

# AEMC Transmission Frameworks Review

# COMMENTS ON AEMC DRAFT FIRST INTERIM REPORT

Submission by

The Major Energy Users Inc

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# **Executive Summary**

The MEU considers that the AEMC approach to the issues identified is sound and has teased out most of the essential elements that need to be considered. The MEU considers that looking at the issues from the viewpoint of consumers has the potential to identify aspects not previously considered. The MEU raises these in its discussion of the aspects being addressed.

The discussion on Access and Congestion posits five basic options for addressing what is a major issue. The MEU considers that there is prima facie evidence that the issue of congestion is likely to get worse and that action is needed now to pre-empt this.

Whilst the MEU can see some benefits in each option posed, it considers that, overall, its preferred option provides benefits that none of the others provide. The MEU option identifies that the total costs of transmission and generation need to be addressed to ensure that the optimum outcome for consumers is achieved. The elements of its preferred option are detailed in section 2.2.

The MEU has considered all of the five AEMC proposed options and the IPRA option. Of these, the MEU considers that if option four is enhanced to include the features suggested by the MEU, this option could be used as the basis for developing a workable solution which, when enhanced by elements of the MEU preferred option, addresses many of the concerns of consumers.

The AEMC has addressed the issue of providing better planning for the transmission network, so that, in particular, the needs for better development of interconnection is more fully addressed and the MEU agrees that this is essential. To this end, the AEMC poses that concurrent TNSP regulatory reset reviews would assist. The MEU does not agree with this option at all as the benefits are likely to be small and the costs considerable.

In its consideration of better planning outcomes, the AEMC proposes four basic options. The MEU recognises that there have been recent changes to the planning approaches, and these still have to be assessed as to whether they will provide a benefit. With this in mind, the MEU considers that the combination of option 1 (enhanced coordination) and option 2 (harmonised regime) results in a very workable and readily implemented outcome which will provide considerable benefit at a minimum cost and change and which will build on the recent changes made. This approach allows for the migration, at a later stage to greater change in the future, if needed. The AEMC proposes a joint venture model but the MEU considers that the structure of such is probably unworkable and likely to be inefficient based on the experience of the corporate world and of MEU members with experience of joint ventures.

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The final element examined by the AEMC is that of connections to the shared network. The MEU agrees that the current rules demonstrate the need for the removal of potentially conflicting rules and that there is also a need for greater clarity in what the rules are supposed to provide. To this end, the AEMC proposes three options which deliver increasing levels of regulatory intrusion in the operation of the NEM.

The MEU considers that option 2 (enhanced negotiating framework) provides a sound and workable outcome, that leaves decision making to those best able to manage the risks involved and provides the necessary information needed to make informed decisions, and that the AER should provide arbitral services in the event of a dispute.

The MEU agrees with many other stakeholders that the concept of contestability in providing extensions to the shared network presents challenges and suggests that the ability to have competition in providing an extension is sound, but that the incumbent TNSP should be required to offer such extensions with the costs and commercial conditions provided in the list of standing prices for connections they would be required to provide under option 2.

In this response, the MEU has provided responses to each of the questions raised by the AEMC under each of the three main topics addressed in the draft first interim report.

Overall, the MEU considers the First Draft Report provides a good basis for the next steps in the Transmission Frameworks Review process. The MEU criticisms of the Paper as it stands relate more to what the Paper has overlooked, and the MEU strongly suggests that the AEMC include in its processes the missing aspects the MEU has identified.

# 1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide its comments on the AEMC's Draft First Interim Report relating to the Transmission Frameworks Review.

In its response to the Discussion Paper relating to the Transmission Frameworks Review, the MEU highlighted that the electricity market is weighed down by a myriad of problems resulting from:

- Increasing concentration of the energy supply industry, especially in retail
- Re-aggregation of generation and retail
- Emergence of vertically integrated energy supply businesses that have dominance in both generation and retail
- Increased barriers to new entrants in generation and retail
- Escalating network costs and hence electricity prices
- Extensive interventions by both Federal and State Governments that have created major distortions and resulted in raising costs and inefficiencies,

The MEU is pleased to note that attempts are being made to address a number of these issues elsewhere, but there remain some critical aspects of the market that are not being addressed.

#### 1.1 Elements not addressed in the report

In particular, in reference to the Transmission Frameworks Review (TFR), the MEU is particularly concerned that the key element of transmission pricing is not being addressed either by this review or in the network revenue rule changes being currently assessed by the AEMC. The MEU is of the view that the AEMC has unnecessarily truncated the TFR by eliminating issues such as network pricing.

The MEU considers a number of the concerns the AEMC is addressing under the TFR would be more manageable if the elements of pricing were an integral part of the TFR. That they are not results in greater complexity than is needed.

However, the purpose of this response is not to reiterate the aspects that were raised in the MEU response to the earlier submissions relating to this topic but to expand on the issues and concerns of consumers and to address specific issues raised by the AEMC which are additional to those covered earlier.

Accordingly, throughout this submission the MEU will only focus on those three issues raised by the AEMC in its Draft First Report. The MEU accepts that the second draft report will address other issues and the MEU expects that those

aspects the MEU raised as not being addressed will be addressed in the second report.

## **1.2 AEMC conclusions from MEU observations**

The MEU has a number of specific concerns with the AEMC draft first interim report, in that the AEMC has not properly represented the MEU concerns raised in its response the Directions Paper.

On page 44 of the draft First Interim Report, the AEMC comments

"Contrary to the MEU's view that the purpose of the RIT-T is inconsistent with the NEO, the Commission considers that they are complementary. The NEO is primarily an efficiency test, similar to the RIT-T, that is intended to ensure that the Rules under which the market operates will drive efficient outcomes and so efficient costs for consumers. We note that "efficient cost" does not necessarily equate to "least cost" as the application of the NEO requires trade-offs between price and reliability and security of supply."

The MEU does not agree with this observation and cited evidence to the contrary. The MEU highlighted that the second reading speech by Minister Hill (for Minister Conlon) in introducing the NEO concept in 2005<sup>1</sup>, Hansard reported that the Minister specifically stated that:

"For example, investment in and use of electricity services will be efficient when services are supplied in the long run at **least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.

The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised."

The NEO requires the market to be efficient in order to deliver the **least cost** to consumers in the long run and for the market to provide the economic welfare of consumers to be maximised over the long run.

The second reading speeches of Ministers when introducing new Laws, is to provide the intent of the Law so that interpretation of the Law is possible where there is doubt. The AEMC appears to have established itself as being able to interpret the Law to suit its own views, rather than referring to the original intent outlined in the second reading speech.

<sup>&</sup>lt;sup>1</sup> Hansard, SA House of Assembly. 9 February 2005 page 1452

For the AEMC to determine that an efficient market does not deliver the least cost to consumers due to the trade off between price and reliability and security is dissembling, as the use of the RIT-T has less to do with reliability and security (as reliability is determined by jurisdictions and not through economic rationale) but is used primarily for assessing whether an expansion of the network is efficient<sup>2</sup>.

What the MEU is seeking, is for RIT-T which underpins the rationale for augmentation of the network to include for the value of the benefit gained by consumers by the augmentation of an interconnector (ie lower generation pricing) to offset the cost of the network augmentation which consumers are required to pay. This MEU observation reflects an issue raised by the AEMC in the section relating to congestion, where it posits that those paying for augmentation (to relieve congestion) require some benefit (such as firm access) as this is equitable. To a degree the AEMC seems to support the MEU contention, in that on page 67, the AEMC states:

"Currently there is no price signal at an intra-regional level to reflect the cost of congestion. Only congestion between regions is priced <sup>161</sup>. "

Note 161 adds:

"Ignoring losses, price separation should only occur where there is congestion on the network. Therefore the difference in the RRPs between regions can be considered to represent the price of congestion."

The MEU accepts that there is a difference between price and cost, but the AEMC implies that this is the only measure available. The price of the congestion is a good indicator of the cost of congestion to consumers as it is only consumers that pay this differential with some discount via allocation of the settlements residue resolution process. As consumers could avoid some or all of this cost by augmenting the interconnector, it seems appropriate that the savings from an augmentation should include the benefit of reducing the cost of the congestion incurred by consumers.

The second issue that MEU has with the draft First Interim Report is on pages 48 and 49, where the AEMC states:

<sup>&</sup>lt;sup>2</sup> It is accepted that the RIT-T is used to minimise the cost of investment associated with reliability once a reliability level is determined, but it does not assess the various costs associated with different levels of reliability. Therefore to imply that the RIT-T is an economic test for reliability is simply not correct.

"Similarly, the MEU stated that in most markets businesses pay a cost to transport their product to market and therefore imposing a transportation cost on generators would not be inappropriate."

The implication to be drawn from this is that the MEU does not support generators paying for transmission. Nothing could be further from the truth!

The MEU has consistently been of the view (and this is stated in the response to the Directions Paper) that generators are better able to manage the needs of transmission than consumers, and that it is preferable for generators to pay for the transport of their product to the market, as this is what most businesses do. By paying for the transport, it would provide generators with the ability to determine whether the cost of congestion is greater than the cost of augmentation. This principle follows the AEMC stated preference for the party being better able to manage the risk being responsible for addressing the risk.

