in Schedule 1 implies that these matters will still need to continue to be addressed in the Rules (item 36); however, the AEMC is not required (nor empowered) to self-initiate Rules on these matters.

⁹ Section 91(2).

¹⁰ The AER is required to adhere to identical criteria when making a transmission revenue determination: NEL, section 16(2).

- require the AER to make allowance for the value of (sunk) assets and to the valuation of assets in any relevant determination.

Importantly, section 36 of the NEL requires that the Rules always satisfy the above requirements.

A number of implications for the AEMC's current review flow from the legislative framework.

First, it is clear that the AEMC's task is directed squarely towards determining Rules for *electricity transmission revenue and pricing*. While the AEMC has noted the potential benefits of greater consistency with the regulation of electricity distribution networks or with gas infrastructure, those matters are only relevant to the extent that this consistency would promote the national 'electricity' market objective or be required by, or advance, the additional criteria set out in section 35(2) of the NEL.

Secondly, in this review the AEMC is limited to making Rules only in relation to those matters prescribed in items 15-24 of schedule 1 of the NEL. While a large number of other matters addressed in the Rules relate to the setting of regulated prices, those matters cannot be addressed within the current review. The constrained scope of the review required by section 35(2) of the NEL is consistent with a clear policy intent that providing greater clarity to the AER on setting transmission revenue requirements is a high priority.

Thirdly, the specific requirements of section 35(2) of the NEL make it clear that the new Rules must align with any reliability standards to which TNSPs are subject, including reliability standards imposed under state-based instruments (with the same requirement applying directly to the AER when making a decision by virtue of section 16(2) of the NEL). Accordingly, it is not open to the AEMC or the AER when making a revenue setting Rule or determination to question whether these standards are likely to result in inefficiency and potentially disallow that investment. Rather the decision must provide the opportunity for TNSPs to recover the efficient cost of meeting the relevant standard.

Fourthly, there is a clear intention in the new governance arrangements to create a greater separation in the making of Rules applicable to the national electricity market and the application or enforcement of those Rules. A necessary implication of this is that some of the important methodological and like matters upon which the ACCC (and now the AER) previously exercised discretion should be incorporated into the Rules. However, as discussed above, the precise split between the matters to be incorporated into the Rules and those areas where discretion to the AER should remain is a key matter for the current review.

2.7 Distinguishing Features of Electricity Transmission

In developing Rules, issues of regulatory consistency with other industries are not directly relevant, and the Rules need to take account of the distinguishing features of electricity transmission, namely:

- there are strong interdependencies (network externalities) between elements of each transmission network and across transmission networks;

- the cost structures of transmission networks differ significantly from other network industries and between each transmission network; and
- transmission networks are characterised by long-lived, sunk investments.

Discussion

The AEMC has discussed at some length the key features of electricity transmission networks, and the TNOs support many of the observations made. The purpose of this section is to set out the TNOs views on the distinguishing features of the Australian electricity transmission networks – compared to other network industries and across the distinct Australian networks – and to draw out the implications of these features for the economic regulation of transmission revenues.

Interdependencies (network externalities)

Turning first to the generic technical characteristics of transmission networks, as the AEMC has observed, transmission networks are characterised by strong economies of scale and scope. In addition, transmission is also characterised by strong interdependencies between decisions (operating, investment or demand decisions) made in one part of the network and the potential impact of these decisions on transfer capability or stability in others.

These technical characteristics imply that the most efficient means of transmitting power is through a network that is planned and constructed to meet the combined demand of customers, including a prudent extent of pre-building for future demand (further implications of efficient redundancy are discussed below). The significant interrelationships between what happens in one part of the network and the transfer capability in another makes it difficult to define and assign rights to the capacity on the network which, in turn, makes it difficult to introduce market mechanisms for the development of new capacity. This is particularly so having regard to the NEM design.

The TNOs note that the AEMC made a similar observation:¹¹

Given these complex interactions, it is difficult to determine which party created costs or conferred net benefits on other network users. This feature makes it very difficult to introduce market mechanisms to provide incentives to develop and operate the transmission network. Markets only work effectively if producers can identify and charge the beneficiaries of their production activities.

These observations imply that the services TNSPs provide will, for the most part, comprise the transportation of energy across a single, shared network. Therefore, with the exception of providing assets that are dedicated to a particular generator or customer, it is difficult to define and separate out a list of services that can or should be separated from the main revenue control and be subject to an alternative regulatory arrangement. This observation is relevant to the AEMC's questions regarding the appropriate scope of regulated services (addressed further in section 4.1).

The Rules currently define a service related to the use of the shared network outside the main revenue control, and *would appear* to contemplate rights for specific

¹¹ Issues Paper, op. cit., pp.19-20.

generators to the capacity of the shared transmission networks.¹² However, the provisions themselves leave unaddressed a number of complex issues. As such their application has been subject to a number of practical problems. The uncertainty inherent in these provisions, however, has had a direct bearing on the ability of the TNOs to meet requests for improving the transfer capability of the shared network for specific participants (discussed in section 5.1).

The strong interdependencies across an electricity transmission network can be contrasted with a network of gas transmission pipelines. In the latter network, individual pipelines can be operated independently with little loss of overall efficiency, so that interdependencies across pipelines in a network are not large, as the AEMC recognised.¹³ The absence of strong network externalities means that it is feasible to establish capacity rights on the pipelines and to require users to contract for specific pipelines. In turn, ‘market forces’ can play a greater role in deciding when new investment should occur (that is, users can be left to contract for their needs, and pipelines get built when sufficient capacity in a pipeline will be contracted), and ongoing competition between pipelines (i.e. where multiple pipelines serve the same markets) is feasible. This is not the case in electricity networks where meshed networks have developed over a long period of time and the capacity of individual elements (eg. a transmission line) is dependent on the other elements around it, the manner in which they are connected and the generators and loads which are injecting into and taking power from the network.

Cost Structure

A number of factors distinguish the cost structure of electricity transmission from other utility infrastructure, and between the different Australian electricity transmission businesses, including:

- The efficient scale of capacity augmentations in electricity transmission networks tends to be large increments. As a result, augmentation expenditure to meet general demand growth tends to occur in large ‘lumps’ at irregular intervals and typically results in efficient pre-building of capacity. In contrast, distribution system augmentations tend to be smaller, leading to a more even pattern of capital expenditure and with capacity more closely following growth in demand.
- The observed lumps in historical augmentation expenditure affect renewals expenditure for transmission networks.
- Redundancy (and therefore, inherent performance) built into the network is necessarily higher in transmission than distribution. This means there is a much lower correlation between expenditures and service levels in the short term than in distribution and makes designing effective performance schemes for transmission more difficult.

¹² Rules, clause 5.5.

¹³ Issues Paper, op. cit., p.20.

- The unit cost of transmission will depend significantly on factors such as the distance and density of customers and generators, load factors, the voltage at which the network operates, network service standards and the natural environment in which the TNSP operates, which vary substantially across the Australian TNSPs.
- A major driver for discretionary regulated investment is transfer capability for generators, which in turn is driven by the timing of investment decisions of generators. This investment also tends to occur in large lumps and at irregular intervals. In contrast, demand for distribution services is driven almost solely by demand growth.

The ‘lumpy’ nature of transmission capital expenditure and the differences in key cost drivers across the Australian transmission networks is illustrated in the Attachment.

One implication of the factors listed above is that capital expenditure for electricity transmission would be expected to vary substantially from year to year, as well as from one regulatory period to the next. This implies that the cost structure of electricity transmission businesses is likely to vary substantially across the Australian businesses. Therefore, the unique features of individual transmission networks present challenges for the development of alternative forms of regulation for transmission in Australia.

By way of example, an implicit assumption in using a ‘total factor productivity’ trend to set a price path is that unit costs are reasonably stable over time and that the past is a reasonable predictor of the future – neither of which is the case for electricity transmission. In addition, an implicit assumption behind the use of ‘benchmarking’ techniques to set or inform prices is that the group of entities that are benchmarked against each other either face identical conditions or that econometric techniques can be used to adjust for any differences. The differences that exist between the Australian transmission businesses are such that simple benchmarking across the TNSPs will lead to flawed conclusions. Further, the magnitude of the differences combined with the small sample of Australian businesses, makes it highly questionable as to whether econometric techniques could provide any information that is sufficiently reliable for regulatory purposes.

It would be inappropriate for a regulator to trial these approaches for electricity transmission networks before they have been implemented successfully in the sectors with the characteristics that make them more amenable to productivity or benchmarking approaches, such as distribution companies.

The implications of the particular transmission businesses’ cost structures for the appropriate form of regulation are discussed further in section 4.3.

A further implication of the features of transmission networks discussed above – most notably, the efficient pre-building of capacity – is that only a weak link may exist between the efficient cost of individual new investments and demand growth. This, in turn, implies that assigning financial incentives to outputs is unlikely to provide meaningful incentives for the TNSPs to undertake investment projects as the link between the relevant output and the required input is very weak. This matter is discussed further in section 5.1.

Long-lived, sunk investments

By their very nature, transmission assets tend to be specific to the task and hence have no viable alternative uses. Therefore, once investments are made, the investment effectively is ‘sunk’.¹⁴ Transmission assets also tend to have physical and economic lives that are upward of 40 years, and regulators typically set prices so as to return the investment over a long time frame.

These two observations imply that investments in transmission assets are at the risk of regulatory outcomes (i.e. because they are sunk) and at risk for an extended period of time (i.e. because the assets are long lived). As a result, regulated assets will go through numerous price reviews over their lives – possibly upward of eight reviews. The expected payoffs from new investments – and hence the capacity of the TNOs to continue to attract the required funds – will depend upon both the level of return offered in a given regulatory period, as well as expected returns in future regulatory periods. Stability in regulation is particularly important.

This submission notes that reliability obligations imply that nearly all transmission investments are non-discretionary. It is important to understand that these obligations can only ensure the appropriate levels of investment (and service performance) in the short term. While TNSPs will always comply with their reliability obligations to the extent they are able, capacity to do so over the long term will depend upon the TNSPs’ abilities to attract the necessary investment funds.¹⁵ Therefore, even with strong reliability obligations, certainty and stability in the regulatory regime remains central to meeting the market objective.

¹⁴ That is, if the investor is not happy with the regulated prices, it cannot use the asset for a different activity or sell it to another party to undertake an alternative activity. Selling an asset to another transmission provider would not assist in the recoupment of the investment given that the new provider presumably would also be covered by the same set of regulated prices.

¹⁵ The government owned TNSPs may be able to continue to access the necessary investment funds even if returns are uncommercial. However, placing any transmission businesses in such a position is untenable in the long term.

3. Extent of Discretion in the Rules

Key Points in this Section

- The new Rules need to operate in combination with the other components of the regulatory framework (such as the new market objective and the specific guidance in section 16(2) of the NEL) to ensure that the AER is provided with an appropriate level of direction and guidance.
- The drafting of the new Rules should proceed from a ‘clean sheet’, reflecting the fact that many of the current Rules provide only broad guidance that is now redundant, reflect outdated methodologies and integrate poorly with the new NEL.
- The appropriate degree of prescription involves a trade-off, including between the need for further innovation and certainty, which requires a consideration of each element of the regime separately. The TNO’s conclusions include that the Rules should:
 - require the approval of the revenue cap together with the package of related measures (such as the definition of the prescribed services) – so that there is certainty about all elements of the ‘regulatory bargain’;
 - lock-in settled matters that have a substantial bearing on regulatory risk – which include the use of the building block methodology and the ‘roll-forward’ approach to regulatory asset valuation;
 - leave the AER with discretion where regulatory practice is still developing – such as in relation to the design of incentive arrangements for service performance, operating expenditure and capital expenditure (however, as noted above, the relevant arrangements should be settled upon and known in advance); and
 - set out a number of decision criteria for the AER designed to facilitate high-quality regulatory decisions.
- The Rules should either require or permit the AER to issue guidelines to set out its approach to a particular issue in more detail (such as its approach to financial modelling). Any guideline as it exists from time to time should be binding upon the AER, although the AER would be free to change the guideline if a prescribed process is followed.

3.1 Hierarchy of Provisions – the Role of the Rules

The new regulatory framework should:

- provide an appropriate level of direction and guidance to the AER when it considers each element of a revenue cap proposal, implying an increased degree of prescription on the key elements of the regulatory framework, which are currently not in the Rules;

- apply appropriate disciplines to the exercise of the AER’s discretions; and
- ensure that the direction and guidance is clear.

Discussion

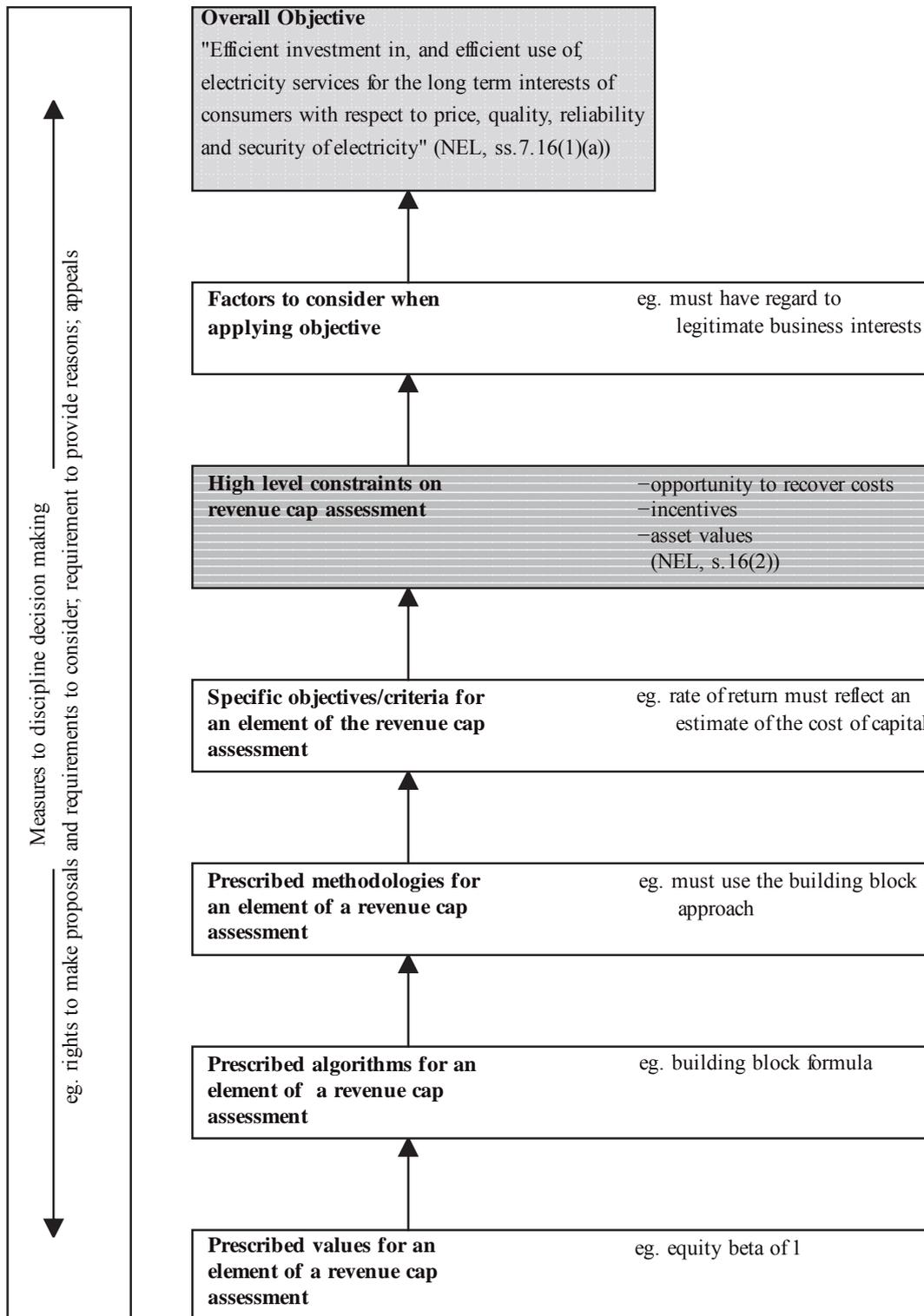
A threshold issue that needs to be addressed for each of these matters is the extent of prescription included in the Rules. Effectively, the extent of prescription determines the relative roles of the AEMC and AER for determining regulatory outcomes. The extent of prescription, in turn, will dictate the extent to which the AEMC is required to form a final view on the issues raised – again, a greater degree of prescription implying more issues that must be determined by the AEMC.

