

## COMMENTS ON AEMC DIRECTIONS PAPER ON TRANSMISSION FRAMEWORKS REVIEW

# Submission by The Major Energy Users Inc

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## **Executive Summary**

There is much in the AEMC's Discussion Paper that the MEU supports. However, against the background of a NEM that has the following features, including:

- 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,

the MEU is very concerned that the AEMC has now decided to restrict its scope in this Review by not examining the very important issue of the transmission revenue and pricing frameworks.

The evidence that the network investment rules are unbalanced is overwhelming. That the AEMC's Transmission Frameworks Review can be authoritatively undertaken, in the absence of an examination to ensure that the current revenue and pricing rules are capable of delivering efficient investments, is quite staggering.

That it will become "unmanageable" and that the AER is reviewing "the Rules framework" are poor excuses. As the MEU points out in this submission, the AER review is a truncated one and the AER has advised that it is not reviewing transmission pricing issues.

As for the five key elements or work streams discussed in the AEMC's Discussion Paper, the MEU's submission considers that:

#### Nature of Access

The MEU has been a consistent opponent of the current approach to allocation of the cost of transmission and many of the issues that the AEMC raises in its review of the nature of access can be attributed to this aspect.

The service provided by transmission essentially is to deliver the output of generation to load centres. When the service is looked at in this way, it resolves many challenges that the AEMC discusses. If the transmission system is seen as a service to generators, then addressing a number of issues raised by the AEMC in the Directions Paper become clearer.

#### Network Charging

The MEU supports stronger signals for generators and consumers, especially those which are intended to lead to more efficient usage

#### Congestion

If generators were exposed to the costs of transmission and by paying these costs were entitled to rights to use the network, then many of the concerns that the Directions Paper raises would have less impact and in some cases would disappear.

If a generator was behind a constraint, the generator could make a market based decision to either relieve the constraint or not. It would assess the benefits of investment in the transmission system or suffer the costs associated with being constrained at times. The party best able to assess the impact of the constraint is the affected generator, yet the Directions Paper seems to overlook this obvious solution in attempting to define the problem in terms of the TNSP and even the consumer. However if the generator is to invest in augmenting the network to relieve the constraint, then it must have some rights to use the augmentation it has paid for.

#### Planning

Despite support for the general observations on investment made in the Directions Paper, the MEU is concerned that the Directions Paper adds a proviso that in addition to meeting least cost, transmission investment is

"... to deliver net market benefits." (AEMC page 62)

Examination of the NEL does not support this contention. The six principles for network investment do not cite that there is to be a "net market benefit" only that the investment be efficient.

The NEO makes no reference to "a net market benefit" but it does require the investment to be in the long term interests of consumers so that the least cost for consumers over the long term will be the outcome.

As an alternative approach, the AEMC could consider proposing a model similar to that used in Victoria where the bulk of the transmission assets are held by the main transmission service provider (SP Ausnet) but augmentations and expansions are identified and implemented by AEMO under contracts with TNSPs which then hold the assets. This

would overcome the identified (and real) difficulties in implementing a true national transmission grid.

#### Connections

Whilst the MEU is concerned at the extent of the requirements for connections in Victoria, it also points out that some elements of the AEMO approach might provide value in the development of new methods. To this end the AEMC should seek to incorporate those "good" elements of the AEMO approach into the new methodology.

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

#### 1. Introduction

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

The purpose of this response is not to reiterate the aspects that were raised in the MEU response to the earlier Issues Paper 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 issues raised by the AEMC and those issues which the MEU considers the AEMC has overlooked.

#### 1.1 About the MEU

The Major Energy Users Inc (MEU) represents some 20 large energy using companies across the NEM and in Western Australia and the Northern Territory. Member companies are drawn from the following industries:

- Iron and steel
- Cement
- Paper, pulp and cardboard
- Aluminium
- Processed minerals
- Fertilizers and mining explosives
- Tourism accommodation
- Mining

MEU members have a major presence in regional centres throughout Australia, e.g. Western Sydney, Newcastle, Gladstone, Port Kembla, Albury, Mount Gambier, Whyalla, Westernport, Geelong, Launceston, Port Pirie, Kwinana and Darwin.

The articles of the MEU require it to focus on the cost, quality, reliability and sustainability of energy supplies essential for the continuing operations of the members who have invested \$ billions to establish and maintain their facilities.

Because the MEU members in many cases have their major manufacturing operations located in regional centres, the members require the MEU to ensure that its comments also reflect the needs of the many small businesses that depend on the existence of large manufacturing operations, and the many residential electricity consumers that make up the members' workforces and contractors.

