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Dear Sir

AEMC Transmission Revenue Rules Issues Paper

Thank you for the opportunity to comment on the abovementioned Issues Paper. In response, TransGrid attaches a specific response to each of the questions raised in the Issues Paper. TransGrid is also party to a joint submission from the NEM transmission owners, provided under separate cover, and generally supports that submission.

This submission seeks to emphasise TransGrid's particular position in relation to this Review. Specifically, to ensure that the regulation of monopoly electricity transmission services ultimately delivers the outcomes for electricity consumers, as intended by the National Electricity Law (NEL), Rules are required that:

1 Specify a building block form of regulation that includes the following key revenue cap components:

   a. establishment of the value of an asset base for regulatory purposes where that value, once established, is only varied to reflect movements in asset prices, additional capital expenditure, and adjustments for regulatory depreciation;
   b. definition of the economic framework for increasing the value of the regulatory asset base in recognition of efficient capital expenditure;
   c. provision of a return on the value of the regulatory asset base that establishes and maintains a reasonable incentive to undertake investment in long lived assets;
   d. definition of the process for establishing a reasonable estimate for economic depreciation;
   e. establishment of reasonable provisions for operating expenditure based on revealed efficient costs;
   f. includes a clear treatment of benchmark taxation obligations; and
   g. facilitates the provision of financial incentives that encourage efficiency gains over time.

2 Establish revenue cap regulation as the primary form of price control for regulated electricity transmission services with defined scope to vary the revenue caps within a regulatory control period under specific, but limited, circumstances.

3 Clearly define the criteria to be used in determining the extent of electricity transmission services that are to be subject to the form of regulation specified in 1 and 2 above.

In coming to this position TransGrid has considered:

- The requirements mandated by the NEL aimed at:
  - achieving the intended NEM governance arrangements of separating responsibility for Rule making (AEMC) from Rule enforcement (AER);
  - ensuring that the full potential of electricity transmission can be realised in the terms expressed in the NEM Objective; and
  - enabling the regulatory framework to evolve while providing sufficient stability and certainty to support investment in infrastructure, characterised by long economic lives.
- The unique economic characteristics of electricity transmission.
- The lessons to date regarding the regulation of electricity transmission.

Each of these points is discussed briefly in turn.

Fulfilling the requirements of the National Electricity Law

First and foremost the NEL mandates that the AEMC make Rules in relation to the regulation of electricity transmission revenue and prices. It does not mandate or empower the AEMC to self initiate Rules relating to electricity distribution or gas networks. The NEL also mandates that such Rules address a number of specific matters, and meet certain specific criteria, including, but not limited to, the NEM Objective. The time frame for the completion of this project is 30 June 2006. These requirements appear to have a number of implications as follows:

- The primary focus of the Review is on making Rules for the regulation of electricity transmission, not electricity distribution or gas networks.
- While there are other parties with an interest in this Review, the most direct and material impact of this Review is on transmission companies, and the submissions from the transmission companies ought to be accorded a commensurate weighting.
- There is a clear intention, reflected in the Law, that the Rules provide substantial guidance to the AER on the exercise of their discretion across a range of matters, and that this guidance be established relatively promptly, in line with a wider policy objective of separating the roles of Rule making (the AEMC) and Rule enforcement (the AER).

In this context it would appear that, where there is doubt about the extent to which the AER is to be accorded discretion in relation to a given matter, the AEMC ought to err on the side of establishing Rules. The reasons for this position are as follows:

- It is consistent with the intended Governance framework of separating the role of Rule making (the AEMC) and Rule enforcement (the AER).
- This enhances the accountability of the AER, and the quality of AER decisions and decision making processes, in the exercise of its functions, regardless of the form of review ultimately adopted by the MCE (merits vs judicial).
- Evolution of the regulatory regime is allowed to proceed in an orderly way over time using the Rule change process set out in the NEL, that is accessible to all persons, provides a clear and consistent basis for the assessment of proposed Rule changes over time, and preserves the statutory effect of Rule changes.

While the regime needs to evolve, a degree of certainty and stability of the regime needs to be preserved over time. Transmission service outcomes are highly dependent on processes that deliver efficient and effective investment in network development. The return of capital on the asset classes involved usually occurs over long periods of time involving many regulatory control periods. For regulatory incentives to be effective these also need to have a degree of stability over time. As such, certainty about the regulatory treatment of investment decisions, and confidence that the regulatory regime will be relatively stable over time, contribute materially to safety, reliability and cost outcomes for electricity consumers.

Prescribing the current transmission revenue regulation requirements within the Rules, and subjecting future Rule changes to the NEL Rule change process, would enhance this stability and certainty compared with current administrative arrangements, while still providing for the regime to evolve in a considered fashion over time.

Recognising the unique economic characteristics of electricity transmission

Consideration of the unique economic characteristics of electricity transmission, together with low correlation between transmission cost drivers and economy wide cost drivers in the short to medium term, point to building block revenue cap regulation as the appropriate form of electricity transmission regulation.

The vast majority of electricity transmission assets in the NEM are associated with the shared transmission network servicing multiple customers and generators. This network is characterised by the economies of scale and scope, where any investment or maintenance activity can have implications for the service delivered to any one of a number of parties across the NEM. The Issues Paper correctly identifies the extent of these externalities as being far more significant than is the case for gas networks. As such, the natural monopoly characteristics of the shared transmission network are substantial, and these are not easily addressed by market design. Accordingly, it is inevitable that relatively intrusive regulation will be required for services provided by the shared electricity transmission network.

In addition, there are considerable intrinsic differences between the cost structures of each NEM transmission service provider. For example, the Queensland electricity transmission network services a much larger geographical area than Victoria, even though both regions have comparable levels of maximum demand. South Australia has a very poor load factor compared with Queensland. The NSW transmission network is central to the National Electricity Market, services the largest local load area concentrated along the NSW coastline, and provides connection to the other two largest load areas of Queensland and Victoria. The rate of growth in demand also varies significantly from one transmission service area to another. In light of these fundamental differences, benchmarking of performance, and use of wider economy based productivity benchmarks, are of very limited value in the regulation of electricity transmission.

The NEL, on the other hand, places a significant emphasis on establishing regulatory incentives to drive desired outcomes from the electricity transmission sector. Taken together, these characteristics appear to imply that cost of service regulation is not consistent with the NEL, while lighter handed forms of regulation such as benchmarking, price monitoring, and use of total factor productivity indices are unsuited to the level of regulatory scrutiny required for electricity transmission. The adoption of a building block form of regulation would provide the necessary level of regulatory scrutiny, while at the same time enabling the introduction of incentives to improve service performance and achieve cost efficiency gains over time.

Capturing the lessons to date regarding the regulation of transmission

The NEM design, involving separation of the competitive sectors of the electricity supply chain from the natural monopoly elements of the electricity supply chain, has been in operation for at least seven years.

Lessons from this period have been captured in the development of government policy related to the role of transmission in deregulated electricity markets. These lessons are reflected in both the MCE Policy Statement of December 2003, as well as the requirements for the regulation of electricity transmission as set out in the revised NEL. Specifically, the MCE adopted the following principles to underpin transmission policy in the NEM:

- The transmission system fulfils three key roles – it provides a transportation service from generation source to load centre, facilitates competition, and ensures secure and reliable supply.
- There is a central and ongoing role for the regulated provision of transmission, with some scope for competitive (market) provision.
- Transmission investment decisions should be timely, transparent, predictable and nationally consistent, at the lowest sustainable cost.
- The regulatory framework should maximise the economic value of transmission, including through the efficient removal of regional price differences in the operation of the NEM.

Furthermore, in the seven years since the establishment of the NEM, all transmission businesses have come under national regulation and have been subjected to at least one regulatory Review by the ACCC. Consequently, considerable experience has been gained in the regulation of electricity transmission, having regard for its unique economic characteristics. Experience to date has also shown that the vast majority of transmission investment has been driven by the need to achieve reliability outcomes determined on behalf of the community by governments.

These factors have been reflected, to a large extent, in the development of the AER's Statement of Regulatory Principles and other supporting documents, and as such, these documents provide a legitimate reference point for the development of Rules for the regulation of electricity transmission by the AEMC.

Summary

A systematic Review of the NEL requirements, consideration of the unique economic characteristics of electricity transmission, and the lessons to date regarding the regulation of electricity transmission, imply the need for Rules that:

- closely align with the framework set out in the AER Statement of Regulatory Principles, and
- include detailed Rules covering each of the relevant regulatory building blocks.

Adopting this approach also locks in the intended separation of Rule making (AEMC) and Rule enforcement (AER) responsibilities, while allowing the evolution of electricity transmission regulation to occur systematically over time using the Rule change process and the relevant criteria set out in the NEL, including the NEM Objective.

Yours sincerely

Kevin Murray 16/11/2005
Managing Director

AUSTRALIAN ENERGY MARKET COMMISSION

TRANSGRID RESPONSES TO THE QUESTIONS IN THE REVIEW OF THE ELECTRICITY TRANSMISSION REVENUE AND PRICING RULES ISSUES PAPER

4. Form of Regulation

4.2. Existing Arrangements

1. Should the Rules specify the form of regulation for prescribed transmission services (as currently) or leave this open for the AER to determine?

The AEMC is the Rule making body and the AER is the Rule enforcing body. Accordingly, unless there is a compelling policy or legal requirement, the regime to be administered by the AER ought to be specified as clearly as possible within the Rules.

As noted in the Issues Paper, the majority of electricity transmission services, particularly those dependent on the performance of the shared transmission network, have certain unique economic characteristics that determine the form of regulation that should apply. Accordingly, once the form of regulation is determined having regard for these characteristics, there is no discernable benefit in leaving this as a matter where the AER should be able to exercise material levels of discretion. Put simply the Rules should prescribe the form of regulation to apply to shared transmission network services and these services should continue to be classified by the Rules as prescribed services.

However, as discussed below, there may be some scope for the AER to determine that certain limited transmission services associated with connection assets need not be subject to the same form of regulation as prescribed services. The exercise of this discretion needs to be guided by criteria and processes set out in the Rules. The exercise of this discretion may be appropriate in relation to a new connection asset when it is open to any party to provide connection services on a contestable basis.

There may also be scope under some limited circumstances for allowing the connecting party (not being a regulated entity) and the network service provider to negotiate appropriate arrangements, including the standard of reliability to be provided at that connection point.

2. Are there areas, in addition to those noted above, where the Rules and current regulatory practices differ?

There are important features of current regulatory practice that do not appear to be strictly in accordance with the current Rules in addition to those mentioned. For example, there appears to be a strong emphasis within the Rules on minimising the need to revisit a regulatory decision within a regulatory control period. However, as discussed below, the current SRP and TransGrid revenue cap decision, were developed with the intention of providing reasonable scope for within period adjustments to revenue caps. Examples include the ability for a TNSP to seek a re-opening in the event of a material change in circumstance, and adjustments to the revenue cap following the 'triggering' of a contingent capital project.

There should also be scope for certain other classes of 'pass through' revenue cap adjustments where there are material cost impacts that are essentially outside the control of transmission businesses.

4.3. Alternative Approaches

3. To what extent do the alternative forms of regulation identified above, warrant further investigation and analysis in the course of the Review?

The most appropriate form of regulation for electricity transmission is the building block method currently set out in the Statement of Regulatory Principles. The reasons for this include:

1 The natural monopoly characteristics of shared electricity transmission services, including economies of scale and externalities.
2 The material differences between one transmission company and another in terms of intrinsic cost base, load densities, service areas and geography making benchmarking based forms of regulation highly impractical to implement.
3 The unique characteristics of electricity transmission compared with other network businesses such as gas transmission or electricity distribution.
4 The variability of capital expenditure profiles over time and the lack of correlation of these profiles with load growth.
5 The importance of preserving, to the extent possible, some meaningful level of incentive based regulation.

4. Should the Rules provide the flexibility to adopt alternative forms of regulation in appropriate circumstances, and if so, what are those circumstances?

There is no need to specifically provide for the adoption of alternative forms of regulation within the National Electricity Rules. This is because the National Electricity Law already provides a mechanism for changing Rules to reflect changed circumstances and innovation. All that has to be demonstrated to change rules is that the proposed changes further the achievement of the National Electricity Market Objective. It may be that legislative changes, associated with gas and electricity network regulation bring this consideration into play in the future.

5. Are there any additional forms of regulation that should be considered?

The Issues Paper appears to adequately cover the range of options for the form of regulation that need to be considered.

4.4. Relevant Factors in Evaluating Alternative Approaches

6. To what extent does the degree of TNSPs' market power differ for different transmission services? To what extent are transmission customers able to act in a way that constrains the conduct of TNSPs?

As explained further below, a transmission network service provider's market power in relation to the shared transmission network is substantial. Indeed, this was the reason for separating the ownership and control of transmission services from the ownership and control of generation and retail services. Accordingly, in relation to shared transmission services, and in the absence of effective regulation, transmission customers have limited commercial leverage in constraining the conduct of TNSPs.

However, there is an important caveat on this assessment. Transmission services are also considered to be of an essential nature with potentially dire consequences if service (particularly reliability) obligations are not met. As a result, refusal to provide service is rarely an option, either legally or in practical terms. Accordingly, the ultimate negotiating leverage of most monopolies of refusing service, is not normally available to transmission businesses. This alters the balance of negotiation, particularly with existing customers, considerably in

their favour. By way of example, TransGrid has found it extremely challenging to finalise connection agreements with some parties.