Prior to addressing the appropriate degree of prescription in the Rules for revenue setting, it is important to understand the full context within which the new Rules will be applied. As discussed in section 2.6, with the enactment of the NEL, the overarching guidance to the AER now comprises:

- *an overarching objective that the AER is required to apply when making revenue cap decisions* – which reflects economic efficiency and, to the extent that it directs attention to customer benefits, emphasises their long term interests and also emphasises reliability together with price (sections 7 and 16(1)(a));
- *certain specific high-level constraints to any AER revenue cap determination* – namely (in broad terms) to:
 - provide an opportunity for the TNSP to recover the cost of meeting service obligations;
 - providing effective incentives to the TNSP to be efficient in the provision of the services; and
 - make allowance for the value of assets used to provide the services and to have regard to any valuation in a decision or determination (section 16(2)); and
- *certain specific high-level constraints on the procedure to follow* – namely to inform affected parties of material issues under consideration and to provide them with a reasonable time to make submissions (section 16(1(a))).

An implication of the provisions included in the NEL is that a hierarchy of guidance could potentially govern the AER’s consideration of each element of a revenue cap application. In this hierarchy, the new market objective in the NEL will sit at the top being the most general, with any prescribed values for individual parameters sitting at the bottom of the hierarchy being the most specific. Separate to this hierarchy of provisions – but an essential complement – are provisions that provide discipline on the AER to exercise its discretions in a high-quality manner. The full hierarchy of guidance is illustrated in Figure 1.

**FIGURE 1
HIERARCHY OF GUIDANCE FOR THE AUSTRALIAN ENERGY
REGULATOR**



In practice, the AER would be expected to apply the hierarchy of guidance in the *reverse order*. That is, the more specific provisions would be applied first, and provisions further up the hierarchy will be applied only to the extent that discretion is required and higher level guidance is required to guide the exercise of that discretion

or judgement. Accordingly, the relevance of the higher level guidance is dependent upon how specific the lower level guidance is. The more specific the lower level guidance, the less important is the higher level guidance. As shown in the figure, the new NEL effectively determines the overarching guidance (the objective) and several high level constraints on revenue cap decisions. The role of the Rules in the hierarchy would be to provide the lower level guidance for the AER when assessing revenue cap applications, as well as imposing the appropriate procedural and decision making requirements.

An essential outcome for the new regulatory framework is that:

- the different levels of guidance operate *in combination* to provide an appropriate level of direction and guidance to the AER when it considers each element of a revenue cap proposal; and
- appropriate disciplines apply to the exercise of its discretions.

It is particularly important that this guidance be clear. There is a concern that the lack of clarity and prescription in the current Rules may have contributed to the concerns with the quality of the ACCC's decision making to date (that is, in combination with the absence of effective procedural and decision making disciplines and effective review mechanisms).

3.2 Starting Point for the Development of New Rules

Rather than modifying the existing Rules, drafting of the new Rules should proceed from a 'clean sheet', with the SRP framework appropriately reflected in the Rules. This approach reflects:

- new guidance in the NEL;
- advances in regulatory practice since the present Rules were drafted; and
- the SRP as an appropriate starting point for drafting new Rules.

Discussion

Prior to addressing the extent of prescription in the new Rules that is appropriate, several general observations on the current Rules are noted – in particular, to address the question of what is the most appropriate starting point for the AEMC's review. The TNOs note that the AEMC has referred to and discussed the current contents of the Rules throughout the Issues Paper, and has also suggested that the existing Rules should remain unless benefits from change are justified.¹⁶

The TNOs consider that the more appropriate starting point for the AEMC's drafting of the new Rules would be, in effect, to start with a 'clean sheet', rather than to accord any particular significance to the current Rules. As argued above, the TNOs consider that:

¹⁶ Issues Paper, op. cit., p.14.

- adoption of the SRP framework in the Rules would provide the degree of certainty sought by investors; and
- the focus of the current review should, therefore, be to ensure the current regulatory framework is appropriately reflected in the Rules.

The view that the drafting of the new Rules should proceed from a ‘clean sheet’ reflects the following considerations.

First, the high-level guidance and constraints provided in the NEL are new, and are a substantial change to the previous regulatory framework. Therefore, it is unlikely that the subsidiary guidance in the current Rules will remain necessary or appropriate. The TNOs consider that the current ‘objectives’ and ‘principles’ that are set out in Chapter 6 of the Rules are not only confusing, but arguably obscure the clarity of the overarching guidance to the AER that is contained in the NEL.

Secondly, since the original Rules (Code) were developed, there has been a substantial development and maturing of the application of price regulation in Australia. In particular, some of the matters where the Rules direct the AER towards certain approaches are no longer best practice (the suggestion that assets should be re-valued periodically being a case in point).

The remainder of this submission addresses the matters raised by the AEMC on the assumption that a ‘clean sheet’ approach is taken with respect to the existing Rules.

3.3 Extent of Prescription in the Rules

As a general proposition the new Rules should:

- expressly limit the AER’s discretion with regard to the methodologies and approaches that can be applied;
- provide criteria to be applied where discretions are to be exercised; and
- provide criteria setting out the requirements and procedures for regulatory decision making.

Discussion

In considering the extent of guidance required, a generic issue arises, namely: what are the relative merits of having more prescription in the Rules?

As the AEMC noted,¹⁷ a key issue with the design of regulatory instruments is the trade-off between having prescriptive Rules that provide certainty to all market participants against the need to preserve flexibility for the regulator to permit ‘innovation’ in regulatory practice. In drafting the Rules, the AEMC must give weight to these competing objectives.

¹⁷ Issues Paper, op. cit., p.73.

Benefits of prescription

The main concern to TNOs is that the regime delivers an appropriate degree of certainty so that TNSPs can continue to attract the investment funds necessary to provide the standard of transmission services sought by users. As discussed in section 2.7, while the TNSPs' reliability obligations ensure appropriate levels of investment (and service performance) in the short term, the TNSPs' capacities to meet these obligations over the long term is dependent upon continued access to the necessary investment funds. A key component of this environment is that TNSPs expect to have the opportunity to earn a reasonable return on funds invested and to recover their capital over time – in particular, that 'sunk' investments are not expropriated after the capital has been sunk. As electricity transmission investments are typically recovered over a long period, stability in regulatory outcomes is particularly important. Rules that promote certainty in these factors are likely to provide substantial benefits.

Another essential component of an environment conducive to investment is that the overall degree of risk assigned to TNSPs is such that the businesses continue to have access to deep and liquid sources of investment funds, most notably debt finance. Measures that limit the risk imposed on TNSPs to tolerable levels are also likely to provide substantial benefits.

The Rules may also improve the effectiveness of the regulatory regime by ensuring that assumptions or commitments made during a price review are made transparent and binding. For example, incentives for efficiency rely upon regulatory commitments about the future being upheld. A requirement for the assumed scope of regulated services to be defined transparently during a revenue review would limit the scope for opportunistic behaviour on either side, and hence deliver benefits.

There are also important public policy considerations in favour of more prescription. Each element of the regulatory framework that is prescribed within the Rules represents a step towards ensuring proper separation of Rule making responsibilities (the AEMC) and Rule enforcement responsibilities (the AER), and a recognition of the more appropriate decision-making framework available to the AEMC for determining Rules.

Benefits of Flexibility

Given that the Rules will be able to be changed through an efficient process by an independent body (i.e. without reference to Parliament), the argument for the need to permit 'innovation' in regulation is less compelling. A higher level of prescription would be justifiable.

Further, the degree of prescription will define the relative roles of the AEMC and AER in the regulatory decision making process. As the AER will be involved in the implementation of regulatory decisions, it may have a greater role to play in matters that require first-hand knowledge of implementation issues. The AER is also likely to be in a better position to take account of the specific features of particular regulated entities.

Implications for the degree of prescription

Key conclusions from applying the principles set out above to the Rules that govern the approaches or methodologies to be employed by the AER (as distinguished from Rules that relate to procedures and decision making criteria) include the following.

- The Rules should ensure that the revenue cap is approved together with a package of related measures, including the scope of regulated services and the design of the incentive arrangements.
- The Rules should prescribe the methodology that is used to derive the revenue cap (the building block approach) and key constraints on how the inputs should be calculated, namely to:
 - prescribe the methodology by which the regulatory asset base is derived and updated over time;
 - embed a degree of stability in the regulatory return over time;
 - ensure that regulatory depreciation allowances permit the value of the investment to be recovered over time; and
 - ensure that the AER places substantial weight on firm-specific matters when deriving expenditure forecasts.
- The Rules should establish a common set of pass through events and associated provisions, as well as an ability for a revenue cap to be reopened.
- Regarding incentive arrangements for capital and operating expenditure and service performance, the Rules should provide the AER with some flexibility over the design of the arrangements (but with the SRP incentive arrangements to operate at the commencement of the new Rules – discussed further below), given that this is an evolving area of regulatory practice where implementation experience is required. However, the arrangements should be subject to certain limitations, namely that:
 - the AER be required to adhere to commitments made in the previous regulatory period; and
 - the risk imposed by the service incentive scheme should focus on performance measures over which the TNSP has appropriate control (that is, where the TNSP can minimise the probability of an adverse event occurring or ameliorate its impact) and limit the risk imposed on the TNSP to a reasonable level.

The TNOs specific proposals on these matters are discussed further in section 5.

The TNOs also consider that the Rules should set out a number of decision criteria designed to place incentives on the AER to make high-quality decisions.

These are addressed in section 6 of this submission.

Transparency, consistency and certainty

The TNOs believe that transparency of the AER's approach would be beneficial to all stakeholders. There are also likely to be benefits from the AER standardising its treatment of certain matters across TNSPs. The TNOs therefore propose that the AER have the capacity to issue *guidelines* setting out its approach to certain matters. In particular, the TNOs consider the AER should be required to issue guidelines that set out:

- the method (in the form of a spreadsheet model) to be used to calculate revenue requirements, together with text that explains the key methodological approaches;
- the method (in the form of a spreadsheet model) that is to be used to roll-forward the regulatory asset value, together with text that explains the key methodological approaches (for example, the measure and application of inflation);
- standard methodologies or input assumptions for deriving the regulatory return; and
- incentive arrangements for capital and operating expenditure and service performance.

In line with the TNOs' view that the SRP provides an appropriate regulatory framework, it is proposed that the relevant parts of the SRP be deemed as the initial guidelines for the regulatory return and incentive arrangements.

The value of guidelines for providing transparency and certainty is dependent upon the AER complying with its stated approaches. Hence the TNOs consider that the Rules should require the AER to comply with any relevant electricity transmission guideline. However, the AER should be free to change any guideline from time to time, following an open and transparent consultation process.

4. Scope and Form of Regulation

Key Points in this Section

- The technical features of electricity transmission networks make it difficult to define a range of separate services related to the use of the *shared network*.
 - Indeed, the provision of ‘generator access arrangements’ as currently referred to in the Rules has created practical difficulties.
- It is proposed that the scope of regulated services be included in the package of measures approved with the revenue cap. This will ensure transparency for all stakeholders.
- The TNOs support the *form of price control* foreshadowed in the SRP, which is a *hybrid form of control*, in particular, where a revenue cap is set but where the cap can be adjusted to reflect:
 - the occurrence of predefined contingent projects; and/or
 - changes in predefined cost-drivers; and/or
 - predefined pass-through events.
- The TNOs do not support a ‘tariff basket’ control on the basis that:
 - it would substantially raise the level of revenue risk borne by the TNSPs unless existing tariffs were substantially rebalanced, which is likely to be constrained in practice (the increase in risk would flow through to higher transmission charges); and
 - in any event, pressure is likely to remain for transmission pricing to be prescribed in the Rules, which diminishes the argument for a tariff basket.
- The TNOs support the continued use of the building block approach to derive transmission revenues. The TNOs consider that:
 - productivity index-based approaches to setting trends in revenue or prices are unsuited to electricity transmission, given the substantial variation in levels of transmission investment across time and between businesses; and
 - benchmarking approaches to determining the efficient level of transmission costs are very imprecise given the substantial differences across the TNOs and should not be relied upon for regulatory purposes.

4.1 Scope of Regulation

Contestable services are clearly not subject to regulation.

While the majority of non-contestable shared network transmission services will continue to be subject to the revenue cap, there is scope for a more light-handed approach to the regulation of some services.

A detailed description of the services included under the revenue cap should be approved as part of individual revenue cap decisions.

Discussion

A key issue flowing from the AEMC's Issue Paper is whether there are transmission or transmission-related services that are provided by the TNSPs that could be removed from the main transmission revenue control and subject to a more light-handed form of regulation.

The TNOs consider that the technical features of electricity transmission limit the scope to define a multitude of different services with differing forms of regulation. As discussed in section 2.7, the vast majority of services provided by TNSPs comprise the transportation of energy across a shared transmission network. The economics of transmission dictate that the network should be planned and constructed to meet the needs of all users. In addition, investment, operating and demand decisions in any one part of the network can have a significant impact on the capacity and value of transmission elements in other parts of the network. Therefore, it is very difficult to define and separate services that relate to different uses of the shared transmission network.

The service currently defined in the Rules as 'generator access' would appear to confer a right for a specific party to the shared transmission network. These provisions, however, have generated a number of practical implementation problems (addressed further in section 5.1).

One area where it is possible to draw a line around the provision of transmission services through the shared transmission network is on a functional basis – that is, the point at which the shared transmission network finishes and assets dedicated to individual generators or customers commence. As with all network industries, the precise boundary between what is considered to be for shared use and what is considered dedicated to an individual customer or generator (with the latter provided on a contestable basis) often requires a pragmatic judgement.

In addition, various other services provided by a TNSP can be readily identified, such as special protection and control systems that are beyond Rules requirements and provision of services to a higher standard than required. A characteristic of these services is that the party seeking the relevant service is both the causer and beneficiary of the work. These services are non-contestable (as they can only be provided by the TNSP), but amenable to negotiation backed-up by dispute resolution. Such arrangements are in accordance with the current Rules.

The TNOs appreciate that additional transparency for all stakeholders about the dividing line between services covered by the revenue cap and those outside of the cap would be appropriate. However, the scope of services (or assets) covered by the revenue cap currently differs across jurisdictions. It would also be difficult to derive and apply a common scope for the services covered by the revenue cap across all TNSPs given the different industry structure and licensing regimes in each jurisdiction and the infrequency, and often unique nature, of services sought.

Rather, the TNOs consider that an appropriate degree of transparency would be created from requiring a detailed definition for what is included under the revenue cap to be approved as part of the AER's revenue cap decision.

4.2 Form of Price Control

The TNOs consider the hybrid form of price control set out in the SRP is appropriate. The TNOs also consider that the Rules should broadly prescribe the form of control over prices but should allow some flexibility for the AER and the TNSP to resolve the detailed implementation of the control. The TNOs consider that the SRP form of control would provide TNSPs with an appropriate degree of certainty over revenue, while also allowing revenue to vary to reflect important cost-drivers. Specifically, the control should envisage that the *revenue permitted in respect of a regulatory period* could be adjusted to reflect:

- the occurrence of predefined contingent projects; and/or
- changes in predefined cost-drivers; and/or
- predefined pass-through events.

The TNOs do not consider that the tariff basket form of control is appropriate for electricity transmission.

Discussion

The TNOs consider that the Rules should be drafted to allow the hybrid form of price control to operate in the manner intended in the SRP, that is, to permit a revenue cap within the regulatory period to be adjusted to reflect the predefined factors outlined above.

As the AEMC has noted, at present, a retrospective adjustment at the successive review may need to be made to give effect to these revenue adjustments. It would be a straightforward matter, however, for the Rules to be drafted in a manner that permits the revenue cap to be adjusted during the regulatory period. This feature is accommodated within the TNO model rules.

The TNOs do not consider that the tariff basket form of control is appropriate for electricity transmission.

Application of a tariff basket will expose TNSPs to a substantial increase in revenue risk unless there is a substantial rebalancing of tariffs towards fixed charges. There are likely to be constraints to this. It is noted that the ACCC and state regulators have

assumed higher credit ratings for electricity TNSPs for the standard gearing assumption than for gas transmission or distribution businesses (A rather than BBB+) on account of the greater revenue certainty under a revenue cap. A move to a tariff basket would necessitate an increase in the regulatory return and transmission charges.