## 1.2 The MEU view of the energy markets as a whole

The MEU considers that the rule change proposal should be addressed in the context of the electricity market as it is now operating. In this regard, consumers are already seeing escalating electricity costs stemming from a range of causes, such as:

- Generator market power itself (the focus of a proposed rule change)
- Steeply rising transmission and distribution network prices on average these will rise in real terms by ~50% over the next five years<sup>1</sup> even though some consumers have seen prices rises of this magnitude in the last 1-2 years
- The electricity market exhibiting reduced competitive pressures, excessive volatility in wholesale electricity prices, and as a result retailers are including in retail price offerings, larger risk and profit maximisation premiums, which are causing significant retail contract price increases
- The introduction of a price on carbon
- Implementation of the 20% renewable electricity target (eRET)
- The indirect costs caused by the need to augment networks to meet the carbon emission reduction and eRET requirements
- Myriad (and sometimes duplicative) Federal and State Government renewable energy, energy efficiency and climate change programs and 'initiatives', such as feed-in tariff schemes, climate change levies, energy efficiency programs, etc

Overall, there is a general expectation that electricity supply costs will rise in real terms by 100% or more over the next few years<sup>2</sup> as a result of these changes and other pressures, a significant proportion of which are driven by the many government interventions in a supposedly competitive market. This is having a 'chilling' effect on downstream investments and creating an environment where the ability to pay is becoming a major issue for all consumers, ranging from large industrials facing international competition to small consumers, especially in the lowest income quintiles.

In a recent submission to the AEMC<sup>3</sup>, the MEU drew attention to information provided in the recent Garnaut Update #8, particularly the following three graphics:

<sup>&</sup>lt;sup>1</sup> Weighted annualised average increases for the three years 2010, 2011 and 1012 shown in the table in appendix 1 gives an increase of ~40%

<sup>&</sup>lt;sup>2</sup> Most recently, TRUenergy MD has commented that power prices will double in the next six years

<sup>&</sup>lt;sup>3</sup> MEU, Submission on the AEMC's Strategic Priorities for Energy Market Development, May 2011.

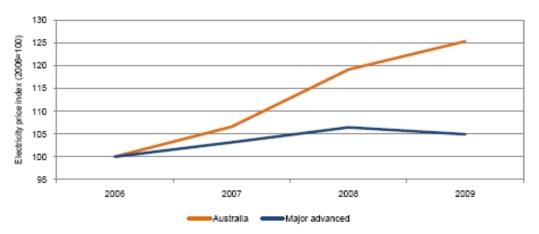
Table 1: Consumer Price Index - Electricity

	Average annual inflation Per cent			Household electricity price <sup>154</sup> Share of income per capita
	1990-1999 <sup>(c)</sup>	2000-2009	Year to latest	2009
Australia <sup>(c)</sup>	1.6	5.0	12.4	2.8
Canada	3.3	2.5	8.1	1.9
France	na	0.8	3.1	2.8
Germany	0.7	4.5	3.3	6.3
Japan	-0.7	-0.8	3.0	5.1
United Kingdom	-2.8	6.0	-0.4	5.6
United States	0.9	4.2	0.6	2.6

<sup>(</sup>a) Price per 10 MWh, in local currency, where 2009 price level data were not available, the latest available data were extended to 2009 using CPI electricity prices; United States price includes tax
(b) Data from 1991 for Germany, and from 1996 for the United Kingdom
(c) Adjusted for the tax changes of 1999–2000
Sources: AIE; International Energy Agency; RIJA; Thomson Reuters

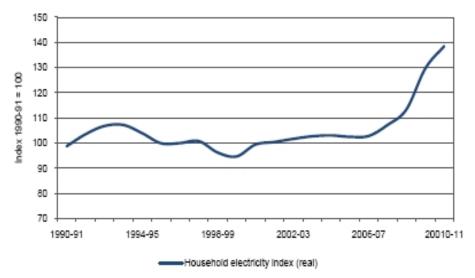
Source: Plumb and Davis (2010)

Figure 1: Real electricity prices in Australia and the seven major advanced economies, 2006 to 2009, index in US dollars



Source: IEA 2009, OECD 2010.

Figure 2: Real household electricity price movements (constant 100 would mean electricity prices rising at same rate as other prices)



Source: Australian Bureau of Statistics, Consumer price index for electricity (Category 6401.0).

The three graphics show escalating Australian electricity prices relative to seven major advanced economies from 2006 to 2009 and the rise in Australian real household electricity prices from 1990/91 to 2010/11.

The MEU concluded from an assessment of the key drivers of the escalating Australian electricity prices that:

"...because Australia is an open economy and Australian industries are exposed to international competition, it is the trends in relative prices that are of greatest import. If electricity input costs in Australia are rising faster than Australia's international competitors (despite our abundant energy resource endowments) then the "benefits" arising from the reform programme in the NEM need to be qualified" (MEU, page 9).

