AEMC Review of the Electricity Transmission Revenue and Pricing Rules

Response to the Revenue Requirements Issues Paper

-from-

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1. Introduction

1.1. Scope and Purpose

This submission represents the views of the following companies, "The Group":

- TRUenergy
- International Power
- Loy Yang Marketing Management Co.
- NRG Flinders.

The Group owns the majority of Victorian and South Australian generation capacity and will be approaching this review with prime consideration of the interplay between the regulated transmission network and the competitive national electricity market.

The Group previously provided a submission on the AEMC Scoping Paper for the Chapter 6 Review, and this submission draws and builds upon that earlier submission to the extent relevant to TNSP Revenue Requirements.

1.2. A Generator Perspective

For a generator, a TNSP is not just a provider of transmission services, but also a competitor, because local generation will often be a substitute for transmission. As a result, transmission augmentation may reduce the demand for local generation and the price it can command. In short, it may have a substantial and adverse commercial impact on generation businesses.

Nevertheless, we support the efficient development of transmission as being in the interests of consumers and hence, in the long run, in the interests of the generation sector. Our concern is with inefficient development which can and will adversely affect both consumers and generators.

Additionally, as users of transmission services, we may be adversely affected if these are not provided to an efficient standard. Indeed, the impact on generators may in some situations be extreme.

Thus, our primary concern in relation to this AEMC review is to ensure that the regulatory mechanisms which determine TNSP revenue requirements are focused on ensuring the efficient development and provision of transmission services by TNSPs. If the AEMC can achieve this, then the efficient and complementary provision of generation service by the competitive generation sector can be delivered.

1.3. Structure of this Submission

Since efficiency is considered paramount, we have structured our submission around five different "elements" of TNSP efficiency. Section 2 defines and discusses these five elements. Sections 3 to 7 then consider each element in turn, the extent to which the existing regulatory mechanisms support or hinder that efficiency element, and how the mechanisms may be adapted or expanded to better achieve the efficiency objectives. Our main suggestions are then summarised at the end of each section. We provide some overall conclusions in Section 8.

2. Efficiency

2.1. Why Efficiency is Paramount

The Group is pleased to see that the AEMC has identified a main theme of the review as:

> Aligning the long term incentives of transmission service providers with those of other market participants including end-use consumers. It is particularly important that network owners and other investors have appropriate incentives to develop and operate the transmission network in an efficient manner so that prices reflect least cost production and delivery of power to end-users at the levels of reliability and security they require

This follows on from the NEM Objective set out in the NEL:

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

Finally, section 35 of the NEL ("Rules in relation to economic regulation of transmission systems") requires that Rules for regulation of TNSPs must:

> provide effective incentives to a regulated transmission system operator to promote economic efficiency in the provision by it of [transmission] services

In our view, the NEL focus on economic efficiency makes this the principal and paramount objective of transmission regulation. We strongly support this goal.

2.2. Elements of TNSP Efficiency

In a free and competitive market, economic efficiency is generally understood to consist of three elements: productive efficiency, allocative efficiency and dynamic efficiency. However, transmission services are not provided in such a market, because TNSPs – which provide the bulk of these services - are regulated and monopolistic. Furthermore, because transmission services compete with local generation, inefficiency in transmission service provision can engender distortions and hence inefficiency in the generation market.

For these reasons, the focus of this submission is how to develop and adapt transmission regulation so as to better promote economic efficiency. Given the special context and structure of the transmission services market, we have established an unorthodox but, we think, appropriate and meaningful breakdown of economic efficiency into five elements:

- *market efficiency*: a TNSP develops and provides those services – and only those services - that the market wants: ie where the benefits to users exceed the cost of provision;
- *production efficiency*: providing a specified level of services at least cost;
- *efficient balance*: transmission services are provided by the party, and using the technology, which has the lowest cost;

- *efficient certainty*: stakeholders have reasonable certainty both on actions taken by the regulator and on TNSPs' responses to those actions;
- *revenue efficiency*: a TNSP is able to earn a reasonable return on capital employed for the provision of transmission services

These different aspects of efficiency are considered further below. In the following sections we then consider how the regulatory framework should provide incentives on TNSPs to improve efficiency in each of these areas.

2.3. Market Efficiency

Although the end-objective is to benefit the consumer, we consider that a reasonable proxy for this objective is that actions should maximise market benefit (the sum of the producer and consumer surpluses) net of the efficient cost of undertaking the action. For TNSPs, in relation to market benefit investment actions, this principle is well-established in the regulatory test. The same principle should also apply to operational actions.