The TNOs also note that a key reason for transmission pricing being prescribed in the Rules was to ensure a ‘level playing field’ between transmission investments and possible non-network alternatives, such as remote generation. As the Issues Paper documents a number of similar concerns, it is assumed that pressure for transmission pricing to be prescribed in the Rules would continue to exist. Absent substantial flexibility over pricing, the arguments for a tariff basket fall away.

4.3 Form of Regulation

The TNOs support the regulatory regime described in the SRP, a key feature of which is the use of the ‘building block approach’ to deriving transmission revenues. The TNOs consider that a requirement for the AER to apply the building block approach should be prescribed in the Rules.

The use of other techniques, such as benchmarking, to inform the regulatory decision-making process can lead to substantial error (and risk) and should be used very cautiously.

Discussion

The AEMC has asked whether there are alternative models to the ‘building block approach’ for deriving the revenue requirement for TNSPs that should be either permitted or mandated. The AEMC has also questioned whether more light-handed forms of regulation – such as price monitoring – may be appropriate.¹⁸

The TNOs support the regulatory regime described in the SRP as one that would provide the degree of certainty sought by investors in regulated transmission assets. The TNOs note that the SRP was developed through a substantial consultative process, and is broadly accepted by all stakeholders. A key feature of the SRP is the use of the ‘building block approach’ to derive transmission revenues.

In addition, the TNOs consider there to be strong grounds to continue to adopt the ‘building block approach’ for setting transmission revenues. A distinguishing feature of the building block model is that revenues would reflect the costs incurred and forecast to be incurred by the particular regulated entity. This can be contrasted with the alternative forms of regulation discussed by the AEMC that rely upon industry-wide *trends* in expenditure to predict the future trend in efficient cost (i.e. the

¹⁸ The TNOs have assumed that the AEMC would not adopt a price monitoring regime for the charges for the use of the shared transmission system, given the AEMC’s views about the market power in the provision of such services (Issues Paper, op. cit., p.20) and its view that less intrusive forms of regulation, like price monitoring, are likely to be more preferable where there are fewer concerns about market power (Issues Paper, op. cit., p.28). Accordingly, the forms of regulation discussed below are restricted to those that imply formal price control.

use of productivity indices) or the use of econometric methods to use industry-wide information to predict the efficient *level* of cost for a particular firm.

As discussed already in section 2.7, an important feature of electricity transmission networks is the lumpy nature of investments, which can lead to large changes in unit cost from one year to the next, as well as from one regulatory period to the next. In addition, there are substantial differences in operating environments across TNSPs. These features combined imply that:

- the use of industry-wide productivity trends to set forward-looking trends in revenue would carry substantial risk that revenue would materially understate (overstate) costs incurred in any given regulatory period; and
- benchmarking techniques are likely to deliver estimates of ‘efficient cost’ with substantial error margins. Again, their use would carry a substantial risk that revenue would materially understate (overstate) costs incurred.

The potentially substantial risks to TNSPs from using industry-wide information to predict either efficient cost trends or levels would be detrimental to the level of certainty sought by investors in these assets. The TNOs note that the AEMC has acknowledged the difficulties associated with applying these alternative forms of regulation to industries where the costs across firms are unique, as follows.

The greater the diversity of demand and cost conditions of each firm within an industry, the more important will be firm-specific information in regulating revenues or prices. Conversely, the more uniform are costs, the stronger can be the industry based incentives for efficiency that can be applied to each firm through the use of benchmarking without undue risks that costs and prices will diverge to an unacceptable extent.

For transmission businesses, an important factor in evaluating the scope for, say, productivity based forms of regulation is therefore the predictability and the smoothness of capital expenditure needs, both across businesses and over time. If typical capital expenditure needs vary significantly from one regulatory period to the next, or from one TNSP to another, costs are more likely to vary significantly from the long run trends. In that case, productivity based approaches to determining the X factor in a CPI-X regime based on an industry-wide productivity index may reward one service provider and penalise another, in unintended ways.

A high degree of uniqueness in the cost structures or operating circumstances of individual firms will make it less likely that higher powered or lighter handed forms of regulation will be able to improve the trade-off between rent and efficiency. In fact, offering incentives that are too high powered may worsen the trade-off, suggesting that in situations of greater diversity of industry cost and demand conditions a lower powered form of regulation that pays greater attention to keeping prices in line with costs may be preferred.

Given these potential risks, the TNOs consider that a requirement for the AER to apply the ‘building block’ approach should be prescribed in the Rules. This is not to say that regard to benchmarking or other techniques should be precluded. However, the AER should recognise the limitations of benchmarking data and, if the AER proposes to have regard to such data, it should be obliged to weight this information accordingly. However, as a practical matter, the TNOs consider the use of these techniques to inform decisions for transmission revenues should be precluded for the foreseeable future.

5. Incentives for Ensuring Service Performance, Operating and Capital Efficiency and Determining the Other Cost Components

Key Points in this Section

Service Performance and Operating and Capital Expenditure Incentives

- Flexibility over the detailed design of incentive arrangements for service and expenditure should remain with the AER, subject to constraints including:
 - use of firm-specific expenditure forecasts;
 - limiting the coverage and risk of the service incentive mechanism, including to focus only on operational decisions (rather than investment decisions);
 - a requirement for commitments about incentive arrangements to be established upfront and to be binding; and
 - appropriate limitations on the scope of prudence or efficiency assessment of capital expenditure under any incentive model.
- The AER should be required to issue (binding) guidelines setting out a standard approach to incentive arrangements.
 - With the provisions in the SRP and other guidelines deemed to be the initial guidelines.

Regulatory Asset Base

- The TNOs support the ‘roll-forward’ approach to updating the regulatory asset base with the exception that a TNSP should be able to seek a revaluation at the first review, as contemplated in the SRP.

Rate of Return and Taxation

- The TNOs consider the Rules should include criteria that:
 - encourage the AER to ensure the *level* of the return is consistent with the importance of the provision of sufficient infrastructure over the long term;
 - emphasise the benefits of stability in the rates of return over time; and
 - embody existing approaches for deriving the return.
- The AER should be required to issue a guideline that sets out important methodologies and input assumptions.
 - With the provisions in the SRP deemed to be the initial guideline.
- Taxation allowances should continue to reflect benchmark assumptions.

5.1 Service Performance and Operating and Capital Expenditure Incentives

Level of prescription

The detailed design of the incentive arrangements should be left with the AER, with the Rules setting out important constraints on the exercise of the AER's discretion including that:

- incentive arrangements be established up-front and then become binding on all parties;
- the AER should issue a guideline setting out its approach to incentive arrangements, which would then be binding upon all parties; and
- the new Rules should deem the relevant parts of the AER's SRP and Service Standards Guidelines to be the initial guidelines on these matters.

Discussion

The AEMC has identified as a key theme of the regime the need for alignment of the long term interests of TNSPs with those of other market participants, which the TNOs welcome, noting the TNOs' views about the importance of alignment with reliability obligations. This theme is consistent with the requirements in the NEL for the Rules to provide the TNSPs with effective incentives to make efficient investments and provide services efficiently.¹⁹ An identical requirement also applies directly to the AER's decisions.²⁰

On the threshold issue of the level of prescription, the TNOs consider that the detailed design of the arrangements should be left with the AER, with the Rules setting out important constraints on the AER's discretion. One constraint is that the incentive arrangements be established up-front and then become binding on all parties. The AER should also be required to issue a guideline setting out its approach to incentive arrangements, which would then be binding upon the AER (and other interested parties, including TNSPs), although able to be changed from time to time following a consultation process.

The TNOs support adoption of the regulatory regime described in the SRP and related AER guidelines as one that would provide the degree of certainty sought by investors in regulated transmission assets, and consider that the associated incentives should be incorporated into the new regulatory framework. In particular, the TNOs consider the new Rules should deem the relevant parts of the AER's SRP and Service Standards Guidelines to be the initial guidelines on these matters. Incorporating the AER's current guidelines in this manner would substantially enhance certainty for all interested parties, providing transition to the new regulatory framework. It would also acknowledge the extensive consultation on the SRP arrangements that has already been undertaken and the broad acceptance of these arrangements.

¹⁹ NEL, section 35(3)(b).

²⁰ NEL, section 16(2)(b).

The TNOs' views about the service, capital and operating incentive arrangements are discussed in more detail below.

Service performance incentives

The TNOs consider that the service incentive arrangements should focus on *operating decisions*, and that the following guidance for the design of these arrangements should be included in the Rules:

- the incentive arrangements should be established upfront (i.e. spelled out and approved together with the revenue cap) and made binding;
- targets for service performance should reflect firm-specific factors; and
- the incentive arrangements should focus on performance measures over which the TNSP has appropriate control (that is, where the TNSP can reasonably minimise the probability of an adverse event occurring or ameliorate its impact) and limit the risk imposed on the TNSP to a reasonable level.

The TNOs consider that adequate incentives already exist in relation to *investment decisions*. The majority of the TNSPs' investments are non-discretionary, and existing arrangements already provide appropriate incentives to undertake discretionary projects.

Discussion

The TNOs consider the appropriate role of service incentive arrangements is to focus on encouraging efficiency in TNSPs' *operating decisions*, rather than to seek to influence *investment decisions*. A focus on operating decisions is consistent with the focus of the current arrangements. In broad terms, this would imply designing incentives to encourage a TNSP to optimise the availability of its assets and the resulting capacity to meet the needs of market participants, which would include making efficient decisions regarding:

- the timing at which assets are taken out of service for maintenance or other works;
- the duration for which assets are taken out of service for maintenance or other works; and
- the time that is taken to return assets to service after an unplanned exit from service.

The reasons why it is appropriate for the service incentive arrangements to focus on operating decisions only are a function of the following constraints:

- as already discussed above, reliability and other non-discretionary projects account for nearly all of TNO capital expenditures, leaving little scope for financial incentives on investment to play a useful role; and
- adequate incentives and other measures exist already to encourage the TNSPs to undertake efficient discretionary investments – which are discussed further below.

Turning to the guidance for the design of the service incentive arrangements, the first constraint set out above reflects the fact that firms can only respond to financial incentives if they know what the incentive arrangements are, and will only respond if there is some certainty that the promised rewards (or penalties) will follow. Accordingly, the requirement to establish the incentive arrangements upfront and then provide certainty over their application is essential for the incentive arrangements to be effective.

The second and third constraints reflect approaches implicit in the current service incentive arrangements, which the TNOs consider to be essential for the following reasons:

- *firm specific targets* – the substantial differences across the Australian TNSPs (discussed in sections 2.7 and 4.3) means that service performance targets that are based on industry averages or benchmarking have a substantial degree of error (and hence risk), just like using industry averages or benchmarks for expenditure; and
- *limitation of risk exposure* – exposing the TNSPs to substantial service-related risk will have a deleterious effect upon their abilities to continue to raise the investment funds needed to provide the service performance sought by customers (discussed in section 2.2). The TNOs note that imposing additional risk on the TNSPs regarding matters outside of their control will result in higher prices to consumers in the long run, and imposing excessive levels of risk could even jeopardise the TNSPs' abilities to deliver the network reliability expected by consumers.

One of the AEMC's key concerns in its Issues Paper appears to be whether the regulatory arrangements should be reviewed to provide the TNSPs with a greater incentive to minimise the market impact of the transmission network (for example, in relation to improved transfer capability between regions). The TNOs also note that one of the AEMC's specific concerns would appear to relate to funded investments, which is considered separately below.

As noted above, the TNOs consider that current incentives and other measures already exist to encourage the TNSPs to undertake efficient discretionary projects.

First, the TNOs consider that if the AEMC's review delivers the substantial improvement in the investment climate as expected, then a further impetus will be provided for TNSPs to deliver the discretionary 'market benefits' projects sought by participants.

Secondly, the TNOs consider that it is important for the AEMC to consider the role of financial incentives in the context of the totality of measures that currently apply to the TNSPs, as well as other measures that have been foreshadowed. In particular, the new Australian National Transmission Statement – that is released as part of the Statement of Opportunities – will provide all market participants with information on the projects along major flow-paths that are likely to pass the regulatory test, which in turn will provide additional pressure for the TNSPs to undertake a proper investigation of the projects. In addition, the Last Resort Planning Power that NEM Ministers have foreshadowed will provide a further measure for increasing the degree

of transparency and accountability associated with the TNSPs' discretionary investment decisions.

Capital expenditure incentive arrangements and forecasts

The TNOs consider that it is important for the following constraints upon the design of the capital incentive arrangements to be included in the Rules:

- the incentive arrangements be established upfront (i.e. spelled out and approved together with the revenue cap) and made binding;
- the AER should be required to consider firm-specific factors when assessing capital expenditure forecasts, given the unique nature of each firm's costs; and
- should the current ex ante regime be changed to permit an administrative ex post assessment of the prudence or efficiency of capital expenditure:
 - whether or not an assessment would be applied at the end of the regulatory period should be signalled upfront (and the intended methodology described); and
 - particular guidance should apply, namely: using only information available at the time of the investment decision; taking account of the *regulatory test* when assessing project selection; taking account of competitive procurement; and in all cases, benchmarking the TNSP to good industry practice.

TNOs support the present SRP capital incentive arrangements. However, the Rules should accommodate the potential for alternative future capital incentive arrangements, after the present arrangements are tested.

Discussion

The rationale for the first two of the constraints set out above has been discussed already. The third constraint reflects the fact that the ability for the AER to undertake an ex post assessment of the prudence or efficiency of a capital project has the potential to create substantial regulatory risk for the TNSP and a commensurate disincentive against investment. Accordingly, should a change be made to the current ex ante regime, the TNOs consider the Rules should provide for certainty over whether and how prudence or efficiency tests will be exercised, and also ensure that a TNSP acting efficiently in accordance with good industry practice and without the benefit of hind-sight is correctly judged to be efficient and prudent.

Turning to the detailed design of the incentive arrangements, the TNOs consider that arrangements for capital expenditure foreshadowed in the SRP have a number of desirable features. In particular, the incentive arrangements provide a modest reward for efficiency improvements, while at the same time not penalising necessary but unforecast expenditure to an excessive degree. In addition, the SRP arrangements provide the scope to separate out large projects whose timing is uncertain and add them to the revenue cap when they commence, as well as to have the revenue cap adjust automatically for a defined cost-driver.

The TNOs also note that the AEMC’s discussion of the spectrum of possible incentive arrangements highlighted that there is no ‘perfect’ incentive model that could be devised and implemented in the time available for the AEMC’s review. Rather, all of the available models reflect different choices between the complex trade-offs that the selection of any particular model entails. Accordingly, the justification for a move from the current approach is not strong.

The AEMC appears to have a concern that the (albeit weak) financial incentives for TNSPs to minimise cost under the *ex ante* framework in the SRP may actually provide an excessive incentive not to undertake new or discretionary projects during a regulatory period (or at least during the early years of the regulatory period). The *ex ante* framework also increases the risk that is borne by the TNSPs given the difficulties with accurately predicting investment needs for all projects (including non-discretionary investments) over the regulatory period.

While the TNOs support adoption of the SRP incentive arrangements for the reasons set out above, the TNOs would welcome the opportunity to discuss further alternative incentive arrangements with the AEMC if the AEMC considers it necessary to change these incentive arrangements during this review.

A possible alternative would be to return to the previous *ex post* treatment of capital expenditure. The key feature of this alternative is that transmission revenues would provide a return on all capital expenditure undertaken (subject to an administrative test of prudence), including the return foregone during the regulatory period, thus eliminating the incentive to defer expenditure. A necessary part of this model, however, would be to develop an approach to identify and reward management-driven efficiencies. A second essential component is the need for guidance on the prudence assessment, which was addressed above.

Operating expenditure incentive arrangements and forecasts

The TNOs consider that it is important for the following constraints upon the design of the operating expenditure incentive arrangements to be included in the Rules:

- the incentive arrangements be established upfront (i.e. spelled out and approved together with the revenue cap) and made binding;
- the AER should be required to consider firm-specific factors when assessing expenditure forecasts, given the unique nature of each firm’s costs; and
- the forecasting of expenditure should permit the TNSPs to obtain a fair share of the prospective efficiency gains created.

Benchmarking should be used cautiously, and with regard to the reliability of results from benchmarking techniques.