There are also a limited range of transmission services, primarily dedicated connection assets to very large electricity users or generators, where there is scope for 'non-prescribed' (contestable) provision of transmission services. In addition, the current Rules provide the opportunity for customers to demonstrate feasible bypass options when negotiating transmission charges, as well as providing customers with some choice over the structure of transmission charges, e.g. where the charges are levied on the basis of total energy or maximum demand.

7. Would a multi-layered regulatory approach, based on degrees of market power associated with different services, be appropriate?

A multi layered regulatory approach is appropriate. However, the vast majority of transmission services associated with shared transmission network facilities are characterised by high levels of market power. These services should be subjected to the building block form of regulation.

However, new dedicated connection services to non-regulated entities can be meaningfully subjected to different treatment (non-regulated). In these instances care needs to be taken to ensure there is a process for managing the transition from dedicated to shared status. This is because, in some instances, the most economic way of providing transmission access to a new transmission customer is to utilize a connection asset that is already dedicated to an existing customer.

8. Are there transmission services that are likely to be suitable for a less intrusive form of regulation, such as price monitoring?

Where connection services are considered to be outside of those services requiring close regulation, price monitoring is not required. This is because, these connection services are invariably provided to very large energy use customers, generators, or distribution businesses who have the sophistication to recognise whether services are being reasonably priced at various locations in the network.

9. How significant are information asymmetry problems for electricity transmission regulation?

The National Electricity Rules require substantial ongoing public disclosure of transmission business activities. Examples include, annual planning reports, regulatory test reviews, environmental assessment processes, and information to the market on transmission outages. Transmission services are of importance to all market traders and large energy users, as well as NEMMCO. Accordingly, there is a large body of understanding that continues to evolve regarding transmission issues and transmission services.

As such, there is ample opportunity for regulators to test their positions with interested parties in relation to transmission regulation. In addition, where regulators may lack some understanding of transmission services, this can be largely overcome by judicious use of available transmission expertise within the marketplace. Accordingly, TransGrid does not consider that there are substantial asymmetric problems of electricity transmission regulation that cannot be overcome relatively easily by a competent regulator supported with reasonable information gathering powers.

10. What issues arise under the current building block approach in respect of information asymmetry?

TransGrid has found that regulators operating with the current information gathering powers, and supported by appropriate expert advisors, have been able to come to a relatively thorough understanding of the business issues facing transmission businesses. The

thorough access to extensive information and data made available at the time of the revenue reset process contributes to this outcome. TransGrid's experience includes two revenue cap reviews operating under the current building block approach.

11. To what extent would these be addressed by the adoption of an approach that relied on benchmarks to a greater extent?

Benchmarking of transmission businesses is only possible by first understanding the specific differences between one transmission business and another, and making allowance for these differences in developing appropriate benchmarks. This is no less challenging than assessing the individual business needs, on a case by case basis, using the building block form of regulation. Accordingly, benchmarking offers no material advantage in addressing information asymmetry issues. Furthermore, the inappropriate application of benchmarking can result in perverse regulatory outcomes, including outcomes that are inconsistent with the NEM Objective.

12. To what extent are TNSPs faced with demand and cost circumstances that make it relatively easy (or difficult) to make comparisons across businesses, and over time?

The demand and cost circumstances vary significantly from one transmission company to another, and over time. For example, Victoria services a much smaller load area than Queensland and NSW, and yet services similar total customer demand for electricity. This provides the Victorian transmission providers with a natural and material cost advantage. Similarly, the form and location of generation can have a significant impact on transmission costs. Recently, the costs of connecting wind generation sources, particularly in South Australia and Tasmania, have been significant and serve to illustrate this point.

Other differences include, variations in geography and environmental obligations from one jurisdiction to another. For example, it is understood that Powerlink can 'pre-acquire' transmission line easements, whereas TransGrid cannot because of different environmental regulation in NSW. Similarly, the extent and nature of forests and national parks between generation sources and load vary significantly. There are also differences in the variation in demand for electricity on a daily, weekly and annual basis from one region to another. For example, the load factor in South Australia is markedly worse than any other State. This can have a material impact on transmission network utilisation, and hence average transmission costs.

Comparisons over time are also problematic. TransGrid, for example, had a period of relatively low network investment during the early to mid 90s. During this period capital expenditure averaged less than $50m per annum. More recently, with ongoing demand increases absorbing any previous spare network capacity, expenditure requirements, including aged asset replacement, have risen to exceed more than $250m per annum. Similarly, Transend are now faced with a substantial renewal program after an extended period relying on existing infrastructure.

4.5. Form of Price Control

13. Are there concerns with the current operation of the revenue caps applied to TNSPs? If so, what changes would be appropriate to overcome these problems?

TransGrid is not aware of any major concerns with the operation of revenue caps in favour of price caps for transmission businesses. Specifically, revenue caps were adopted for transmission regulation because of the poor correlation between capital expenditure over time and load growth. Price caps have been adopted for the regulation of a number of distribution businesses, possibly reflecting a closer correlation between customer demand growth and capital expenditure that applies to transmission.

In addition, the adoption of price caps often requires additional adjustment factors to accommodate and/or encourage the adoption of non-network options. For example, IPART in

NSW is understood to have introduced such factors into the price cap arrangements for NSW distribution businesses to encourage recourse to prospective network support providers and demand response management.

14. Does the fact that the Rules preclude changes to the MAR within the regulatory period present difficulties in relation to the appropriate treatment of capital expenditure?

Difficulties can and do arise as a result of the inability to adjust the MAR within a regulatory period. However, these difficulties need to be considered in the context of providing incentives for TNSPs to undertake efficient capital expenditure.

The ACCC considered this issue in developing the framework that currently applies to TransGrid and that is set out in their Statement of Regulatory Principles. In particular, the ACCC originally proposed a regime that imposed substantial penalties on a TNSP for exceeding capital expenditure targets established at the time of the revenue cap decision. The ultimate reduction in the impact of these penalties also reduces the difficulties that can arise as a result of the inability to adjust MAR during a regulatory control period.

In addition, the ACCC provided for the MAR to be adjusted for certain classes of capital expenditure (contingent projects) during the regulatory period. However, this regime has not been able to be implemented as intended because of restrictions imposed by the current Rules for adjusting MAR during a regulatory control period.

Another approach to this issue could be move away from the ex-ante regime that is currently in the SRP and rely on an ongoing, but defined process, for assessing the efficiency of capex and adjust the RAB on annual basis. Such a process would have explicit regard for the current requirements in Section 5.6 of the Rules that establish processes that, if met, go some way towards ensuring that capex is efficient. This is discussed further below. However, for the avoidance of doubt on this matter, TransGrid supports the joint submission from the NEM TNOs that proposes an initial framework that reflects current SRP arrangements.

15. Should the Rules continue to be prescriptive in relation to the form of direct or indirect price control to be adopted by the AER for the TNSPs? If so, what form of price control should be prescribed?

As explained above, TransGrid is unaware of any material problems associated with a revenue cap form of price control for transmission companies. As also noted above, there are sound reasons for maintaining the revenue cap form of regulation, including the relatively poor correlation between capital expenditure and demand growth in the short to medium term. Accordingly, it would be in the interest of consumers in the long term, as well as transmission investors, to prescribe revenue caps within the Rules as the appropriate form of price control.

16. Alternatively would there be benefit in allowing the AER guided discretion regarding the form of price control? If so what guidance would be appropriate?

In light of the response to question 15 above, and with regard to the following considerations:

1 the AEMC is the rule-making body under current government arrangements;
2 there is clear requirement for ensuring that the AER can be held accountable for its decision (refer to MCE Consultation Paper on the form of regulatory review), and
3 the scope to amend Rules, where such amendments meet the NEM objective.

There appears to be no sound reason for the AER to be provided with discretion on this matter guided or otherwise.

17. What characteristics of electricity transmission are relevant in considering the choice of form of price control? Do these characteristics differ from those for electricity distribution where price caps often apply?

As explained above, TransGrid is unaware of any problems associated with a revenue cap form of price control for transmission companies. As also noted above, there are sound reasons for maintaining the revenue cap form of regulation for transmission regulation because of the unique characteristics of electricity transmission. Accordingly, it would be in the interest of consumers in the long term, as well as transmission investors, to prescribe revenue caps within the Rules as the appropriate form of price control.

It is understood that price control is more applicable to distribution businesses because of closer correlation between growth in customer demand and capital expenditure in this sector.

However, it should be noted that price control imposes volume risk on the regulated business that does not occur with revenue cap regulation. It is understood that this was a key reason why the benchmark credit rating for Victorian distribution businesses adopted recently in the Essential Services Commission price cap decision was lower than adopted recently for TransGrid. As a result the risk margin used in calculating regulated returns was around 25 basis points higher. On this basis, if price cap regulation were adopted for electricity transmission, it would appear that this would impose material additional costs on electricity consumers.

18. What factors ought to be taken into account when choosing the form of price control?

These have been addressed out in response to questions 13 and 17 above.

19. How do the incentives provided under the different forms of price control impact on the efficient development and operation of the transmission system?

Given the relatively poor correlation between transmission investment and customer load growth, the adoption of price caps instead of revenue caps unduly complicates the incentive properties in relation to the efficient development and operation of the transmission system. Evidence of this poor correlation is included in the joint TNO submission provided under separate cover.

In addition, investment driven by the need to build or reinforce interconnection may not be appropriately accommodated under the price control arrangements.

20. What advantages or disadvantages would there be in allowing greater pricing flexibility for TNSPs under a price cap form of price control?

As noted above, price flexibility currently exists to minimize the risk of inefficient network bypass by generators and major electricity users. Beyond this, given the complexity of determining the beneficiaries of shared transmission service, particularly over time, there appears to be no material advantage in allowing greater pricing flexibility for TNSPs. Indeed, there are two major potential disadvantages as follows:

1 experience overseas, particularly in the United States, shows where transmission pricing arrangements seek to identify the beneficiaries of particular transmission services lead to endless debates about who pays, uncertainty, and delays in efficient transmission investment;
2 the opportunity may arise for transmission services providers to inefficiently exercise market power in developing price structures.

21. What advantages or disadvantages are there in adopting a hybrid form of price control?

It appears that when the AEMC refers to 'a hybrid form of price control' this means a regime similar to that set out in the AER's SRP, and that applies to the current TransGrid revenue cap decision. That is, revenue caps can be varied in response to certain pre-defined events such as the occurrence of a contingent capital project.

The major advantage of such a regime is that exogenous factors can be isolated from events that are within the control of the business. In this way an incentive arrangement can be applied to those factors that the business can control ensuring that incentives reward/penalise real business improvements and not windfall gains/losses.

The major disadvantage is that additional regulatory complexity arises and the need for the regulator to remain involved in ongoing business considerations is enhanced. In addition, it is not always easy to pre-define exogenous events in advance or easily establish that factors are truly exogenous. These factors can also add to the cost of regulation.

On balance, some scope for 'within period' adjustments would appear to be consistent with the requirements of the NEL to encourage efficient outcomes and to provide transmission businesses with a reasonable opportunity to recover the costs of meeting service obligations.

5. Scope of Regulation

5.2. Existing Arrangements

22. Is the delineation of those services covered by the main regulatory control set out in the current Rules appropriate? Does this delineation reflect those transmission services with substantial market power?

TransGrid contends that at least two classes of transmission service need to be established as follows:

1 those subject to regulatory control, and
2 those not subject to regulatory control.

Specifically, shared network services should be subject to regulatory control, and connection assets that have historically been subject to regulatory control (particularly where because the connected party is also a regulated network provider) should continue to be subject to regulatory control. New dedicated connection assets that connect major electricity users or generators to the transmission network can be negotiated with agreed components made contestable and ought not be subject to any form of regulatory control (ie. non-prescribed). All connection assets between transmission network service providers and distribution service providers ought to be subjected to regulatory control.

In general, the delineation for most services is generally appropriate and reflects the main services where TNSPs may have substantial market power.

However, there are significant issues to be resolved and clarified at the boundaries between prescribed and non-prescribed services. For example, there is a need for clearer definitions of prescribed and non-prescribed services for customer connections. Further comment is provided on this under other Questions, particularly 30 and 34.

23. Are there other transmission services that may be amenable to a negotiate-mediate –arbitrate model of regulation?

Among the services that could be subjected to negotiate-mediate-arbitrate are those services to major end users and generators that can be subjected to inefficient bypass. While service standards for main shared network are not generally open to negotiation, price may be negotiable where inefficient bypass can be avoided. Pricing provisions are already in place within Chapter 6 of the Rules to support these arrangements and these appear to be working well.

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.

There is also scope to clarify which services fall into this category and to establish clear 'grandfathering' of any existing arrangements that do not fit the final model.

24. Are the 'negotiate–mediate–arbitrate' arrangements applying to transmission access services operating satisfactorily?

These arrangements are complicated by some uncertainty about the exact scope of services which should fall into this category and about the rules in relation to them.

Arrangements involving negotiation of access rights to the shared network do not appear to make sense in the context of an open access transmission regime. Under this regime it is not appropriate for a generator or other market trader to have priority access either on a physical or financial basis to the shared transmission network.

In any event, the process for allocating rights in this regard is unworkable under the current framework. It may be feasible to overcome this latter factor by moving to a regime of locational marginal pricing and financial transmission rights similar to that operating in some US jurisdictions. However, notwithstanding policy considerations including, among other matters, possible preferential access to the transmission system bv some participants, the allocation of initial transmission rights to existing market participants is a non-trivial consideration in the introduction of this regime.

In any event, TransGrid does not consider the issue of access rights to be within the scope of the requirements imposed by the NEL on the AEMC to make Rules in relation to electricity transmission revenue and price regulation.