The MEU considers that the AEMC needs to correct its understanding of the two issues raised above.

# 2. Access and Congestion

In its response to the earlier AEMC Directions Paper, the MEU noted that the cause of congestion in the transmission system has two origins – the locational decisions of consumers and the locational decisions by generators.

There are clear and strong signals to consumers to provide the location of their demand in that consumers pay a locational charge in respect to the distance they are from generation and the cost of the network that is needed to deliver the power to them. If new consumers seek to connect to the network and as a result will cause congestion (and therefore the need to augment the network to minimise this congestion), the new consumer is made aware of this and the costs associated with the new load. The costs of relieving this congestion are borne by the new customer and other consumers using the same assets. This approach provides strong signals to new load on the system.

In contrast, a new generator can connect to the transmission network and only pays for the "shallow" connection costs. If congestion occurs as a result of this new generation connection, the new and existing generators can suffer considerable harm as a result of any resultant loss of access due to the congestion caused.

Consumers (and retailers) can also potentially suffer, as generation on the other side of the congestion will be dispatched out of merit order causing a cost premium in the spot price of electricity. There is a further complication as a result of the weak locational decisions for new generation connection, in that the facilities of existing generators are effectively "sunk" as it is commercially impossible for them to relocate. Whilst the introduction of the new generator might provide some benefit to consumers if it is a lower cost provider than the existing generator, this is not always the case due to externally imposed distortions in the electricity market<sup>3</sup>.

The root cause of the problem lies with the weakness of the pricing signals to the new generator as to the impacts of its locational decision. Currently, the cost of relieving the congestion caused is paid for by consumers (if the congestion is to be relieved) as generators only pay shallow connection costs.

Failing this investment paid for by consumers, the existing generators and consumers are disadvantaged and this is a result of the weakness in the Rules.

<sup>&</sup>lt;sup>3</sup> For example, consumers are required to pay separately for the provision of renewable generation. So a renewable generator might bid at a marginally lower price than the existing generator, but when the total cost to consumers is calculated, consumers would be paying a premium for the electricity from the renewable generator which has displaced and existing generator. To allow the existing generator to compete requires consumers to pay for the congestion relief

Contrary to a comment by AEMC in the report, the MEU has long been of the view that if transmission was paid for generators, then the locational signals for new generation would be much stronger and more sensible decisions as to location would eventuate. It is quite clear from the draft first interim report, that the AEMC is determined that the current arrangements will continue with some "tweaking" of the Rules, rather than a bold step to rectify a major weakness. This is disappointing in the extreme. With this caveat, the following sections address the concepts provided by the AEMC draft first interim report.

## 2.1 Some basic commercial premises

The MEU agrees with the AEMC that there needs to be a series of basic premises that provide guidance as to an optimum solution. The AEMC lists its basic premises in various chapters of the draft report, but the MEU considers it is important to identify some basic **commercial** premises that should underpin any discussion on the issue of generator access and congestion caused by generators.

- An entity will only consider investing in a new facility if it considers it will be able to make a profit from the investment commensurate with the risks it faces.
- When a consumer builds a facility requiring a certain power demand and this demand is contracted with the network provider, there is an expectation that this contracted capacity will be available for the life of the consumer's facility.
- A facility, once built, is effectively a "sunk" asset, and there is little ability of relocate. Once a facility is built, locational signals can then no longer have any impact on decision making. To allow a used and useful facility to be less efficient due to congestion caused by another facility is economically inefficient.
- If an entity contributes capital to ensuring there is adequate capacity for its needs, then it should have legal right to any increase in capacity or capacity certainty that results from its contribution for the life of its facility. Another entity seeking access should not have any right of access to this increased capacity or certainty of capacity if that access reduces the rights of the provider of the capital.
- An existing generator made its locational decision based on the availability of the transmission system to deliver its product to the market, implying that there is some right of access for the existing generator<sup>4</sup>. This concept is embedded in queuing policies used in the open access network arrangements for the gas industry where an existing customer

<sup>&</sup>lt;sup>4</sup> This concept would appear to be a major issue for those generators who purchased generation assets from the state governments when privatisation occurred. Such a purchase would have been made on the assumption that there would be adequate transmission capacity to deliver their product to market.

has first rights to the capacity it has contracted for and a new entrant can only access spare capacity. However the NEM basic concept (and that of access in the Victorian gas market) is predicated on equal rights of access to all. Deep connection costs for consumers requires all consumers connected at the same point to pay their share of any augmentation needed.

- A new generator should be provided with pricing signals so that its locational decision results in an outcome that "...is in the long term interests of consumers..." This implies that the locational decision should result in the maximum competition between generators<sup>5</sup> and the minimum cost to consumers for augmentation of the network. Effectively this means that the AEMC must develop a solution which results in the lowest overall cost when the costs of transmission and generation are summed.
- The current Commonwealth government imposition of the renewable electricity targets and a carbon tax will result in increasing numbers of new generation plants connecting to the transmission system. Increased congestion will be an inevitable outcome of this. Equally, the imposition of the renewable targets and carbon tax will result in existing generators being less competitive leading to reduced outputs and/or closures.

The MEU considers that all of the proposed options (the MEU, the AEMC and IPRA options) should be assessed against each of these basic premises.

## 2.2 Assessment of the total cost and the MEU preferred approach

The dr4aft First Interim Report makes a very sound observation that any assessment of the optimum solution for generator location requires the recognition that the cost of the generation plant and the cost of the necessary transmission assets need to be seen in conjunction in order to identify the lowest cost outcome. Currently, a new entrant generator only sees its costs along with the potential for lost production due to congestion. The cost of the transmission assets needed to take the new entrant generator output is carried by consumers, preventing the development of the total cost of the new entrant generator locational decision.

In appendix A to the report, the AEMC in section A1 discusses the productive costs seen by the generator as a result of congestion and it makes the point that the best solution would be for the new entrant to connect downstream of the congestion point. This decision would result in the best outcome for consumers. What the example does not do, is to highlight what the costs of the additional transmission would be to allow this optimum solution to occur.

For the least cost to consumers to be realised, there has to be the summation of the benefits from the generator connecting downstream of the point of

<sup>&</sup>lt;sup>5</sup> It needs to be remembered that congestion in the network reduces competition between generators

congestion with the cost of the additional infrastructure. If there is a net benefit, then the best outcome for the market (and consumers) is for the generator not to connect where congestion will occur.

If the new entrant generator had to carry the costs of the additional transmission assets in its own right, then this provides a barrier to new entrants and allows the existing generators to continue with reduced competition. Therefore existing generators are unlikely to want the new entrant generator to connect at all, but also not to connect upstream of the point of congestion as this could result in the existing generators being partially constrained.

The market is best served by there being strong and open competition, with no points of congestion, although such a scenario might be more expensive than allowing some congestion. The real issue that needs to be addressed is for a new entrant to be required to connect such that it does not cause congestion, or if there is, for the cost of the congestion to be less than the cost of relieving the congestion.

When making its decision to locate, the new entrant generator will incorporate (and balance) the costs of bringing its fuel to the location or the higher efficiency of generation. In addition, the cost of transport of the output should be part of the assessment. For example, the new entrant generator should balance the cost of increased fuel delivery or reduced efficiency by relocating against the cost of the reduced transmission that would result. The new entrant generator is the only party able to make such a decision as it is the only one with all of the information needed to make such a decision.

The approaches proposed by the AEMC all seem to overlook the need to identify the total cost of the option by excluding the cost of augmentation to relive the congestion, and focus purely on the impact on generators of each option.

What is needed by the market is for the new entrant generator to be able to identify the optimum location for the new generation for the market as a whole, and for the difference in the cost between its preferred location and the optimum location to be shared with those generators which would be beneficiaries of the changed location of the new entrant generator. In this way the new entrant would receive a signal as to its locational decision but it would not face the barrier of having to carry the entire cost of relieving the congestion that it will cause. Under this approach, generators that are not impacted by the potential congestion would not be facing the cost of relieving congestion. An alternative is that all generation in the NEM would face the costs, effectively socialising the cost of relieving congestion in the NEM but this would significantly reduce the power of the locational signal and is not preferred by the MEU.

As augmentations are "lumpy" and there is potential for greater capacity to be created by an augmentation than is required at the time, any later additional generator would be required to pay its share of the augmentation cost thereby providing an incentive for it to connect at that location and to ameliorate the costs to the generators already connected. This approach replicates what occurs for new consumers seeking to connect to an asset paid for by a "first mover" consumer who connected to the network.

An assessment by AEMO (in its role as NTP) with input from the new entrant generator and the impacted TNSP as part of the approval process for a new entrant generator could be the basis for identifying the optimum new entrant generator location. AEMO could seek interests from all impacted generators for their degrees of firmness of access that each generator requires in developing the amount (and hence cost) of the augmentation required. A refinement of this process could be the auction by AEMO to those generators impacted of the amount and price of access and balance this against the cost of the augmentation needed.

Once the costs of the augmentation are identified, these costs are shared by all generators benefiting from the augmentation and are additive to the currently imposed entry costs each generator pays. The costs would apply for the entire period for which the generator is connected to the network.