Discussion

One of the issues raised by the AEMC is whether benchmarking techniques should be encouraged or required, which is most relevant to operating expenditure.

As discussed already, the TNOs consider that the poor precision of the AER's current benchmarking techniques – stemming in large part from the substantial differences between the cost drivers of the separate Australian transmission networks – makes it highly inappropriate to require the use of such techniques. The TNOs do not propose that benchmarking be precluded from informing regulatory decisions; however, the AER should be required to pay specific regard to the reliability of the results from such techniques when considering a revenue cap proposal. As a practical matter, the TNOs consider that such a requirement should preclude the use of these techniques from informing decisions for transmission revenues in the foreseeable future.

Turning to the detailed design of the incentive arrangements, the TNOs note that the arrangements for operating expenditure – which provides a rolling five-year carry forward of incremental efficiency improvements – is now applied for many regulated utilities in Australia. The TNOs consider that this model provides a reasonable reward for operating efficiencies, without exposure to excessive risk.

One important feature of the SRP arrangements is the absence of a mechanical link between a TNSP's outturn expenditure and the expenditure forecast for the new regulatory period. That is, while historical expenditure would be taken into account when setting the forecast, the AER has acknowledged that it is also important to take account of changes in specific cost drivers. The TNOs consider the AER's recognition of the need for additional flexibility to be an important and appropriate reflection of the less recurrent (more lumpy) nature of operating expenditure for an electricity transmission network.

Turning to the sharing of efficiency gains, under the rolling carry-over mechanism noted above, the TNSP would only receive a benefit from efficiency gains achieved over and above any gains already built into the allowances of expenditure. Some regulators have adopted expenditure allowances that imply substantial *prospective* efficiency gains – and in cases have set extremely challenging (if not impossible) targets for gains. The effect of building in such assumptions about prospective efficiency gains is to limit or even preclude a regulated entity's ability to obtain a share of the benefits from the efficiency gains that it achieves.

The TNOs consider that setting expenditure allowances so that the TNSP receives little or no share of the benefits from efficiency gains made over the regulatory period is contrary to the spirit of incentive regulation, namely creating an alignment of interests between the TNSP (who benefits from its efficiency gains for a period) and customers (who receive the benefit of efficiency gains over the medium term). Accordingly, the TNOs consider it important for the Rules to ensure that the allowances of expenditure be determined so as to ensure that the TNSPs receive a fair share of efficiency gains achieved.

Incentives related to 'funded augmentations'

There is scope for further clarity to the present arrangements for funded augmentations, however this issue falls outside the scope of the AEMC review.

Discussion

The AEMC has sought comment on the efficiency of the arrangements related to ‘generator access arrangements’ under the Rules,²¹ and has asked the question whether further Rules or incentives are required to encourage TNSPs to undertake funded augmentations. These services relate to investments made by TNSPs at the request of individual network users to expand the capacity of the shared network.

A number of parties have sought to fund augmentations to the shared network, and a number of funded augmentations have proceeded. The TNOs acknowledge that a number of applications for funded augmentations have not proceeded. However, the barrier to these projects not proceeding has not been the reluctance of the relevant TNSP to implement the relevant augmentation, but rather because of a requirement from the funding party that they receive some form of capacity right (whether the right is financial or physical) in return for the augmentation.

As discussed already, defining and allocating rights to users of the shared network is complex given the substantial interactions between what happens in one part of the network and the transfer capability in other parts. Defining and allocating rights to only users of the augmentation capacity where rights have not first been defined and allocated to the existing capacity is even more complex. As a result, the TNOs consider that in most circumstances the current provisions in the Rules do not create a workable system for granting capacity rights in return for funded investments, and consequently have experienced substantial practical difficulties responding to requests to implement funded investments in return for capacity rights. It is noted that VENCORP recently considered the issue of generator access arrangements and funded investments at some length, and adopted a policy of not providing capacity rights in return for funded investments.²²

The TNOs would welcome clarity in the Rules that relate to the issue of capacity rights around generator access arrangements and funded investments, and would be happy to participate in such a review. It is noted, however, that such a review is outside of the scope of the current review being undertaken by the AEMC.

5.2 Regulatory Asset Valuation

The TNOs support the SRP approach to the revaluation of assets. That is, the previously determined regulatory asset base should be ‘locked-in’ and updated over time exclusively with reference to capital expenditure, depreciation, disposals and inflation (i.e. the ‘roll-forward approach’).

An exception is where the TNSP applies for a revaluation at the first revenue review after the new Rules come into effect. The AER foreshadowed that it would consider such an application, with the onus on the TNSP to make a case for departing from the preferred principle of locking in the asset base.

²¹ Issues Paper, op. cit., p.37.

²² VENCORP, 2005, Victorian Electricity Transmission Network Connection Augmentation Guidelines, August, p.6 (principle 3).

The Rules should prescribe the general methodology to be applied in updating regulatory values. The AER should be required to publish a guideline and accompanying financial model to outline the precise application of this methodology.

Discussion

It is noted that most Australian economic regulators have adopted the ‘roll-forward’ approach for updating the regulatory asset base. This position has also been accepted by the ACCC (and AER). The principal reasons for favouring a roll-forward approach were set out in some detail in a report commissioned by the ACCC,²³ and were as follows.

- First, there is nothing inherently efficient about prices being set on the basis of an ODRC value. For firms that have natural monopoly characteristics, the structure of prices is much more important for efficiency than the average level of prices.
- Secondly, therefore, the purpose for revaluing assets at an ODRC value is to provide incentives for efficient investment. That is, by setting the ‘return on’ and ‘return of’ revenue requirement line items independent of actual expenditure, an incentive is provided to minimise expenditure. However, this form of incentive regime is subject to a number of key flaws, in particular:
 - the power of the scheme is very high (i.e. 100 per cent of any cost increases are borne by the regulated entity), and likely to impose excessive risk on the regulated entity;
 - the application of the ODRC methodology is subject to substantial practical limitations (i.e. estimation errors), which also are likely to generate excessive risk; and
 - the continued reapplication of the ODRC method is subject to substantial theoretical limitations (i.e. if ODRC is applied in a theoretically correct manner over time, the regulated entity would never be fully compensated for new investment).
- Thirdly, other methods exist for providing the incentive for productive efficiency without the excessive risk and practical and theoretical limits – namely, the roll-forward approach combined with a price/revenue cap, as exists under the SRP’s *ex ante* approach to capital expenditure.

Given the AEMC’s and TNOs’ concern to improve certainty for investors (as per the NEL requirements), the uncertainty associated with revaluations should be accorded substantial weight.

An exception to this is where the TNSP applies for a revaluation at the first revenue review after the new Rules come into effect, as contemplated in the SRP. The AER foreshadowed that it would consider such an application, with the onus on the TNSP

²³ The Allen Consulting Group 2003, Methodology for updating the regulatory value of electricity transmission assets, report to the Australian Competition and Consumer Commission, August.

to make a case for departing from the AER's preferred principle of locking in the asset base. The AER noted that it would consider such a proposal on its merits, having regard to all relevant matters at the time.

The TNOs propose that the Rules prescribe the general methodology to be applied when updating regulatory values, rather than a specific algorithm. The precise application of the roll-forward approach requires a number of issues to be addressed – such as assumptions about the timing of expenditure within each year and the selection of inflation indices. To address these issues, the AER should be required to publish a guideline together with a financial model that demonstrates the precise algorithms to be applied to the roll-forward approach.

5.3 Regulatory Return and Taxation

Regulatory return

Given the importance of regulatory returns – both over the next regulatory period and over the future regulatory periods – the TNOs consider that the Rules should provide detailed guidance to the AER in relation to how the regulatory return should be set. The specific objectives of the new Rules should be to:

- ensure that the AER takes account of the key lessons from the Productivity Commission's review of Australia's infrastructure access regimes (i.e. to ensure that the *level* of the WACC is consistent with the importance of the provision of sufficient infrastructure over the long term);
- put in place measures that will provide a discipline for regulatory returns to remain stable from review to review except where there is reliable evidence to support a change (that is, except for inputs that reflect easily observable movements in market variables, like interest rates); and
- otherwise, the important existing methodologies for deriving the regulatory return should be prescribed in the Rules.

The TNO's specific proposals in this regard are that, when calculating the regulatory return:

- the outcome provides an appropriate, risk-adjusted return;
- the return be calculated as a weighted average of the costs of equity and debt;
- the CAPM be used to estimate the cost of equity;
- the cost of debt reflect the current cost of borrowings for comparable debt;
- all parameters should be benchmarks (as opposed to reflecting actual decisions or costs); and
- for the parameters where there is uncertainty, the AER should be required to:
 - consider the market objective when considering the likelihood that the

regulatory return is understated; and

- satisfy itself explicitly that current evidence on the input is sufficient to justify a change from the value adopted in the last review.

The TNOs also consider that the AER should issue a guideline that defines the input assumptions and methodologies to be used to derive the regulatory return, and that the relevant parts of the SRP should be deemed as the initial guideline on this matter.

Discussion

The Productivity Commission's review of the Gas Access Regime, and more recently the report from the Prime Minister's Task Force on infrastructure bottlenecks, identified the need for regulators' decisions on allowed returns to be made in a way that is likely to provide incentives for more, rather than less investment in infrastructure. In reaching this conclusion, the Productivity Commission noted the scope for regulatory error, asymmetric risks, and the high potential cost to society as a whole associated with setting the regulatory return below the actual cost of capital. Specifically, the Productivity Commission found that the cost of under-investment in national infrastructure far outweighs the detriment of (possibly) higher access prices.

In addition, it is now well understood that the precision of estimates of the cost of capital are very poor. Hence it is possible for an independent expert's estimate of the cost of capital to vary substantially from review to review, even if the 'true' (but unobservable) cost of capital has not changed. Therefore, there is the potential for large changes in 'best estimates' of the WACC associated with the provision of regulated transmission services across regulatory periods.

The TNOs therefore consider that the Rules should provide detailed guidance to the AER in relation to how the regulatory return should be set. To promote regulatory certainty, the SRP should be deemed the original guideline for the input assumptions and methodologies used to derive the regulatory return.

Taxation

The TNOs consider that the Rules should require the AER to continue the ACCC's approach of calculating a taxation allowance that reflects benchmark assumptions about key inputs, such as:

- available interest deductions;
- revenues and expenses; and
- tax depreciation allowances.

These benchmark assumptions should also meet specific requirements (e.g. for each benchmark assumption to be consistent).

Discussion

The use of benchmark assumptions for deriving required returns and modelling taxation provides incentives for TNSPs to be efficient, while protecting customers from inefficient decisions, and hence is consistent with the market objective.

6. Measures to Encourage High-Quality Regulatory Decisions

Key Points in this Section

- The TNOs consider that rule-based measures to improve the discipline on the AER's decision-making are essential. However, the option to pursue merit review of decisions is also essential to provide a level of discipline on the AER commensurate with the importance of its regulatory decisions.
- The rule-based measures proposed include:
 - the adoption of a propose-respond framework;
 - clear rights for parties to make submissions and have them considered;
 - clear requirements for the AER to provide full reasons for its decisions;
 - special requirements to ensure due process in relation to expert reports and new material matters that emerge late in the review process;
 - a preset timetable for the AER's decision making process, and an obligation on the AER to meet that time line (subject to extensions); and
 - requirements to adopt good regulatory practice when assigning weight to different sources of evidence.
- The TNOs have distinguished between three elements of the propose-respond model, namely:
 - the right for the regulated entity to make a formal proposal;
 - the requirement for the regulator to consider that proposal and decide first whether it should be accepted; and
 - a legal presumption in favour of accepting the proposal.

The first and second of these elements are uncontroversial. Regarding the third, the TNOs consider that such a presumption would reduce the cost of regulation, contribute to good decision-making and improve the investment climate.

6.1 General Principles

The TNOs consider that the current Rules should include measures that impose disciplines on the AER to produce high-quality regulatory decisions.

Discussion

The regime that existed prior to the enactment of the new NEL provided the ACCC with little discipline over the quality of its decisions, in particular, to exercise discretions in a reasonable and predictable manner. While clause 6.2.6 of the Code required the ACCC to explain fully the reasons for its decisions, the TNOs do not consider that these requirements have been sufficient to ensure that the ACCC properly considered the matters tabled before it and reached well-founded, predictable conclusions. In particular, the TNOs are concerned with the ACCC's record of inconsistently exercising discretion, its weighting of certain information placed before it, and its timeliness, which has added to the overall costs of the regime.

A further factor that has been absent from the regulation of electricity transmission is the availability of merit review of the ACCC's decisions. The TNOs note that in the gas sector, the ACCC has faced a number of merit review appeals that have been successful. Some of these appeals have overturned the ACCC's application of excessive weight to unreliable evidence,²⁴ and others have overturned the ad hoc nature of its reasoning.²⁵ The same review options for TNSPs – and hence, the same disciplines on the ACCC – have not existed for electricity transmission.

The TNOs consider that carefully designed rule-based measures would enhance the discipline on the AER to make high-quality and timely decisions. In turn, this would provide benefits to all stakeholders, and thus promote the market objective. In summarising the key features of the necessary requirements for good regulatory decision making, the MCE Standing Committee of Officials recently observed (emphasis added):²⁶

Transparent, fair and reasonable decision-making that also produces economically efficient outcomes is a product of:

- i. Strong institutional structure of the decision-makers: eg. AER member appointments and external policy accountabilities, internal management, public reporting requirements and financial accountabilities;
- ii. Role clarity for decision-makers within the energy sector via the statutory conferral of functions and powers;
- iii. *Clear and effective procedural and consultative requirements in the NEL and the NE Rules and in the Gas Pipelines Access Regime as to how the decision-makers will perform their economic functions;*
- iv. Clear and effective rules for economic regulatory decision-making removing layers of inconsistent objectives and principles in favour of a body of rules designed to structure and guide the exercise of regulatory discretion;
- v. An appropriate review mechanism for specified decisions.

²⁴ By way of example, the ACCC's decision to base its estimate of the unit rate for pipeline materials on the lowest of the wide band of indicative prices it obtained from international sources rather than adopting an average in: Application by Epic Energy South Australia Pty Ltd [2003] ACompT 5.

²⁵ Such as its idiosyncratic approach to estimating a DORC value in: Application by East Australian Pipeline Limited [2004] ACompT 8.

²⁶ MCE Standing Committee of Officials, 2005 Review of Decision-Making in the Gas and Electricity Regulatory Frameworks: Discussion Paper, October, p.2.

However, even with more effective rule-based measures, the AER will continue to exercise important judgements and discretion. The option to pursue merit review of decisions is therefore essential to provide a level of discipline on the AER commensurate with the importance of its regulatory decisions.

6.2 Proposed Rule-Based Measures

The TNOs consider that a number of rule-based measures would enhance the discipline on the AER to make high-quality decisions in a timely manner. These include:

- clear rights for TNOs to make a proposal and obligations for the AER to consider the proposal and decide whether it meets the relevant criteria;
- clear rights for all interested parties to make submissions and obligations for the AER to consider them;
- clear requirements for the AER to provide reasons to enhance the transparency of its deliberations;
- a preset timetable for the AER's decision making process, and an obligation on the AER (albeit with the ability for extensions) to meet that time line;
- special requirements to ensure due process in relation to expert reports and new material matters that emerge late in the review process; and
- special requirements for assigning weight to different sources of evidence.

Discussion

The first of these features creates what has become known as the 'propose respond' regulatory model. The TNOs note the AEMC's apparent concerns about some of the elements of this model, and hence discuss its relative merits more fully below.

The second, third and fourth features are common in other regulatory regimes, most notably in the National Gas Code. Clear rights to make submissions and a requirement on the AER to consider them are essential to ensuring that all parties have an opportunity to put their views to the AER and have them considered appropriately. Similarly, requiring transparency of reasoning is an essential discipline on any administrative decision maker and is essential to the success of any review mechanism. In addition, clear expectations about the time lines for a regulatory review are important for all stakeholders to plan for and participate in a revenue cap review. The fifth feature – the requirement for due process in relation to expert reports and new material matters – would enhance the due process requirements to deal with the special significance of expert evidence and analysis, and also to deal with material matters that are identified late in the review process.

The last feature would impose legal obligations on the AER to adopt good regulatory practice in relation to its findings of facts. The TNOs consider that the history of regulatory practice in this area justifies such specific provisions.