25. Is there an opportunity to improve the efficiency of these arrangements and, if so, what problems need to be addressed?

The current rule provisions requiring TNSPs to negotiate preferential access arrangements with generators in good faith are unworkable and should be abandoned pending resolution of fundamental policy issues such as whether transmission access rights should be able to be allocated on some basis and what trading of these rights should be permitted. Please also refer to the response to question 24 where it is conceded that this matter is probably outside the scope of this review.

There are other issues concerning negotiations between TNSPs and their customers. Customers themselves have considerable "power" in some situations and can frustrate the efforts of TNSPs to comply with the Rules. For example, if an existing customer chooses not to negotiate to renew a connection agreement, there are limited options available to a TNSP to ensure that a new agreement is put in place. In theory, the TNSP may withdraw services if

an agreement is not established. However, given the essential nature of electricity services, this is not a practical option except in extreme situations

26. To what extent do TNSPs provide services on a basis higher or lower than the service standards referenced in the Rules?

Transmission network services providers can and do, under some circumstances, provide different levels of connection service to different users. In general, the services provided by the main interconnected transmission network cannot be readily differentiated. The service standard of a radial network supply, usually to an electricity distribution business, can be lower or higher than set out in the Rules, subject to the customer requirements (and/or any jurisdictional requirements).

Specifically, the level of transmission reliability provided to various load areas has traditionally varied according to the level of customer demand and the economic impact of the loss of supply through a network failure. For example, the economic impacts of transmission service failure to the Sydney metropolitan area are substantially higher than the economic impacts of transmission service failure to areas where population levels and economic activity is much lower. In addition, the costs of transmission service over long distances to low density load areas can be substantially higher than necessary if uniform reliability standards are adopted.

Accordingly, it is considered to be good public policy for specific minimum reliability levels to be established within a jurisdiction by the relevant government. These standards are a community issue and ought to remain the domain of government. The National Electricity Law and the Rules clearly recognise this by allowing TNSPs to have a reasonable opportunity to recover costs associated with meeting particular service requirements.

Differential service levels are also possible in relation to services provided via dedicated connection assets. To date, these requirements in relation to new connection assets, have been a matter for negotiation between the parties involved and have been reflected in connection agreements.

From time to time there are proposals for customers and TNSPs to agree to performance incentives in relation to the performance of the shared network (rather than connection services). TransGrid believes that such proposals are inappropriate in an open access regime and expresses concerns about incentives to discriminate between those customers with and without such agreements. TransGrid's strong view is that any incentive arrangements related to the performance of the shared network must be managed by the regulator, not through arrangements with individual transmission customers or generators.

27. What issues arise in relation to the negotiation provisions in the Rules for these services?

Please refer to the responses to questions 25 and 26 above.

28. Are there currently any services provided by TNSPs that fall under the provisions for 'excluded transmission services'?

A relatively minor proportion of services are provided on an 'excluded' basis including some new connection services that are excluded transmission services (see comments on this under Question 30) and some existing services related to connections (eg some communications) are also regarded as excluded services.

29. Are the current regulatory arrangements for defining and separating contestable transmission services satisfactory? In what ways could they be improved, are there other transmission services that could be treated as contestable?

No. See comments under Question 30, below for an overall comment on categorisation of services and Question 34 for comment on the scope for further services to be contestable.

The current Rules rely on definition of services as contestable within a jurisdiction (that is by the Jurisdiction) or by a determination by the AER. TransGrid is not aware of the current or previous regulator issuing any guidelines to assist in this definition. It would be more appropriate for the Rules to provide clearer guidance on this.

Specifically, in line with the joint transmission network owner submission provided under separate cover, this matter should be addressed by requiring a detailed description of the services included under a revenue cap to be approved by the AER as part of a revenue cap decision.

5.4. Relevant Factors in Evaluating Alternative Approaches

30. Are the current arrangements in the Rules for identifying and classifying different elements of transmission service as prescribed, excluded and contestable appropriate? What potential improvements could be made?

There is some confusion within the current Rules. Various definitions are used in the Rules – prescribed and excluded, negotiable (and not negotiable), contestable and non-contestable. These definitions do not form a coherent framework. For example, negotiable services might be thought to cover any service where the price is not set by regulation; however, the definition expressly excludes contestable services.

It appears that the original intention may have been to define three classes of service:

- Prescribed services for the main shared network;
- Negotiable services for services which it is only practical for the TNSP to provide but where it was thought some lighter-handed regulation would be appropriate (negotiating framework, dispute resolution, etc); and
- Fully contestable services where the customer had free choice among a range of providers.

Clarification of this intention within the Rules would be helpful.

The Rules are also unclear on treatment of funded augmentations. By definition these are not prescribed, although often they do in fact provide prescribed services because of their location in the network. Some aspects of the interaction of funded augmentations with prescribed services could usefully be clarified. In particular:

- Should these assets be eligible for ultimate inclusion in the TNSP's prescribed asset base and, if so, on what basis and at what value?
- How is the cost of maintaining and operating these assets included in the MAR (including any operational risk or component failure risk)?
- How are they treated in setting transmission prices?
- How are the assets treated when the funding is used to bring forward a planned augmentation?

31. To what extent is there scope for any element of the existing set of prescribed services to be provided on an excluded or contestable basis, thereby reducing the scope of the current revenue capped services? What services would these be?

In general the scope for transmission services to be provided on an excluded or contestable basis is limited for the reasons set out in response to other questions. In some instances the transaction costs involved in opening up some of these services to treatment on a non-prescribed basis can be prohibitive (refer also to the response to question 32).

The main issue is clarifying the boundary between prescribed services and excluded or contestable services. As noted in response to questions 29 and 30 this matter should be addressed by requiring a detailed description of the services included under a revenue cap to be approved by the AER as part of a revenue cap decision, and this process would be enhanced if the intentions of current provisions were clarified within the Rules.

32. Are there any elements of existing transmission services not presently included as prescribed services that should be brought within that definition?

In addition to the reasons for regulation of transmission services outlined in Chapter 3 of the Issues Paper, the extent of transaction costs in establishing contestable arrangements needs consideration. For example, high voltage metering for transmission is contestable. However, the metering makes use of instrument transformers that typically are part of the prescribed asset base and are also used for other purposes such as protection and instrumentation SCADA metering used for operational control of the HV network. For a third party to install metering therefore requires complex and costly site and equipment access, testing and maintenance agreements to set out responsibilities and liabilities and a risk of impacting protection and SCADA services.

Given that metering is a very small component of overall customer connection costs at this level, the transaction costs in establishing arrangements result in considerable inefficiency. Moreover, parties wishing to establish such contracts may well see that a TNSP has significant market power in this situation through its control of the site and most of the equipment. Making HV transmission or wholesale metering a prescribed service would be a useful step forward.

There also needs to be careful thought given to whether there is any merit in persisting with trying to have services which are “in-between” and lightly regulated.

If services are to be lightly regulated, then what are the implications when the same provider has prescribed services. It might reasonably be expected that negotiations, and any recourse to arbitration that might arise, would use the prescribed services as a model. So outcomes for the lightly regulated services would tend to mirror the prescribed service prices. A more efficient outcome might be to have all these services prescribed – avoiding the need for negotiation and arbitration to achieve a similar result.

This would mean a simple definition into prescribed services and contestable services.

One reason given for negotiation is the opportunity for customers to have assets built to accelerated time frames. However, this applies to all assets required for a new connection, including assets that are clearly regarded as prescribed assets at present. Additional costs for an accelerated program, or other deviation from normal practice can be accommodated by treating the additional cost as an excluded or above standard service with the additional payment by the customer treated as excluded income. The assets would be added into the asset base at their “normal” value.

33. Should the services to be included within the scope of the main regulatory control be set out in the Rules or left to the discretion of the AER? If the latter, what is the extent of appropriate guidance in the Rules as to the principles that the AER should adopt in making this determination?

As noted in the responses to earlier questions greater clarification and consistency in the delineation and categorisation of services in the Rules is recommended.

There will always be some particular cases, which do not clearly fit the definitions, and the AER should have closely guided discretion and an obligation to make a determination when requested. General guidance to the AER should then be provided in the Rules along the lines set out in the Issues Paper, i.e., the extent of market power of the TNSPs and the level of transaction costs involved in setting up contestable arrangements compared with prescribed charges.

34. Who is the appropriate body to determine the potential contestability of services? What guidance (if any) should be set out in the Rules on the principles to be adopted in such an assessment?

See response to Question 33, above.

35. Who is the appropriate body to determine the form(s) of regulation for services falling outside of the main regulatory control? What guidance (if any) should the Rules provide on the form of this regulation?

See response to Question 33 above.

6. Performance Obligations and Incentives

6.2. Existing Arrangements

36. What role should there be for economic regulation under Chapter 6 of the Rules to reinforce or supplement express network or service performance obligations?

The vast majority of transmission investment undertaken in the NEM is required to meet jurisdictional reliability standards. As explained above, these standards are established to reflect varying community and economic considerations from one load area to another. These standards are a matter for the relevant accountable government and as such need only be recognised as legitimate within the Rules. Network businesses, both public and private, have a strong motivation to meet these obligations. Publicly owned network businesses risk punitive response from their owners for failure in this regard, and most private businesses recognise that their licence to operate as a private monopoly can be curtailed for their failure in this regard.

In relation to non-reliability economic transmission investment, that is, investment (in interconnection) that can be shown to pass the regulatory test on the basis of net market benefits, such investment is optional. However, provided regulated returns are reasonable, and in light of the oversight provided by the ANTS process, TNSPs have ample incentive to pursue and invest in transmission capacity that overcomes uneconomic transmission constraints. Obviously, the form of regulation to promote such new investment will be crucial to the success of the NEM.

TransGrid concedes that there may be some benefit in establishing improved deterministic service criteria for the connection of new generators, along similar lines to those applying in the UK. This may go some way to alleviating concerns among generators about 'access rights' to the relevant reference node without violating the open access approach to electricity transmission services in a competitive market context.

Accordingly, the Rules should require the AER to treat service performance incentives as supplementary to these requirements and to apply to operational time frames.

37. What service performance measures should be targeted? Should they be general in nature or targeted at different categories of network users? Should they be based on technical measures of availability and outages (as at present) or market impacts? Precisely what measures would be most appropriate to promote the NEM objective?

TransGrid considers that the arrangements contained in the AER's current Statement of Regulatory Principles provide an appropriate basis for a service incentive scheme. While the AER should retain some discretion to develop these incentives the Rules should:

1. Establish the SRP regime as the starting point for future development.

2. Provide a clearly defined process to be undertaken by the AER in exercising discretion over the development of these incentives.

3. Provide a clear set of criteria, along the lines proposed in the joint TNO submission, within the Rules to guide the AER's discretion on this matter.

The remainder of the answer to this question sets out in some detail why the current arrangements are effective and addresses some of the apparent concerns with these arrangements by some interested parties.

There has been considerable debate over the incentive arrangements that should apply for the operation of transmission services and their impacts on end users and market participants. In summary, TransGrid is currently subject to the following AER administered service incentive framework:

1 a reliability outcome incentive based on the number of events above a certain threshold impact (as measured by system minutes);
2 system performance measures such as the number of planned outages and the duration of such outages, and
3 a requirement to ensure that the market is informed well in advance of planned transmission outages.

This regime appears to appropriately reinforce jurisdictional reliability standards. It also appears to be delivering improved transmission service outcomes to market participants. On this latter point, market traders are now very well informed about the impact of a proposed transmission outage on the transmission constraints defined by the equations in NEMMCO's dispatch engine. Indeed, there is a very strong incentive for market traders to become skilled in this and establish hedging arrangements to manage this risk. In this regard, certainty about the future timing of transmission outages is crucial.

It also appears from the Issues Paper, and the form of question 37, that the value of the availability and outage duration incentives to market participants is poorly understood. It is not possible for transmission businesses to forecast when forced and emergency outages are going to occur, and for how long these outages will last. Accordingly, it is not possible to inform the market of these occurrences in advance. However, the current incentive arrangements encourage transmission businesses to minimise both the occurrence and duration of transmission outages and therefore, minimise the constraints that may arise as a result of these outages.

There has been some considerable discussion about the merits of transmission businesses scheduling planned outages in response to market requirements. Factors driving this discussion include concerns that transmission businesses schedule planned outages without proper regard for the economic impact of those outages. Anecdotally, benefits can be obtained by avoiding outages that affect interconnectors at particular times of the year when

reserves in one region may be low, or by coordinating transmission outages with certain generator outages.

However, the fundamental problem remains that measuring the economic impact of a transmission outage in advance of the outage occurring is inherently challenging. In effect, a mini regulatory test needs to be carried out for every proposed planned outage. More often than not, the assumptions that would apply at the time an outage is scheduled would no longer apply at the time the outage occurs. It is simply not possible to forecast market conditions at any point in time with any certainty.

Some commentators have proposed that transmission businesses reschedule transmission outages in response to market conditions. This raises the following issues:

1 Market participants enter into hedging contracts to manage market risk based on the transmission outage schedules notified to the market. To reschedule transmission outages at short notice in response to market prices would undermine the risk management arrangements already entered into.
2 A meaningful measure of market conditions is not readily apparent. Wholesale price differentials across transmission constraints do not of themselves represent a measure of the economic impact of a transmission constraint. Apart from price differentials, there is no other readily available indicator of the impact of a transmission constraint.

38. How should target performance levels be set? If market impact measures are proposed, how should the difficulties surrounding the identification of TNSPs' roles in causing market impacts and the measuring of market impacts be addressed?