This MEU approach recognises that the optimum solution for generator location must include both generator costs and transmission costs. Without summing the two costs, there is no likelihood that the optimum new entrant generator location has been established.

There is the potential that once a transmission augmentation has been implemented for a specific location, a generator would cease to operate leaving the entry costs, connection costs and the access augmentation costs not to be fully recovered. The MEU considers that in this case, the share of the recovery of costs that the exiting generator no longer contributes should be recovered in the same way costs are recovered when a consumer exits the NEM.

Under the current arrangements, connection costs are subject to the contract that the NSP negotiated with the consumer and exit costs are recovered by the NSP as part of the shared assets revenue. If a consumer causes an augmentation to the network to permit it access, the resultant costs are either subject to a contract with the NSP or are levied on the remaining consumers that use the same assets. Implementation of an equivalent approach for augmentation to relieve congestion for a new entrant generator would create consistency in the rules.

This would mean that an exiting generator would pay the NSP the costs for connection as covered by its contract for the connection. It would only be in the event of default by a generator of its contract obligations would the entry costs be recovered as part of the shared assets. The augmentation costs would be recovered from the remaining generators that benefitted from the augmentation.

### 2.2 Open access option

This option essentially maintains the status quo. It suffers from the problems that generator locational signals are very weak and as a result provides the essential ingredients to increase the likelihood of increased periods of congestion resulting in higher costs for consumers.

Increased congestion will lead to more generators being constrained off and reducing their income. To satisfy their debt requirements, constrained off generators will have to increase their prices to maintain the same revenue from less dispatch.

Generators facing increasing periods of being constrained off, face increased risks of not being able to meet their contractual obligations for supply and thereby face increased risks or a reduction in their levels of contracting.

As a result, consumers face increased prices from generators and generators contracting less, or the need to pay for transmission augmentation to relieve the congestion.

The MEU considers that unless stronger locational signals are provided to generators, congestion will inevitably increase, imposing unnecessary costs on consumers. Whilst the MEU notes that a number of stakeholders consider that there is a lack of materiality to the issue of congestion, it is important to identify their reasoning for making such statements. For example, generators that benefit from the current (or even higher) levels of congestion would naturally seek for this circumstance to continue. Network owners that benefit from increasing augmentation of their networks would want congestion to reduce. Consumers see that congestion imposes a cost to them (this cost is most obvious when "islanding" of a region occurs and there is price separation between regions.

In the appendix A1, used to explain the way the current arrangement works, the AEMC highlights that in fact the current approach provides an incentive on a new generator to locate where it is likely to cause congestion, as the example shows that the new generator would receive a greater profit from doing so than if it connected at the optimum location. This bizarre outcome is shown in the following table.

Aspect	Current approach	Best location
Cost to consumers	\$75k	\$45k
Resource cost	\$55k	\$40
Generator profit	\$20k	\$5k

Unless the cost of losses exceeds this increased profit, this example reinforces the view that the current arrangements can provide quite perverse incentives.

The AEMC does provide a sound assessment for the needs to address the incidence of congestion when it states (page 53):

The Commission considers that there is some merit in examining models that would provide a greater degree of certainty to generators seeking to invest in the NEM. Congestion imposes a number of adverse consequences. First, it requires dispatch of more expensive generation capacity. Second, it can encourage disorderly bidding, further exacerbating dispatch inefficiencies. Third, it restricts competition, because fewer generators can compete in the price setting process. Finally, it creates uncertainty for generators over their degree of access to market, which may affect the liquidity of contract markets and incentives for investment in generation capacity. The Commission believes that a deep and liquid contract market, supported by greater certainty of investment, will assist in achieving efficient outcomes in the NEM.

While the theoretical inefficiencies of congestion are clear, the materiality of the impact of congestion on efficient investment and operational outcomes is less clear. Estimating the economic costs of congestion is extremely difficult to do with any precision, particularly when attempting to estimate future congestion."

The MEU considers that even if the costs of the current levels of congestion are immaterial (and the MEU does not agree that this is the case<sup>6</sup>) there is little doubt that the amount of congestion will increase in the future if no steps are taken now to address the issue. Even if the supporters of the status quo could demonstrate that the cost impact of congestion today could be classed as immaterial, there is every expectation that the problem will get worse and thereby become material and requiring attention.

The MEU considers that action is required now so that the problem does not become more material. On this basis, retention of the status quo is not an acceptable option.

<sup>&</sup>lt;sup>6</sup> As the MEU has provided in its proposed rule change to address generator market power, the retail cost of power in SA for 12 month contracts increased by over 50% as a result if the congestion that occurred on the interconnectors between Victorias and South Australia. The substantive reason for the price rise was the exercise of market power held by Torrens Island Power Station in 2008, 2009 and 2010, but that was only possible because of congestion at the interconnectors. The cost of this congestion to SA consumers has been enormous and continues in 2012, five years after the congestion allowed the exercise of market power.

#### 2.3 Open access with congestion pricing (SACP) option

This proposal provides impacted generators with a proportion of congestion rents. What this proposal does not do is to impact the costs to consumers or to drive change in generator locational decisions. As he AEMC states (page 72), this approach "...manages the effects of congestion..." – it is merely a Band-Aid – and redistributes to generators the cost of the congestion incurred by consumers.

The AEMC considers that there might be some positive benefits from the approach, with the assumption that these benefits will flow to consumers because generators might consider they have fewer risks and can price their output at a lower level.

Congestion occurs because of a generator locational decision. If the outcome provides a benefit to the new generator seeking to locate where congestion will occur, then this provides an incentive to locate in the wrong place. On page 73, the AEMC states:

"The SACP does not strengthen locational signals relative to existing arrangements in the NEM. This is primarily because new generators automatically receive a CSC for a significant proportion of their capacity (reducing the CSCs that would be received by existing generators), providing them a level of protection against congestion regardless of when and where they locate."

This clearly indicates that locational signalling is expected to reduce from the current levels. If a new generator knows that it will receive a benefit from the congestion it causes, then its locational signal is less than if it expects no compensation. It also causes existing generators to lose some of the benefit they might receive from increased congestion, increasing their risks. With increased risks come increased prices.

To offset this loss of locational signalling, the AEMC posits that increased cost reflective pricing amongst the constrained generators will result and that this is a benefit in that the productive costs will be lowest and maximise generator profitability. In appendix A2, the AEMC highlights that the congestion pricing approach does not cost consumers more than they would without congestion pricing. As the AEMC points out at the end of appendix A1, if the new entrant generator had strong signals to locate in the best location for consumers, then consumers would benefit significantly as well as the generators being most efficient in a productive sense.

This dichotomy of the AEMC views can be exemplified in the following table which uses the outputs of the three tables A1, A2 and A3 which provide a

theoretical assessment of the outcomes from the locational decision of a new generator which causes congestion.

Aspect	Current approach	Best location	SACP
Cost to consumers	\$75k	\$45k	\$75k
Resource cost	\$55k	\$40	\$50k
Generator profit	\$20k	\$5k	\$25k

This highlights that the most efficient productive outcome (lowest resource cost for the same output) is achieved by the best locational decision for the new generator G4. It also delivers the lowest cost outcome to consumers.

This same theoretical example highlights that the new generator would be incentivised to deliberately locate so as to cause congestion under both the current and SACP arrangements as it would receive increased profit under both scenarios. This reinforces the MEU view that the existing arrangements are less than optimal, and need changing. That the SACP will provide marginal improvement in dispatch efficiency is not outweighed by the benefits in dispatch efficiency that would occur from connecting at the optimal location.

From a consumer's viewpoint, this proposal does nothing for consumers above what currently applies although it can provide improved benefits for generators.

Consumers need to see that there will be a positive outcome as a result of change – one that will encourage better utilisation and efficiency so that, over the long term, consumers receive the least cost outcome. On this basis the MEU does not consider that the SACP approach provides benefits to consumers and has the potential to provide a perverse outcome.

#### 2.4 Generator reliability standards option

This option is essentially based on every generator having some degree of "firm" access to have its product delivered to market through a standard of reliability for delivery of energy. By the requirement for generators to contribute (through a generator TUoS charge) to receive certain levels of reliability of access, the proposal does improve the signalling to new entrant generators.

Presumably existing generators will also pay the generator TUoS charge, and this will tend to "socialise" the cost of access for generators. This socialisation will tend to mute the locational signals for the new generator and thereby lead to sub-optimal location.

With the receipt of a generator TUoS charge, the TNSP is exposed to greater risks to offset the value of the payment it receives. This imposes pressure on the TNSP to spend this new income wisely but it does not impose a requirement to minimise the overall cost to consumers, but more to minimise the risk of any financial imposts resulting from their lack of performance. The concept does not

result in generators being reimbursed for poor performance but would require the AER to impose a service standard performance regime which would provide some impetus to TNSP investment.