The TNOs consider, however, that the prescription of the procedural requirements should be limited to those matters where there is a strong reason for prescribing or constraining the procedure adopted by the AER. Given the experience Australia now has with regulatory processes, the TNOs do not think there is a need to prescribe all of the steps the AER is required to follow.

6.3 Relative Merits of the ‘Propose Respond’ Model

The AEMC has sought comment on the status or weight that should be attached to a TNSP’s revenue cap proposal.²⁷ The background to this issue is the model for regulatory decision making that exists under the National Gas Code, in which the proposal from the gas network provider must be accorded substantial weight by the regulator when making its assessment. The model that exists under the National Gas Code has been termed the ‘propose-respond’ model in view of the fact that the regulated entity has a right to make a proposal, and the regulator’s role is to respond to this proposal. This is often contrasted with regulators’ decisions under other instruments where the regulator is simply tasked with making a determination.

In assessing the relative merits of the ‘propose-respond’ model as it exists in the National Gas Code, it is important to distinguish between the three elements of the model, which are as follows.

- First, the National Gas Code provides the gas network owners (GNOs) with a legal right to make a full price-service offering – or access arrangement – to a price review, which formally starts the price review process.²⁸
- Secondly, the National Gas Code specifically requires the regulator to assess the proposed access arrangement against relevant principles and factors set out in the Code, and decide first whether to accept the proposed arrangement. The regulator is only able to require changes to the proposed arrangement where it decides the arrangement does not meet the specified criteria.²⁹
- Thirdly, the finding in several appeal decisions is that the National Gas Code adopts a legal presumption in favour of the regulator accepting a GNO’s proposal – with the regulator’s role being to assess whether the proposal is within a range that reasonable people would consider appropriate to the specific requirement, rather than to assess whether the proposal is (in the regulator’s opinion at least) the ‘best’ proposal.

All three elements to the ‘propose-respond’ model contained in the National Gas Code have subsequently been adopted explicitly in the West Australian Electricity

²⁷ Issues Paper, op. cit., pp.85-87.

²⁸ This right (which is actually reflected as an obligation on GNOs) is reflected in sections 2.2 and 2.28 of the Code.

²⁹ This requirement has been found in a number of provisions of the Code read in combination, including sections 2.13 and 2.24.

Access Code. The following provision shows how the second (requirement to consider the proposal) and third (presumption) elements have been drafted:³⁰

Subject to section 4.32, when making a draft decision, final decision or further final decision, the Authority must determine whether a proposed access arrangement meets the Code objective and the requirements set out in Chapter 5 (and Chapter 9, if applicable) and:

(a) if the Authority considers that:

(i) the Code objective and the requirements set out in Chapter 5 (and Chapter 9, if applicable) are satisfied – it must approve the proposed access arrangement; and

(ii) the Code objective or a requirement set out in Chapter 5 (or Chapter 9, if applicable) is not satisfied – it must not approve the proposed access arrangement; and

(b) to avoid doubt, if the Authority considers that the Code objective and the requirements set out in Chapter 5 (and Chapter 9, if applicable) are satisfied, it must not refuse to approve the proposed access arrangement on the ground that another form of access arrangement might better or more effectively satisfy the Code objective and the requirements set out in Chapter 5 (and Chapter 9, if applicable).

Similarly, the Productivity Commission has recently recommended that the presumption-element of the ‘propose-respond’ model be made explicit for assessments of the WACC, recommending the following clause to be included with the existing guidance for estimating the WACC:³¹

If a Rate of Return is used in determining a Reference Tariff then the method used to calculate the Rate of Return and the values used in applying that method shall in the first instance be proposed by the Service Provider. In assessing the Service Provider’s proposal the Relevant Regulator must take account of the fact that there is no single correct method to determine a Rate of Return and there is often a range of plausible estimates that could be used in applying a Rate of Return method. The role of the Relevant Regulator is therefore to assess whether the Service Provider’s:

(a) proposed method has a plausible conceptual basis; and

(b) values used in applying the method lie within the range of plausible estimates.

The Relevant Regulator must approve the proposed method if (a) is satisfied. The Relevant Regulator must approve the values used in applying a method if (b) is satisfied.

The TNOs consider that the first two elements should be uncontroversial, as they offer important disciplines on the regulatory process, as follows.

- *Right for the TNSP to make a comprehensive proposal* – it is almost universally the case that regulated entities are in the best position to come up with an opening proposal, given that the asset owner has more knowledge about the regulated network and important issues arising. The AER, by adopting the SRP, has committed to continuing the ACCC’s approach of starting the review with a comprehensive proposal from the relevant TNSP. Given the importance of this right to TNSPs, it is appropriate for it to be enshrined in the Rules.
- *Requirement for the AER to consider the proposal* – a formal requirement on the AER to consider the TNSP’s proposal will provide an important additional discipline on the AER to consider carefully all the arguments presented to it, and to focus on the quality of the evidence in support of the relevant proposal compared to the quality of the evidence that may support an alternative proposal.

³⁰ West Australian Electricity Networks Code, clause 4.28.

³¹ Productivity Commission, 2005, Review of the Gas Access Regime, p.L11, recommendation 7.9

The AEMC's apparent concerns with the 'propose-respond' model would appear to relate only to the third element identified above. That is, the legal presumption in favour of acceptance of the proposal.³² The AEMC appears to be particularly concerned about whether the third element would reduce regulatory certainty and the objectivity of regulatory decision making.

The TNOs consider that the third element of the 'propose-respond' model would promote the market objective for a number of reasons. First and foremost, it would ensure that regulatory interventions occur only where justified, and so reduce the overall cost of regulation. Providing greater weight to a TNSP's proposal would also improve the climate for investment in transmission networks and the timely delivery of that investment given that a proposal could safely be assumed to deliver returns that are commercially acceptable to the TNSP. The TNOs believe that the AEMC's concerns on this matter would be substantially reduced if Rules of the type proposed by the TNOs are accepted. In particular, these Rules would clarify the criteria for many elements of the revenue cap and associated elements, and as a consequence, narrow the plausible ranges.

6.4 Other Issues Addressed – Regulatory Information

The periodic gathering of regulatory information is not within Items 15-24 of Schedule 1 of the NEL, and therefore beyond the scope of the current review.

The AER should be required to consider and not discount in any way confidential information that is provided during a review.

Discussion

The AEMC has asked a number of questions regarding the effectiveness of the provisions in the Rules related to the periodic reporting of information by the TNSPs.

The TNOs consider that the current information gathering provisions in the Rules could be refined generally. However, the TNOs note that the periodic gathering of information is not within Items 15-24 of Schedule 1 of the NEL, and hence consider the matter to be beyond the scope of the current review. The TNOs would be keen to participate in a separate or subsequent review of these provisions.

A matter that is within the scope of the current review, however, is how the AER deals with confidential information provided during a review of transmission revenues. The ACCC has in the past refused to consider confidential information, even in a case where there were strong grounds for the claim of confidentiality (in that case, detriment to a third party). The ability for the regulator to ignore information provided merely because the information is not publicly available reduces a TNSP's capacity to demonstrate its case. Accordingly, the TNOs consider that the Rules should require the AER to consider confidential information provided to it, and not discount the information in any way.

³² Issues Paper, op. cit., p.87.

It is noted that the existing Rules provide the AER with substantial power to force the disclosure of confidential information where it does not consider the release to cause detriment, or where disclosure otherwise would generate net public benefits. It is also noted that a claim of confidentiality would not preclude the AER from engaging expert advisers to consider the information, subject to normal confidentiality arrangements.

7. Savings and Transitional Issues

Key Points in this Section

- Appropriate savings and transitional arrangements are essential. The new Rules should:
 - not apply to an existing revenue determination;
 - preserve the incentive arrangements foreshadowed at the previous revenue determination; and
 - provide the TNSPs with sufficient time to take account of the new Rules when framing their revenue cap applications.

The TNOs welcome the AEMC's concern to ensure that the new Rules for transmission revenue setting be introduced and applied in a manner that preserves an environment of clarity and certainty to TNSPs and other affected parties.³³

An issue of fundamental importance to the TNOs is that the new Rules not require the reopening of any revenue cap that is currently in place. That is, the new Rules should not apply until the expiry of existing revenue determinations. Similarly, an important principle for the new Rules is to ensure that commitments from the ACCC about the incentive arrangements applying for the previous regulatory period would be upheld in the next review of transmission revenues.

A second important principle is that the commencement of the new Rules acknowledges that the TNSPs need clarity about the Rules to apply to the review of their transmission revenues well in advance of that review commencing in order for them to prepare for the review (and hence obtain a fair review of allowed revenues). As the AEMC has noted, Powerlink is the most obviously affected party given that its formal proposal will be submitted by 1 April 2006 (and hence its preparations are already well advanced at the present time). The specific savings and transitional arrangements will depend upon the AEMC's specific proposals, and the specific issues will also differ between the businesses. The TNOs would welcome further discussion on these matters with the AEMC, either collectively or individually.

³³ Issues Paper, op. cit., p.88.

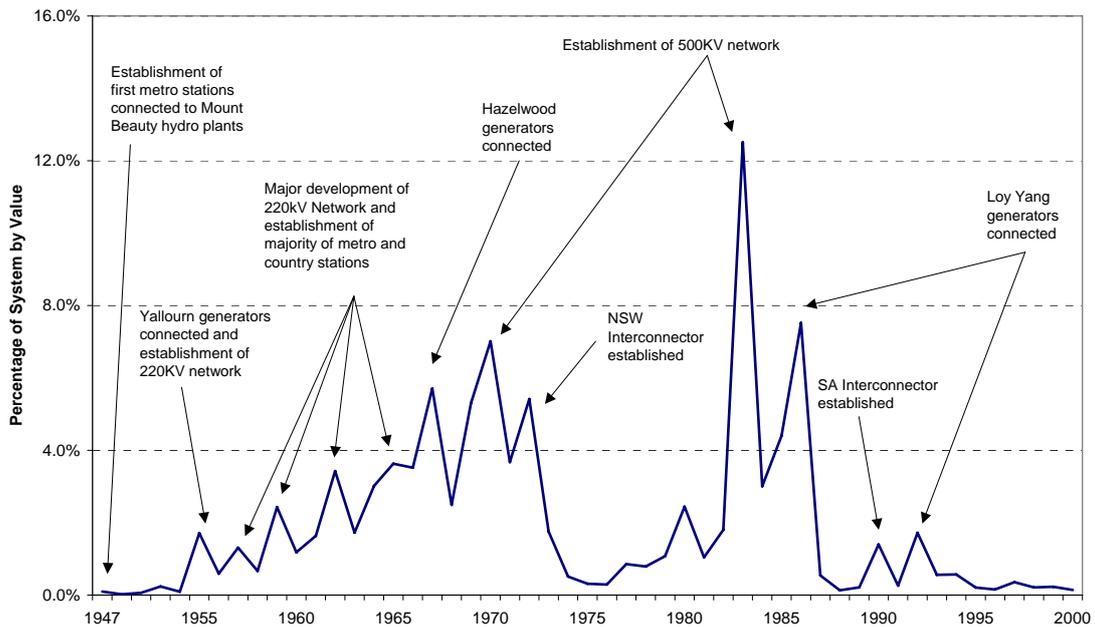
Characteristics of Electricity Transmission

A.1 Variation in Capital Expenditure over Time – Victorian Case Study

Augmentation expenditure

Figure A.1 illustrates the development of the modern Victorian transmission system since the 1950s. Augmentation capital expenditure in any given year is shown as a percentage of the total asset value.

FIGURE A.1
INSTALLED DATE OF EXISTING ASSETS AS A PERCENTAGE OF TOTAL SYSTEM



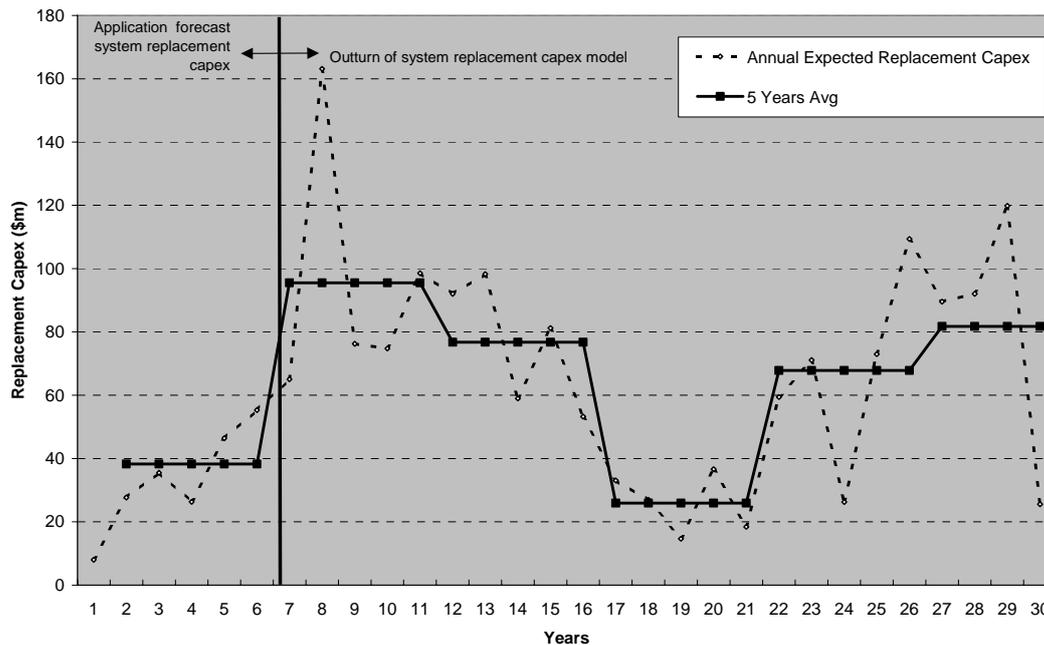
It is clear from the above that the level of augmentation capital expenditure has been highly variable, reflecting the fact that transmission systems are developed with very large discrete investments of high cost relative to that of the entire system. This reflects the fact that the efficient scale of transmission augmentations is typically very large, in turn reflecting the substantial economies of scale. Such patterns can be expected in the future.

Replacement capex

The large value of individual transmission assets, such as lines or transformers, combined with the very lumpy growth in the networks historically, also means that replacement capital expenditure typically is also highly variable.

Figure A.2 provides a projection of the forecast annual capital expenditure (and five-year average) for the Victorian transmission network over the next 30 years, using a simple age based replacement projection (excluding communication and secondary assets).

FIGURE A.2
FORECAST REPLACEMENT CAPEX EXPENDITURE (\$2001/02)



As the figure illustrates, the projected ‘five-year smoothed’ replacement capital expenditure varies between \$95 million per annum (real \$2001/02) to as low as \$25 million per annum (real \$2001/02). It should be noted that active asset management by the TNSP may result in some smoothing or deferral of expenditure, but the general pattern would be expected to remain.

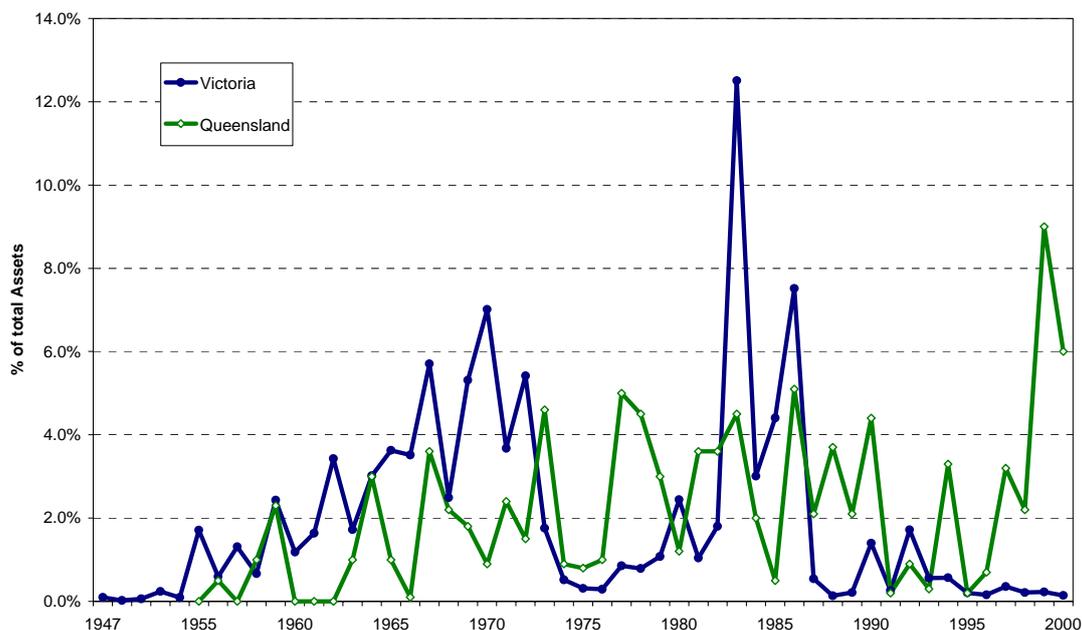
A.2 Intercompany Benchmarking

Variations in capital expenditure over time

The pattern in expected future capital expenditure for the Victorian network discussed above would not be expected to coincide with the pattern of expenditure for other TNSPs. In particular, as the systems operate at different voltages, have different design and service standards, geography, environmental conditions and historical development of the networks, large differences in capital expenditure needs for both augmentation and replacement should be expected.