The advantage of current performance measures is that they have been developed with regard to each TNSP's historical performance, together with a judgment of the adequacy of that performance. This has enabled the establishment of targets that drive improvement, where considered necessary, and reward maintenance of performance where existing performance is considered appropriate.

In terms of market impact measures, the discussion in response to question 37 should be noted. In addition, it needs to be recognised that TNSPs do not have control over wholesale price outcomes that result from transmission constraints. As noted in question 37, these outcomes are a result of market conditions prevailing at the time of the outage. Such conditions can be highly dependent upon factors outside of the TNSPs control, including generation dispatch patterns, constraints imposed by NEMMCO to preserve system security, delayed transmission augmentations, and the availability or otherwise of various classes of ancillary service.

Accordingly, it is inappropriate to expose transmission businesses directly to the market consequences of transmission constraints. Indeed, until the issues raised in response to question 37 are addressed, the current framework for providing market impact incentives of TNSP activities would appear to be appropriate.

39. How should achievement or non-achievement of performance levels be linked to TNSPs' regulated remuneration?

Current service performance incentives are linked to TNSPs regulated remuneration, and this is assisting in delivering improved performance outcomes. In TransGrid's case, these performance measures have been linked to internal performance measures, and this has assisted in increasing awareness and reinforcing the development of improved processes.

40. What share of a TNSP's regulated remuneration should be at risk through service performance incentive schemes?

Given the limited control that transmission businesses have over the market consequences of transmission outages, it is considered appropriate to maintain the current capping and collaring of these service incentive payments, and to limit the remuneration at risk to current

levels. This is consistent with practice in the UK. The limits that currently apply of around 1% of total revenue provide meaningful incentives, particularly in relation to profit margins without unduly increasing risk margins that need to be reflected in overall average charges.

In addition, as noted elsewhere, there are other important administrative drivers on service performance including requirements in the Rules and jurisdictional reliability requirements. These impose material incentives in their own right. As a result strong incentives, involving substantial revenues at risk are not necessary. Indeed, there is a risk that strong service incentives may produce dysfunctional conflicts with these other administrative requirements.

41. What role, if any, should Rules for economic regulation have in providing incentives for TNSPs to avoid inefficient over-or under-investment in network assets?

The National Electricity Law (refer Schedule 1) specifically requires the AEMC to make Rules covering:

1. The assessment, or treatment, by the AER, of investment in transmission systems for the purposes of making a transmission determination.

2. The economic framework and methodologies to be applied by the AER for the purposes of item 1.

3. Incentives for regulated transmission system operators to make efficient operating and investment decisions.

In terms of the economic framework, this framework needs to consider the fundamentally important question of whether the incentive regime ought to err on the side of over-investment in transmission rather than under-investment. TransGrid's contention would be that the consequences for electricity consumers in the long term are better served with some bias in favour of over-investment. Specifically:

1 the economic consequences of poor transmission reliability and transmission impacts on wider power system security can be catastrophic;
2 the benefits of unfettered generator competition and minimal price volatility due to transmission constraints in terms of end user customer charges can substantially outweigh the costs of transmission investment;
3 transmission costs typically represent between 5 and 7% of total end user customer charges.

TransGrid notes that this issue was addressed in relation to gas infrastructure as part of the Productivity Commission's review of the gas access regime. In that review the Productivity Commission concluded that the benefits of over-investment in gas networks outweighed the costs of under-investment. TransGrid would contend that, given the essential nature of electricity compared with gas, and the inability to store electricity economically, the argument in favour of over-investment in transmission is stronger than for gas networks.

Having established this backdrop, it is reasonable, and consistent with the requirements of the National Electricity Law, to design capital expenditure incentive regime that gets this balance right. Furthermore, the essential features of the capex incentive regime ought to be set out within the Rules, although it is conceded that some aspects of this regime may need to be subjected to the exercise of guided discretion by the AER.

42. Are economic incentives necessary to ensure TNSPs provide the market with information about forecast constraints and reliability shortfalls?

The incentives faced by TransGrid and other TNSPs to provide the market with forecast constraints and reliability shortfalls are both administrative and commercial in nature.

From an administrative perspective, there are a range of obligations set out in the Rules, including the requirement to publish an annual planning report and to provide information on planned outages to the market with ample notice to enable market participants to respond appropriately. From a commercial perspective, failure to meet these requirements exposes TransGrid, and other TNSPs, to substantial potential liabilities to affected participants.

43. Are economic incentives necessary to ensure TNSPs consider both network and non-network solutions (including demand management and other energy sources) to forecast constraints and reliability shortfalls? How could such incentives operate?

Regulatory incentives should encourage regulated businesses to operate and invest efficiently. These incentives should provide the regulated business with an appropriate opportunity to benefit commercially from efficient performance. Accordingly, it goes without saying that, if non-network options are a more efficient means of TNSPs meeting service obligations or removing transmission constraints than network augmentation options, then TNSPs should be rewarded commercially for adopting such options.

Having said this, there are some practical considerations with the adoption of non-network options to address transmission limits, as follows:

1 The market for provision of demand response to address transmission constraints appears to be relatively immature. For example, when TransGrid seeks expressions of interest or bids from prospective demand side aggregators, responses are relatively few in number and rarely match the transmission service needs in question. This contrasts with augmentation options where TransGrid has access to numerous competing potential suppliers of plant and equipment.
2 Demand response options for many transmission needs is very location specific. This contrasts with the wider application of demand response in managing market risk and providing ancillary services. As a result, it appears to be more challenging to harness demand response to defer transmission investments than it is to harness demand response for these other purposes.
3 The savings available as a result of deferring transmission augmentations appear to be relatively modest compared with the costs of aggregating appropriate levels of demand response. Again this contrasts with the level of benefits available to fund demand response for market risk management purposes.

In terms of encouraging local generation as an alternative to a network augmentation, experience has shown that this is most effective where local generation is already established, and generator support payments can be used to encourage changes to generation dispatch patterns. Typically, network deferral savings are inadequate of themselves to underwrite a new generation investment. As a result, the ability to encourage a new generator to establish at a location that supports or defers transmission investment is limited to situations where the generator in question is already close to investment commitment at that location for other reasons.

Two forms of incentives currently operate in relation to encouraging TNSPs to adopt non-network options as follows:

1 generator support payments are allowed as a “pass through” where the TNSP can demonstrate to the AER that these payments are economic;
2 the ex ante capex incentive regime set out in the Statement of Regulatory Principles, and that currently applies to TransGrid, rewards TNSPs for deferring network investment.

Of these two regimes, it is only the second that actually provides a TNSP with a commercial benefit from adopting a non-network option, and this benefit is currently limited to periods that are less than the length of a single regulatory control period. Clearly this second option provides better alignment between efficient outcomes and commercial incentives for the regulated business. As such, this arrangement appears to be more consistent with the requirements of the National Electricity Law and the NEM Objective.

44. Are Rules or incentives necessary and appropriate to require TNSPs to undertake funded augmentations, or to require TNSPs to allow other parties to develop transmission assets to connect to TNSPs' networks?

There are two parts to this question. The first part concerns so called funded augmentations, whereas the second part appears to relate to connection assets. Each of these is considered in turn.

The Rules allow for third parties to fund transmission augmentations. These augmentations do not have to pass the regulatory test and are not subjected to any other form of efficiency assessment. Furthermore, there does not appear to be a commercial incentive available to a TNSP to encourage or support these kinds of augmentations. However, given that these arrangements are provided for in the Rules, and that there does not appear to be any commercial penalty associated with a TNSP supporting such an arrangement, there is no good reason why a TNSP would not support and encourage such a development.

In practical terms, there have been very few formal requests to undertake a funded transmission investment within TransGrid's shared network. From discussions with interested parties, it appears that the absence of any assured transmission access right, as a result of such investment, is a major impediment to third party funding of transmission augmentations, particularly in the shared transmission network.

Furthermore, the most promising discussions have centred on funding the advancement of transmission augmentations that would otherwise have occurred via the regulated development process. Under these circumstances, TNSPs would usually have incentives to support these projects. Specifically, advancement of a transmission augmentation reduces the risk of service failure and enables the timely development of regulated transmission augmentations that can subsequently earn a regulated rate of return for the TNSP.

However, as already noted in response to Question 30, the Rules in relation to funded augmentations need to be clarified regarding the interaction of funded augmentations with prescribed services. In particular:

- Should these assets be eligible for ultimate inclusion in the TNSP's prescribed asset base and, if so, on what basis and at what value?
- How is the cost of maintaining and operating these assets included in the MAR (including any operational risk or component failure risk)?
- How are they treated in setting transmission prices?
- How are the assets treated when the funding is used to bring forward a planned augmentation?

Turning to the second part of the question, as previously noted, such components of a new connection arrangement are considered to be contestable and TNSPs have an incentive to compete for the development of these assets. Where a third party, including the connecting party, can deliver a connection asset more efficiently than a TNSP, there is nothing to prohibit them from doing so.

45. How significant is the difference between a periodic revaluation and lock-in approach to the RAB in terms of incentivising efficient investment and asset management behaviour by TNSPs?

Periodic revaluation of assets serves no useful incentive purpose. Rather, this increases the risk exposure of transmission businesses to factors that are largely outside of their control. At this time, transmission businesses are not compensated for this risk as part of their revenue cap decisions. Accordingly, periodic revaluations should be removed from the regulatory regime. Alternatively, if periodic revaluations are to be retained, transmission revenue caps need to be increased to compensate for the commercial risks involved. To pursue this option, it would appear to simply add costs to consumers for no useful purpose.

46. What are the implications of a lock-in approach to the RAB for the development, content and application of other incentive schemes targeted at capital expenditure, operating expenditure and network performance?

Adopting a lock in approach achieves at least three useful outcomes as follows:

1 Incentive arrangements can focus on future rather than sunk business decisions.
2 A substantial proportion of unnecessary regulatory assessment cost associated with period revaluations is eliminated.
3 Regulatory effort can be focused on developing targeted capital expenditure, operating expenditure, and network performance incentive schemes.

47. How do ex ante and ex post capital assessment regimes (as formulated in the DRP and SRP) affect TNSP incentives to only engage in efficient investments?

The ex-post capital assessment regime as set out in the DRP exposes a TNSP, such as TransGrid, to material regulatory risk, primarily because of the assessment of efficiency is carried out after the investment has been undertaken and with the benefit of hindsight. That is, a judgment needs to be made by a third party that has the advantage of hindsight and that judgment may be different to that of the regulated business at the time various investment commitments were actually made. The DRP only offers limited protection to the regulated business from arbitrary write down of the value to be included in the regulated asset base.

However, some useful guidance is provided to the TNSP by the DRP in that the DRP adopts the gas regime approach based on determining whether investment is prudent and undertaken in accordance with good industry practice. Involving good industry practice as a relevant reference point provides helpful practical guidance to regulated businesses in the management of their investment programs. It is also reasonably practical to assess. Indeed, the SRP actually improves this by providing further detailed guidance on the approach that the AER will take in the ex-post efficiency assessments.

Unfortunately some key elements appear to be missing from this regime that would further reduce regulatory risk as follows:

1. There does not appear to be a clear requirement on the regulator to rely on the information available at the time that investment commitments are made (contemporaneous information) when carrying out their ex-post assessments. For example, the forecast customer demand, or expected generation developments, may have changed considerably between when contracts for the supply of equipment are placed and the investment is being assessed by the regulator. The nature of good industry practice can also evolve with the passing of time
2. How the regulator will arrive at an efficient value in the absence of the delivered cost of an alternative investment strategy appears to be open to high levels of unguided discretion. While it may be clear that a different investment may have been more efficient than that undertaken, the regulator does not have an actual delivered cost for the alternative and must rely on estimates. These estimates are, themselves, subject to considerable judgment.

Without safeguards to address these and other issues, the ex-post regime may discourage TNSPs from undertaking efficient investment. Even though, on the balance of probability, an investment may be needed to ensure that a particularly important capability limit is removed, transmission businesses may hesitate to be sure that the investment will ultimately be clearly efficient from a regulator's perspective.

The ex-ante regime, as set out in the SRP, does provide the TNSP with more certainty about what value of investment will be recognized for inclusion in the regulated asset base, and how this will be calculated by the regulator. The relatively modest incentives and penalties for under and over expenditure respectively, taken together with other administrative requirements, such as mandated reliability standards, reasonable but not excessive regulated returns, and the requirement to conduct a regulatory test, appear to encourage and deliver

efficient investment outcomes. As noted below this regime also appears to provide reasonable incentives to seek out and development non-network options to address transmission capability limits.

48. What are the practical and administrative strengths and weaknesses of ex ante and ex post capital assessment regimes?

Refer to the response to Question 47 above.

49. If TNSP investment programmes should be subject to *ex ante* assessment should low or high powered incentives for expenditure be adopted and if so why? Is there a risk with either approach that investments that would otherwise be efficient may not be undertaken at the appropriate time? Under an *ex ante* regime, if TNSPs are not penalized for exceeding capital caps how should the risk of inefficient investments be managed?

As noted above in response to Question 47, the low powered incentives are important in ensuring efficient investment behavior. An early proposal by the ACCC in developing the SRP was to impose a very strict ex-ante cap on TNSPs where any expenditure above the cap would not be rolled into the RAB. This creates a strong incentive on a TNSP to cap investment levels even where such investment is shown to be efficient. This would appear to be at odds with the National Electricity Law requirements to provide transmission businesses with a reasonable opportunity to recover costs associated with meeting a service obligation.