2.4. Production Efficiency

This element is akin to "productive efficiency" in conventional economic efficiency analysis. Where market efficiency relates to *which* services should be provided, production efficiency relates to how much this service provision should cost. This concept is also well established in the Regulatory Test, in the sense that, to maximise market benefit, the TNSP must minimise the cost of delivering the augmentation.

2.5. Efficient Balance

In their broadest sense[1], transmission services may be provided by TNSPs, by generation or from the demand-side, or even by MNSPs. Efficient balance requires that TNSPs provide only those services that they are in the best position to provide.

Non-TNSPs may provide transmission services in two ways: firstly, through the market; secondly, by contracting through a TNSP through a network support agreement, or similar.

Efficient balance is closely related to market and production efficiencies and could be included in these elements. We consider it separately in this submission in order to highlight its importance, to generators (who are entitled to a fair opportunity to compete) and to the market as a whole. Without efficient balance, any TNSP inefficiency will "infect" the general market and the impact of that inefficiency will be amplified.

[1] The NEM Rules define transmission services narrowly to mean those services which are provided by a transmission network. Our broader sense includes those services together with similar or substitute services that can be provided by others.

2.6. Efficient Certainty

We note that the AEMC has described certainty as the second "theme" of the issues paper.

> Increasing the clarity, certainty and transparency of the regulatory approach, so as to provide a more certain regulatory environment in which investors can make efficient investment decisions which deliver market outcomes that better serve the long term interests of consumers

The emphasis appears to be on certainty for the investor in *regulated* companies. But of considerably greater import is certainty for investors in the remaining 90% or so of the wholesale electricity market. In this context, uncertainty arises not just from the regulatory approach, *per se*, but also in how the TNSP responds to the regulatory incentives and how clearly it communicates that response to the market.

2.7. Revenue Efficiency

Clause (3)(a) of Section 35 of the NEL requires that the Rules must:

> provide a reasonable opportunity for a regulated transmission system operator to recover the efficient costs of complying with a regulatory obligation;

which is broadly what we mean by revenue efficiency. Clause (3)(b) of that section, on the other hand, describes the requirement to promote efficient investment and service provision. The suggestion is that clause (3)(a) is about cost recovery and does not impact on or promote efficiency, *per se*.

We do not entirely agree. After all, revenue efficiency is one component of "allocative" or pricing efficiency and any over- or under-recovery of costs will lead to some pricing inefficiency. However, the impact of this may be minor since:

- allocative efficiency relies also on deriving efficient transmission prices[2] based on the revenue requirement, which has been seen to be problematic;
- TNSP-revenue is only one component of transmission prices – the others being locational and congestion costs/prices;
- transmission prices are only a small component of the end-consumer price; and
- demand for transmission is relatively price inelastic.

In short, how much efficiency would be lost if return on capital was 1% higher than it ought to be? Certainly, consumers would lose out through higher prices, but this would primarily be a wealth transfer rather than a dead-weight loss.

On the other hand, the regulated level of return on capital will affect TNSP investment incentives and will, therefore, indirectly affect other aspects of efficiency.

[2] the subject of the next AEMC Issues Paper

2.8. Summary

To summarise, we consider that:

- the paramount objective of TNSP regulation is to encourage economic efficiency in the development and provision of transmission services;
- TNSP efficiency can be broken down into five elements and each element considered separately in the design of the regulatory framework;
- the objective of revenue efficiency – the opportunity for a TNSP to recover its efficiently incurred costs – though important is subsidiary to the other efficiency elements.

3. Market Efficiency

3.1. Market Benefit

We have defined market efficiency as developing and providing transmission services that maximise net market benefit: ie the total increase in the consumer and producer surplus net of the cost of providing the service. We are pleased to see that the AEMC has come to a similar view[3].

TNSPs are obliged to provide transmission services to a specified standard, as set out in Chapter 5 of the Rules, as well as in jurisdictional reliability standards. We support service standards so long as these are consistent with market efficiency: ie that the cost of providing service to these standards is no more than consumers are willing to pay for that standard[4]. Indeed, where market efficiency incentives are otherwise inadequate, it is important to have a service standard to prevent an inefficient decline in service quality. On the other hand, if market efficiency incentives are adequate, TNSPs should deliver services to an efficient standard.

Thus, service standards are at best a necessary, but rather blunt, mechanism for incentivising market efficiency. At worst, they may create market inefficiency. On the other hand, as we note in section 6.2, they do play a role in improving certainty.

The regulatory emphasis to date has been on measuring and incentivising market efficiency in investment, whereas there has been little progress in relation to operations. We consider these two timescales separately below.