The MEU also draws attention to the significant changes in the market structure of the NEM (which have reduced competitive pressures), with increased concentration of the electricity supply industry, re-aggregation of generation with retail, including the creation of vertically-integrated businesses that have dominance in both generation and retail in a specific regional market, and the increased barriers to new entrants in generation and retail, with the latter also accompanied by the exiting of some second tier retailers from particular regions (see section 2).

#### 1.3 The inter-relation between generation and transmission

The MEU points out that transmission plays a vital role in two major aspects affecting other elements of the electricity supply chain, viz generator competition and generator location.

As the capacity of transmission increases, congestion becomes less frequent, increasing the amount of time generators have strong competition. As congestion increases, generator competition reduces causing, at times, opportunities for generators to exercise market power.

Transmission is the element of the supply chain which takes power from generators and delivers this to major usage locations. Unfettered generator location will result in a less than efficient outcome as congestion will increase. It is important (especially with the drive to increase the amount of generation fuelled with gas and by renewable sources in order to reduce national carbon emissions) that the transmission review results in strong signals for efficient generator location and to ensure that the combination of generator location and transmission costs result in the lowest (most efficient) cost seen by consumers. To achieve this, the Review must have regard to the cost of generation plus the cost of transmission in combination, otherwise a less than efficient outcome will eventuate.

The importance of this inter-relationship between generation and transmission cannot be overlooked and to address transmission in isolation will not achieve the National Electricity Objective which requires the focus to be on the market as a whole, rather than looking at each element in isolation. This aspect is addressed more fully in section 2 of this submission.

#### 1.4 Summary

Consumers are facing considerable price impacts for their electricity supplies. A key driver is due to the significant changes in the market structure of the NEM. It is neither reasonable nor appropriate that the AEMC should examine the transmission system in isolation of the impacts that transmission has on consumers at their points of supply.

## 2. Application of the National Electricity Objective (NEO)

The AEMC notes:

"We are required to have regard to the NEO in energy review and Rule change assessment that we undertake. The NEO aims to promote efficiency in investment in, and operation and use of electricity services for the long term interests of consumers of electricity." (AEMC, page 15)

What is concerning about the first paragraph of the AEMC observation is that it has eliminated some quite key wording. The NEO requires the AEMC to address the long term interests of consumers in terms of price, quality, safety, reliability and security of supply. It is essential that the aspect of price must be balanced against the elements of quality, reliability and security.

In this regard, the MEU notes that quality of supply is most impacted by the operation of the distribution element of the supply chain, so the MEU would expect that the AEMC would focus more on the balancing of price and reliability of the transmission element. As generation is a core part of the price of electricity, the MEU expects the AEMC would seek to balance the price impacts from generation and transmission in tandem as it conducts the review.

#### 2.1 The need for a holistic approach

After considering stakeholders' submissions to the Issues Paper responses (including the MEU's submission) that, inter alia, considered that the current frameworks allow inefficient outcomes, the AEMC said:

"A fundamental objective of this review will therefore be to assess whether the current transmission frameworks promote efficient outcomes across the supply chain". (AEMC, page 15)

and

"The commission continues to believe that the objective for transmission frameworks should be to ensure that investment and operational decisions across generation and transmission are optimised in a manner that minimises the total system costs faced by consumers". (AEMC, page 18)

This observation is welcome, in that the AEMC intends that its review will be holistic and not address transmission in isolation but recognising that transmission is just one part of the supply chain but one which particularly has a great impact on the degree of competition seen in the contestable element of generation.

The MEU welcomes the clear and unequivocal statement of intent. Historically, the MEU has seen various reviews and assessments of the electricity supply chain being addressed in terms of the structural elements of the supply chain, viz generation, transmission, distribution, retail, regulation, etc. For the AEMC to recognise that changes in transmission will have impacts on generation that will change the reliability and price of the delivered product to consumers, is a significant change to previous approaches and one that is most welcome.