Focussing on just the last of these drivers – the historical development of the networks – figure A.3 shows a simple comparison of the augmentation of the Victorian and Queensland systems over the last 50 years.

FIGURE A.3
INSTALLED DATE OF ASSETS IN VICTORIAN AND QUEENSLAND SYSTEMS



An obvious observation of the figure above is the almost complete independence of the timing of system development. Equally, therefore, there is every reason to expect that the future ‘lumps’ in replacement capital expenditure will not coincide across the networks.

Differences between the networks today

As discussed in section 2.7, the unit cost of transmission will depend significantly on factors such as load factors, the voltage at which the network operates, network service standards and the distance and density of customers and generators.

Figure A.4 shows the differences in some of the key drivers of unit cost across the Australian transmission networks.

The differences across the networks include:

- density across the networks differs substantially, for example:
 - measured in terms of MW served per km of line length, the Victorian system is almost 3 times as dense as that for the South Australian and Queensland networks;
 - measured in terms of MW served per major plant item, varying from less than 4 MW per item of plant in Tasmania to almost 7.5 MW per item of plant for Queensland; and
 - measured in terms of the minimum number of generators with 90 per cent of the state’s installed capacity, figures range from 27 generators in Tasmania to 6 in NSW;

- a substantial variation in the mix of voltage levels operating across the networks;
- the load factors across the different networks vary substantially, with the margin of system peak demand over median demand for South Australian approximately 3 times that of Queensland;
- variation in the average age of the different networks; and
- variation in the form of reliability requirements on the relevant TNSP, and in the institutional arrangements for system planning.

FIGURE A.4
COST DRIVERS ACROSS THE AUSTRALIAN TRANSMISSION NETWORKS

	ElectraNet	Powerlink	SP AusNet	Transend	TransGrid
Line km	5,579	11,574	6,553	3,537	12,446
No. major station plant	422	1,058	1,247	425	3039
Major Operational Voltages for the Shared Network	275kV 132kV	330kV 275kV 132kV 110kV	500kV 330kV 275kV 220kV	220kV 110kV 88kV	500kV 330kV 220kV 132kV
Average Age	24	20	27	36	28
Peak Load Summer/ Winter Peak	(SP) 2,604 MW	(SP) 7,934 MW	(SP) 8,572 MW	(WP) 1,691 MW	(WP) 12,476 MW
Difference between peak and median load	Peak 89% higher than Median	32%	54%	43%	49%
Reliability Requirements	Mandated	Mandated	Probabilistic Assessment	No jurisdictional requirements (under development)	Mandated
Planning	TNSP Planner Independent oversight	TNSP Planner	Independent Planner	TNSP Planner	TNSP Planner

These figures are indicative only.

**AEMC REVIEW OF THE ELECTRICITY TRANSMISSION
REVENUE AND PRICING RULES:
ISSUES PAPER ON REVENUE REQUIREMENTS**

**‘Model Rules’ for Transmission Revenue Regulation
Prepared by the Electricity Transmission Network Owners**

November 2005

INTRODUCTION TO THE ‘MODEL RULES’

Purpose

These ‘model rules’ are provided to the Australian Energy Market Commission (the “AEMC”) on behalf of electricity transmission network owners ElectraNet Pty Limited, Powerlink Queensland, SP AusNet, Transend Networks Pty Ltd and TransGrid (the “TNOs”). The model rules accompany the TNOs’ submission in response to the AEMC’s Issues Paper on electricity transmission revenue regulation.

The model rules have been developed to illustrate how the TNO positions in relation to the AEMC’s Issues Paper might be implemented in the Rules. These model rules should, therefore, be read together with, and subject to, the TNOs’ submission to the AEMC on this matter.

A second reason for developing the model rules was to inform interested parties more generally about how the TNOs consider the package of Rules governing transmission revenue regulation should look. Many contentious issues typically emerge only when the process of formally translating regulatory principles into legal rules has commenced. The TNOs hope that the model rules will add momentum to this process, and therefore assist the AEMC to meet the tight but important deadlines for its review.

However, the model rules are subject to important caveats. In particular, the model rules have not been subject to extensive legal due diligence. Accordingly, we reserve the right to revise our position where necessary to remedy any unforeseen consequences, defects or imprecision in the drafting, or like matters. We also acknowledge that as the model rules have been written to communicate our main positions as clearly as possible, certain stylistic and structural changes would be required prior to implementation.

Context for the Model Rules

The model rules have been drafted to replace clause 6.1.1 (in relation to transmission revenue regulation) and all of Part B of Chapter 6 of the National Electricity Rules, with the exception of clauses 6.2.1, 6.2.5 and 6.2.6(b)-(e). Sections 35 and 36 and Items 15-24 of Schedule 1 of the *National Electricity Law* require the AEMC to make new Rules in relation to transmission revenue regulation, and set out the criteria the Rules must meet. The *National Electricity Law* also contains criteria that apply directly to the AER’s decisions on transmission revenues, in particular:

- section 16(1)(a) – which requires any decision to be likely to contribute to the achievement of the national electricity market objective, which is (section 7):

The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system.

- section 16(2) – which applies a number of constraints to the AER’s decision, including requirements: to provide a reasonable opportunity to recover the cost of meeting a regulatory obligation; to provide effective incentives; and to make allowance for the value of sunk investments.

A. Decision Making Requirements

Requirement to Release an Indicative Timetable

1. 18 months prior to the end of a *regulatory period of a TNSP*, the AER must publicly release an indicative timetable for the determination of a new *revenue cap package* for that TNSP. The indicative timetable must set out the dates expected by the AER for:
 - 1.1 the release of the proposed *revenue cap proposal* (with the exception of *confidential material*) submitted by the TNSP;
 - 1.1 the release of the consultation paper referred to in clause 9.1;
 - 1.2 the release of the draft and final determinations;
 - 1.3 the holding of a public forum referred to in clause 9.3 (if requested); and
 - 1.4 the date on which submissions on the proposed *revenue cap package*, the draft determination and after the public forum (if requested) will be due.

Requirement for TNSP to Make a Consolidated Revenue Cap Proposal

2. A TNSP must submit a *revenue cap proposal* to the AER 15 months prior to the scheduled commencement of the *new regulatory period*.
3. A *revenue cap proposal* must contain the following:
 - 3.1 the proposed *revenue cap package*, comprising the proposed *revenue cap*, *revenue capped services* and *associated elements*, as defined in clause 22;
 - 3.2 the proposed *revenue cap inputs*, which must comprise:
 - 3.2.1 a *revenue requirement* for each year of the *new regulatory period*, as defined in clause 27; and
 - 3.2.2 a proposal for each of the inputs that is required to derive the *revenue requirement*.
4. The AER may issue a Guideline requiring the *revenue cap proposal* to be presented in a specified form and/or to include specified information in that proposal. In determining the content of that proposal, the Guideline must:
 - 4.1 take into account the likely costs associated with complying with such a Guideline; and
 - 4.2 not preclude a TNSP from including in its *revenue cap proposal* any additional information the TNSP considers relevant to its *revenue cap proposal*.

Requirement for AER to Consider a Proposal and Make a Determination

5. The criteria against which the AER must assess a proposed *revenue cap package* (*relevant criteria*) comprises:
 - 5.1 in respect of an element of a *revenue cap package* which is specifically addressed in Chapter 6, the obligations imposed in relation to that element by the relevant provision in Chapter 6; and
 - 5.2 the matters set out in Section 16(1)(a) and Section 16(2) of the Law.
6. The AER must assess a proposed *revenue cap package* against the *relevant criteria*, and:
 - 6.1 if the AER considers that the proposed *revenue cap package* meets the *relevant criteria*, must decide to make a determination adopting the proposed *revenue cap package*; and
 - 6.2 if the AER considers that the proposed *revenue cap package* does not meet the *relevant criteria*, must decide to make a determination not to adopt the proposed *revenue cap package* and determine the *revenue cap package* for the *next regulatory period* which the AER considers would meet the relevant criteria.
7. For the avoidance of doubt, where the AER considers that a proposed *revenue cap package* meets the relevant criteria, the AER must not decide not to adopt the *revenue cap package* on the ground that a different *revenue cap package* might better or more effectively meet the *relevant criteria*.
8. In making a determination under clause 6.2, where the AER considers that certain elements of the proposed *revenue cap package* meet the *relevant criteria*, the AER must adopt those compliant elements in the *revenue cap package* that it determines for the *next regulatory period* except where adopting those elements would lead to the *relevant criteria* not being met.

Procedural and Evidentiary Requirements

General Process

9. As part of its assessment of a *revenue cap package* submitted by a TNSP, the AER must:
 - 9.1 release publicly the *revenue cap proposal* (with the exception of *confidential material*) received from the TNSP together with a consultation paper that identifies the material issues it considers are likely to be under consideration when assessing the *revenue cap proposal*, and specify a reasonable time within which interested parties may make a submission on the *revenue cap proposal* (which time must not be less than 20 business days);
 - 9.2 issue publicly a draft determination of the AER's assessment of the *revenue cap package* against the *relevant criteria* in accordance with

clause 6 and, at the same time as releasing the draft determination, specify a reasonable time within which interested parties may make a submission on the draft determination (which time must not be less than 30 business days);

- 9.3 if requested by any interested party on or before the date on which submissions on the draft determination are due in accordance with clause 9.2, convene a public forum after the receipt of those submissions and provide all interested parties with a reasonable opportunity to:
 - 9.3.1 elaborate on matters raised in their submission to the draft determination;
 - 9.3.2 respond to the arguments or material advanced or relied upon in the draft determination; and
 - 9.3.3 respond to the arguments or material advanced in any submissions; and
- 9.4 after the public forum, provide a further reasonable time within which any interested party may make a submission on any matter arising from the public forum (which time must not be less than 15 business days); and
- 9.5 issue a final determination of the *revenue cap package* relevant to the TNSP.

Timeline for Release of the Final Determination

10. The AER must release its final determination on a TNSP's *revenue cap package* no later than 3 months prior to the commencement of the *new regulatory period* for that TNSP provided that the AER may, on one or more occasions, extend this deadline by publicly releasing and providing interested parties with a written notice stating:
 - 10.1 the deadline provided by this clause will not be met; and
 - 10.2 the revised deadline for the release of the determination.
11. The obligation imposed by clause 10 applies to any new extension of the deadline under that clause.
12. If the AER fails to issue a final determination on a TNSP's *revenue cap package* prior to the requirement for the TNSP to publish prices for the first year of the *new regulatory period*, then the *revenue cap* for the first year of the *new regulatory period* shall be the *revenue cap* contained in the TNSP's proposed *revenue cap package*.

Process in Relation to Expert Advice or Analysis

13. Where the AER proposes to take into account expert advice or analysis when making a draft or final determination not provided by the TNSP, the AER must:

- 13.1 make a copy of that advice available to the TNSP prior to making the draft or final determination (whichever is relevant);
- 13.2 if requested by the TNSP, secure the attendance of the author of the advice or analysis at a meeting with the TNSP to explain further the advice; and
- 13.3 specify a reasonable time within which the TNSP may respond to the advice or analysis (which time must not be less than 15 business days).

New Material Matters Prior to the Final Determination

14. Where the AER is considering adopting a finding, conclusion or methodology on a material issue in a final determination that differs in a material way to the finding, conclusion or methodology adopted in a draft determination, and the different finding, conclusion or methodology had not been foreshadowed as an option in the draft determination or advocated in a submission to the draft determination, the AER must:
 - 14.1 inform interested parties of the finding, conclusion or methodology that it is considering and any material matters under consideration that are relevant thereto; and
 - 14.2 specify a reasonable time within which the interested party may make a submission on the matter (which time must not be less than 15 business days).

Requirement to Consider Submissions

15. When undertaking an assessment of a *revenue cap package*, the AER:
 - 15.1 must take into account any submission that:
 - 15.1.1 was received in response to a request for submissions; and
 - 15.1.2 was received within the stated period for making submissions; and
 - 15.2 may take into account submissions that:
 - 15.2.1 were received after a stated period for submissions; or
 - 15.2.2 were not received in response to a request for submissions.

Requirement to Consider Confidential Material

16. The AER must not refuse to consider, and must not apply any lesser weight to, material provided by the TNSP solely for the reason that the TNSP has identified the material to be *confidential material*.

Criteria for Assigning Weight to Evidence

17. Where the assessment of a *revenue cap package* requires the AER to consider and apply weight to contradictory pieces of evidence, the AER must:
 - 17.1 where the evidence comprises expert opinion, take account of the competence, expertise and knowledge of the person providing the opinion when assigning weight to that evidence; and
 - 17.2 where the evidence consists of statistical or like analysis, take account of the reliability of the methodology employed, sources of the information relied upon and estimates produced when assigning weight to that evidence.

Requirements to Provide Reasons

18. Subject to clause 21, the AER must publish reasons for any draft determination and final determinations concerning a *revenue cap package* for a TNSP. Those published reasons must set out:
 - 18.1 where the AER determines that a *revenue cap package* proposed by a TNSP does not meet the *relevant criteria*, sufficient details of the analysis undertaken of each element of the proposed *revenue cap package* against the *relevant criteria* to enable that analysis to be replicated, including (where relevant) disclosure of methodologies adopted, disclosure of options considered, reasons for assumptions or judgements made in material qualitative and quantitative analyses and values adopted in material calculations;
 - 18.2 where the AER has determined an alternative *revenue cap package* pursuant to clause 6.2, sufficient detail of analysis underlying the determination of the alternative *revenue cap package* to enable that analysis to be replicated, including (where relevant) disclosure of methodologies adopted, disclosure of options considered, reasons for assumptions or judgements made in material qualitative and quantitative analyses and values adopted in material calculations;
 - 18.3 a response to all submissions received, including the manner and extent to which the AER has taken account of that submission; and
 - 18.4 for all matters where the AER has had to consider and apply weight to contradictory pieces of evidence, an analysis of whether, and the extent to which, the AER has given weight to the evidence and how that evidence was adopted in the AER's determination as required by clause 17.

Guideline on Process

19. The AER may issue a Guideline that sets out in more detail the process that it will follow when undertaking an assessment of a revenue cap proposal provided that this Guideline must be consistent with the AER's obligations set out in this Chapter 6.

Treatment of Confidential Material

20. The TNSP may identify material it provides to the AER in connection with the review of its *revenue cap package* that the TNSP reasonably considers the public release of which would cause detriment to itself or another party, and request the material to be treated as confidential (*confidential material*).
21. The AER must not publicly release *confidential material* without the prior written consent of the TNSP unless the procedures set out in clauses 6.2.6(b)-(e) have been followed.

B. Contents and Criteria for the Revenue Cap Package

Contents of a Revenue Cap Package

22. A *revenue cap package* must comprise:
 - 22.1 a *revenue cap*;
 - 22.2 the definition of the services to be provided by the TNSP under the *revenue cap (revenue capped services)*; and
 - 22.3 the *associated elements*, which must comprise:
 - 22.3.1 a statement describing the incentive arrangements applicable to *capital expenditure, operating expenditure and service performance* over the *new regulatory period (incentive arrangements)*; and
 - 22.3.2 a statement of any *supplementary pass through events* that are to apply during the *new regulatory period*.