In the event that a capital expenditure cap is exceeded, while there appears to be a presumption that this will be treated as efficient expenditure, the SRP does appear to provide some scope for the AER to reassess investment on an ex-post basis. This could be used to address blatantly inefficient investment on an ex-post basis. TransGrid would concede that some clarity in the operation of this provision would be of assistance to both the regulated transmission business and the AER.

50. Should regulatory determinations be capable of being reopened to incorporate the cost of specific and unforseen capital projects into any existing revenue or price caps? Where regulatory determinations can be reopened in this way, is the overall risk of inefficient investments increased and if so how can that be managed?

TransGrid supports the re-opening provisions set out in the joint TNO submission provided under separate cover. As noted previously in response to question 21, this approach reflects an appropriate balance between achieving effective incentives by eliminating exogenous factors, while avoiding the more extreme levels of regulatory intrusion associated with cost of service regulation.

In addition, the current SRP framework recognises the benefits of limited forms of revenue cap re-openings and it would enhance regulatory certainty for the TNOs if the Rules adopted this framework in the first instance. These benefits include providing the AER with a fresh opportunity to assess the efficiency of capex proposals in light of the most recently available information.

51. What are the respective implications of an *ex ante* or an *ex post* approach to the regulatory assessment of capital investments for the development, content and application of other incentive schemes targeted at operating expenditure and network performance?

As previously noted the incentive schemes implemented by the AER should supplement and support other administrative requirements such as jurisdictional reliability obligations and requirements under Section 5.6 of the Rules aimed at delivering efficient capex outcomes.

These other administrative requirements are major drivers of electricity transmission capex and will impact on operating cost and service outcomes over time. It is for this reason that the

operating cost and service performance incentive schemes need to be limited in the strength of the incentives, linked to individual business circumstances (including different jurisdictional reliability targets), and apply to operational activities and time frames.

52. Should the regulatory arrangements allow TNSPs to retain some share of operating expenditure reductions below target levels into the next regulatory period in order to provide an incentive to incur only efficient operating expenditure? If so, how should those arrangements operate? Is an efficiency carryover arrangement a better way to provide incentives for reducing operational expenditure than a glide-path or other approach?

As has been noted previously, the ability to use benchmarking or general economy wide productivity indices as a reference point for transmission operating efficiency are impractical approaches to transmission regulation. This is because of the wide range of different cost drivers between each transmission business and between transmission businesses generally in the wider economy, particularly in the short to medium term. Accordingly, operating expenditure targets are best established with reference to the individual performance of each regulated transmission business.

In this regard, a regulatory regime that encourages transmission businesses to continue to improve operating efficiency and, at the same time, reveal their true costs, appears to be an appropriate starting point. As such, regulatory arrangements that allow TNSPs to retain some share of operating expenditure reductions below target levels into the next regulatory period would appear to have an important place in transmission regulation. In addition, some form of carry over mechanism would appear to be necessary in order to provide a sufficiently strong incentive to achieve this outcome.

While the choice between glide path, efficiency carry over, or other approach to achieving an appropriate level of incentive is important, regulatory consistency over time, and the genuine prospect of sharing in performance gains are even more important.

In relation to the first matter, TransGrid considers that setting expenditure forecasts 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 TrasnGrid considers it important for the Rules to ensure that the forecasts of expenditure be determined so as to ensure that the TNSPs receive an equitable share of efficiency gains achieved.

In relation to the second matter, TransGrid's experience with the consistency of the incentive framework over time highlights the problem. In its first regulatory review by the ACCC, TransGrid was, in theory, subjected to a glide path carry over mechanism. However, during the subsequent regulatory review, the ACCC changed arrangements to an efficiency carry over regime. Based on this experience TransGrid has little reason to be confident that it will ever receive the benefits of operating efficiency improvements beyond the end of the current regulatory period.

53. To what extent should the Rules provide guidance on the operational expenditure incentive arrangements to be adopted by the AER?

In the context of TransGrid's response to question 52, TransGrid would clearly prefer the form of operating efficiency incentive regulation to be set out expressly within the National Electricity Rules. These Rules should, among other matters bind the AER to a 'revealed costs' framework for setting future operating cost targets. This would include ensuring that the forecasts of expenditure be determined so as to ensure that the TNSPs receive an equitable share of any future efficiency gains achieved. To the extent that the AER is able to exercise discretion, the AER must be required by the Rules to be bound to a given operating expenditure efficiency framework for at least two regulatory control periods.

6.3. Alternative Arrangements

54. Is the current institutional design of the NEM amenable to a broader service- or performance outcome-based incentive regime than those currently instituted by the AER? If so, what particular outcomes should be targeted?

The AEMC Issues Paper raises a number of very important questions about broader arrangements for the delivery of transmission services within a contestable market context. The arrangements that apply in the UK may have material advantages over those currently operating in the US and in Australia in this regard. The key point is that transmission service and outcomes are determined both by decisions of transmission asset owners and the national system operator (NEMMCO in Australia). Economies of scope in transmission can clearly be maximised where both these functions are under the control of a single management entity (as is the case in the UK), and where regulatory incentives apply to that entity. In this way management can be responsible for optimising transmission performance across a wider range of interacting variables.

However, the achievement of this framework depends on fundamental institutional changes that appear to be outside the scope of this review.

55. How should consistency between service performance, capital expenditure and operating expenditure incentive regimes be achieved and maintained?

As already noted, an important starting point for this assessment is to recognise that this trade off extends beyond the incentives established by the AEMC and the AER. For instance, jurisdictional reliability requirements for transmission service are a fundamental driver of transmission service delivery and costs. The vast majority of capital expenditure currently being undertaken by NEM transmission businesses is required to meet these reliability objectives.

Other important variables impacting on this analysis include the level and consistency of regulated returns over time (investment incentive), and administrative requirements such as the regulatory test (a legitimate investment hurdle).

With this in mind, service performance incentives that are established as part of the transmission revenue capping process need only be strong enough to complement these other factors. Similarly, incentives that support efficient operating and capital expenditure decisions need to be strong enough to impact on behaviour, but not so strong as to deter the achievement of reliability standards or undermine the operation of other administrative instruments such as the regulatory test.

56. To what extent should the service performance incentive regimes be prescribed in the Rules?

Rules that prescribe service performance incentive regimes need to be developed with a great deal of caution. In particular, they must be consistent with, and complementary to, other legal obligations imposed on transmission businesses, including statutory reliability, safety, and environmental obligations. In this regard, TransGrid considers that the AER be permitted to exercise guided discretion in preference to detailed prescription within the Rules.

However, Rules are required to guide this discretion appropriately and should cover:

1 a requirement for such incentives to compliment rather than contradict other statutory service obligations;
2 the process by which such incentives are established, including a requirement for the AER to provide TNOs with an adequate opportunity to contribute to the development of such incentives, and to explain clearly, in terms of the NEM Objective, the rationale for any service incentive that is adopted;
3 a requirement for service incentives to be stable over time (over a number of regulatory control periods);

4 that service incentives are established on the basis of the particular characteristics and service history of each particular TNO;
5 that TNOs shall not be subjected to service incentives in relation to factors that are largely outside of their control, and
6 that TNOs are provided with a reasonable opportunity to share in the benefits of good service performance and improvements in operating efficiency.

57. Should issues of consistency between the regulatory arrangements for electricity transmission and gas transmission or between electricity transmission and electricity distribution be a consideration in making Rules for the regulatory treatment of the RAB?

While there are benefits in developing consistency between the treatment of the regulatory asset base across various network services, the overriding consideration ought to be achievement of the NEM Objective. In addition, and as previously stated, this review is first and foremost, in accordance with the NEL, a review of electricity transmission regulation. At this time, the AEMC has no legal remit in relation to gas network regulation.

58. Do issues of consistency between the regulatory arrangements for electricity transmission and gas transmission or between electricity transmission and electricity distribution affect the appropriate regulatory treatment of the return on and of capital expenditure?

This question in the Issues Paper appears to be related to the process for determining when new capital expenditure should be rolled into the value of the regulatory asset base. In this regard the NEM Objective appears to make it clear that efficient investment should be recognised for the purpose of determining future returns on and returns of capital. As such, reference to the prudency test in the gas regime would initially appear to be of doubtful relevance.

Having said this, transmission businesses would benefit from practical guidance on how investment efficiency is to be assessed for regulatory purposes. In particular, the Gas Code attempts to do this by linking the concept of efficiency with good industry practice. TransGrid has found that reference to good industry practice in assessing efficiency of an investment to be of considerable practical merit. Questions as to whether contracts are 'over specifying' technical requirements, or whether the processes for determining the technical need and risk associated with decisions to replace ageing equipment, can be, and are, most readily assessed with regard to good or established practice.

59. If TNSP specific investment programmes should be subject to *ex post* assessment, should there be a mechanism for TNSPs to approach the regulator in advance of particular capital projects in order to get regulatory certainty as to the way in which the investment will be treated prior to undertaking it?

Generally speaking, the ex ante assessment of capex efficiency proposed in the Statement of Regulatory Principles, together with the relatively weak incentive properties, appears to provide a workable arrangement. Transmission businesses are encouraged to defer or reduce capital expenditure, but not to the extent that expenditure that is required to meet service obligations is impeded from proceeding.

Nevertheless, there may be some scope for limited ex post assessments to accommodate major changes in circumstances that were not anticipated at the time of a revenue cap decision. In TransGrid's view, such a mechanism would need to be accompanied by:

1 a clear definition of the circumstances under which an ex post assessment could occur, and that these circumstances would represent a relatively high hurdle for both the regulator and the regulated business;
2 a clearly defined set of criteria against which an ex post assessment is to be conducted would need to be in place prior to the commencement of a regulatory control period.

In view of the importance of the process of recognising capital investment for inclusion in the value of the regulatory asset base, it is TransGrid's view that this process, and associated criteria, should be is set out within the Rules rather than being left to administrative arrangements undertaken by the AER. In this way, transmission businesses would be provided with greater investment certainty, and the AER could be held more accountable for their decisions in this important aspect of the regulatory regime. Once this is in place transmission businesses should be able to seek binding administrative rulings from the AER regarding how these Rules would be applied in a given situation.

60. Do alternative arrangements provide any guidance as to the appropriate form of operational expenditure incentives for transmission in the NEM?

The primary considerations in setting these incentives ought to be the requirements of the National Electricity Law, consideration of other service obligations, such as jurisdictional reliability obligations, the nature of electricity transmission businesses (including the innate differences between the cost drivers from one business to another).

In this regard, as previously observed, the cost structure facing any individual transmission company is relatively unique to that company, and as such incentive arrangements ought to be developed on the basis of providing a reasonable opportunity for the transmission business to share in efficiency gains, and to reveal true costs over time. In addition to the extent that some form of carry over mechanism from one regulatory control period to another is required, then that framework should remain in place without amendment for the full period of time of the operation of carry over mechanism.

7. Approach to Determining Cost Components

7.1. Opening Asset Base

61. How prescriptive should the Rules be in relation to asset valuation? Is the relatively wide discretion in the current Rules appropriate? If not, are there approaches in other regulatory instruments that provide a useful guide?

TransGrid supports a relatively high degree of prescription in the Rules in relation to asset valuation. Transmission is a highly asset intensive business. Consequently the reasonableness of the value attributed to the opening asset base, and the degree of certainty that that value will be preserved over time, are important elements for achieving the NEM objective. The current "lock in" approach advocated by the SRP is consistent with these objectives in that it largely manages the asset stranding risk that TNSPs would be exposed to with periodic revaluations, but at the same time, allows for TNSPs to propose a revaluation to occur under limited circumstances, and for the regulator to consider the merits of this proposal.

TransGrid does not consider that the current provisions of the Rules in relation to asset valuation are appropriate. The existing Rules contemplate that the entire regulatory asset base could be subject to revaluation by the AER. This discretion to revalue the asset base is too wide and would generate substantial uncertainty for investors in transmission assets. In this regard, the current provisions appear undermine the market objective by potentially deterring efficient investment in electricity services.

62. Should the lock in approach in the SRP be elevated to the Rules? Do the principles in the SRP provide sufficient certainty as to the method by which the lock in approach will be applied? If not, what additional guidance could be provided in the Rules?

TransGrid supports the principle of lock in and considers that the Rules should require the asset value to be locked-in (with provision for the TNSP to trigger a revaluation under very limited circumstances) and the roll-forward approach to be applied thereafter to recognise,

inflation, depreciation and all prudent / efficient capital expenditure actually undertaken during the regulatory period.

However, the details regarding the roll-forward approach – such as the inflation indices that will be applied, the timing for recognising expenditure, and the way in which depreciation will be calculated – need to be clarified. Given that these are matters of detail, TransGrid believes that the most effective way of addressing these would be for the AER to publish a guideline, together with a financial model, that demonstrates the precise algorithms to be applied when applying the roll-forward approach, and for this methodology to bind the AER. The current PTRM model as applied to TransGrid in its recent revenue cap determination should be deemed to be the initial guideline for this purpose.

63. Should the Rules allow for revaluation of the asset base, or further consideration of issues such as the value of land and easements? If so, under what circumstances and who should be able to initiate such a revaluation?

As outlined in our response to Q.61, TransGrid believes that the Rules should incorporate some flexibility and allow for the TNSP to seek a revaluation of the asset base under appropriate circumstances. For example, where it can be demonstrated that an error exists in relation to a previous valuation, it is important that that element of the asset base affected by the error is reopened and appropriately adjusted.

TransGrid notes that the SRP provisions in relation to this circumstance, enable the regulator to re-open and consider every element of the entire asset base upon the TNSP's request for a revaluation. Whilst this does generate substantial uncertainty for the asset owner, we recognize that this approach gives the regulator (and other stakeholders such as TransGrid's customers) comfort that the TNSP's proposal for a revaluation is legitimate and genuine, and that the proposal does not "cherry pick" only those elements of the asset base which give rise to an upward valuation or windfall gain.