The main disadvantages of this option are that it does not:

- Provide the needed signal to generators to build in the optimum location to provide the least cost solution for consumers. Rather this option places the responsibility on TNSPs to manage the congestion caused by others.
- Focus on where there is a need, but provides a broad application across a region, perhaps with levels of less "firmness" for generation more remote from the RRN.
- Could result in less than optimum investment due to the very generalness of the standard as to provide a standard of reliability for one location could be much greater than to provide a similar standard in another location. To some extent the development of zones will reduce this problem, but it remains a problem within a zone.
- Does not directly tie the costs generators incur from congestion to performance by the TNSP and it does not recognise the costs consumers see from congestion.

The other significant disadvantage of this option is the complexity that is inherent in the concept as it is developed and in the execution of the program.

The MEU considers that this option does not overcome some very basic issues such as barriers to entry or a need to focus on providing strong locational signals where there is the potential for resultant congestion. The imposts on the TNSPs are very indirect and its very success will be impacted by this level of indirectness.

## 2.5 Regional optional firm access option

This option has many features that address the concerns of consumers as it is, to a large extent, driven by market conditions. The approach provides a higher degree of certainty for all, including generators and consumers. It is recognised that the setting of a definition of "firm access" for generators will be challenging.

The MEU supports the concept that the generator TUoS charge to be set will vary with the location of the generation connected to that part of the network. This again assists in providing strong locational signals and gives the new entrant generator the ability to cost the different costs for each potential location.

The MEU does recognise that if a new entrant generator decides to connect in a location that could result in some congestion, existing generators will attract a cost that they previously did not incur if they elect to require firm access. Effectively this means that the locational signal for the entrant will be muted as

the cost for ensuring firm access for both existing and new entrant generators will be socialised across all generators impacted. As this already between new entrant consumers and existing consumers of the network, this approach is consistent for all.

As well as addressing the inherent complexity in developing an acceptable standard for firm access, the MEU notes that a significant risk for consumers is that of generators, once the new transmission assets have been provided, of electing to opt for non-firm access. This would result in the contribution to funding any augmentation to provide firm access ceasing to be made. As it is proposed that the augmentation would be included in the regulated asset base, the residual risk for these assets lies with consumers should a generator cease requesting firm access. The AEMC has recognised this risk and notes that an option to overcome this is that a request for firm access which requires augmentation must reflect a minimum time of commitment by the generator seeking firm access.

The MEU considers that this risk for consumers is unacceptable and, as it provides a generator an incentive to transfer costs from it to consumers by later rescinding its right for firm access once transmission assets are provided, is one that consumers should not be required to take. The MEU considers that, just as generators are required to pay connection costs for the life of their connection to the network, so once they decide to require firm access, this decision for firm access must apply until they elect to cease connection to the network.

The generator TUoS charge for each location is to reflect the cost of the augmentation needed to provide the firm access to those generators seeking firm access. This is efficient as it reflects only the costs involved in providing the service. However it does raise some questions.

1. Augmentation of the network will only required if the amount of firm access to be provided exceeds the capacity of the existing network. Whilst a number of generators might be connected to the network and there is potential for congestion, if the output of the generators seeking firm access is less than the capacity of the network already provided, then the network would not need to be augmented. If there is no cost to provide firm access, then it would be difficult to develop a local TUoS charge for providing the firm access. Even if a notional charge is set, this would be provide the TNSP with revenue for costs that it has not incurred. This means that a generator with firm access which it has not had to pay for, could receive compensation from the "non-firm" generators.

Whilst making it public that this state of affairs applies at that location (for example if the rights were auctioned), the outcome could be that other generators, not initially seeking firm access for reasons of their own, will feel compelled to seek firm access in order to insulated themselves from

claims of compensation. This would then result in unnecessary augmentation of the network to provide firm access to those that considered it was unnecessary. This would incentivise early rescinding of firm access rights once the assets were built by the TNSP

2. The AEMC notes that as transmission network investment is "lumpy" providing firm access by augmentation could also provide spare capacity for a new entrant (the "free rider" concept). This would incentivise those generators paying for firm access to rescind their rights at the earliest possible time, forcing the new entrant generator to either have non-firm access or to contribute to the augmentation via paying generator TUoS. If the available capacity exceeds needs, then all generators connected would be happy with non-firm access and consumers would incur the costs of the augmentation.

To overcome this, a solution could be to limit the flows on the network to the levels of firm access, applying the same principles of setting maximum flows on each element to their technical capacity but using a lesser value in the constraint equations applied by AEMO. Whilst this addresses the problems of "free riders" and early rescinding of firm access rights, there will be cost repercussions for consumers and inefficiencies due to assets being under-utilised.

Overall, the MEU considers that this option is workable and addresses many of the concerns consumers have. It does, however, suffer from problems detailed above that still need to be addressed

#### 2.6 National locational marginal pricing option

The fundamental approach implicit in this option reflects the MEU preferred approach of the transmission network of the NEM being combined into one entity. This provides an admirable solution for many of the issues MEU sees confronting the current NEM design. Aspects such as consistency of approach and equal attention given to inter-regional connections and intra-regional connections would all benefit from this new design.

Pragmatically, creation of a single entity is very unlikely to happen given that some assets are in public ownership (held by four states) and others are privately owned by four different owners (SP Ausnet, ElectraNet, APA Group and Cityspring). The AEMC posits that perhaps this model could be applied with multiple owners but this would amplify the complexities already inherent in the single owner model.

To overcome the unlikely formation of a single entity, the AEMC poses the concept of the creation of a joint venture of all the transmission asset owners. Whilst this option would appear to be feasible, in practice the creation of a joint venture is much more complex than appears at first sight. A number of MEU

members have participated in joint ventures and they point out that operating joint ventures can be an extremely vexed activity. A joint venture between just two parties imposes stresses on the two parties and the joint venture management but the challenges that are imposed by more than two parties creating the joint venture increases exponentially with the number of parties involved. The MEU considers that getting all of the transmission entities to agree to form a joint venture is unlikely but even if they did, the operation of the joint venture would be extraordinarily difficult – so much so that the potential benefits of creating the entity would be lost in the operation of the JV. The MEU member experience is that this is not a realistic option.

As the model provides strong locational signals to generators (from the sale of firm access rights or the payment of congestion compensation) it meets the basic criterion of providing strong signals to incentivise better generator locations. From a consumer's viewpoint, this option as described would increase consumers' risks through them carrying some or all of the balancing charge and the uplift charge needed to pay any shortfall in compensation payments. Further some of the risks identified in section 2.5 above would also need to be addressed under this option. It also suffers from the same detriments noted in section 2.5 above regarding inefficient investment and the risk of forcing investment to overcome congestion and the later withdrawal of generator payments.

It is recognised that generators would get "firmer" access from this model, but the costs and risks to consumers are higher as a result. There is little doubt that this model would be extremely complex to implement.

It is pleasing to note that the AEMC recognises that consumers are likely to incur increased costs from this model and that it would need to carry out deeper investigation to ensure that the benefits to consumers would outweigh the likely costs.

Overall the MEU does not consider that this option is feasible and as it imposes increased costs on consumers, significantly more investigation is required to demonstrate that it will result in a better outcome for consumers.

#### 2.7 International Power (IPRA) option

A basic premise of the IPRA option is that existing generators should not be disadvantaged by any change. Read another way, the implication of this premise is that only new generators should be impacted by change. This implication is explicitly stated by IPRA when it states (page 5) that:

"The intention that agreed access should be protected from degradation due to subsequent generator entry is evident in the current Rules. Our proposal in this

regard is that the future frameworks should ensure that this intention is realised,  $\dots$  "

and on page 6 where IPRA states:

"We propose that the transmission frameworks should include effective and complete locational signals related to transmission as applicable for new generators."

It is quite clear that IPRA considers that access of existing generators should not be reduced by new entrant generators and that only new generators should be impacted by a locational signal (read cost). The MEU can understand the logic behind such a view, but does not consider that it is necessarily "...in the long term interests of consumers...". In practical terms it would mean that a high cost inefficient older generator would be considered to have greater rights of access to the network than a new low cost highly efficient plant as the new entrant would have to provide for the transmission investment augmentation needed to ensure that it was able to deliver its product to the market. Such a concept does not occur in a competitive environment.

IPRA goes on to consider that firm access rights be tradable because should an access holder require less access, for it not to pay for the augmentation the initial access requirement required imposes costs onto others. The MEU agrees with both the concept of tradable rights and the issue of who pays for spare capacity created and then later not used or paid for. This point is discussed in section 2.5 above.

IPRA posits that each generator should have a choice of its level of access and that generators should only be dispatched to this level if there is congestion. The MEU has a significant concern with such an approach because it allows the generator with unused firm access to set the marginal price "behind" the point of congestion. As the MEU has pointed out in its rule change proposal in relation to generator market power, allowing a generator an unfettered ability to set the spot price, can lead to considerable harm to consumers. Already such examples of an unfettered ability to set the spot price can be seen in relation to interregional transfers.

The MEU shares the IPRA concerns with how interconnectors are treated under the rules and the impacts that have occurred as a result of interconnector operation. The MEU views on interconnectors are amplified in section 1.2 above.

IPRA makes some very cogent points and a number are replicated in the MEU assessment of commercial premises made in section 2.1. The MEU agrees that the focus of activity in relation to congestion needs to be addressed as and when it has or is likely to occur when a new entrant generator seeks access. However, the MEU does not consider that incumbent generators should have

primacy of access and if a new entrant generator seeks access, then all generators benefitting from a network augmentation should share in the costs associated with any augmentation.