3.2. Investment

We support the design of the "economic leg" of the Regulatory Test ("the Test") in requiring a TNSP to demonstrate that an economic augmentation project maximises market benefit. The Test, therefore, appropriately identifies which projects are market efficient and which are market inefficient[5]. However, market inefficiency may still arise where:

- a TNSP does not identify, test and develop some efficient projects ("underinvestment"); or
- a TNSP develops inefficient projects; ("overinvestment")

The Test, *per se*, does not prevent either of these inefficiencies occurring. This is a matter for the (Chapter 6) Rules. Below, we present some key principles for Chapter 6 Rules which should encourage TNSPs to avoid both underinvestment and overinvestment.

[3] P14 of the Issues Paper
[4] at the margin: ie consumers would rather receive this standard of service than a lower service standard at a somewhat lower (efficient) cost
[5] subject to some concerns we have with the Test, discussed in section 5.1

Firstly, we believe that a TNSP should be entitled to recover[6] either the efficient cost of an augmentation, or its measured market benefit, whichever is lower. The market benefit will be established when the project is subjected to the Test. Determination of the efficient cost is discussed in section 4.2, below. Once this value has been established, it should not subsequently be revisited[7], even if the anticipated market benefits subsequently fail to arise. Thus, a TNSP is guaranteed to receive a WACC return on efficient investments[8] and a sub-WACC return on inefficient investments.

Secondly, underinvestment or overinvestment may still occur if WACC is set too low or high, respectively. To mitigate this, we suggest that an additional reward should be obtainable for efficient projects and a further penalty should be imposed for inefficient projects. These rewards and penalties may arise from other aspects of the regulatory framework. If they do not – or are insufficient – an additional reward/penalty mechanism may be needed.

Thirdly, the TNSP should be allowed to choose at what point the efficient cost and market benefit for an augmentation are determined: either prior to project commitment and development[9]; or after project completion, at the next regulatory reset. The former option gives the TNSP the benefit of certainty, the latter, practicality.

Fourthly, whilst the Test should be undertaken – and market benefit determined – by the TNSP, as now, the results should be verified by an "audit" undertaken by the AER, at least for major projects[10]. For relevant projects, the market benefit will not be properly established and confirmed until the audit is complete.

Fifthly, any augmentation project – whether funded through the regulatory process or external to this process by a participant or group of participants – should not lead to any loss or erosion of existing access or service levels to users, even where these levels are above the regulated standard,[11] unless such users are adequately compensated[12].

Sixthly, even with the correct incentives, a TNSP may fail to identify, test and develop an efficient project. The MCE has already recognised this possibility in developing its "last resort" proposals. We believe this issue is best addressed by making investment contestable in these circumstances – subject to appropriate "technical" protection of the TNSP network.

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[6] on an NPV-basis based on its regulated WACC

[7] Except in the normal process of establishing a depreciated replacement cost. In short, there should be no subsequent optimization.

[8] So long as it can develop these at efficient cost, see section 4.2.

[9] subject to the timing restrictions discussed in section 5.1

[10] In our submission to the AEMC Scoping Paper, we suggested a *de minimus* threshold of $10m or $20m

[11] Or, as in the case of generators, where there is no regulated standard

[12] The issue of preserving access rights generally is considered further in section 6.2.

Thus, any suitably qualified 3rd party should be entitled to:

- request that a TNSP Test a project, so long as the TNSP's direct costs are covered;
- itself Test a project which a TNSP has declined to Test; and
- develop an efficient project which a TNSP has declined to develop, and receive regulated revenue[13] for that project on the same terms as those for a TNSP

3.3. Operations

The efficiency of investment decisions can be established through the Test. An investment Test is practical because:

- the cost of undertaking the Test, though significant, is small compared to the investment cost; and
- market models can be developed which can reasonably measure the incremental market benefit provided by the transmission augmentation against the counterfactual of no augmentation[14]

It would be impractical to apply a similar mechanism to operational decisions, however, as the time required and cost[15] of undertaking a Test, compared to the operating costs and benefits, would be substantial and itself create inefficiency.

An alternative approach to incentivising operational market efficiency is to reward the TNSP with the incremental market benefit – or a portion of it – which its operations create. It will then only take operational actions where its market-benefit-based reward exceeds the internal cost of the action: ie where the action is market efficient.