The MEU has previously commented that investment in transmission (especially in inter-regional augmentation) can have a massive impact on generation competition in a region. When congestion occurs between regions, generators within the "islanded" region incur significant less competition and therefore have the ability to exercise its market power and raise prices with relative ease. From a consumer viewpoint, it is important to ensure that the price rise is minimised. This requires an assessment of whether the price increase due to less competition is less or more than the cost of the transmission augmentation. Currently, the test for inter-regional augmentation excludes the effect on consumers of the resultant price separations as the cost of these is not included as a "net market benefit" because they are considered to be transfers of wealth. This issue is more fully addressed in section 7.1

#### 2.2 The NEL Principles for Network regulation

The National Electricity Law (NEL) includes six principles that are to be applied to network regulation. These are (clause 7A):

- 1. A network should be able to recover its efficient costs
- 2. A network should have effective incentives to provide efficient services
- 3. There should be regard for previous decisions in relation to the asset base
- 4. A network provider should get a return commensurate with its risks
- 5. There should be regard for the costs and risks of over and under investment
- 6. There should be regard for the costs and risks of over or under utilisation

These principles are not an option for the AEMC to overlook – they are an explicit statement of what is required in any rule change affecting the provision of network services and they have the same force as the NEO.

In the assessment of any changes to the rules which would arise from the Transmission Frameworks Review, the AEMC must give due heed to these.

From a consumer viewpoint, the main driver is that the provider must deliver an efficient service.

Whilst the NEL does not define what is meant by "efficient" the second reading speech by the Minister when the Bill was introduced does provide guidance. Minister Hill (for Minister Conlon) in 2005 advises:

"The market objective is an economic concept and should be interpreted as such. 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. If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised."<sup>4</sup>

The NEL predicates that efficiency will deliver in the long term, the least cost to consumers where infrastructure is used to deliver the greatest possible benefit to consumers.

It is therefore incumbent on the AEMC to bear in mind the requirements of these six principles when undertaking this Frameworks Review.

#### 2.3 Network revenue and pricing

The MEU notes:

"The Commission acknowledges the importance of economic regulation as a core part of the transmission frameworks. However, this is an exceptionally complex area in its own right, and one which has close linkages to the economic regulation of distribution networks.

The Commission has concluded that to assess all the relevant issues as part of this review would lead to the review becoming unmanageable in scale, and that it therefore does not represent the most appropriate vehicle for the consideration of these issues. The Commission also notes that the categorisation of transmission services, and the forms of economic regulation

<sup>&</sup>lt;sup>4</sup> Hansard SA House of Assembly 9 February 2005 page 1452

applied to them, will comprise part of the considerations of the Connections workstream.

Finally, the Commission understands that the Australian Energy Regulator (AER) is already intending to review the Rules framework under which previous revenue and pricing determinations for networks have been made."

Despite the originally intended wide reaching review, it is noted that the AEMC has now decided to restrict its scope – this is extremely disappointing as it has severely restricted the scope of the review. One of the arguments in favour of this decision is that the AEMC refers to an AER review of network rules. The MEU must stress to the AEMC that the AER has advised that it has a tight timeframe and is focussed on a few areas and therefore its current review does not encompass all aspects of revenue and pricing of transmission network regulation.

As noted in section 1 above, there are quite severe commercial pressures on consumers with regard to electricity prices and to decide that all of the necessary aspects of revenue regulation will be addressed by the AER in their limited timeframe is flawed. It is quite apparent that there will be elements of transmission revenue and price setting that will not be addressed by the AER. As the transmission review is intended by the MCE to be an all encompassing review, the AEMC should ensure that those aspects not addressed by the AER are included in the AEMC review.

The AEMC has advised that it will be examining the transmission review on a holistic basis. In the absence of addressing some key aspects of the revenue and pricing development used in transmission regulation, the AEMC will not be able to adequately address the comparative price pressures from each element of the supply chain preventing it from being able to make sound comparisons between the costs introduced from the different elements. The MEU considers that the AEMC must address the revenue regulatory principles as part of its review or else the outcomes will be flawed due to insufficient analysis.

The MEU has discussed with the AER what it intends to carry out within its review, and one clear statement by the AER is that transmission pricing is not an aspect they will address, partly because they consider that this element will be addressed by the AEMC in its transmission review.

The MEU further notes that the AEMC does intend to look at aspects such as congestion, inter-regional pricing and connections that cannot be addressed unless there is a consistent pricing methodology developed across all transmission businesses that reflects some basic principles, then the AEMC will not be able to address the related elements.

## 2.4 Summary

Whilst the MEU supports the AEMC in using the NEO as the starting point for its assessments, the MEU is concerned that the AEMC is using a truncated view of what it is required to do and the extent of the work that it must do to ensure that it addresses in a holistic way, the impact of the transmission system on consumers.

It is clear that the regulation of the transmission system must deliver an efficient service and that efficiency means that consumers will see, over the long term, the least cost for the services. But what is certain is that the least cost is seen in terms of consumers and this can only be identified at the point of supply ie at the end of the supply chain.