64. Should the Rules cover the approach to be adopted by the AER in determining the opening asset base for an MNSP that converts to regulated status? If so, what principles should be adopted?

In TransGrid's view, based on extensive ongoing experience in the development and operation of interconnected transmission networks, there is no place for MNSPs in the national electricity market framework. As has been previously noted, interconnected transmission systems are characterised by economies of scale and scope, where the impact of operating and investment decisions on one part of the network has complex and sometimes far reaching impacts across the entire network. To attempt to superimpose provision for unregulated transmission elements within this framework, is absurd and unworkable.

It is TransGrid's assessment that MNSPs have proven to be inefficient and detrimental to the interests of consumers both in the immediate and longer terms. TransGrid understands that customer groups generally share this view. As such, it appears that the regime for MNSPs is fundamentally inconsistent with the NEM Objective.

In terms of assessing the value of these links when conversion from unregulated to regulated status is concerned, this appears to be an exercise involving high degrees of judgment. Notwithstanding the use of the regulatory test framework to assist in refining the exercise of this judgment, it would appear to be more appropriate to avoid this issue by eliminating the MNSP framework altogether.

Having said this the process of conversion of a funded augmentation to 'regulated' status appears to face similar issues to those faced by MNSPs. In this regard Rules appear to be required to address the following questions:

- Should these assets be eligible for ultimate inclusion in the TNSP's prescribed asset base and, if so, on what basis and at what value?

- How is the cost of maintaining and operating these assets included in the MAR (including any operational risk or component failure risk)?
- How are they treated in setting transmission prices?
- How are the assets treated when the funding is used to bring forward a planned augmentation?

7.2. Criteria for Determining Efficient Investment

65. To what extent should the Rules provide guidance to the AER in relation to the determination of efficient capital expenditure?

As noted above, this aspect of the regulatory regime has a significant bearing on investment decision making. As such, the framework for assessing whether capital expenditure is efficient and should be rolled into the value of the regulatory asset base needs to be clearly articulated and consistently applied over time. In this context, TransGrid considers that the Rules should provide detail guidance to both the AER and TNSPs.

An appropriate starting point would be to adopt the current SRP framework. As already noted this appears to provide a reasonable basis for recognizing efficient capex in the context of other administrative requirements, including jurisdictional reliability standards and section 5.6 of the current Rules. In any event, the circumstances under which an ex-post assessment may be invoked, and the process for carrying out such an assessment if required, appears to need some clarification. The current intention appears to imply a very high hurdle to the invocation of any form of ex-post review and this intention should be captured within the Rules if considered appropriate.

However, in the event that there is a desire to move to different arrangements these must also be clearly set out within the Rules. In the event that there is a shift back to ex-post assessment the criteria and processes to be applied to such assessments need to be included in the Rules. Among other matters Rules that accord formal recognition that investment undertaken in accordance with the requirements of good industry practice is likely to be efficient would be most helpful. Formal recognition that project delivery processes based on competitive tendering deliver efficient costs would also be appropriate.

66. What should be the role of the Regulatory Test in determining the efficiency of capital investment?

Under the current regime, the regulatory test is a legitimate economic based investment hurdle. TNSPs should be required to publicly demonstrate that the development options that they are proposing or examining are, on a prospective basis, efficient. The regulatory test process achieves this outcome.

Having said this, TransGrid would counsel caution in the way in which the regulatory test is used to determine the efficient value of investment for inclusion in the regulatory asset base. Specifically care needs to be taken to ensure that the regulatory test value does not become a measure in itself. There are many reasons why the regulatory test value is a poor measure of the eventual efficient cost of the project. The regulatory test only needs to address common costs between options. This means that costs can be legitimately omitted from a regulatory test assessment. It also means that if costs increase substantially, and all options are affected by such cost movements, the preferred option can still be the correct choice. Furthermore, the regulatory test involves a degree of 'stress testing' against key assumptions. If a reg test value is adopted ads the efficient cost a decision needs to be made as to whether it is the base cost or the costs in used in 'stress testing' the options.

Furthermore demonstrating that the choice of a project, and that the sequence in which various projects are delivered relative to each other, are efficient should have regard for other factors that are not easily addressed by the reg test process. For example, TransGrid is involved in delivering a challenging capital program where projects are necessarily interrelated in both a planning and delivery sense. In the planning phase each project is

usually developed in the context of a strategic outline plan. In a delivery sense it can be efficient to move project delivery priorities around to manage resource bottlenecks efficiently. This example, also seems to suggest that there is a place for 'good industry practice' in assessing efficiency.

The regulatory test also has limited application to non-augmentation projects that tend to rely on age, condition, and risks assessments to justify project need and option selection. Again, recognition of 'good industry practice' in assessing efficiency would appear to be helpful. In practical terms these considerations played a role in setting the TransGrid ex-ante targets.

Care needs to be taken to ensure that the service implications of deferring a project are not ignored. In most cases this involves an increased risk of failure to meet reliability expectations. This arose in the case of TransGrid's MetroGrid project, where Mountain Associates argued that TransGrid could have deferred this project and reduce costs as a result. However, they did not factor in the cost of the increased risk of service failure. The principles established in the Rules need to require the AER and their advisers to look beyond delivery costs and consider efficiency in totality (this appears to be the intention of NEL provisions).

The efficiency of project delivery is an important consideration in its own right. Any assessment of whether capex is efficient is incomplete without regard for this phase of a project. One principle for possible inclusion in the Rules is that where the delivery costs reflect some form of contestable provision then this is prima facie evidence that the delivery costs are efficient. However, arguments can arise about whether contracts are formed on the basis of inefficient specification and contract management practices. In this regard the AER ought to be required to use 'good industry practice' as a reference point.

Taken together these points highlight a gap between the high level NEL requirements and the principles/criteria that the AER should be required to apply. For example, the requirement to have regard to good industry practice which applied in the the ACCC's DRP regime and comes into the gas regime appears to be completely absent unless it is introduced as part of the new Rules.

67. Should the value adopted in the Regulatory Test be taken as the appropriate asset value to include in the asset base, regardless of outturn expenditure? If so, what implications does this have for the manner in which the Regulatory Test is applied?

Please note the response to question 66 above.

68. Should there be a requirement for the TNSP to reapply the Regulatory Test if the expected capital expenditure is expected to materially change? If so, should this be mandated in the Rules?

Re-application of the regulatory test is not a decision that ought to be taken lightly. Accordingly, any requirement within the Rules along these lines needs to be very carefully constructed.

The timely delivery of transmission projects, in particular, transmission line projects, is already a challenging and lengthy process. The application of the regulatory test is only one of a number of the steps that contribute to this situation. A requirement to re-run a regulatory test, regardless of the circumstances, typically adds at least six months delay to this process potentially denying consumers the very considerable benefits that can arise from timely provision of adequate transmission capability. These can be particularly serious in the case of transmission projects required for network reliability purposes.

In addition, once a project reaches a certain point, the costs of abandoning the project that may arise from re-running a regulatory test can substantially exceed the benefits of adopting a new network or non-network option as a result of a revised regulatory test assessment. For example, costs and other circumstances can change significantly even after some contracts

for equipment have been entered into. Under these circumstances it can be very expensive to unwind established contractual arrangements.

Finally, care needs to be taken to avoid creating perverse incentives for TNSPs to inflate the costs used in carrying out regulatory test assessments simply to avoid the risk of having to redo these tests at some future date.

69. What operational issues arise under the *ex ante* approach set out in the SRP? Should there be different incentive rates applied to different asset categories, as implied by the *ex ante* approach? Does the *ex ante* approach affect TNSPs incentives to classify assets as long-lived?

As previously noted the ex ante approach, with the relatively weak incentive properties, taken together with other administrative requirements such as mandated reliability standards and the requirement to conduct a regulatory test, appears to provide a workable arrangement for meeting the NEM Objective.

TransGrid recognises that the use of regulatory depreciation as part of the incentive scheme incorporated in the SRP form of the ex ante approach can create perverse incentives. For example, there is a clear commercial incentive to avoid expenditure on asset categories with a short life for regulatory depreciation purposes (eg. Information Technology) in favour of expenditure on asset categories with a long life for regulatory depreciation purposes (eg. property). There appears to be no rational economic efficiency benefit that arises from this situation.

To address this problem TransGrid would recommend a minor change to the ex ante regime that economic depreciation not form part of the incentive regime, and that to maintain the overall strength of the incentives involved, a factor could be applied to the return on capital component of the incentive regime.

70. If an *ex ante* approach to capital investment assessments is adopted, should the approach set out in the SRP be elevated to the Rules?

If the current ex-ante regime is adopted many of the details will need to be set out in the Rules. This is because, inherent in this ex-ante approach, is a process for recognising capital expenditure as efficient and therefore the eligibility of such expenditure for addition to the value of the regulatory asset base. It is also apparent that the NEL (Schedule 1) expressly requires the AEMC to make Rules on this aspect of the capex framework.

7.3. Operating Expenditure

71. To what extent should the Rules provide guidance on the approach to be taken by the AER in determining an efficient level of operating expenditure? What benefits could be expected in relation to transparency and predictability? What disadvantages may there be in terms of a loss of flexibility?

TransGrid's position on operating expenditure efficiency incentives is that this is a matter where there is scope for the exercise of discretion the AER. However, the exercise of this discretion needs to be closely guided by provisions within the Rules as follows:

1 The AER ought to be required to give substantial weight to the historical performance of each transmission company in setting future operating expenditure targets where incentives have been in place that encourage a transmission business to reveal their true operating costs. Other approaches involving comparisons between transmission companies ought to be given relatively less weight because of the intrinsic differences in operating environment from one transmission company to another.

2 The AER ought to be required to set out well in advance of any revenue cap decision the form of the operating expenditure incentive regime that will apply to a given transmission business of a duration of the upcoming regulatory period.

3 The Rules should require that a given operating expenditure incentive scheme remain stable for the entire period for which it is intended to apply. For example, if the efficiency carry over mechanism that is currently in the SRP is adopted, then the carry over component must remain in place for both the initial regulatory control period and the subsequent regulatory control period.

Provisions such as these would provide enhanced certainty by subjecting future changes to the regime to general scrutiny against the NEM Objective using the Rule change processes set out in the NEL. The NEL Rule change processes and criteria for assessing Rule change proposals also appear to provide a reasonable framework for the evolution of the regime in light of experience over time.

72. To the extent that guidance should be provided in the Rules, what are the relevant characteristics of electricity transmission to consider in determining the form of this guidance?

In addition to the inherent differences between transmission businesses already discussed, an excessive focus on reducing operating costs can result in reduced service. While most transmission businesses would be extremely reluctant to put safety or reliability at risk an excessive focus on operating cost reductions may lead to dysfunctional impacts on the wholesale market. As previously noted the cost impacts on market participants, and, ultimately end users, of reduced transmission capability can be substantially higher than any operating cost savings that may accrue to the transmission business.

It is also worth noting that a considerable proportion of the operating costs associated with managing a transmission business relate to maintaining assets in a serviceable condition. Deterioration of asset condition, and consequential service performance, occurs gradually and an excessive focus on operating cost reductions may tempt some managers to curtail operating expenditure in the short term only to result in service degradation in the longer term that will be difficult and costly to restore.

73. Should the Rules provide for the application of benchmarking by the AER in determining an efficient level of operating costs?

As noted above the AER ought to be required to give substantial weight to the historical performance of each transmission company in setting future operating expenditure targets where incentives have been in place that encourage a transmission business to reveal their true operating costs. Other approaches involving comparisons between transmission companies ought to be given relatively less weight because of the intrinsic differences in operating environment from one transmission company to another.

Indeed, the inappropriate application of benchmarking can result in poor regulatory outcomes in circumstances where differences between businesses are not properly addressed. In this regard Rules that mandate, or otherwise direct, the AER towards the use of benchmarking would appear to be inconsistent with the requirements of the NEL to align incentives with the long term interests of consumers.

74. Should the approach set out in the SRP be elevated to the Rules? Should the Rules provide for the future adoption of benchmarking approaches?

In terms of the matters that ought to be elevated to the Rules, please refer to the answers set out in response to question 71 and 74.

In addition, there is no need for the Rules to provide for the future adoption of benchmarking approaches at this time. In line with the Rule change provisions of the NEL it is open to any person to propose a Rule change and have that Rule change considered against the NEM

Objective. In the event that the AER or the transmission businesses develop benchmarking arrangements that overcome the inherent and fundamental differences between each transmission business then it is in everyone's interest to propose Rule changes that give effect to a less intrusive form of transmission regulation.

7.4. Depreciation

75. What issues (if any) arise from the current treatment of regulatory depreciation?

Ideally, depreciation for regulatory purposes ought to be linked to the true economic depreciation of each asset or class of similar assets. In practice, determining true economic depreciation has proved to be problematic and subject to high levels of judgment. As a result, regulators have tended to adopt the pragmatic approach of straight-line depreciation and accepted standard technical lives of major asset classes. Provided that regulatory depreciation does not form part of the incentive arrangements, and provided that the regulatory process over time ensures that all capital invested in an asset is returned to the investor, then the current treatment of regulatory depreciation would appear to be workable.

76. Is there a need to include specific guidance in the Rules in relation to regulatory depreciation? If so, in what areas?

As noted in TransGrid's response to question 75, the Rules should require that all capital invested efficiently should be recoverable over time by the relevant investing transmission business.