#### 2.8 MEU Response to specific AEMC questions

The AEMC has posited six basic options for addressing the issue of access and congestion. These are:

- 1. An open access regime basically the status quo
- 2. Open access with congestion pricing
- 3. Applying generator access transmission standards
- 4. Regional optional firm access
- 5. National locational marginal pricing
- 6. The IPRA option

Q1. Which package do you consider would best contribute to the achievement of the NEO and, more specifically, the objective of this review to minimise the expected total system costs faced by electricity consumers?

The MEU does not support any of the options proposed by the AEMC or IPRA. It considers that its preferred approach in section 2.2 best addresses the core problem of providing adequate signals to new entrant generators, but which does not impose barriers to the new entrant.

Of the other options, the MEU sees that AEMC option 4 (Regional optional firm access) is the next preferred option providing that the concerns raised by the MEU are addressed

The MEU's reasons for not supporting the other options are provided in each section considering each option (sections 2.2 through to 2.7).

Q2. What evidence or anticipated outcomes are there to support this view? Stakeholders should consider both:

- why this package is more likely to contribute to the achievement of the NEO than the other packages presented; and
- what evidence exists to suggest that the materiality of the problems identified would support adopting that package.

The MEU considers that there is prima facie evidence that the issue of congestion is likely to get worse and that action is needed now to pre-empt this.

The MEU package is simple and addresses the need on a case by case basis and includes both the cost impacts on the generators involved and the resultant transmission costs that would arise from the decision to reduce the potential for congestion. The outcome for each generation location is unique and the costs incurred reflect that uniqueness.

The MEU approach provides strong locational signals but minimises the barrier to new entrant generators and maintains the principle of open access to the network where no one has greater rights than another.

In many ways, the MEU approach replicates the way new connecting consumers are treated when augmentations are required to allow the new demand to be accommodated. This recognises that the MEU proposed concept has already provided a working template.

Q3. In terms of your preferred package, are there any modifications that you would make, while maintaining the consistency of the package?

The MEU has proposed its preferred approach. However the MEU considers that some of the features included in its option could be translated into option 4 to enhance that option.

Q4. Do any of the other packages presented, merit further analysis and assessment?

The MEU considers that option 1 (status quo) is not acceptable and that option 5 (national locational pricing) is not feasible. As the MEU notes there are elements of the IPRA approach that could be added to another option, but the IPRA basic premise that existing generators should not be impacted is unacceptable as it does not reflect what occurs for consumers who connect.

Q5. Are there any other packages for reform that we should consider and, if so, how would they better promote the NEO?

The MEU has proposed its preferred option which it considers better promotes the NEO.

# 3. Planning

It is important that any decision regarding changes to planning must incorporate the benefits from seeing the outcomes of changes made to the planning activities in recent times. As the last changes to the planning arrangements have only been in operation for a quite short time, it is difficult to identify whether these have resulted in a benefit to the market, or if they have made little difference and so need change. The AEMC notes this point but despite the reservation, have proposed options which would make massive changes to the transmission sector of the market.

Because of this concern, the MEU is of the view that the larger the change, the greater the examination of the proposal and the greater the reservation should be about the change. As a matter of principle, there has been no significant negative outcome regarding the current arrangements with the single exception being that they have not resulted in augmentations to interconnectors that might have resulted in fewer inter-regional price separations and bringing the NEM closer towards the preferred outcome of the NEM being essentially homogenous rather than a series of connected regions.

With this simple approach, the MEU considers that the options 3 and 4 for changes to the planning options should be seen as requiring much more investigation as to the shortcomings of the current arrangements, how these changes could be implemented and a quantification of the benefits provided. Both these options introduce concepts that will result in massive change to the current NEM structure and ownership. In counterpoint, option 2 has been demonstrated as being feasible over a period of time as it has been in operation (one or another) for many years and has delivered some benefits.

Having opined its preferred position that the NEM would be best served by having a single owner and operator for all transmission, the MEU does not consider that any of the options can feasibly deliver this outcome. In its response to the Directions Paper the MEU did provide a view that the Victorian model might be one that could provide NEM wide benefits. The MEU considers that this approach does have the potential to address its concerns regarding a lack of attention to interconnection.

#### 3.1 Attention to interconnection is the main challenge

In its response to the Directions Paper and in many other forums, the MEU has been a consistent critic of the lack of investment in interconnectors. Probably the main reason for this is that regionally based TNSPs have little interest in such activity, preferring to concentrate on their own region and their own assets. Successful interconnection requires the two involved regions to actively consort in order to deliver the optimum outcome. That this is the case was demonstrated when Murraylink was regulated after being an unsuccessful market interconnector. When the ACCC agreed to regulation of Murraylink, it had to assess the capacity of Murraylink in order to develop a RAB. As part of its decision, the ACCC set the Murraylink RAB on the assumption that both the ElectraNet and SP Ausnet assets would be augmented to allow Murraylink to deliver its maximum potential. This intra-regional development has not occurred and as a result Murraylink seldom operates at its rated capacity, especially when there is potential for price separation between Victoria and SA. The ACCC (subsequently the AER) did not have the power to require the augmentation of the ElectraNet and SP Ausnet assets to achieve what could occur even though the costs of doing so were included in the ACCC Murraylink decision. Consumers have suffered as a result as they are paying for Murraylink to achieve an outcome that seldom is delivered.

As mentioned in section 1 above and in the MEU response to the Directions Paper, the MEU considers that to a large extent, the RIT-T (and its forerunner (the Regulatory Test) does not reflect the benefits to consumers (who would pay for the augmentation) of the augmentation. As the MEU has stated on many occasions, if consumers are the ones who pay, then the benefits to them must be included in any cost/benefit analysis.

The AEMC recognises this issue when its states (page 134):

"The RIT-T does not include any wealth transfers between market participants in determining the outcome of the test. Wealth transfers on their own do not improve or reduce overall efficiency in the electricity market. However, they could have significant impacts on affected participants, including in the wider economy."

Unfortunately, the later discussion does not proceed to recommend a change to reflect this concern, other than to discuss a need for greater transparency. The MEU does not consider that the AEMC is correct in this assessment. This is in great contrast when the AEMC sees that when generators are impacted by congestion, the costs to generators are considered to be an issue that needs to be addressed. It seems that the AEMC has a greater concern for the long term welfare of generators than that of consumers, especially those that might make a decision to exit the electricity market (and hence the national market) because the costs imposed on them through wealth transfers are too great.

The AEMC makes reference to an IPRA proposal for setting reliability standards on interconnectors. The MEU supports that such standards would assist but agrees with the AEMC that slavishly ensuring that interconnector capacities are maintained, could result in inefficient investment. However, the MEU considers that if the costs to consumers of the impacts of price separation between regions were included in the RIT-T, such inefficient investment could well be avoided, and a strong signal provided to provide interconnection augmentation.

# 3.2 Alignment of regulatory rests

The AEMC posits that alignment of regulatory resets would have a greater impact on NEM wide transmission investments. This view does not reflect reality of the rules which allow an ex ante allowance for NSP capex. Regardless of what capex programs are proposed by a TNSP at a regulatory reset, once set, the capex allowance can be used for any capex project that meets the cost/benefit criteria. So even if all regulatory resets were carried out at the same time, and the capex allowance included for projects that align between regions, there is no requirement on any TNSP to proceed with such a project, despite the implied assumption that the AER has approved for such a project in the capex allowance. The assumption made by ERIG (quoted by the AEMC) that there would be benefits, simply does not reflect the actuality of the flexibility each TNSP has once its ex ante capex allowance is set.

In contrast the costs to consumers for such an alignment would be massive. The AER would have to "gear up" for the work which would occur once every five years. Already the AER is stretched attending to just one or two reset projects in a year so increasing this to seven resets (Powerlink, TransGrid, SP Ausnet, ElectraNet, Transend, Murraylink and Directlink) in one year would result in the AER being overwhelmed. As its workforce would have to be increased for the mega-reset and then reduced after it, the AER would lose valuable corporate memory of what had occurred (and how) during each mega-reset.

Pragmatically, such a proposal is not workable and, even if it were, there is no certainty that it would deliver the benefits sought. The AEMC decision not to proceed with this option (and use the NTNDP instead) reflects this pragmatism.

#### 3.3 Enhanced coordination option

TNSPs operating in isolation have provided planning outcomes that exceed the requirements of the region when assessed by the AER at a regulatory reset. At these resets, the AER generally seeks independent advice as to the future needs of the region and in most cases, the TNSP assessments are seen to be an overstatement. Frequently the AER uses forecasts by AEMO as the check on the TNSP forecasts, but also uses forecasts developed by independent consultants for this purpose.

If there was agreement prior to the regulatory reset of the forecasts, this would in a more efficient regulatory review process and a better utilisation of approved ex ante capex allowances. An annual agreement between all TNSPs and AEMO as to the needs of th4e NEM would also provide a refocusing by each TNSP on the needs of inter-regional augmentation and what would be needed deep in each TNSP's network.