## 3. Shaping and defining the Role of Transmission

The AEMC notes:

"The Terms of Reference for the review require us to give consideration to the appropriate future role for transmission in providing efficient services to the competitive sectors of the NEM. In particular, we are to examine the nature, incentive properties and effectiveness of the existing access arrangements and alternative approaches to transmission service provision". (AEMC, page 18)

When this direction from the MCE is seen is context with the recent reviews that have been published (including Garnaut update #8, the Parry/Duffy review and the IPART review) all are indicating that the current arrangements for network regulation (including transmission) are not delivering the efficiencies explicitly required in the NEO and the NEL six principles for network regulation.

If the current arrangements are not delivering the efficiencies expected of network regulation then it is clear that current arrangements are not effective in delivering to the expectation of the NEL and therefore need to be significantly modified.

To properly address the directive from the MCE, the AEMC must address how the costs of providing the transmission services are to be reviewed for efficiency, how the allowance for the service provision are to be set and the methodology of the service provider is to set in order to recover the efficient costs. An incentive regulatory regime is predicated on a number of features but pre-eminent are the cost to provide the service and the provision of market based signals to deliver the most efficient service.

This means as a first step the AEMC must address the revenue and pricing rules used for transmission. This then sets the basis on which the AEMC can compare the benefits and detriments of the different approaches used for the provision of the service.

As the AEMC itself noted, it needs to assess the transmission provision on a holistic basis – one that balances the costs of transmission against the benefits that it generates in providing increased competition. Without setting how the efficient costs of transmission are developed, it is not clear at all how the AEMC can balance the costs inherent in the transmission system against the costs that are delivered as part of enhanced competition.

For example, in the debate regarding the initial proposed SENE rule change, the issue of whether a major augmentation to the shared network which connected more efficient generation, was preferable to a minor augmentation to connect less efficient generation. Without addressing the bases on how the

transmission costs are to be developed and paid for, it is very difficult to carry out a holistic assessment of the two proposals. In this regard, it needs to be established whether a weighted average cost of capital (WACC) developed to provide a strong incentive for investment (which the AEMC 2006 review of transmission revenue was specifically based on) or whether the WACC should be less heavily biased to incentivise investment, sufficient only to deliver a WACC commensurate with the risks in providing the service.

Another aspect that must be addressed in relation to defining the role of transmission, is the provision of pricing signals sufficient to provide the most effective outcome of transmission. In this regard, the structure of the pricing signals is one that will either deliver what is efficient in the competitive elements of the electricity market or not, depending on how the structure of pricing is to be crafted. Currently the pricing structure that is used allows each service provider to do what they want, regardless of the needs of the market and the incentives seen as needed to provide the most efficient outcome.

Following consideration of stakeholders' submissions, the AEMC considers its initial view of the role of transmission is:

"To provide services to competitive and regulated sectors of the electricity market in a manner that is in the long term interests of consumers of electricity". (AEMC, page 21)

This assessment is so high level as to provide little direction and it basically only reflects the NEO. Nevertheless, the MEU does support it.

What is needed is more detail behind the statement. In this regard the Directions Paper posits that the detail will be provided by examination of key areas of the framework as required by the Terms of Reference. Whilst the MEU accepts that the detail follows, the MEU is concerned that because of the decision to exclude certain elements (such as the revenue and pricing elements which the AEMC considers will be carried out by the AER) unless these are included as part of the detail, then the Frameworks Review will not achieve the maximum benefit that the Review could achieve.

Bearing in mind that the MEU has reservations (detailed in the earlier sections, it provides its views regarding the five key elements or work streams in the following sections.

#### 4. Nature of Access

The MEU has been a consistent opponent of the current approach to allocation of the cost of transmission and many of the issues that the AEMC raises in its review of the nature of access can be attributed to this aspect.

The service provided by transmission essentially is to deliver the output of generation to load centres. When the service is looked at in this way, it resolves many challenges that the AEMC discusses. If the transmission system is seen as a service to generators, then a number of issues become clearer.

When issues such as the right of a generator to use the transmission because it has paid for that right, decisions to augment, reliability standards required, disposal of settlements residues, locational signals and the like are examined, the reversal of the approach starts to provide clarity for potential solutions.

Such an approach has some similarities to the gas industry where those augmenting the gas transmission have firm rights of transport and those without those rights use the interruptible access. Gas pipelines are built to provide access from a gas supply to consumers and often the decision to build the pipeline is instigated by the gas producer (with foundation customers) as the only way the producer can access the market. Whilst consumers ultimately pay for the provision of the transmission pipeline, the decisions made in relation to the capacity of the pipeline, its location and where it runs from and to, are made by those parties who are best able to manage the risks involved and to minimise the overall cost to consumers. Essentially, the decisions are made by those active in the market and on a market driven basis.