Such a mechanism is, of course, implicit in a competitive market[16], since the revenue received by a service provider reflects the benefits obtained by the customer, and the service will only be provided where revenue exceeds cost. However, establishing such a mechanism in a regulated market may be difficult, since:

- a measure of market benefit in operational timescales – and the attribution of incremental benefit to decisions or actions of specific TNSPs – must be established; the NEM design itself does not directly provide such a measure[17];
- any such measure is likely to be susceptible to the actions of other parties; and

[13] Most likely, the local TNSP would continue to levy TUoS on users, but would be required to forward a part of this revenue to the 3rd party developer (much like a coordinating TNSP).
[14] although some contention remans about the measurement of "competition benefits": the indirect benefits that arise from changes in the strategic behaviour of market participants as a result of the transmission investment
[15] For operational decisions, costs will also arise where Testing decisions causes them to be delayed.
[16] where there is allocative efficiency
[17] In contrast, for example, to the UK "BETTA" market, where "balancing costs" (previously "uplift costs") are established as part of the market design, allowing an operational incentive mechanism – along the lines described in this submission – to be established relatively easily

- a number of parties (ie TNSPs and NEMMCO) provide or dispatch transmission services and the market benefit measure must be further broken down to reflect their respective contributions.

Though difficult, there is nothing to suggest that designing and implementing such a mechanism is impractical. We understand that the AER is developing such market benefit measures[18] and we support this activity.[19]

Once a market benefit measure has been established an "incentive function" is needed to convert this measure into an amount of financial reward or penalty on a TNSP. The three main parameters of such a function are:

- the breakeven point: the level of market benefit at which the TNSP reward/penalty is zero;
- the sharing factor: the amount of reward or penalty awarded to the TNSP for each dollar increase or decrease in market benefit, respectively;
- a cap and collar: the maximum amount of total reward or penalty in a defined period: eg a financial year.

The breakeven point should be based on the standard that a "good practice" TNSP would achieve, armed with the budget (its asset base, capex allowance and opex allowance) provided in its revenue requirement. Thus, a TNSP is rewarded only where it is operationally more market efficient than good practice[20].

In relation to the sharing factor, whilst it could be argued theoretically that an efficient equilibrium point will only be reached if *all* of the market benefit is allocated, we are in practice likely to be currently a long way from this equilibrium point and substantial efficiency gains may be achievable (the "low hanging fruit") even with only moderate incentives. In the end, there will be a trade-off between the strength of the incentive and the level of risk placed on the TNSP.

Similarly, the placement of the cap and collar will be a trade-off between the value of the risk-mitigation that these provide versus the possibility of a loss of incentive once a TNSP "hits" the cap or collar before the end of the relevant period.

[18] which it calls "transparency measures" as these measures may or may not form part of a future incentive mechanism

[19] Although, as noted in section 6.1, we consider that it would be better done by the AEMC as part of the Rules development process

[20] Note that the TNSP might then be rewarded for improvements resulting from additional efficient investment not included in the revenue requirement (eg "contingent" projects). There may need to be an adjustment to the breakeven point in these circumstances, to prevent possible perverse incentives arising.

3.4. Summary

To summarise, we consider that:

- economic efficiency is only achieved where a TNSP develops and provides those services – and only those services - that the market wants: ie where the benefits to users exceed the cost of provision;
- to achieve this element of efficiency, a TNSP should take investment and operational actions which maximise net market benefit: the consumer and producer surplus, net of a TNSP's internal costs;
- for investments, a TNSP should be entitled to recover the efficient investment cost or the market benefit from the investment, whichever is lower, with the market benefit determined by the application of the Regulatory Test;
- although it should remain the responsibility of the TNSP proponent to determine market benefit, this determination should be verified by the AER – at least for large projects – through an audit of the Test process;
- a TNSP should be entitled to develop any project - (including those that may not be subject to the regulatory test, where for example they are "funded" externally to the regulation process) – but only where existing users are not adversely affected or are adequately compensated;
- should a TNSP not identify, Test, or develop an efficient project, a suitably qualified 3rd party should be entitled to do so and receive commensurate regulated revenue;
- an incentive mechanism to encourage market efficiency in operation timescales should be developed, based on awarding a TNSP a share of the incremental market benefit (or detriment) created by its actions;
- a measure of this incremental market benefit therefore needs to be defined. Whilst we would support work in this area currently being undertaken by the AER, we think it would be more suitably come under the aegis of the AEMC;
- in establishing this incentive mechanism, there is likely to be a trade-off between the efficiency benefits created and the cost of the additional risk imposed on TNSPs. This trade-off can be managed through the detailed design of the incentive mechanism, particularly the sharing mechanism and any caps and collars.

4. Production Efficiency

4.1. Ex Ante Mechanisms

The current regulatory framework – as set out in the SORP – aims to create incentives for production efficiency through an "ex ante" process of setting an expenditure "budget" in the revenue requirement and then allowing a TNSP to retain a proportion of any "savings" where it underspends the budget.[21]

A shortcoming of this approach is that a "saving" does not necessarily indicate production efficiency. It may simply be that the TNSP has delivered a lower level of service than intended in the budget[22] or has not carried out previously identified market benefit projects. Thus, where the budget envisaged an efficient level of service, the saving may be symptomatic of market inefficiency rather than production efficiency. The challenge of an ex-ante mechanism, therefore, is to encourage production efficiency without, at the same time, rewarding market inefficiency.