Length of the Regulatory Period

23. Unless a TNSP consents to a different period, a *revenue cap* must be set for a period of five years from the commencement of the *revenue cap*.

Requirements for a Revenue Cap

24. A *revenue cap* must be a mathematical formula that derives the revenue to be recovered from providing *revenue capped services* for each year of the relevant regulatory period and must contain terms addressing:
 - 24.1 how the *revenue cap* will be adjusted for actual inflation over the *regulatory period*, together with a statement setting out the measure and source for actual inflation that is to be used;
 - 24.2 where relevant, adjustments to the *revenue cap* to give effect to the *incentive arrangements for service requirements*; and

- 24.3 where relevant, adjustments to the *revenue cap* to reflect a change in a *defined cost driver* that is set out in the *incentive arrangements* for *capital expenditure* pursuant to clause 44.3.3.

Requirement to Define Revenue Capped Services

25. The *revenue capped services* must be defined to sufficient detail to provide reasonable certainty about which services will be charged for under the *revenue cap* and which services may be charged for separately (excluded services or negotiated services).

Requirement to Use the Building Block Approach

26. A *revenue cap* must be set such that the *revenue cap* is expected to deliver revenue over the *regulatory period* expressed in present value terms that is equal to the present value of the *revenue requirement* over the *regulatory period*.
27. The *revenue requirement* for a year must be calculated as the sum of:
- 27.1 a *regulatory return* on the *regulatory asset value* of the transmission assets that is projected over the *new regulatory period*;
 - 27.2 a return of the *regulatory asset value* (*regulatory depreciation*) that is projected over the *new regulatory period*;
 - 27.3 a forecast of *operations and maintenance expenditure* over the *new regulatory period*;
 - 27.4 an allowance for company taxation; and
 - 27.5 any amounts that may be calculated in accordance with the *incentive arrangements* applicable for the *previous regulatory period*.
28. The AER must issue a Guideline accompanied with a financial model that contains the mathematical formulae for deriving the *revenue requirement* in accordance with clause 27 and for deriving the relevant terms of the *revenue cap* in accordance with clause 26.

Requirement to adopt the 'Roll-Forward' approach

General Methodology

29. The *regulatory asset value* as it exists from time to time must be calculated by:
- 29.1 commencing with the previous *regulatory asset value*;
 - 29.2 adding capital expenditure over the intervening period;
 - 29.3 deducting regulatory depreciation over the intervening period;

- 29.4 deducting disposals of transmission assets over the intervening period; and
- 29.5 adjusting the values described in clauses 29.1 to 29.4 for inflation over the intervening period in a manner consistent with the *relevant criteria*.

Establishing the Regulatory Value to be Rolled-Forward

- 30. Except where clause 31 applies, the previous *regulatory asset value* that is applied for the purpose of clause 29.1 must be the *regulatory asset value* used in calculating the *revenue cap* in the last year of the *previous regulatory period* adjusted to reflect any difference between the forecast capital expenditure originally used to determine that *regulated asset value* and the actual capital expenditure undertaken by the TNSP.
- 31. At the first determination of a *revenue cap package* for a TNSP following the commencement of these Rules, a TNSP may apply for the previous *regulatory asset value* to be redetermined. If such an application is received:
 - 31.1 the TNSP must make a case for demonstrating that the previous *regulatory asset value* should be redetermined from the value calculated in accordance with clause 30; and
 - 31.2 the AER must decide whether to redetermine the previous *regulatory asset value*, and decide the new previous *regulatory asset value*, after considering the proposal on its merits, having regard to all relevant matters at the time.

Rolling Forward over a Historical Period

- 32. Where the *regulatory asset value* is adjusted over a period for which information on actual capital expenditure and inflation are available, then:
 - 32.1 capital expenditure must be taken as the actual capital expenditure over the relevant period, except where a review of the prudence or efficiency of actual expenditure may be permitted by the *incentive arrangements* applicable to that period, in which case (subject to clause 45) the review of the prudence or efficiency of actual expenditure in the manner described in the *incentive arrangements* applicable to that period must be applied; and
 - 32.2 inflation must be taken as the measured actual inflation over the relevant period or a substitute period.

Note: it may be necessary for the measure of actual inflation that is applied when rolling forward the regulatory asset base to be actual inflation measured over a lagged period.

Forecasting the Regulatory Asset Value

33. Where the *regulatory asset value* is forecast over the *new regulatory period*:
 - 33.1 *capital expenditure* must be taken as the forecast of capital expenditure over the period; and
 - 33.2 where a forecast of inflation is required, that forecast must be consistent with any forecast adopted when deriving the regulatory return.

Requirement to Issue a Guideline

34. The AER must issue a Guideline accompanied with a financial model that contains the formulae for:
 - 34.1 calculating the *regulatory asset value* over a historical period, which must meet the criteria applicable to that calculation; and
 - 34.2 forecasting the *regulatory asset value* over a *new regulatory period*, which must meet the criteria applicable to that forecast.

Regulatory Return and Company Taxation

35. The *regulatory return* must provide a return that is commensurate with the prevailing conditions in the market for funds and the risk involved in delivering the *revenue capped services*, which must be estimated by applying the following criteria:
 - 35.1 the estimate must reflect a weighted average of the estimates of the returns required by providers of equity and debt for the activity of providing *revenue capped services*, with the weights reflecting a *benchmark assumption* for the gearing level;
 - 35.2 the estimate of the required return to equity providers in clause 35.1 must reflect a *benchmark assumption* about the required return on equity investments in the activity of providing *revenue capped services* and which must be estimated using the capital asset pricing model; and
 - 35.3 the required return to debt providers in clause 35.1 must reflect a *benchmark assumption* about the return required for the provision of debt finance for the activity of providing *revenue capped services* that is sourced in Australian capital markets.
36. The allowance for company taxation pursuant to clause 27.4 must be calculated using *benchmark assumptions* about the relevant inputs to the calculation, including:
 - 36.1 the available interest deductions;
 - 36.2 revenue and expenses; and
 - 36.3 tax depreciation allowances.

37. For the purpose of clauses 35 and 36, a *benchmark assumption* must:
- 37.1 reflect a notional value or decision rather than the actual value or decision attributable to or made by the TNSP;
 - 37.2 where the derivation of a *benchmark assumption* requires an assumption about a decision that a TNSP would make, reflect the decision that would be expected of an efficient firm that is providing the same revenue capped services, and subject to the same obligations, as the TNSP;
 - 37.3 where the derivation of a *benchmark assumption* requires an assumption about a particular cost or like matter, reflect an estimate of the cost payable by an efficient firm that is providing the same revenue capped services, and subject to the same obligations, as the TNSP; and
 - 37.4 be consistent with all other *benchmark assumptions* that are used in the calculation of the *revenue cap*.
38. Where uncertainty exists with respect to an input that is used to estimate the return referred to in clause 35, that input must be derived such that:
- 38.1 the likelihood that the *regulatory return* will understate the return referred to in clause 35 is low, having regard to the *market objective*; and
 - 38.2 the value for the comparable input that was adopted at the time the previous *revenue cap* was determined must continue to be applied except where the evidence for changing the value is highly persuasive, having regard to the *market objective*.
39. The AER must maintain a Guideline that defines standard input assumptions or methodologies for deriving the regulatory return referred to in clause 35, which must meet the criteria that apply to the derivation of that return. The *regulatory return* included in the *revenue cap package* for the *new regulatory period* must use the standard input assumptions or methodologies set out in the Guideline in force six months prior to the time that the TNSP was required to submit a *new revenue cap package* pursuant to clause 2, unless agreed otherwise between the AER and TNSP.

Regulatory Depreciation

40. The *regulatory depreciation* amounts must be calculated such that:
- 40.1 there is a substantial likelihood that the TNSP will recover an amount equal to the *regulatory asset base* and any *capital expenditure* through its *revenue cap* over time; and
 - 40.2 subject to clause 40.1, the TNSP will on a straight line basis recover an amount equal to the *regulatory asset base* and any *capital expenditure* through its *revenue cap* over the time period the assets are likely to be in service unless the TNSP consents to a different approach being adopted.

Capital Expenditure Forecasts and Incentive Arrangements

41. Subject to clauses 42 and 43, the forecast of *capital expenditure* for the *new regulatory period* must reflect the *capital expenditure* reasonably expected to be required to deliver *revenue capped services*, having regard to:

- 41.1 the current and projected condition of the relevant transmission network;
- 41.2 the current and projected utilisation of the relevant transmission network and growth in demand;
- 41.3 the capital intensive nature of transmission investments and the economies of scale available in undertaking such investments;
- 41.4 any service standards or regulatory obligations that apply or are reasonably expected to apply to the relevant TNSP over the new regulatory period; and
- 41.5 projects over the *regulatory period* that are reasonably expected to pass the *regulatory test*.

Note: clause 17 contains criteria governing the weight (if any) that is placed upon benchmarking or similar techniques.

42. Subject to clause 43, where the *incentive arrangements* included in the *revenue cap package* for the *previous regulatory period* set out a method, criteria or principles for deriving or adjusting the forecast capital expenditure for the new regulatory period, then that method, criteria or principles must be applied to derive or adjust the forecast capital expenditure for the *new regulatory period*.

Note: the incentive arrangements for the previous regulatory period may address deferrals of projects from one period to the next by requiring a defined adjustment to the forecast for capital expenditure for the next regulatory period.

43. The forecast of *capital expenditure* and the *incentive arrangements* for *capital expenditure* for the *new regulatory period* must provide the TNSP with a fair share of the benefits of efficiency gains the TNSP achieves.

Note: the expenditure forecasts would need to be derived so that the TNSP is expected to receive a fair share of the prospective efficiency gains.

44. The *incentive arrangements* for capital expenditure that clause 22.3.1 requires to be included in a *revenue cap package* must set out:

- 44.1 whether the *revenue requirement* for the *subsequent regulatory period* will be adjusted to provide a continuation of the benefit created from incurring less capital expenditure than forecast over the next regulatory period, and if so, a statement of the method, criteria or principles for calculating the adjustment. For the avoidance of doubt, the statement may require that an increment that is calculated according to the stated method, criteria or principles be added to the *revenue requirement* for the *subsequent regulatory period* and/or require the forecasts of capital expenditure for the *subsequent regulatory period* to be derived or adjusted according to the stated method, criteria or principles;

- 44.2 subject to clause 45, whether an assessment of the prudence or efficiency of actual capital expenditure over the new regulatory period may be undertaken at the *next revenue cap review*, and if so, a statement describing the methodology and criteria that will be applied in undertaking that assessment of prudence or efficiency; and
- 44.3 whether the *revenue cap* may be revised over the *regulatory period* to reflect the construction of *defined projects*, *defined class of projects* and/or to reflect *defined cost drivers*, in which case the *incentive arrangements* must include:
- 44.3.1 a description of the *defined projects* and a statement of how the *revenue cap* will be adjusted to reflect the undertaking of the *defined projects*; and/or
- 44.3.2 a description of the *defined class of projects* and a statement of how the *revenue cap* will be adjusted to reflect the undertaking of a project from the *defined class of projects*; and/or
- 44.3.3 a description of the *defined cost driver* and a statement of how the *revenue cap* will be adjusted to reflect changes in the *defined cost driver*.

Note: clause 24.3 requires the revenue cap to include a mathematical formula that defines how the cap will change to reflect changes in a defined cost driver, if this option is chosen. In contrast, the revenue implications of undertaking a defined project or one from a defined class of projects would be dealt with through a pass-through type process.

45. Any methodology and criteria set out in the *incentive arrangements* for assessing the efficiency or prudence of capital expenditure pursuant to clause 44.2, and any assessment of the prudence or efficiency of actual capital expenditure for the purpose of clause 32.1, must meet the following criteria:
- 45.1 the assessment of the prudence or efficiency of any decision by a TNSP relevant to the assessment of the prudence or efficiency of capital expenditure must be based upon only the information that was available at the time that the relevant decision was made;
- 45.2 any assessment of the prudence or efficiency of the choice of a project must take into account the results of the *regulatory test* performed for that project, where the application of the *regulatory test* was required;
- 45.3 any assessment of the prudence or efficiency of the timing of a project must take into account the implications of that timing for the network's service performance and the resulting implications for market participants;
- 45.4 any assessment of the prudence or efficiency of the delivery of the project must take into account the full circumstances of the delivery of the project, including the existence of resource constraints and the implications of the use of competitive procurement processes where relevant; and

- 45.5 in all cases, any assessment of the prudence or efficiency of any decision by a TNSP relevant to the assessment of the prudence or efficiency of capital expenditure must have regard to good industry practice regarding that decision.
46. The AER must maintain a Guideline that defines standard *incentive arrangements* to be applied to *capital expenditure* for the purposes of clause 43, which must meet the criteria that apply to those arrangements. The *incentive arrangements* for the *new regulatory period* must incorporate the standard *incentive arrangements* set out in the Guideline that was in force twelve months prior to the time that the TNSP was required to submit a *new revenue cap package* pursuant to clause 2, unless agreed otherwise between the AER and TNSP.

Operating Expenditure Forecasts and Incentive Arrangements

47. Subject to clauses 48 and 49, the forecast of *operating expenditure* for the *new regulatory period* must reflect the *operating expenditure* reasonably expected to be required to deliver the *revenue capped services*, having regard to:
- 47.1 the level of *operating expenditure* incurred during the previous regulatory period and trends in expenditure reasonably expected over the *new regulatory period*;
 - 47.2 the current and projected condition of the relevant transmission network;
 - 47.3 the current and projected utilisation of the relevant transmission network;
 - 47.4 any *service standards* or *regulatory obligations* that apply or are reasonably expected to apply to the relevant TNSP over the *new regulatory period*; and
 - 47.5 the expected cost associated with the operation of the *incentive arrangements* for *service performance* for the new regulatory period.

Note: if the payoffs under the service incentive arrangements are asymmetric, then an expected loss may be generated from the service incentive scheme, for which compensation is appropriate.

Note: clause 17 contains criteria governing the weight (if any) that is placed upon benchmarking or similar techniques.

48. Subject to clause 49, where the *incentive arrangements* included in the *revenue cap package* for the *previous regulatory period* set out a method, criteria or principles for deriving or adjusting the forecast of *operating expenditure* for the *new regulatory period*, then that method, criteria or principles must be applied to derive or adjust the forecast of operating expenditure for the *new regulatory period*.
49. The forecast of *operating expenditure* and the *incentive arrangements* for *operating expenditure* for the *new regulatory period* must provide the TNSP with a fair share of the benefits of efficiency gains the TNSP achieves.

Note: the expenditure forecasts would need to be derived so that the TNSP is expected to receive a fair share of the prospective efficiency gains.

50. The *incentive arrangements* for *operating expenditure* that clause 22.3.1 requires to be included in a *revenue cap package* must set out whether the *revenue requirement* for the *subsequent regulatory period* will be adjusted to provide a continuation of the benefit created from incurring less operating expenditure than forecast over the next regulatory period, and if so, a statement of the method, criteria or principles for calculating the adjustment. For the avoidance of doubt, the statement may require that an increment that is calculated according to the stated method, criteria or principles be added to the *revenue requirement* for the *subsequent regulatory period* and/or require the forecasts of operating expenditure for the *subsequent regulatory period* to be derived or adjusted according to the stated method, criteria or principles.
51. The AER must maintain a Guideline that defines standard *incentive arrangements* to be applied to operating expenditure for the purposes of clause 49, which must meet the criteria applying to those *incentive arrangements*. The *incentive arrangements* for the *new regulatory period* must incorporate the standard *incentive arrangements* set out in the Guideline that was in force twelve months prior to the time that the TNSP was required to submit a *new revenue cap package* pursuant to clause 2, unless agreed otherwise between the AER and TNSP.

Service Performance Incentive Arrangements

52. The *incentive arrangements* for *service performance* that clause 22.3.1 requires to be included in a *revenue cap package* must set out whether a difference between the forecast and actual level of *service performance* during the regulatory period will result in a change to the *revenue cap* within the *regulatory period* and/or in the *subsequent regulatory period*.
53. The *incentive arrangements* for *service performance* that are included in the revenue cap package must meet the following criteria:
 - 53.1 any forecasts of *service performance* over the *new regulatory period* must be consistent with past performance and reasonably expected trends in the relevant network's service performance given the forecasts of capital and operating expenditure over the new regulatory period;
 - 53.2 the objective for the design of the *arrangements* must be to encourage efficiency in a TNSP's decisions regarding the operation of its transmission network as that network exists from time to time;
 - 53.3 adopt only measures of *service performance* that for which the TNSP's decisions on matters within its control would have a material influence on:
 - 53.3.1 the likelihood of events occurring that affect the relevant measure of *service performance*; and/or

53.3.2 where an event of the type referred to in clause 53.3.1 has occurred, the consequences of that event for the relevant measure of service performance; and

53.4 apply rewards and penalties that limits the volatility introduced into a TNSP's revenue to a level that is appropriate, having regard to the *market objective*.