The MEU considers that the AEMC Review should look to the gas industry more closely to identify where the gas industry approaches might provide guidance to the frameworks review.

#### 4.1 The SENE experience

During the debate on the scale efficient network extensions, and the decision to change the proposed draft rule, the AEMC identified a number of essential aspects that have relevance to the "nature of access".

Firstly, the AEMC identified that consumers have no ability to manage the extension of the network to generation. It identified that it is generators and the transmission service provider that have the ability to establish the need and develop the most effective solution to the need. By generators and the TNSP having dialogue and contracting between themselves, the most effective solution will be achieved. Consumers have no ability to manage the

problem and therefore should not be directly liable for the costs of the preferred outcome, but the generators and TNSP have the ability to jointly develop a solution that provides an equitable outcome for the generators and for the TNSP to cost into the extension any premium for the risks that it might incur.

Secondly, in relation to the generator(s) that fund the SENE, they will have firm access on the extension they commission to the extent agreed between them and the TNSP. The problem for those generators is that the firmness of the access ceases at the point of connection to the shared network. Under the current arrangements a generator that wants to secure continuous access by paying for an augmentation of the shared network, it receives no firm benefit by doing so as another generator can connect to use the capacity provided by the augmentation and get access by its pricing to AEMO.

What the SENE experience provides is a good indication as to what can be achieved when extensive debate of the issues can achieve.

#### 4.2 The IRTUoS experience

In the assessment of the IRTUoS proposed rule, the MCE proposed what was, prima facie, a sound suggestion – that the cost of transmission assets used to export power to another region should be allocated to the beneficiaries, or consumers in the importing region. It was in the development of the costing allocation that the issue became quite complex and the various solutions proposed provided quite perverse outcomes. Because of the perversity, the AEMC quite rightly decided to defer a decision on IRTUoS until after the Frameworks Review.

The concept of the IRTUoS is quite sound, it is the execution that needs attention. However, if the concept of generators being responsible for transmission is implemented, then many of the difficulties in developing an IRTUoS charging approach become easier to address.

#### 4.3 Inter-regional settlements

Whilst not an issue that was discussed in the SENE but did receive some attention in IRTUoS, there is another major issue in relation to transfer of power across regional boundaries.

There is a general view that there is a national market, but in reality the NEM is a series of connected regions. The ACCC in its decision not to authorise generator co-insurance arrangements in the NSW gentrader proposal effectively confirmed this – that NSW was partly islanded from other regions in

the NEM for about 30% of the time. This same degree of islanding applies to other regions.

Islanding means that there are price separations between regions and therefore, for transfers of power across the boundary, there is a difference between the price paid to a generator in one region is different to the price paid for that generation in another region. This differential has to be settled.

Currently generators in one region will not provide firm offers to retailers in an adjacent region because of the risk of congestion at the boundary. This means that retailers in a region can only get firm offers from generators within the region, reducing competition between generators.

If a generator in one region had firm access rights across the boundary with another region, then it could make firm offers to retailers (and consumers) in an adjacent region.

Hydro Tasmania (by commissioning Basslink as a market interconnector) has essentially got firm access rights to trade in electricity between Victoria and Tasmania. This is an action by a generator to control its trading. This sets a good precedent of what can be achieved by a generator with firm access rights to the transmission system and uses the settlements between regions to offset its costs and risk profile.

Certain MEU member located close to regional boundaries have observed that contracting with a generator near the boundary but in an adjacent region is a commonsense outcome but currently prevented by the presence of a "dotted line on a map" which prevents what might be a sensible outcome for both generator and consumer.

#### 4.4 Consumers pay on transmission distance

Under the current arrangements, consumers pay for transmission based on the distance between the generator and the point of consumption. For example, an SA based member of MEU identified that included in the development of the transmission price it is required to pay under the current arrangements used by ElectraNet, a small proportion of the transmission price was included for transmission from a generator on the other side of the State!

It must be recognised that most load centres in all regions are now essentially fixed, so that by attributing transmission costs to consumers based on distance from a generator will have little effect on consumer decisions to locate. Equally, by not charging generators for their distance from the points of consumption weakens locational signals for generators which then make locational decisions based on what will be most profitable to the generator rather than what provides the least cost to consumers.

If generators paid for transmission, then they would make locational decisions which would include the impact of distance from consumers which should lead to a least cost solution for consumers as is intended by the NEO.

#### 4.5 Reliability

The Directions Paper discusses at some length the issue of reliability. It points out that the jurisdictions each have their own levels of reliability that they consider is appropriate for their region. At the same time, generators also see that reliability of the transmission system is critical for their ability to get their product to their markets.