4.2. Investment

Investment may proceed for "reliability" or "economic" reasons, as established in the two legs of the Test. Enforcement of reliability standards should prevent a TNSP generating savings by making inefficient savings in the reliability budget. However, because there is no equivalent "economic standard" – or any requirement for a TNSP to develop economic projects – there is no equivalent preventative mechanism in relation to savings in the "economic budget".

Therefore, under current regulation, there is no positive incentive for a WACC-neutral TNSP[23] to develop a market-efficient augmentation, and a significant negative incentive (through the ex-ante mechanism) *not* to. This needs to be fixed.

The problem arises because the capex budget is not project-specific. If it were, regulation could be designed to ensure that a TNSP was rewarded only for savings on projects that had been developed and completed on time. However, it is not possible to exactly specify economic projects at the regulatory reset, since market conditions – and hence market benefits – may vary considerably before the project is intended to commence, and what appeared a market efficient project with some probability of proceeding may become inefficient, or *vice versa*.

The existing SORP addresses uncertainty over whether a major project will be developed through specific arrangements for "contingent projects"[24]. However, the objective of these arrangements is primarily to mitigate the associated problem of forecasting error in the ex-ante budget and, as such, projects are only regarded as "contingent" if they materially affect the budget[25].

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[21] And, conversely, preventing it from recovering all of any budget overspend.

[22] A third possibility is that the budget was over-generous. We are less concerned about this possibility, since it is inevitably arises under incentive regulation and does not impact directly on efficiency

[23] ie a TNSP who is indifferent to investments which receive a WACC return. However, there is some incentive where a WACC return is attractive to a TNSP.

[24] These are described on P60-61 of the Issues Paper

[25] The current rule is that a project is "contingent" if its cost represents more than 10% of the budget.

We believe that the "contingent project" arrangements should also apply to all economic projects above a de minimus threshold[26]. The "trigger" for the AER to establish a contingent project incentive mechanism would be the identification of an economic project through the Test.

Where a TNSP chose not to take the Test prior to developing an economic augmentation (see section 3.2, above), there would need to be a different incentive mechanism. The AER would establish the "target" expenditure profile for the relevant project at the next regulatory reset and then make the appropriate adjustments to the revenue requirement for the next regulatory period. Although in this case the project would most likely already be complete, and the actual cost known, the "target" may still be above or below the actual cost, depending upon how efficiently the AER considered that the project had been developed. This would create incentive for the TNSP to seek clarity through application of the Test up front.

4.3. Operations

The project-specific approach described above to incentivise production efficiency in investment would not be applicable to operations timescales, since operational actions cannot generally be assigned to discrete "projects". On the other hand, with the implementation of the market efficiency incentive described in section 3.3, a TNSP already has an incentive to maintain efficient levels of operational expenditure. Indeed, in this sense, the incentive mechanism acts equally on market and production efficiency, since the net rewards received by the TNSP depend upon the difference between market benefits delivered and internal operating costs incurred[27].

4.4. Summary

To summarise, we consider that:

- economic efficiency is only achieved where the desired level of services is provided at least cost;
- production efficiency can be encouraged by establishing a service budget and rewarding a TNSP with a proportion of any savings compared to budget, but only if the TNSP is prevented from reducing the level of services provided;
- in relation to a capital expenditure budget, although a TNSP is prevented from inefficiently reducing the amount of reliability augmentation, there is nothing currently to prevent them inefficiently reducing the amount of economic augmentation;
- thus, all major economic augmentation projects should be treated as "contingent projects" as set out in the current SORP. This means that a TNSP will be rewarded only for savings on completed projects and cannot generate savings simply by cancelling or postponing projects.

[26] For simplicity, the same limit could be used as for the "audit" requirement described in section 3.2.

[27] In theory, this would only be the case with a sharing factor of one. Thus, for sharing factors less than one, a consideration is whether the positive incentives created by the incentive mechanism at least outweigh the perverse incentives created by the "ex ante" mechanism.

5. Efficient Balance

As noted previously, there are two routes through which a non-TNSP may provide transmission services:

- through the market
- by contracting with a TNSP

Mechanisms for incentivising efficient balance in these two possible routes are considered separately in the sections below. A third possible route is through registering as an MNSP. This is considered in section 5.3.