The MEU can only see good coming from this option and therefore supports it.

## 3.4 Harmonised regime option

This option is essentially a progression from option 1 and implements on a wider basis, a process that has demonstrably provided a benefit to the SA region. The main benefit from the SA model is that there is an independent assessment of demand and consumption that is used for investment purposes. A requirement that this applies in all regions would have a significant benefit to the AER and the TNSPs as debate on this aspect for reset purposes is essentially removed.

Another feature of the SA model is that service standards are set after there has been an assessment of both the benefit of a standard and the cost of achieving the standard – this is in contrast to the way service standards are set in other regions.

The regulatory model for the NEM has been based on incentive regulation because there is a general view that financial incentives to do the "right thing" are better than intrusive regulation used in other jurisdictions. Financial incentives are the basis for actions by businesses operating in the competitive market and this approach is supported by the MEU. As the AEMC rightly points out, a firm has to be structured (ie be a for-profit business) for a financial incentive to achieve its goal. As TNSPs recover their base profit from an element in the WACC (ie the market risk premium) and this is applied to the asset base, there is an inbuilt incentive on a network business to seek to maximise expenditure on assets. The AEMC makes this point

The Victorian model eliminates the incentive for augmentation as AEMO (which is responsible for augmentations) does not gain any financial benefit from overstating demand forecasts and providing unnecessary assets. The Victorian model also uses a cost/benefit approach to augmentations based on the Value of Customer Reliability (VCR). The principle of a VCR is sound, but requires careful setting of the VCR estimate as overstatement of the estimate automatically results in over-investment in assets.

The benefit of an independent assessment of future demand is clear and should be implemented as should the setting of service standards reflect the outcomes of the cost/benefit analysis. As incentive regulation is at the basis of the NEM, there has to be the ability to apply a financial incentive.

The MEU considers that both option 1 (enhanced coordination) and option 2 (harmonisation) provide a sound basis for future planning. Such an approach recognises that the NEM is still to evaluate the benefits of earlier changes but does not effectively dismiss them.

The AEMC expounds on the fact that this option would require AEMO to step away from its current practices of being responsible for planning and implementation. The MEU does not consider that this is an essential step. A combined option 1 and 2 would still operate with AEMO carrying out the procurement function it does in Victoria and therefore it is not exclusive to the implementation of option 1+2. Removal of this procurement function should not be seen as an essential element of option 1+2, although it might be considered to be a preferred outcome as it does provide greater consistency across all regions.

Whilst options 3 and 4 are seen as exclusive to options 1 and 2, implementation of option 1+2 does not preclude transition at a later stage to either of options 3 and 4. This means that option 1+2 could be implemented now with the potential for later transition to either of options 3 and 4.

## 3.5 A single transmission planner and procurer

This option is essentially the Victorian model writ large. At its heart, it provides consistency in approach across the NEM and places augmentation of interconnectors on the same basis as any other investment undertaken. Whilst not achieving the ultimate goal of the NEM transmission being owned and operated by a single entity, it is closer to this than what occurs now and what would occur under option 1+2. It eliminates the incentive for over-investment inherent in the current approach.

The main drawbacks to this model are that it does not necessarily drive the most efficient outcome as there is no incentive on AEMO to maximise efficiency other than from its inherent drive to deliver efficiency. This inherent drive was addressed by Garnaut when competition policy was addressed. At that time is was recognised that the not-for-profit vertically integrated monopolies were inefficient and that competition would deliver better outcomes for consumers.

However, the NEM still has monopolies that provide key elements of the supply chain because scale provides greater efficiency than competition could. To overcome this, incentive regulation has been implemented as it is perceived to (and probably does) deliver a better outcome to other forms of regulation. Incentive regulation requires there to be an incentive to be efficient and, in turn, this requires the entity to want to respond to the incentive. A not-for-profit entity (such as AEMO) cannot readily respond to financial incentives.

One of the key benefits of the Victorian model is that it can set up competitive tension with the incumbent TNSP to ensure that the cost of an augmentation is efficient. The MEU considers that this competitive tension is a string feature of the model, as the MEU members have advised of the attitudes of monopoly NSPs of "take our offer or have nothing" has created significant cost imposts on consumers. Reports that generators have had similar experiences reinforce the view that monopoly NSPs can use their market power to maximise their commercial benefit. As has been said before, "negotiating with a monopoly is an oxymoron".

Pragmatically, for this option to be feasible, it requires the political will of three States (Queensland, NSW and Tasmania) all to be willing to give up control of some of the activities of their owned TNSPs to a national body. Victoria has already done this and SA, which could have followed the Victorian model, elected not to do so and developed its own approach. This means that this option is subject to considerable political vagary.

To create more confusion, there has been doubt expressed, not by MEU but by some stakeholders that the Victorian model has not delivered optimum outcomes. There would therefore be a need to carry out further investigations to identify if there is validity in these observations. The mere presence of such negative views of the Victorian model could be sufficient to create sufficient doubt in the minds of the governments holding transmission assets, to prevent the proper implementation of this option.

## 3.6 JV planning body

Essentially this option has some of the functions of AEMO transferred to a new entity which is owner in JV by all of the TNSPs in the NEM. The existing TNSPs would provide services in their region under contract to the JV. The JV would be a for-profit entity presumably transferring its profits to each JV partner.

The MEU sees that the JV would be an extremely unwieldy entity and this was pointed out in section 2.6 above. The MEU does not consider that a JV with this number of JV partners could operate viably.

Other than the issue of the JV, the option reflects many of the aspects of option 3 but reverses the positives with negatives and the negatives with positives. It effectively removes the issue of AEMO not being subject to financial incentives to one where the AEMO replacement (the JV) would be exposed to such incentives. Conversely, it removes the independence that AEMO brings to the development of forecasts and therefore exposes the JV to being actively incentivised to overstate future needs as this would deliver benefits to its JV partners.

From a consumer viewpoint, a lesser worse outcome is where there is no incentive to overstate future growth (and thereby maximise investment) coupled with a best endeavours approach to efficiently implement necessary augmentation, compared to one where there in an incentive to overstate the need for augmentation (where that augmentation would increase the asset base) but there is a financial incentive to select the most efficient outcome. This means that the MEU prefers option 3 to option 4 even without the challenges faced in making the JV work in the "...long term interests of consumers..." as well as satisfy an large number of JV partners.

#### 3.7 MEU Response to specific AEMC questions

Firstly, AEMC seeks a view on various options to enhance the existing arrangements. These are:

- implementing a national framework for transmission network reliability standards for load;
- improving the consistency of TNSPs' Annual Planning Reports;
- improving the transparency of the Regulatory Investment Test for Transmission;
- aligning the revenue resets of TNSPs; and
- introducing reliability standards for interconnectors

The MEU supports a national framework for transmission standards and explained its reasons in the review on this issue currently being undertaken. It has long been a supporter of consistency across the NEM and therefore supports consistency in APRs.

As commented on earlier in this section, it sees a need to include consumer benefits in the RI-T and greater transparency. Its comments are included in section 3.1

It disagrees with alignment of revenue rests for TNSPs and its reasons are addressed in section 3.2.

The MEU supports an approach to introducing reliability standards for interconnectors but sees that the enforcement of such is impracticable as the carrying capacity of interconnectors is constrained by the interconnector itself, the carrying capacities of the two regional networks and the dispatch of generation. With all these variables, setting and enforcing a reliability standard for an interconnector will be fraught.

The AEMC then proposes four options for reform of the planning function, proposing:

- option 1: enhanced coordination of the National Transmission Network Development Plan and Annual Planning Reports;
- option 2: harmonised regime based on current South Australian arrangements;
- option 3: a single NEM-wide not-for-profit transmission planner and procurer; and
- option 4: joint-venture planning body established by TNSPs.

In relation to these four options, it poses the following questions.

#### Q1. Is there a case for changing the existing planning arrangements?

The MEU considers that there is a need to change the current arrangements, primarily because the current arrangements have proven inadequate in the development of interconnectors. Additionally at revenue resets, the TNSPs have an incentive to overstate future demand. Implementing an annual forecast independently set will be of benefit to the AER in assessing claims by TNSPs.

# Q2. If so, is there a case for enhancements to existing arrangements or more significant reform?

The MEU considers that there should be a staged development of the planning processes to ensure that the fundamentals are in place before moving to more significant change. This will give stakeholders the opportunity to identify if recent changes have resulted in an enhanced outcome. On this basis, the more significant the reform, the further away in time any change should be made.

#### Q3. Of the options presented, which do you consider merit further assessment?

The MEU is of the view that the introduction of a combination of options 1 and 2 is a sensible step forward. The degree of change is relatively modest and will still allow time for assessment of the recent changes to NEM planning.

Implementation of an option 1+2 will still allow the later implementation of options 3 or 4 which can be assessed in more detail if the implementation of option 1+2 does not address stakeholder concerns.

On balance, option 3 is considered to be better for consumers than option 4, but the MEU does not support the immediate introduction of option 3 until it is demonstrated that more reform is needed to provide a better outcome.

#### Q4. Are there other options that should be considered?

The MEU does not have another option for consideration at this time.