This issue of reliability is not new, other than that governments are imposing minimum levels. Commercial arrangements are used widely which define the extent to which a service provider will meet various reliability levels. The higher the reliability levels, the higher the price that is charged for the service. Under the current transmission arrangements there are levels of reliability which are matched to the cost of the service and the TNSPs are penalised for failing to meet the standards or earn a bonus for exceeding them.

If generators were responsible for the provision of the transmission system, the governments could still set a minimum standard of reliability and the AER would set a price commensurate with this standard. Generators seeking a higher standard would negotiate with the TNSP for a higher standard and the TNSP would provide a cost to the generator to provide this higher standard. This issue is not new in the commercial world.

Even with firm access rights, the reliability standard would never provide 100% access for 100% of the time, because there are always exogenous impacts that prevent this ideal. Therefore, just as occurs in the gas industry where there is a failure, a generator would not expect to have this level of reliability because it could not afford the cost. This is commercial reality.

#### 4.6 Summary

Changing the way supply of electricity is viewed, can lead to a number of benefits and has the potential to solve a number of the challenges the AEMC raises in its directions paper in relation to the nature of access.

One of the main issues of the current arrangements from a consumer viewpoint is that, by recognising that generators are the beneficiaries of the transmission system, those paying for access would have rights to continuously export their product and those seeking access can ensure they get value from an augmentation that would allow them unfettered access.

## 5. Network Charging

As the AEMC notes, the issue of network charging is vexed.

The MEU notes that many of the issues that the Directions Paper addresses could be put onto a more cost reflective basis if generators were responsible for transmission costs and this has been addressed more fully in the preceding section.

If the AEMC considers that a move to generator paying for transmission is "A Bridge Too Far" at this stage, then the MEU makes the following comments regarding the issues raised in the Directions Paper.

#### 5.1 Locational signals for generators

As the AEMC points out, the current structure for charging transmission costs (with generators paying shallow connection costs and consumers paying for everything else) limits generator location to merely being signalled by line losses. The MEU made this point during the 2006 review which led to Chapter 6A Rules being implemented. At that stage the AEMC considered that line losses were a sufficient signal for generator location. It is pleasing that recent analyses have indicated that stronger locational signals are required.

From the MEU point of view, the issue of generator locational signals reached its nadir when the MCE proposed the SENE rule change, which further diluted the locational signals for generators by requiring consumers to fund and accept the risk of stranding. Such a move away from locational signals at consumer's expense was considered to be unwarranted. It is pleasing that the AEMC when developing its preferred rule, decided that consumers should not bear this cost and increased risk.

However, as the AEMC rightly points out, the current signals for generator location are quite weak and the AEMC has suggested that there be a cost for generators that better reflects their usage of the transmission system and the impacts of their location decisions. The MEU supports such an approach.

#### 5.2 Signals for consumers

The current arrangements for transmission charging include a significant locational signal for consumers but a muted signal to consumers to better manage their demand, recognising that matching peak demands is the major cause of transmission augmentation<sup>5</sup>.

<sup>&</sup>lt;sup>5</sup> The next major causes of augmentation is the relief of congestion and extensions

Even though consumers do receive a strong locational signal, the AEMC should examine whether such a signal delivers much benefit to the market as a whole. Realistically, consumers tend to congregate where there are existing assets and if they are contemplating a new facility (bearing in mind that in very few cases is electricity supply the major cost element) there are many other aspects that influence locational decisions.

In this regard, the MEU notes that under the planned introduction of a carbon cost, there are likely to be even fewer new facilities where electricity will be one of the largest elements of cost, so in future perhaps the need to signal so strongly locational decisions might be less necessary than in the past. In contrast a generator locational decision is all about the electricity supply market, and so locational decisions must be strong.

The other key signal for consumers is to encourage the way consumers use electricity. As the MEU pointed out in its response to the Issues Paper, strong signals are needed to influence the way consumers use electricity bearing in mind that demand is the single largest driver of network augmentation.

The MEU points out that two of the ways that consumers are already responding to price signals is through load shedding when high spot prices occur in a region and by looking to build their own generation. What the transmission (and distribution) pricing currently used does do, is to create a barrier to self generation. As self generation and other demand side management approaches are being seen as necessary for the improved working of the NEM, it is essential that pricing by network providers is structured in such a way that it removes the barriers to increased demand side participation.

#### 5.3 Development of TUoS pricing

Despite the 2006 Review leading to the development of Chapter 6A, pricing of transmission services (and indeed distribution services) is still basically at the whim of each TNSP. Whilst Chapter 6A does provide some guidance about transmission pricing the AER guidelines on transmission pricing allows each TNSP to use its own approach within some broad parameters.