In addition, the Rules should permit a degree of negotiation between the AER and the regulated transmission business on the level of regulatory depreciation in a given regulatory control period. This would enable some management of price spikes and cash flow over time in response to periods of fluctuating levels of capital investment. However, the Rules should set clear bounds on the extent to which regulatory depreciation can be negotiated in this way. This is important to ensure that the AER does not unduly restrict cash flow to the business in order to smooth out price increases associated with the period of high capital expenditure and, in effect, move price shocks to consumers to the future.

77. Should the Rules require an explicit link between the appropriate rate of depreciation and the threat (or not) of regulatory stranding?

This depends on the eventual regime adopted for valuing the regulatory asset base. In the event that the current SRP 'lock in' approach is adopted, then depreciation can be addressed as proposed in TransGrid's response to question 76. Under these circumstances, there does not appear to be any pressing need to link the appropriate rate of depreciation to the threat of regulatory stranding.

However, there are situations where it is economic to replace an existing transmission asset with a higher capacity transmission asset before the existing asset reaches the end of its nominal life for depreciation purposes. Under these circumstances the regulated business ought to be able to seek approval from the AER to accelerate the recovery of capital in relation to the asset being replaced. The Rules should require that such approval should not be unreasonably withheld.

78. Should the Rules require an explicit link between the appropriate rate of depreciation and the threat (or not) of market stranding?

Refer to the response to question 77.

7.5. Rate of Return

79. What guidance should be provided in the Rules in relation to the calculation of an appropriate rate of return? Should the Rules be more prescriptive than currently?

TransGrid's principle objectives in relation to the appropriate rate of return are long term stability in the underlying parameters, and a level of return that adequatley compensates the TNSP for the risk of its investments. Overall, TransGrid believes that a greater level of prescription on the rate of return than currently exists in the Rules would assist in achieving these objectives.

We note that the existing Rules differ markedly from the approach taken in the SRP in that they provide little guidance on the estimation of the parameter values underlying the cost of capital. Furthermore, Schedule 6.1 of the Rules only provides broad guidance on how the rate of return should be set but makes no reference to the important matters identified by the Productivity Commission's review of gas access arrangements, such as increased incentives for investment.

TransGrid supports the inclusion of more detailed guidance in the Rules to the AER for how the rate of return is to be set. In particular, we would support a framework that encourages greater attention to be paid to the Productivity Commission's recommendations arising from its review of the national access regime, and the introduction of measures aimed at reducing the potential for parameter estimates to vary from one review to another, except where warranted (e.g. due to market movements).

80. Should the form of WACC (eg. nominal, vanilla post-tax), the WACC model (eg, CAPM) or any of its components (eg. approach to risk free rate, debt premium, beta, credit rating) be prescribed in the Rules?

Consistent with our response to Q.79, TransGrid believes that the Rules should prescribe the technical concepts to be adopted in setting the rate of return as well as the broad methodologies that should be applied in estimating the rate of return. We therefore propose that the Rules should prescribe:

- computation of a risk-adjusted rate of return as a weighted average of the costs of debt and equity;
- application of the CAPM in estimating the cost of equity;
- the use of benchmark costs or values (as opposed to actual costs or values of the TNSP) in estimating parameter values;
- estimation of the cost of debt by reference to the current cost of borrowings for debt of comparable credit risk and maturity; and
- in respect of those parameters where there is uncertainty, consideration of the implications for the market objective if the rate of return is understated and provision of explicit and sufficient justification for shifting away from a parameter adopted in a previous determination.

The Rules should also require that the AER publish guidelines on the parameters to be used, the initial guideline should be the current SRP, and changes to the parameters in the guideline need substantive justification in terms of sound data and empirical analysis.

81. To what extent should the WACC continue to be based on assumptions of a benchmark capital structure?

As noted in our response to Q.80 above, TransGrid supports the use of benchmark assumptions in estimating the WACC, including benchmark assumptions on the appropriate capital structure.

TransGrid notes the AEMC's concern that the use a benchmark capital structure assumption may – in circumstances where the benchmark capital structure is below the TNSP's actual capital structure - resulting in consumers paying more than the actual cost associated with capital financing. However, the AEMC should also note that the alternative of adopting the TNSP's actual capital structure may also promote the inefficient use of debt by TNSPs (ie. debt employed is lower than it should be), thus yielding no net benefit to consumers.

82. Should the principles in the SRP be elevated to the Rules?

As noted in our response to Q. 79 and Q.80, TransGrid supports the inclusion of more detailed guidance in the Rules to the AER in relation to the methodology for setting the rate of return, the broad concepts that are to be adopted in that process and increased accountability on the regulator with respect to changes in parameter values. Such guidance will assist in obtaining more stable and predictable outcomes in regulatory decisions.

However, we do not believe that it would be generally acceptable for the Rules to specify parameter values. Instead, the regulator may publish guidelines on appropriate input values that are consistent with the methodologies and concepts outlined in the Rules.

83. Should the Rules prescribe a process for the periodic review of relevant WACC parameters? If so, how frequently should such a review be undertaken: for every determination or less frequently? Who should undertake such a review?

TransGrid recognises that review of some WACC parameters is necessary given that some of the underlying parameters are based on market variables which change from time to time. In respect of these parameters, we expect these parameter values to change from one review to the next to reflect prevailing values and the Rules should prescribe for this to occur at each review.

However, it is also the case that new empirical evidence, research or arguments – presented by either the TNSP or the regulator - may emerge from time to time on certain WACC parameters. Prescribing the frequency of review of such information may not be prudent nor practicable because unless such information is reviewed, the debate on some parameters may not advance. At the same time, however, TransGrid also believes that new evidence or research should not automatically result in changes in parameter values from one review to the next unless the regulator is properly satisfied that a change is warranted in light of the NEM Objective.

The risk of changes in parameter values can create uncertainty in regulatory decisions. Therefore, we consider that it is incumbent upon the regulator to ensure that the decision to accept or reject new evidence and to change parameter values is soundly based. Changes that result in a reduction the rate of return, in particular, need to be subject to a high degree of scrutiny given the Productivity Commission's finding that the cost of under-investment in national infrastructure far outweighs the detriment of higher access prices. Furthermore, the regulator should be required to explicitly state the reasons for proposing a change in value and TNSPs should be given a reasonable opportunity to comment on proposed changes.

84. Should the Rules allow for the determination to be re-opened if market conditions change?

To enable incentive frameworks to operate effectively, the basis upon which revenue cap determination should be reopened should be relatively limited and clearly defined. Nevertheless, extreme changes in the marketplace can sometimes result in a substantial mismatch between a transmission company's income and costs, which can deter efficient investment. The Rules should provide an opportunity for the regulated company to demonstrate that this is occurring, and on this basis seek to have the determination reopened. However, a relatively high hurdle on such reopening needs to be imposed within the Rules, but the Rules must also make it clear that once such criteria in the Rules have been met, then the AER is required to reopen a determination and adjust revenue cap accordingly.

7.6. Tax

85. Is a post-tax or a pre-tax approach appropriate for electricity transmission? What proportion of a TNSP's assets have been subject to accelerated depreciation for tax purposes?

TransGrid is unaware of any benefits in regulation of electricity transmission in moving from a post-tax to a pre-tax framework.

The proportion of assets that have been subject to accelerated depreciation for tax purposes has been material but is decreasing.

86. Are there transparency benefits associated with a pre-tax approach? To what extent are these outweighed by the accuracy and complexity of the associated WACC conversion formula?

TransGrid is unaware of any benefits to the regulation of electricity transmission in moving from a post-tax to a pre-tax framework. However, the accuracy and complexity of the associated WACC conversion formula is a legitimate consideration in considering any move to a pre-tax approach.

87. Is a convergence of modelling approaches likely to be desirable as the scope of AER energy network regulation widens? That is, are there benefits in the Rules requiring either a post-tax or a pre-tax modelling approach across all sectors?

While convergence in modelling approaches is generally desirable, TransGrid does not consider convergence to be an important driver in the treatment of tax for transmission businesses.

88. What guidance (if any) should be provided in the Rules on the derivation of the cost of tax, ie, synthetic or actual information on tax values of assets (and so depreciation), financial structure, capitalisation policies?

Generally speaking, TransGrid believes that an arrangement that provides an incentive to optimise its tax position over time is most appropriate. This puts TransGrid in a comparable position to a business operating and competitive environment, and encourages TransGrid to manage its tax affairs in the long term interests of electricity consumers.

89. Is it appropriate for the TNSP to face incentives in relation to its tax costs?

Please refer to TransGrid's response to question 88.

7.7. Analysis of the Financial Impact of a Revenue Determination

90. What is the role for assessment of financial ratios? What value (if any) does it add?

TransGrid is not aware of any material value arising from the assessment of financial ratios carried out by the AER as part of TransGrid's revenue cap decisions. Indeed, it appears that these ratios are an odd mix of benchmark and company specific parameters.

91. Is there any benefit in continuing to calculate financial ratios on the basis of costs set out in the revenue decision? Are their alternative approaches that would be more meaningful?

TransGrid is not aware of any benefit in continuing to calculate these financial ratios.

8. Extent of Discretion and Design of the Rules

8.1. Principles for Determining Appropriate Discretion

92. What should be taken into account in determining the appropriate degree of regulatory discretion? What are the advantages and disadvantages in leaving a wide degree of discretion for the AER? What are the arguments for and against a more prescriptive approach? Alternatively, should the Rules prescribe/confer discretion in a way that is more tailored to the specific decisions that must be made?

In determining the degree of the regulatory discretion the following key issues should be considered:

- the characteristics of the transmission businesses;
- the consequences of regulatory uncertainty on investment decisions;
- the increased ability for scrutiny of regulatory decisions via judicial review if the Rules are more prescriptive; and
- the relative ease of making changes to the Rules that satisfy the market objective.

The nature of transmission businesses, especially their long asset lives and sunk investment characteristics, mean that regulatory certainty and stability are very important in ensuring that the efficient level of investment is made. A wide degree of discretion results in regulatory uncertainty, which can result in less investment in transmission than is optimal.

In addition if the Rules are prescriptive, then there are areas for review via the judicial process. This helps ensure that Regulator's decisions are open to effective scrutiny, introduces a discipline on the decision making of the regulator and ensures that 'mistakes' are more easily identified and rectified. Merits review of regulatory decisions would further enhance this process.

Given that the Rules can be modified through the Rule change process, the recommended level of prescription in the Rules should not prevent changes or improvements in regulatory practice (so long as these changes can be shown to achieve the NEM objective). Therefore if: regulatory best practice changes; technological changes result in a need to change the regulatory approach; or gaming behavior becomes apparent, and if there are Rule changes that address these issues and which further the NEM objective, then these changes can be made via a Rule change.

The fact that the rule change process is rigorous and considered, and open to public comment and scrutiny, is more likely to ensure that the changes made are furthering the NEM objective. This is a clearer and more easily scrutinised process, than discretionary behavior by a Regulator that might not adequately consulted upon nor well explained.

Therefore it is best for the Rules to be prescriptive and confer less discretion in terms of regulatory approach on the AER given:

- the clear downside in terms of the potential for too little investment;
- the relative ease of introducing rule changes; and
- the positive benefits in terms of better scrutiny of regulatory decisions and changes in regulatory practice, through more effective judicial review and a formal Rule change procedure.

It needs to be recognized that there will be some areas of regulatory practice where it is not practical for the Rules to be completely prescriptive. Following the general principle outlined above, where the Rules do allow some discretion on the part of the AER, the AER should be closely guided by the Rules in the exercise of such discretion. The AER ought to also be required to publish and consult on guidelines, and be bound to such guidelines until they are changed in accordance with a process defined within the Rules. This approach is outlined in

the suggested rule changes presented by the Transmission Network Operators joint submission.

However, to be clear, TransGrid generally favours a higher degree of prescription within the Rules than proposed in the joint TNO submission for the reasons set out clearly in TransGrid's cover letter to these responses to the AEMC Issues Paper questions.

93. Are the principles listed above the appropriate ones to guide consideration of the appropriate balance between prescription and discretion in the Rules? Are there additional factors that should be taken into account?

The AEMC has outlined the principles of predictability, consistency and some flexibility where flexibility is required. TransGrid agrees with these principles. However as outlined above it believes that given the relative ease with which Rule changes can be made, that there is less need to allow flexibility through discretion for the AER.

TransGrid recommends an additional principle be considered. This is the importance of clearly explained reasons for decisions and allowing regulatory decisions to be scrutinised and assessed, so as to introduce an effective discipline on the quality of regulatory decisions.

TransGrid generally favours a higher degree of prescription within the Rules than proposed in the joint TNO submission for the reasons set out clearly in TransGrid's cover letter to these responses to the AEMC Issues Paper questions.

More detail on this issue is provided in the answer to Q.109.

94. Given that regulatory practice and methodology will evolve over time, to what extent should the Rules accommodate future change without the need for progressive amendments? Alternatively, is it preferable that future changes in approach be implemented via a future Rule change process?

Over time there may be a need to change regulatory practice, due to changes in regulatory best practice, or technological or structural changes in the industry. These changes should be made through the Rule change process, so that the benefits in terms of economic efficiency are considered holistically, through a thorough and considered consultation process. That is, the costs in terms of regulatory uncertainty are weighed up against improvements in efficiency that are likely to result from the Rule change. It is also important that changes retain the statutory standing of the Rules

As outlined above, the relative ease of introducing a Rule change means that this progressive amendment approach, coupled with prescriptive Rules, are feasible and preferable.

There should be no retrospective changes and change should also be largely prospective.