5.1. Balance in the Market Route

An example of the first route would be where a generator decides to develop new generating capacity at an import-constrained part of the network. This represents a market driven alternative to the provision of transmission services in the sense that, if the investment had not been made, the TNSP may have been obliged to augment network importing capacity instead.

For obvious commercial reasons, the generator is likely to leave it as late as possible to develop the generating capacity: ie it will not develop the capacity substantially before the market need for the capacity arises. However, if it leaves it "too late", a TNSP may propose its own augmentation and – on the assumption that no new generation capacity will be developed – the augmentation may pass the Test, even where an intention to develop new generation capacity existed and would have been more economic than transmission augmentation. It is seen, therefore, that the *timing* of the Test is critical to ensuring efficient balance.

The original drafting of the Test recognised this, and placed temporal limits on the Test in order to prevent imbalance, whilst ensuring that the risk of neither option being developed – potentially leaving consumers without service – was minimised. The following provisions were included[28]:

> In determining the market benefits, the proposed augmentation should not pre-empt or distort potential un-regulated developments including network, generation and demand side developments. To this end:
> (a) a proposed augmentation must not be determined to satisfy this test more than 12 months before the start of the construction date
>
> (b) a proposed augmentation will cease to satisfy this test if it is not commenced by the 12 months after the commissioning date unless there has been a delay clearly due to unforseen circumstances
>
> (c) unless there are exceptional circumstances, new interconnectors must not be determined to satisfy this test if start of construction is within 18 months of the project's need being first identified in a network's annual planning review or NEMMCO's Statement of Opportunities

Following widespread concern that sub-clause 7(c) above could be "gamed" by generators making new announcements to keep resetting the "clock" and preventing a

[28] In clause 7 of the original Test specification.

Test ever taking place, this clause was removed following the recent ACCC review of the Test. Unfortunately – and unnecessarily in our view – clauses 7(a) and 7(b) were also removed. No specific justification for the removal of these elements was provided. As a result, there are now no temporal limits on the Test and it would be straightforward for a TNSP to deliberately bring a Test forward in order to pre-empt an unregulated competitor.

Although we recognise that the Test provisions are not strictly in the scope of the AEMC review, we take this opportunity to call for clauses 7(a) and 7(b) to be reinstated. Without these clauses, there is a likelihood of substantial inefficiency in the balance between TNSP and non-TNSP service provision, which will adversely affect generators and consumers.

5.2. Balance in the Regulated Route

In the example of the previous section, the transmission constraint is likely to be inter-regional. If it were intra-regional, there would be no NEM price signal and it would be unlikely that local generating capacity would be developed as an alternative to transmission augmentation, except by chance.

In this situation, a TNSP would develop its own proposals to address the service deficiency and design a project to put through the Test. As the Test requires market benefit to be maximised[29], only the cheaper of the generation or transmission alternatives should pass the Test. In the event that generation was cheaper, the TNSP should contract with a generator to develop and operate the new generation capacity, through a "network support" contract.

The Rules allow the TNSP to recover the cost of the network support contract. However, unlike the WACC-return on a transmission investment, there is no profit component for a network support contract, just a cost pass-through. Thus, regulation tends to bias the TNSP in favour of transmission technology, so long as it is able to demonstrate that this option passes the Test[30]. This bias potentially creates inefficient imbalance in the regulated route.

To correct this bias, regulation should:

- require greater transparency, so alternative service providers are aware of what is required;
- allow the AER to undertake a "technical audit" as part of the audit of the Regulatory Test to ensure that any technical reasons for rejecting alternative options are genuine and appropriate;
- reward a TNSP that efficiently outsources its service provisions through network support contracts: for example, the TNSP may be entitled to a share of the saving compared to the transmission alternative[31].

[29] Or, in the reliability leg, development cost to be minimized.
[30] Anecdotally, there are examples of this being done by, for example, interpreting reliability standards to imply that generation technology cannot provide the necessary quality of service, even where it is the cheaper option
[31] A similar scheme to this exists for distribution in NSW.

5.3. MNSPs

MNSPs are not entitled to receive regulated revenue and are thus absolved from taking the Regulatory Test. We think this is reasonable. However, as noted in our previous submission, we find it unacceptable that MNSPs are provided with a "put option", whereby they can choose to convert to regulated status if market conditions become unexpectedly adverse. This option is not available to generators and thus may itself give rise to inefficient balance: ie where MNSP and generator alternatives are equally efficient and profitable, an investor may prefer the MNSP option because of the presence of the "put" option.