# 4. Regulation of connection-related services

The AEMC addresses this aspect of the Report under three headings

- Uncertainty with the existing arrangements
- Options for change
- Extensions

## 4.1 Uncertainty with the existing arrangements

While few consumers have experienced the issues that generators have raised in relation to connections to TNSP assets, a number of consumers have either connected to the transmission system or attempted to do so. The reports that the MEU has received in relation to these consumer experiences tend to reflect those of generators.

Specific aspects that consumers have raised are:

- TNSPs have advised that all work within a substation boundary (or a new substation that is directly connected to the shared assets or required for the connection) is to be provided by the TNSP at the price set by the TNSP.
- In some cases the new assets have been treated as shared network assets and the costs included in the exit charge, and in other cases set as a negotiated connection charge.
- Consumers are not in the business of owning and operating power lines and see that this is a specialist task. Incumbent TNSPs and DNSPs are aware of this and use the knowledge to their benefit. Non-incumbent TNSPs and DNSPs are loath to enter into another NSP domain because they are not competitive (trying to operate the network extension remotely) or fearful of others entering "their turf" in retaliation
- Consumers proposing to build and operate their own extension assets have found the insurance costs are very large in proportion to the asset value due to consequential risk and effectively provide a barrier to entry to this activity. This is because the risks of owning one power line are little different to those where many power lines are owned.
- Building extension assets faces a major challenge in gaining an easement but TNSPs (especially the incumbent TNSP) usually has an arrangement with the regional government to more easily acquire easements an advantage that is not available to others than the incumbent TNSP.
- When a consumer proposes to build t5he extension assets and deed them to the TNSP
- The TNSP determines the degree of quality, redundancy and capability that the new assets are to have regardless of the consumers stated preferences.

A number of consumers have also advised that similar outcomes apply when dealing with an incumbent DNSP, so it would appear that many of the issues that the AEMC addresses are endemic with both TNSPs and DNSPs, probably because both are monopolies.

The outcome for consumers is that they are essentially required to deal only with the incumbent TNSP, and to accept the costs and commercial conditions that the TNSP stipulates. The assumption that a large end user has a countervailing power in negotiations is simply not evident in negotiations with a TNSP. Practical experience has shown that the concept of "negotiating" services with a TNSP is effectively an oxymoron and not borne out in reality.

Consumers have assumed that contestability for the provision of services would require one of two outcomes, viz:

- 1. The TNSP would be required to seek competitive tenders for any new connection service and demonstrate this to the consumer seeking the connection, or
- 2. The consumer could build the assets themselves under a competitive arrangement

What has occurred in practice, is that TNSPs (and DNSPs) have refused to allow any other party to access their assets in order to connect or have refused to provide evidence that the work has been competitively quoted.

An example of this is where one consumer sought access to the transmission system and obtained quotations for the work but when this was provided to the TNSP as an appropriate cost for the connection, the TNSP arbitrarily accepted the cost as reasonable and insisted on its own pricing applying. That the TNSP price was twice that of the competitively obtained quotation was not a consideration of the TNSP.

#### MEU response to specific questions on the current arrangements

Q1. Does the description in this chapter of the current connections provisions and TNSPs' practices correspond with stakeholders' experiences in practice?

Yes, In fact the MEU considers that the issue may even be worse

Are the current categories of services in the Rules - e.g. *shared transmission services* and *connection services* - the appropriate categories for classifying services related to connections, or should one or more new categories be created for services related to connections?

The main issue lies with the attitude of the NSP rather than the categorisation of the services. The lack of clarity and certainty within the definitions makes the problem greater.

Q3. Should the construction of the underlying assets be part of the relevant services that a TNSP is required to provide under the Rules?

The TNSP can only provide the service if the assets are constructed. To attempt to segregate the two creates confusion, especially when charges that are developed out of regulation are based on asset values. The cost of the service should bear some relation to the cost of providing the assets to deliver the service.

This means that there needs to be a form of arbitration available to consumers to offset the power that the TNSP holds in relation to any new connection works.

Q4. Is contestability an appropriate test for determining whether a service related to connections should be economically regulated under the Rules? If so:

- What is an appropriate definition of contestability?
- Should contestability be considered separately in relation to the construction aspects of the service and the ongoing operation and maintenance aspects of the service?
- Which services required to connect a generator, NSP or other transmission user to the national grid are contestable?

Contestability is a misused term by both consumers and NSPs, and the MEU suspects by generators. Consumers consider that it its application will result in a connection to the network that will result in the lowest cost for the service. They expect that they have the right to seek alternative quotations for the work involved and that the NSP will match this cost. In practice, contestability is not used to deliver the lowest cost because the incumbent NSP has the ability to obviate its application.

Pragmatically, almost every connection to the shared network will be carried out by the incumbent TNSP for the reasons and problems noted above and reported to the MEU by its members and others. A better solution to the existing approach is for the TNSP (and DNSP) to be required to demonstrate that its proposed connection costs are the lowest possible for the service sought and that reference to arbitration (probably by the AER) is available so that consumers can see that the costs and charges proposed by the NSP are fair and reasonable.

The construction of a new connection service is totally related to the specification of the new asset. If the TNSP is the sole arbiter and provider of the detailed specification of the assets to provide the service, the tenders for providing the asset will show a modest difference in price between a number of

potential providers. In this case, contestability provides little benefit in relation the ultimate cost.

If, however, only the service is specified and the specification of the assets is included as part of the delivery of the assets, then considerable savings can result as they allow for the tenderer to identify the lowest cost for the assets needed to provide the service. In practice, NSPs use the specification of the assets to control what is provided and so contestability does little to minimise costs.

#### What obligations should TNSPs have in relation to connections?

The TNSP must be prepared to transparently demonstrate that its proposal delivers the lowest possible cost for the service provided and to be able to prove this to an arbitrator if the consumer remains unconvinced of this.

#### 4.2 Options for change

The AEMC prefaces its discussion on the options by stating (page 170) that:

"In this chapter, the Commission is not proposing that consumers pay for connection-related services that are provided to a generator. The potential forms of economic regulation discussed in this chapter only impact on how the charges for these services (and other terms and conditions related to their provision) are determined, not who pays for them."

This is important, because without this disclaimer, consumer would be concerned that the approach used might form the basis for levying costs on consumers that should be carried by others, whether this be by a generator seeking access or by new consumers wanting to connect.

The AEMC should make it patently obvious that it would still require the beneficiary of the connection to pay for the costs involved in providing their connection. For example, as the discussion on connections is primarily related to generator connection, the AEMC should make it clear that the cost of the connection of a new generator would be an entry cost and therefore not carried by consumers.

In the discussion about whether changes are needed, the AEMC relies primarily on the extent of the imbalance in bargaining power between an applicant and the TNSP. This approach is sensible and supported in principle by the MEU.

In practical terms, as the MEU has already commented, there is little where there is any balance of power between the party seeking connection and the TNSP. In the view of the MEU in assessing all elements of a connection, the balance of power lies with the TNSP to a sufficient level that a TNSP would get its preferred outcome. This has consistently been the experience of consumers when seeking connections. The MEU notes the responses of TRUenergy and Origin that are quoted by the AEMC (pages 174 and 175) in relation to balance of power. These observations are fully replicated in the experiences of consumers.

The AEMC goes on to quote the observations of the Expert Panel and then to comment on the extent that this imbalance of power impacts on the market and its materiality. The issue for those seeking connection is not so much that connection can be made, but more of the impacts of time delays, the ultimate cost and the balance between the risks each party is expected should take.

The effect of time delays cannot be understated. The holding costs of capital invested by a new facility (be it a generator or new manufacturing plant) can be very large with little chance to recover these once operations commence. In fact the holding charges massively outweigh the costs of inefficient connection. For example for a 500 MW power station, the costs of delay could reach as high as \$200,000 per day! Costs of this magnitude far outweigh the costs that are saved by more efficient use of capital for achieving the connection. Time pressures such as this add to the imbalance of power, especially as the challenges in securing easements are higher for players other than the incumbent TNSP.

When considering the impact of time pressures on new investment (either upstream or downstream of the TNSP) it becomes apparent that having to resort to arbitration just adds to the time needed to get resolution. Any step that limits the need to resort to arbitration is a positive step.

When considered in this light, having easier access to arbitration is better than having difficult access, yet even allowing for this, the very action of proceeding through an arbitral process, adds to the time pressures. If there is clear guidance as to what is needed, how it can be achieved and the costs for providing this, then this reduces the need for seeking arbitration and reduces the potential for future disagreements which cause delays.

With this in mind, the MEU provides its views on the options proposed by the AEMC.

#### 4.2.1 Option 1 – enhanced dispute resolution

The MEU considers that making easier access to arbitration is better than the current arrangements. It does still impose the potential for delays as the there is a time requirement for the initiation of the arbitral process, its process of arbitration and the implementation of the outcomes. There still remains the potential for appeals subsequent to a decision.

In the view of the MEU, the preferred outcome is that the processes should be that a need for arbitration is effectively eliminated. On this basis the MEU does not support option 1.