TransGrid generally favours a higher degree of prescription within the Rules than proposed in the joint TNO submission for the reasons set out clearly in TransGrid's cover letter to these responses to the AEMC Issues Paper questions.

8.3. Alternative Arrangements

95. Are there other approaches that provide useful guidance on the balance between discretion and prescription in preparing the revised Rules for electricity transmission?

There are many examples of where regulators, who have very wide discretion depart from approach that they have previously committed to without proper justification or do not follow their stated intentions. For example, the ACCC with the Statement of Regulatory Principles or the Essential Services Commission changing part of its approach between reviews.

This can be a draw back of current methods of regulation. There is often the incentive for the regulator to change practice. However, the short term gain in terms of capturing efficiency gains or errors, can destroy the incentive properties of the incentive based regime, and may result in a reduction in investor confidence and less investment than is optimal. This issue of the failure to maintain regulatory commitment is outlined in the PC report and is similar to issues of commitment outlined in the game theory literature. The introduction of a prescriptive approach, with changes in regulatory practice open to public scrutiny, helps bind the regulator to its initial commitment and may help to reduce the resultant regulatory uncertainty.

As outlined above, the relative ease of introducing a Rule change means that this progressive amendment approach coupled with prescriptive Rules are feasible and preferable.

96. Is there a role for further objectives in the Rules given the single NEM objective? To what extent should the general objectives currently included in the Rules be removed, reduced or rationalised?

The current objectives in the Rules should be made consistent with the NEM objective, and should link back to the objectives in the National Electricity Law (Amending Legislation) 2005. In introducing a higher level of prescription there may be the need to introduce some lower level objectives to provide guidance on the application of the regulatory regime. These objectives should be linked back to the primary objective, so that the hierarchy of objectives is clear. However to the extent possible these lower level 'objectives' should be presented as a clear criteria or a prescribed methodology, rather than as an additional objectives.

An important example in this regard is the need for the Rules to clarify the concept of efficiency. This is very important to the process for recognizing whether capital expenditure should be rolled into the value of the regulatory asset base. Responses to earlier questions in relation to assessing the efficiency of capital expenditure set out proposals for clarifying this concept to support practical application by TNSPs and the AER.

97. What are the relative advantages and disadvantages of an approach that specifies outcomes and principles as decision making criteria in the Rules, versus Rules with greater prescription and detail?

TransGrid and the TNO joint submission advocates a mix of prescription and the establishment of decision making criteria.

For the reasons outlined above, TransGrid believes that Rules with greater prescription and detail are more likely to achieve the NEM Objective than Rules that outline outcomes and principles and leave more discretion to the AER.

9. Regulatory Procedures

9.1. Procedures and Regulatory Decision Making

98. What is the appropriate balance between fixed procedures and leaving procedural requirements open to discretion in relation to setting revenue determinations, and for related regulatory functions eg assessing compliance with price controls?

TransGrid supports the establishment of relatively fixed procedures in order to improve certainty and ensure that the AER undertakes a disciplined assessment process. The details of this approach are set out in the joint TNO submission provided under separate cover.

99. Are there existing procedural regimes in other jurisdictions that reflect a suitable balance between flexibility and certainty?

There is a lot evidence, as outlined in recent reviews by the Productivity Commission and the Prime Ministers Taskforce, to suggest that the current regimes in Australia have not got the balance right, and that regulation is still an evolving process.

100. Are there other jurisdictions that reflect a poor balance between flexibility and certainty?

Please refer to the response to question 99.

101. Are there benefits in requiring the AER to issue an initial framework document for each transmission review setting out specific information requirements?

Based on TransGrid's experience with two ACCC revenue cap reviews, the effectiveness of a review is significantly enhanced if the requirements of the regulator are available, in detail, at least 12 months in advance of the revenue cap proposal being lodged by the regulated business.

102. Are there advantages in adopting an alternative process where the initial step of submitting an application is left to the TNSP?

TransGrid supports a move towards the 'propose-respond' model followed under the National Gas Code. Under this approach the Transmission Network Operator would submit an initial formal proposal for consideration by the AER. The AER would be required to consider this proposal. However, the advantages of the AER providing guidance in advance as suggested in response to question 98 remain equally relevant to a 'propose-respond' regime.

103. Should the Rules prescribe a timeframe for transmission determinations? If so, should that timeframe be capable of extension, by whom and in what circumstances?

A minimum period of 5 years should be required in the Rules, with a possible extension at the request of the regulated business. This period has proved to be a reasonable basis for the form of incentives that operate under the building block revenue cap form of regulation. However, there have been occasions where transmission owners have wanted longer periods to provide enhanced regulatory certainty.

104. If there are limited extension provisions, what stop-the-clock provisions would be appropriate? What incentives should be provided for the regulated business and the AER to meet the required timeframes?

Stop the clock provisions on both the regulated business and AER ought to be limited to extraordinary situations. The regime is relatively mature and the reviews are vital to the effective operation of the regulatory regime. Material fines ought to be considered for failure to meet timing requirements in the ordinary course of events.

105. What provisions should be included in the Rules to create incentives and/or sanctions for both the AER and the TNSP to meet timelines for revenue reset processes?

Material fines ought to be considered for a failure by the transmission business to meet timing requirements in the ordinary course of events.

The proponent's proposal ought to be adopted where the delay is due to the AER.

106. How should the Rules cover a situation in which there is no operational transmission determination?

The proponent's proposal ought to be adopted where the delay is due to the AER.

107. Does a mechanism that involves some form have "backdating" have value?

Issues can arise in backdating decisions such as which market parameters apply to a decision i.e. those at the time the decision is made, or those that applied at the deemed (backdated) date of the decision.

108. What benefits or costs may be expected in requiring all electricity transmission determinations to be undertaken simultaneously?

TransGrid has no 'in principle' objection to aligning the decision dates of each transmission business. However, the details of transition management are important.

In addition, once the framework proposed by the joint TNO submission is in place, there would appear to be minimal administrative or other advantage in establishing such alignment. The transmission businesses will still need to be assessed with close regard to the individual circumstances applying to each business and, where there are common requirements, these will be either be covered by the Rules or Guidelines.

109. What information should the AER be obliged to include in a statement of the reasons for a determination?

The AER should be required to state the reasons for its decision. This includes explaining how it considered expert reports both for the AER and for the TNO and new matters that it has identified late in reviews. The AER should consider and make explicit the experience and interests of any expert opinions and also acknowledge the methodology and reliability of any modeling. This approach is outlined in the suggested rule changes presented by the Transmission Network Operators joint-submission.

110. What are the arguments for and against a requirement in the Rules for the AER to provide details (either publicly or to the affected TNSP) of the modelling that underpins specific transmission determinations?

A requirement along these lines within the Rules would ensure regulatory certainty, allow greater scrutiny of the AER's decisions and support the prescriptive approach recommended by TransGrid. Accordingly, the AER should provide specific details of the modelling it has undertaken. This information should be made public, unless the TNSP identifies it to be confidential.

9.2. Regulatory Information

111. Are there any perceived problems with the current Rules in relation to the provision of information, and if so, what are they?

The AER's information gathering powers are currently extensive with substantial discretion passed entirely to the AER in respect of the information they are able to seek.

There is no recognition of the compliance costs associated with continuous and potentially irrelevant requests for information. Guidance on the information to be provided, and the purpose of that information, as a starting point to a review process would help address this. There needs to be a balance of the costs and benefits in relation to information requirements and information gathering.

TransGrid has experienced problems with the process for gaining approval from the AER to keep some information confidential that needed to be considered as part of TransGrid's

Revenue cap application. In particular, the AER should not prejudice the value of information on the basis that it is provided on a confidential basis. There are often very sound reasons why information needs to be kept confidential, even when such information provides vital evidence in support of a revenue cap application.

112. Should the Rules set out high level, qualitative principles in relation to the AER's information gathering powers, or should they seek to prescribe what information is to be provided, both routinely, and/or on an occasional basis?

The Rules should be clear on the scope of the AER's powers and these Rules need to balance the need for information with the costs of information provision.

113. Should the Rules set out the minimum relevant requirements in relation to the content of regulatory accounts?

As TransGrid has previously noted in submissions to the AER there needs to be an alignment between the accounting information provided from the audited accounting systems and the modelling used to calculate revenue caps if it is to be meaningful to interested parties.

114. Is there a need to make specific provision in the Rules in relation to information requirements for third party contracts?

TransGrid has not experienced the issues that have arisen in other reviews in relation to this matter and can offer minimal informed comment as a result.

115. Are the current requirements in the Rules about the content of the Regulatory Accounts satisfactory? Should the Rules be more prescriptive on any specific matters relating to regulatory accounts?

As discussed above there needs to be an alignment between the accounting information provided from the audited accounting systems to the AER on annual basis for publication and the modelling used to calculate revenue caps for this process to be meaningful to interested parties.

116. Would there be any advantages in adopting the model used for gas pipelines which requires the regulated business to develop its own regulatory accounting manual, consistent with guidelines produced by the AER?

TransGrid has no useful experience with this model.

9.3. Basis on which the AER can Reject or Modify a TNSP's Proposal

117. Is requiring the AER to accept TNSPs' proposal if they lie within a plausible range an appropriate way to deal with the potential for regulatory error? What other approaches may be relevant?

High quality regulatory decisions can be achieved if the Rules are designed with the appropriate hierarchy of guidance to effectively constrain (or provide clear direction on) the regulator's discretion on the methodology or approach to be employed in assessing various components of revenue, and comprehensive measures are proposed by the TNO joint submission, and this submission, to discipline the quality of the AER's discretion.

TransGrid supports the proposal contained in the joint TNO submission in relation to the adoption of the propose-respond model which complements this framework.

118. What is the likely impact of such an approach on the extent of regulatory certainty? Are regulatory outcomes more or less easy to predict if the decision criterion is within a plausible range, rather than the best or central estimate?

As outlined in our response to Q. 117, we consider that regulatory certainty can be improved without necessarily resorting to an approach that requires the regulator to accept the TNSP's proposal if the outcomes fell within plausible ranges. This is particularly the case where the regulator has limited discretion. If there are effective bounds on the regulator's discretion and the exercise of that discretion is appropriately disciplined, the predictability of regulatory outcomes would be enhanced without adopting a plausible range approach.

TransGrid supports the proposal contained in the joint TNO submission in relation to the adoption of the propose-respond model.

119. What would be the basis on which the AER is to determine that an outcome is within a plausible range? To what extent could this be by reference to objective criteria or would it by need to be at the AER's discretion?

TransGrid supports the proposal contained in the joint TNO submission in relation to the adoption of the propose-respond model.

120. Would such an approach represent an erring towards the interests of investors?

At face, this approach would appear to represent a favourable position for investors.

However, in terms of the NEM Objective, any bias applied to electricity transmission may be appropriate. In relation to gas networks, the Productivity Commission concluded that consumers would be advantaged by a bias toward over investment compared with a bias towards under investment. This position would appear to be even more compelling in relation to investment in electricity transmission. Electricity transmission costs are typically 7% of the total end use cost of electricity in the NEM. However, the consequences of under investment in electricity transmission can be devastating in terms of reliability and security, and can also result in excessive wholesale electricity prices and risk management premiums.

It would appear to TransGrid therefore that there is a prima facie case in support of a bias in favour of investors in relation to the regulation of electricity transmission.

121. If so, is that an appropriate objective given the value apparently placed by customers on reliability and security in the long run? Are the consequences of underinvestment in electricity transmission of more detriment to achieving the market objective than the consequences of overinvestment?

The national electricity market objective places emphasis on the promoting efficient investment in the electricity system. An approach that errs towards the interests of investors would facilitate the achievement of the NEM objective. However, TransGrid views this approach as being a philosophy that should underpin the national market objective rather than an objective in itself.

It is important to understand, however, what an approach that errs towards the interests of investors means. This concept was identified by the Productivity Commission (PC) in its review of the national access regime, and it was recommended in the context of three interrelated factors: the informational uncertainties and imperfect tools that regulators have to deal with in regulatory decision-making, the importance to the community of ongoing investment in essential infrastructure and the asymmetric consequences of regulatory pricing errors on investment. It was within this context that the PC concluded that under-investment was a worse outcome, and that it provided an in-principle case for access regulation to focus on principles, which erred on the side of investors. As the PC noted, the application of this principle does not equate to an endorsement of unfettered monopoly behaviour by service providers. TransGrid concurs with the PC's views on this issue.

122. If such an objective is appropriate, are there alternative ways of achieving it? Would such alternatives better achieve the market objective?

At this stage TransGrid has not developed alternative proposals for better achieving the market objective.

9.4. Savings and Transitional Issues

123. What issues need to be supported or provided for in savings and transitional Rules? What is the best approach to the management of these issues?

Transitional rules should generally ensure that pre-existing agreements are honoured and that the application of the new Rules will not result in unintended or unforseen losses being borne by the TNSPs.

Specifically, there will be a number of transitional issues that arise from the regulatory regime in moving from current revenue cap decisions based on a range of rules relevant at the time of each decision, to the new Rules arising from this review. To address this there is a compelling case in favour of the arrangements set out in these decisions to be explicitly recognised in the Rules, perhaps as derogations, to the extent that this is consistent with the current NEL provisions. This would preserve the intention of these decisions, and ensure regulatory certainty for the businesses currently operating under these decisions, until the current regulatory control periods expire.

Consideration also needs to be given to preserving elements of these decisions into subsequent regulatory control periods where appropriate. For example, the strength of the incentive provided by the operating expenditure efficiency carry over mechanism in TransGrid's current revenue cap decision would be reduced if this arrangement is curtailed at the end of the current regulatory control period.