As our previous submission noted, the MNSP has been afforded a "put" option because it is uniquely exposed to TNSP regulation, being a direct competitor to TNSPs without the protection of guaranteed regulated revenue. Should an MNSP find that this regulation adversely impacts its business in a way which could not reasonably have been anticipated when it was developed, it is reasonable that it should be compensated in some way.

However, to do this, the MNSP should be required to demonstrate:

- the reason for the adverse impact;
- why this could not reasonably been anticipated; and
- the financial amount of the adverse impact.

Furthermore, the "value" of the put option (ie the difference between the present value of its allowed revenue when regulated compared to its expected revenue as an MNSP) should be no more than the level of adverse impact defined above.

5.4. Summary

To summarise, we consider that:

- economic efficiency is only achieved where transmission services are provided by the party (whether regulated or non-regulated) and technology (whether generation, transmission or demand-side) which has the lowest cost;
- Clauses 7(a) and 7(b) of the original Regulatory Test specification, and which have recently been removed, should be restored;
- steps should be taken to remove bias in the current regulatory framework which causes a TNSP to prefer to use transmission technology to deliver transmission services even where an alternative technology –procured through a network support contract – may be more economic;
- MSNPs should be prevented from making a commercial gain from converting to regulated status, except to the extent that they have been adversely affected by TNSP regulation in a way which could not have been reasonably foreseen.

6. Certainty

6.1. Regulatory Discretion

Many of the measures that we propose above should increase certainty around how a TNSP is likely to develop and operate its network, through:

- clearer measurement and definition of "efficiency"
- clear and effective incentives for efficient investment and operation
- opportunity for 3rd party involvement if TNSPs decline to develop efficient investments
- greater transparency from TNSPs and of TNSP impacts on the market

As the Issues Paper notes and discusses, the other aspect that affects certainty is the degree of regulatory discretion or prescription. However, we note that – at present – the SORP is fairly prescriptive. So, the issue, as we see it, is not prescription versus discretion but whether the prescription should be developed by the AER or the AEMC.

To guide this decision, we consider the respective roles of these two bodies. The AEMC has responsibility for developing Rules so as to ensure the efficient operation of the market as a whole, whereas the AER has a more specific role as economic regulator of TNSPs. Thus, we consider that:

- the AEMC should develop prescription where this is likely to substantially affect market outcomes; and
- the AER should develop prescription (through a SORP) where this relates to TNSP regulation which will not substantially affect market outcomes

As an example, the AER currently has responsibility for specifying the Regulatory Test. Under our criterion, the AEMC should be responsible for this, as investment inefficiency may substantially affect market outcomes. In general, AEMC would have responsibility for prescribing mechanisms which primarily relate to:

- incentives to improve market efficiency: both investment and operational
- mechanisms to ensure efficient balance in service providers and technology

Benefits of specifying such regulation in the Rules include:

- the explicit obligation on the AEMC to consider the NEM objective when deciding Rule changes;
- that any person can propose Rule changes – so there is more diversity of innovation, and broader 'ownership' of the framework;
- that Rules changes cannot be disputed, so long as the AEMC follows the correct process;

- the Rules can call upon the use of expert resources: eg NEMMCO, the Reliability Panel etc
- AEMC ensures consistency with other Rules

6.2. Technical Standards

Under the new technical standards regime that came into effect in late 2003, it was intended that a generator would be able to treat its current performance as its registered performance standard, and thereby 'grandfather' the performance of its existing plant. The Rules provide for a process of negotiation, with an automatic access standard defining the bound above which performance is automatically accepted, and a minimum access standard defining the bound below which performance may not be negotiated.

However, in practice generators have encountered some reluctance on the part of TNSPs to consider negotiated standards which fall below the automatic access standard. Some of this reluctance arises from a concern by TNSPs over the risk that future network expenditure required to maintain service quality may not receive regulatory approval on the grounds that a higher generator performance standard could have been sought instead, or could even be demanded in the future.

Clearly is it untenable that an existing generator should be required to fund retrospective plant upgrade in order to deliver a performance standard it was never designed to achieve, for all but the most overriding system security reasons. It would therefore be desirable to remove any unnecessary uncertainty for TNSPs in this regard, and thereby place the negotiation of performance standards on a firmer footing.

This may be as simple as inserting a provision in the relevant section of the Rules confirming that nothing in the negotiation of generator performance standards by a TNSP should be taken to prevent that TNSP from proceeding with required future network augmentation or refurbishment in accordance with the Regulatory Test.

6.3. Access Preservation

The other major area of uncertainty is changes to the amount and quality of transmission services provided to an individual user as a result of network or (other) user developments. For example, a generator who currently enjoys unconstrained access to the regional reference node during "system normal" conditions may, as a result of load growth or new generation connection, be significantly constrained in the future. It would be uncertain whether the economic cost of these future constraints may or may not be sufficient to justify economic augmentation, since this would depend upon many factors, such as the cost of such a project.