The AEMC then discusses who should be the arbitrator – should it be a commercial entity, the AER or a ring-fenced part of the AER to avoid conflict with the regulatory functions of the AER in relation to revenue resets.

The MEU considers that the time involved in bringing a commercial arbitrator up to speed with costs and the like will add to the time delays. Having an entity (such as the AER) that already has access to knowledge of costs and challenges faced by TNSPs provides a more rapid outcome which is likely to better reflect the needs of all involved.

The MEU does not see the need for the AER to have to develop a ring-fenced element within its organisation to address such activities. To do so will increase costs and prevents access to the knowledge already gathered by the AER. In many respects the AER already operates in a form of arbitral process through its regulatory function so increasing its coverage to include such an arbitral activity is unlikely to introduce bias, which the main reason to require segregation. In this regard, it must be remembered that the arbitration of an element of an extension does not conflict with the AER activities in relation to setting revenue for prescribed services.

Other than these observations, the MEU accepts the AEMC assessments of advantages and disadvantages

#### 4.2.2 Option 2 – enhancing the negotiating framework

Having access to likely costs and timeframes removes a considerable amount of debate between the seeker of the connection and the TNSP providing that the information is close to being correct. To ensure that this is the case would require verification, and this is probably best achieved by the AER when it carries out a regulatory reset, similar to the way it verifies that many of the costs published by an NSP are correct.

The MEU agrees with the AEMC that the declaration of the expected WACC to be applied for such activity is essential to ensure that there is equity in the published costs. The AEMC suggests that the WACC that is applied in specific cases should reflect the increased risk that the TNSP might face if there is default by the party connecting. This is appropriate in principle but should reflect that fact that the asset is likely to be depreciated over the life of the connection agreement, returning the investment in a shorter timeframe than would apply for assets covered by prescribed services. This early return of capital reduces the risks faced by the TNSP. In the case of a connecting party electing to terminate its connection agreement, many connection agreements include for a schedule of capital return in the event of early termination. If the connecting party has a high creditworthiness, such a schedule reduces the TNSP risk and therefore a lower WACC should result.

The listing included in the option of aspects and costs that the TNSP would have to publish appears to be sufficient, but there is one element that is missing – that of the time needed to carry out the various functions, including accessing easements, gaining planning permits delivery times of critical plant items and construction times.

Whilst there is a requirement to publish a standard contract template, this template must be equitable. This means that the needs to be a review of the template (probably under the auspices of the AER) to ensure that the template reflects a balance of the risks involved. Just its publication is insufficient to ensure equity.

Despite providing all of this information, there is still a need for arbitration in the event that the times and costs for a specific connection do not reflect the typical costs and times that have been published. As the AER would have overviewed the published data to ensure equity and veracity, the AER would be best placed to provide an arbitral service if needed.

With the modifications suggested by the MEU, it considers that this option displays some quite attractive features and provides greater clarity and significantly reduces the imbalance of negotiating power without imposing more risks on TNSPs, consumers and other connecting parties.

In particular this option (with the refinements suggested by MEU) gives primacy of access to the first mover. This is appropriate because the first mover has provided the funds for the development of the extension.

#### 4.2.3 Option 3 – prescribing connection services

The MEU does not see that including connection assets as prescribed services reduces the risks for connecting parties. It can see that they would reduce the risks for the TNSPs.

Even if the assets are included as prescribed services, this does not mean that they will be provided at the least cost or that the time for delivery will be better managed. In fact, it provides the TNSP with an opportunity to increase the costs of the connection and require the regulator to find out if this is the case. It certainly does not ensure that the connection will be made in a more timely fashion.

To ensure that the cost of the connection is minimised the option requires the inclusion of a unit cost allowance. This means that there will be some socialisation of the costs for connection, with difficult connections being partly subsidised by those easier connections. This then reduces the signals for efficient generator location.

Overall this option provides greater disguise for the time and costs involved, and reduces the ability of the connecting party to address its specific needs. It also has the potential to reduce the risks faced by TNSPs as there is the possibility that, being assets providing a prescribed services, the cost of these assets will, if made redundant by the generator ceasing its connection, to be carried by either all other generators (through entry charges) or by all consumers if excluded from entry charges.

This option reduces the rights of the "first mover" to the capacity it funds and permits other entrants to erode the capacity sought by the first mover.

#### 4.2.4 MEU Response to specific AEMC questions on the options proposed

The AEMC posits three options for reforming the connections arrangements which represent increasing degrees of regulatory intervention:

- improving the dispute resolution framework that applies to negotiated transmission services;
- strengthening the negotiating framework that applies to negotiated transmission services, such as increasing the level of transparency associated with the negotiating process; and
- shifting all transmission services required for connection from negotiated to prescribed transmission services.

Q1. Which options, if any, do you consider would best contribute to the achievement of the NEO and, more specifically, the objective of this review to minimise the expected total system costs faced by electricity consumers?

The MEU considers that option 2, when augmented by the features suggested by the MEU, provides an overall better outcome for all concerned.

#### Q2. What evidence is there to support this view?

The reasons for preferring this option are included in the sections 4.2.1 to 4.2.3 but overall the option with the medications suggested, provides greater clarity and significantly reduces the imbalance of negotiating power without imposing more risks on TNSPs, consumers and other connecting parties.

Q3. Are there any other options for improving connection arrangements that we should consider and, if so, how would they better promote the NEO?

The MEU has provided its suggestion for refinements in section 4.2.1 to 4.2.3

### 4.3 Network extensions

The MEU concurs with the generators that there is confusion and a lack of clarity in the Rules as to whether a TNSP should provide extensions on request. This issue needs to be resolved.

On pages 195 and 196, the AEMC lists five aspects highlighting where there are barriers to entry of other users to own and/or operate an extension. To this needs to be added to the issues of public liability (and the costs to manage this risk).

A further feature is the basic view that a businesses should not to get involved with what it does not understand. This means that there is an expectation that a TNSP must be able to better manage the risks and costs of building and owning a transmission extension than a business which does not have this skill. Members of the MEU and others that have provided a view in this issue, have a consistent view that they are better served by not owning and operating transmission assets that traverse public land or land not owned by the business. An outcome of this, is that almost all non-TNSP businesses consider they have to use the incumbent TNSP to provide their connection, including extensions.

With these thoughts in mind, contestability is seen by almost all those seeking connection to the transmission (and distribution) network as a way to ensure that the costs and timing for building an extension can be controlled. In particular, such control is used to define the design of the works involved as this limits the costs of construction. Realistically, connecting parties do not want to own and operate transmission extensions.

On page 200, the AEMC discusses the issue of rights to assets funded by a connecting party, and opines that generally where this has occurred, the party connecting has had sole access. This is not so. Historically consumers connecting to the shared network have had to pay for the connection assets as a capital contribution. Whilst in the first few years after such a connection is provided, the "first mover" might receive a rebate if a second user connects, but after a period of time<sup>7</sup>, all rights to a rebate are removed. This means that the extension is owned by the NSP and the "first mover" has no access rights despite paying for the connection.

<sup>&</sup>lt;sup>7</sup> In its discussion on connections in June 2011, the AER suggests this should be 8 years.

The MEU agrees with the AEMC that greater clarity of ownership and access rights needs to be clarified.

#### **4.3.1 MEU Response to specific AEMC questions on extensions**

Q1. Is there any evidence to suggest that competition in the provision of extensions is (or is not) workable?

The fact that so few network extensions are owned by parties other than the incumbent TNSP clearly shows that the concept of contestability for the provision of these assets, has not delivered the outcomes that might otherwise be expected from the concept. This demonstrates that competition for extensions has not worked.

Q2. Are there any compelling reasons why competition in the provision of extensions should be limited to registered or incumbent TNSPs?

There is no compelling reason to limit the provision of extensions only to registered and incumbent TNSPs providing the owner and operator is demonstrably competent to manage the service.

The reasons for registered and incumbent TNSPs dominate to building and ownership of extensions reflects the practicality of doing so, for the reasons the AEMC lists in its section 14.

The reasons that connecting parties have concerns with the current arrangements is that the incumbent TNSP, in particular, is that this is an imbalance of negotiating power to secure a balanced outcome.

The MEU considers that with the introduction of connection option 2 – enhancing the negotiating framework – with the MEU suggested enhancements, most, if not all, of the concerns connecting parties have, will be addressed. Therefore there is no need to mandate that only registered or incumbent TNSPs should be able to provide extensions, but there should be a requirement that the incumbent TNSP must provide an offer for an extension and that the costs and commercial conditions will be reflected in the standing costs they are to provide for connection services.

Q3. Should third parties have the right to access extensions that are paid for by incumbent network users?

If a party has funded an extension, then it must have the right to the capacity on the extension that it has contracted for. This contracted capacity should not be eroded by others seeking to connect to the assets. If another party seeks to connect, then it should contribute to the provision of the asset in proportion to its use of the asset.

There should be no time limit imposed on these rights and obligations other than those specifically contracted for.

The TNSP providing the extension should seek prior approval from the "first mover" as to whether the new entrant should be permitted access to the asset it has funded. If access is not granted then the TNSP should have the right to augment the extension to allow the new entrant providing the capacity contracted for in the extension by the first mover is not eroded.