Note: the regulatory return principles automatically require any systemic risk associated with the operation of a service incentive scheme to be taken into account when setting that return.

54. The AER must maintain a Guideline that defines standard *incentive arrangements* to be applied to *service performance* for the purposes of clause 52, which must meet the criteria applying to those incentive arrangements. The *incentive arrangements* for the *new regulatory period* must incorporate the standard *incentive arrangements* set out in the Guideline that was in force twelve months prior to the time that the TNSP was required to submit a *new revenue cap package* pursuant to clause 2, unless agreed otherwise between the AER and TNSP.

Incentive Arrangements in Existing Revenue Caps

55. For the purpose of clauses 32.1, 42 and 48 the *incentive arrangements* applicable to the *regulatory period* at the commencement of these Rules must be determined as the statement of the *incentive arrangements* applicable to operating and capital expenditure that is most consistent with:

55.1 the statements made in the reasons provided for the decision on the previous revenue cap; and

55.2 the statements that were made in Guidelines that had been issued by the regulator prior to the decision referred to in clause 55.1.

Supplementary Pass Through Events

56. Any *supplementary pass through events* as contemplated by clause 70 must meet the following criteria:

56.1 relate to an event whose occurrence and consequences is substantially outside of the control of the TNSP; and

56.2 where the transfer in risk from the TNSP in respect of that event would promote the *market objective*.

Deemed Initial Guidelines

57. The following instruments shall be deemed to be Guidelines validly created under this Chapter 6 as at the commencement of these Rules:

57.1 the Guideline required under clause 39 (regulatory return) – AER, 2005, Compendium of Electricity Transmission Regulatory Guidelines,

Statement of Regulatory Principles, sections 8.4, 8.5, 8.6, 8.7, 8.8, 8.9 and 8.10 (p.21);

57.2 the Guideline required under clause 46 (capital expenditure incentive arrangements) – AER, 2005, Compendium of Electricity Transmission Regulatory Guidelines, Statement of Regulatory Principles, sections 5.2, 5.3, 5.4 and 5.5 (pp.15-16);

57.3 the Guideline required under clause 51 (operating expenditure incentive arrangements) – AER, 2005, Compendium of Electricity Transmission Regulatory Guidelines, Statement of Regulatory Principles, sections 6.2, 6.3, 6.4 and 6.5 (pp.17-18);

57.4 the Guideline required under clause 54 (service performance incentive arrangements) – AER, 2005, Compendium of Electricity Transmission Regulatory Guidelines, Transmission Network Service Standards, sections 1, 2, 3, 4, 5 and Schedules 1, 2 (pp.42-49).

58. The Guidelines created by clause 57 may be changed after the commencement of these Rules, subject to the requirements set out in this Chapter 6.

C. Revision of the Revenue Cap within a Regulatory Period

Revenue Cap only to be Revised Under Defined Circumstances

59. The *revenue cap* that has been determined for a *regulatory period* cannot be reopened during the *regulatory period* except as set out in clauses 60, 64, 69 or 78.

When a Revocation and Redetermination May Occur

60. The AER may determine that it will revoke a *revenue cap* where:

60.1 the TNSP to which the revenue cap applies is materially adversely affected as a result of an event beyond the TNSP's control; and

60.2 the event was not foreseen at the time the revenue cap was determined; and

60.3 the TNSP to which the *revenue cap* applies has requested in writing that the revenue cap be revoked and the request has not been withdrawn in accordance with clause 63; and

60.4 the AER considers that the benefits of revoking the revenue cap outweigh any detriment associated with revoking the revenue cap prior to the end of the *regulatory period*, having regard to the *market objective*.

61. Where the AER determines that it will revoke a *revenue cap* pursuant to clause 60, it must notify the relevant TNSP and provide a reasonable time for the TNSP to make a new *revenue cap proposal*, and the Rules otherwise apply as if the revenue cap proposal had been made pursuant to clause 2 except that:

- 61.1 the time limit in clauses 1 and 2 no longer apply; and
- 61.2 the AER must determine when the *new regulatory period* is to commence.
- 62. A *revenue cap* is deemed to be revoked at the commencement of the new *regulatory period* that has been determined pursuant to clause 61.2.
- 63. A TNSP may, by notice in writing to the AER, withdraw its request for the *revenue cap* to be revoked and redetermined at any time prior to the *revenue cap* being revoked.

Revision for the Capital Expenditure Incentive Mechanism

- 64. A *revenue cap* may be revised during a *regulatory period* where the revision reflects the occurrence of a *defined project* or *defined class of projects* as described in the approved *incentive arrangements* for that *regulatory period*.

Note: the effects of a change to a defined cost driver would be included already in the mathematical formula that defines the revenue cap.

- 65. A TNSP may apply to revise the *revenue cap* as provided for by clause 64 at any time.
- 66. The AER must assess any application pursuant to clause 65 against the terms of the approved *incentive arrangements* and:
 - 66.1 if the proposal complies with the approved *incentive arrangements*, approve the revision to the *revenue cap*; or otherwise
 - 66.2 determine a revision to the *revenue cap* (if any) that would comply with the approved *incentive arrangements*.
- 67. The AER must provide full and reasonable details of the reasons and analysis supporting any revision pursuant to the operation of the *incentive arrangements*.
- 68. The revision to the *revenue cap* takes effect from a time determined by the AER in accordance with the approved *incentive arrangements*.

Pass Through Events

- 69. A *revenue cap* may be revised during a *regulatory period* where a *pass through event* has occurred or is expected to occur.
- 70. The following events are *pass-through events*:
 - 70.1 a *change in taxes event*;
 - 70.2 a *service standards event*;
 - 70.3 a *terrorism event*;
 - 70.4 an *insurance event*; and

70.5 *supplementary pass through events* that have been approved as part of the *revenue cap package*.

Note: these events are defined in clauses 91 onwards.

71. A TNSP may provide a *pass through statement* to the AER at any time.
72. Where the AER reasonably considers that a *pass through event* has occurred or will occur, the AER may require the TNSP to provide it with a *pass through statement* in respect of the *pass through event* within a reasonable time and the TNSP must comply with this requirement.
73. A *pass through statement* pursuant clauses 71 or 72 must include:
 - 73.1 details and documentary evidence of the relevant *pass through event*;
 - 73.2 the date on which the relevant *pass through event* took effect or will take effect or the reasons why the TNSP considers no *pass through event* occurred;
 - 73.3 the estimated financial effects of the *pass through event* on the provision of *revenue capped services*; and
 - 73.4 the *pass through amount*, if any, proposed by the TNSP in respect of the relevant *pass through event*.
74. After receiving a *pass through statement*, the AER must determine:
 - 74.1 whether the *pass through event* specified in the *pass through statement* did occur or will occur; and
 - 74.2 if the AER determines that the *pass through event* did occur or will occur, it must also determine:
 - 74.2.1 whether the *pass through amount* proposed by the TNSP meets the criteria set out in clause 75 and if so, approve this amount, and if not;
 - 74.2.2 the *pass through amount* that would meet the criteria set out in clause 75; and
 - 74.2.3 the date from which the *pass through amount* will be applied.
75. The *pass through amount* must equal the net cost expected to be incurred by the TNSP as a result of the *pass through event* (including costs incurred prior to the TNSP's *revenue cap* being revised to reflect the *pass through amount*), where cost is deemed to include:
 - 75.1 operating and capital expenses;
 - 75.2 the time value of money;
 - 75.3 the effect of the event on the return referred to in clause 35; and

- 75.4 the value associated with the change in any potential liabilities to which the TNSP may be exposed.
76. The AER must provide full and reasonable details of the reasons and analysis supporting its assessment of any *pass through statement*.
77. The revenue cap shall be revised to reflect the *pass through amount* from the date determined by the AER pursuant to clause 74.2.3.

Revision for Material Error or Reliance on False Information

78. The *revenue cap* may be revised during the *regulatory period* where the AER's assessment of the *revenue cap package* was affected by a manifest and material error or was based upon information that was false or misleading in a material respect.
79. If the AER determines that the conditions set out in clause 78 are met, then the AER may determine a revision to the *revenue cap* that meets the requirements of clause 81 and a date by which that revision takes effect.
80. A TNSP may notify the AER in writing that it considers that the conditions set out in clause 78 are met, in which case the AER must:
- 80.1 determine whether the conditions set out in clause 78 are met; and if so
- 80.2 determine a revision to the *revenue cap* that meets the requirements of clause 81 and a date by which the revision takes effect.
81. A revision pursuant to clause 79 or 80 must be determined to remove the net effect of the manifest and material error or to remove the net effect of the reliance upon information that was false and misleading on the AER's assessment of the *revenue cap*.
82. The AER must provide full and reasonable details of the reasons and analysis supporting any revision pursuant to clauses 79 or 80.
83. The *revenue cap* shall be revised from the date determined by the AER pursuant to clauses 79 or 80.2.

D. Effect of Guidelines Issued under this Chapter

General Provisions

84. Where the AER is directed to issue a Guideline under this chapter 6, that Guideline must be issued within six months of the commencement of the Rule giving rise to that obligation. The initial Guidelines deemed under clause 57 are deemed to meet the requirements of this clause.
85. Where the AER is permitted to issue a Guideline under this chapter, the AER may issue the Guideline if or when (whichever is relevant) the AER considers appropriate.

86. The AER may combine different Guidelines into a single document.
87. Where a Guideline issued under this chapter imposes an obligation on a TNSP or the AER, the TNSP or AER (whichever is relevant) must comply with the requirements of that Guideline as it exists from time to time.

Process for Issuing or Changing a Guideline

88. As part of its consideration of issuing a Guideline or changing an existing Guideline, the AER must:
 - 88.1 release a consultation paper that identifies any material issues under consideration in relation to the Guideline or changes to an existing Guideline and specify a reasonable time within which interested parties may make a submission on the consultation paper (which time must not be less than 30 business days);
 - 88.2 release a draft Guideline or draft changes to an existing Guideline and specify a reasonable time within which interested parties may make a submission on the draft Guideline or draft changes to an existing Guideline (which time must not be less than 30 business days);
 - 88.3 if requested by any interested party on or before the date on which submissions on the draft Guideline or draft changes to an existing Guideline are due in accordance with clause 88.2, convene a public forum after the receipt of those submissions and provide all interested parties with a reasonable opportunity to:
 - 88.3.1 elaborate on matters raised in their submissions on the draft Guideline or draft changes to an existing Guideline;
 - 88.3.2 respond to the arguments or material advanced or relied upon in the draft Guideline or draft changes to an existing Guideline; and
 - 88.3.3 respond to the arguments or material advanced in other any submissions; and
 - 88.4 after the public forum, provide a further reasonable time within which any interested party may make a submission on any matter arising from the public forum (which time must not be less than 15 business days); and
 - 88.5 issue a final Guideline or final changes to an existing Guideline.
89. The AER must publish reasons for any draft Guideline or draft changes to an existing Guideline and reasons for any final Guideline or final changes to an existing Guideline. Those published reasons must set out:
 - 89.1 sufficient detail of analysis underlying the determination of the elements of the Guideline or changes to an existing Guideline to enable that analysis to be replicated, including (where relevant) disclosure of methodologies adopted, disclosure of options considered, reasons for

assumptions or judgements made in material qualitative and quantitative analyses and values adopted in material calculations;

- 89.2 a response to all submissions received, including the manner and extent to which the AER has taken account of that submission; and
 - 89.3 for all matters where the AER has had to consider and apply weight to contradictory pieces of evidence, an analysis of whether, and the extent to which, the AER has given weight to the evidence and how that evidence was adopted in the AER's determination as required by clause 17.
90. The AER must comply with the criteria set out in clauses 13 to 17 as modified below when considering whether to issue a Guideline or to change an existing Guideline:
- 90.1 all references in clauses 13 to 17 to a draft determination shall be taken as references to draft Guideline or draft changes to an existing Guideline;
 - 90.2 all references in clauses 13 to 17 to a final determination shall be taken as references to final Guideline or final changes to an existing Guideline; and
 - 90.3 all references in clauses 13 to 17 to an assessment of a *revenue cap package* shall be taken as references to considering whether to issue a Guideline or to change an existing Guideline.

E. Definitions

91. **Change in Taxes Event** means:
- 91.1 a change in the way or rate at which a Relevant Tax is calculated (including a change in the application or official interpretation of Relevant Tax);
 - 91.2 the removal of a Relevant Tax or imposition of a new Relevant Tax, to the extent that the change, removal or imposition occurs:
 - 91.2.1 after the date of the Determination; and
 - 91.2.2 results in a change in the amount the TNSP is required to pay or is taken to pay (whether directly, under any contract or as part of the operating expenses or other cost inputs of the TNSP's revenue cap) by way of Relevant Taxes.
92. **Relevant Tax** means any tax, rate, duty, charge, levy or other like or analogous impost that is:
- 92.1 paid, to be paid, or taken to be paid by the TNSP in connection with the provision of *revenue capped services*, or
 - 92.2 included in the operating expenses or other cost inputs of the TNSP's *revenue cap*;

but excludes

- 92.3 income tax (or State equivalent tax) or capital gains tax;
- 92.4 penalties and interest for late payment relating to any tax, rate duty, change, levy or other like or analogous impost;
- 92.5 fees and charges paid or payable in respect of a Service Standards event;
- 92.6 stamp duty, financial institutions duty, bank accounts debits tax or similar taxes or duties;
- 92.7 any tax, rate, duty, charge, levy or other like or analogous impost that replaces the taxes or charges referred to in clauses 92.3 to 92.6.

93. **Service Standards Event** means a decision made by the AER or any other Authority or any introduction of or amendment to an Applicable Law after the date of the Determination that:

93.1 has the effect of:

93.1.1 imposing or varying minimum standards on the TNSP relating to revenue capped transmission services that are different to the minimum standards applicable to the TNSP in respect of *revenue capped services* at the date of the Determination;

93.1.2 altering the nature or scope of services that comprise the *revenue capped services*;

93.1.3 substantially varying the manner in which the TNSP is required to undertake any activity forming part of *revenue capped services* from the date of the Determination; or

93.1.4 increasing or reducing the TNSP's risk in providing the *revenue capped services*, and

93.2 results in the TNSP incurring (or being likely to incur) materially higher or lower costs or facing materially higher or lower risk in providing *revenue capped services* than it would have incurred but for that event.

94. **Terrorism Event** means an act, including but not limited to the use of force or violence and/or the threat thereof, of any person or group(s) of persons, whether acting alone or on behalf of or in connection with any organisation(s) or government(s), which from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons, including the intention to influence any government and/or to put the public, or any section of the public, in fear.

95. **Insurance Event** means where one or more of the following circumstances occurs:

95.1 where Insurance in respect of any risk becomes unavailable to the TNSP;

- 95.2 where Insurance in respect of any risk becomes unavailable to the TNSP at reasonable commercial rates;
 - 95.3 where Insurance in respect of any risk becomes unavailable to the TNSP on terms which are at least as favourable to the TNSP as those generally available at the date of the Determination;
 - 95.4 where the cost of Insurance (including, without limitation, premiums and deductibles) in respect of any risk becomes materially higher or lower than the cost of Insurance at the date of the Determination;
 - 95.5 where an insurance benefit payment to the TNSP under its Insurance in respect of any risk is reduced by a deductible amount; or
 - 95.6 where an insurance benefit payable to the TNSP under its Insurance in respect of any risk is not paid to the TNSP due to the business failure of an insurer.
96. **Insurance** means insurance whether under a policy or a cover note or other similar arrangement:
- 96.1 for risks of the sort for which the TNSP was covered at the date of the Determination;
 - 96.2 for amounts not less than amounts underwritten in favour of the TNSP at the date of the Determination; and
 - 96.3 on terms, including without limitation terms specifying deductibles payable and any applicable exclusions, no less favourable to the TNSP than the terms in place at the date of the Determination.