For the demand-side, uncertainty is already mitigated by reliability standards, which will lead to reliability augmentation taking place should the service standard to an individual user fall too far[32]. However, there are no such standards for generators.

To address this uncertainty, we propose that "access standards" should be established for each generator, based on the current level of access that it enjoys. Should access fall below this standard, for whatever reason, a TNSP would be obliged to address this

[32] irrespective of the cost of such augmentation

through a third “access leg” of the Test, which would be analogous to the reliability leg which is currently provided for the demand-side.

In evaluating the most cost-effective way of maintaining access standards, a TNSP would have the option of negotiating with the relevant generator to provide financial compensation for the lower level of access as an alternative to augmentation.

6.4. Summary

To summarise, we consider that:

- economic efficiency is only achieved where stakeholders have reasonable certainty both on actions taken by the regulator and on TNSPs’ responses to those actions;
- to assist in achieving this, the AEMC should be responsible for developing any regulation which is likely to have a substantial affect on market outcomes;
- uncertainty over the ability of TNSPs to fund required network expenditure as a consequence of negotiated generator performance standards should be removed to avoid the expectation generators may have to upgrade equipment over time to address network issues;
- to provide generators with efficient certainty in relation to the amount and quality of services provided to them, individual access standards should be established, based on current levels of access, and a third “access” leg of the Regulatory Test should be established to provide TNSPs with funding to maintain these standards.

7. Revenue Efficiency

7.1. Discussion

As noted previously, we see this as an important but subsidiary aspect of efficiency, since it is likely to contribute less to overall efficiency. Furthermore, regulatory mechanisms are better established and understood in this area than, for example, in relation to market efficiency.

This is not to say that revenue efficiency is unimportant, just that where there is a trade-off to be had with other efficiency incentives, it may be preferable to compromise on revenue efficiency. We would rather see super-normal returns given to an efficient TNSP than normal returns given to an inefficient TNSP.

As such, we do not see a need for major changes in this area, except to correct regulatory features which currently create distortions in other efficiency objectives. Examples of this include:

- the ex ante setting of capex "budgets" creating incentives to provide an inefficient level of service (as discussed in section 4.2);
- a relatively low WACC making TNSPs risk averse, less willing to invest (particularly in contentious or difficult projects) and less willing to accept stronger efficiency incentives, where these involve increased risk[33];
- any threat of future optimisation further discouraging efficient investment;
- the incentive for "gaming" of capex and opex budgets can further discourage TNSP transparency;
- lack of incentive to consider non-network options because there is no profit component (see section 5.2).

Should any other changes in relation to revenue efficiency be proposed, these should be checked to ensure they do not create new distortions in relation to other efficiency objectives.

7.2. Summary

To summarise, we consider that:

- economic efficiency is only achieved where a TNSP is able to earn a reasonable return on capital employed for the provision of transmission services;
- the presence of inefficiency in this respect ("revenue inefficiency") is likely to affect overall efficiency less adversely than inefficiency in the other elements discussed;
- any existing or proposed mechanisms to improve revenue efficiency must be carefully considered to ensure that they do not distort incentives to achieve efficiency in other respects.

[33] Although this can and should be addressed by raising the WACC of TNSPs that take on more risk through these incentives mechanisms

8. Conclusions

In general, we consider that to date there has been too much emphasis by regulators on creating incentives in relation to revenue efficiency (ie preventing economic rent) and production efficiency (minimising costs of service) and not enough focus on actually ensuring that TNSPs deliver the services that the market wants. We are pleased to see that, based on our reading of the Issues Paper, the AEMC is interested in changing this emphasis.

In considering the issues raised by the AEMC, we have recognised that there are a number of different elements of "economic efficiency" and it is often necessary to consider each one separately when developing incentive mechanisms. And while there are sometimes synergies – in the sense that one mechanism may address more than one efficiency element – there are also some conflicts, where a mechanism designed to promote one element of efficiency may actually promote inefficiency in another area.

We summarise our key suggestions at the end of each main section of this submission, and believe that, if implemented, these suggestions will help to promote efficiency in all aspects of service delivery. For reasons already discussed, the structure of this submission differs from that of the Issues Paper and so we may not have directly addressed the questions raised in that paper. However, we are happy to work with the AEMC to put our suggestions into this context if required.

We look forward to the successful completion of this AEMC review – and the associated review on transmission pricing – and hope that its findings will help to promote economic efficiency in transmission service provision in the market and so provide long-term benefits to the electricity consumer.