As a result, there are many different approaches to pricing used between regions, and each of these approaches have varying implications on consumers and the way they use their electricity services. This was identified in the IRTUoS discussions where Victoria sets its charges based on usage on the 10 peak system usage days in a year.

But there are other differences too! Queensland provides some transmission cost benefit for embedded generation; NSW resets consumer demands each

month. A common approach to development of pricing is needed and this new pricing approach should be reflective of the costs used in providing the services.

If it recognised that consistency of pricing approaches is a goal worth pursuing, so there must there be consistency in setting pricing which provides signals to all users (generators and consumers) of the service regardless of whether these are new entrants or existing users.

We note and support the AEMC's comments, viz:

"However, the stakeholder comments have drawn attention to issues relating to the general framework governing how TUoS is calculated in the NEM and, in particular, to concerns about the lack of consistency between TNSP pricing methodologies. The Commission therefore considers that there is merit in more generally giving further consideration to these matters, which would also include:

- the split between locational and non-locational charges that is a key factor behind the annual volatility of inter-regional transmission charges under the current proposal; and
- the allocation of SRA proceeds, and the rationale for any changes in this area following the implementation of inter-regional charging.

The Commission notes that the current framework for transmission charging was established in 2006, and that there could be benefit in re-evaluating some of the principles of the framework given current circumstances and the application of TUoS charging over past years. However, given the Commission's ongoing assessment of the current Rule change request, the scope of any such work, and its relationship with this review, will need to be considered as part of the process of preparing the Discussion Paper." (AEMC, page 48)

#### 5.4 Generator imposed costs

The MEU recognises that locational decisions by generators can cause a significant impost on consumers – the debates on SENE have demonstrated this.

Equally, increased congestion is often a result of generator locational decisions made without assessing the impacts of the decision on the way the transmission system can accommodate the additional generation. In its response to the SENE rule change the MEU quantified the impact of a decision to build large amounts of wind generation on Eyre Peninsula (the GreenGrid), and the significant costs that such a decision would impose on

SA consumers. The GreenGrid proponents implied in their proposal that they could ignore the locational signal implicit in the need to significantly upgrade to the existing shared network to manage the congestion the proposal would cause, as they considered that the costs of the upgrade could be readily passed onto SA consumers. This shows that the current locational signals for generation are not sufficiently strong.

The MEU considers that generators must face an increased locational signal so that investments are made with full knowledge of the costs to others using the shared network face as a result of that decision

Consumers face long term locational signals even though the costs associated do vary from year to year due to changes in allowed revenue and usage patterns. The MEU considers that unless a signal addresses the location decision over the long term, then the value of the signal is weakened considerably. In this regard, once a decision is made on location, the investment made (whether a new generator or new consumer facility) the cost of that investment must be considered to be sunk and varying a signal at a later time will have little or no impact. With this in mind, the MEU considers that signals must be set to cover the long term even if there is likely to be annual variation caused by changes in allowed revenue and power flows or variation at each regulatory reset.

The Directions Paper does highlight that imposing costs on generators without them receiving some benefit for the costs is a point of contention. The MEU can see that this might be a contentious issue, but does point out that in the commercial world, most businesses selling a product have to accept the cost of transporting their product to their market. It is in this way that a purchaser of a good accommodates the difference in the cost of transport at the point of usage – after all a purchaser needs to value the product at the point of usage, not at the point of supply.

The current arrangements in the NEM value the product at the point of supply (adjusted by the losses incurred) and charge a set fee for transport regardless of the location of the supplier. This approach is unique and does not replicate real world commercial transactions. Because of this the MEU suggests that it is not necessary for a generator to receive something in return for being required to carry such a transmission charge.

#### 5.5 Impacts of changes to access arrangements

The MEU agrees with the points made in the Directions Paper in relation to impact of changes to access arrangements. In this regard, the MEU points out that all generators are currently provided with a "free service" to deliver their products to their markets regardless as to how far they are from the market or the degree of congestion they create.

Generators are suggesting that if they have to make a contribution to the transmission costs, they should get some rights to access. The MEU does not disagree with this concept in principle, but those rights need to be seen in terms of the reliability that the TNSP can provide for the costs involved. However, unless the generator pays all of the costs involved (which is the view of MEU) then its rights of access must be discounted to reflect the contribution the generator makes to the shared network.

Thus any payment for being unable to get their product to market needs to reflect the relative contribution they make to the cost of providing the delivery service, following common commercial practices.

## 6. Congestion

There is general agreement that congestion in the NEM is an issue which must be addressed. That there is a cost because of constraints can be seen when assessing the impact of congestion on a connection between regions. The degree of price separation and the costs consumers incur because of inter-regional price separations shows that congestion is relatively infrequent but includes a very high impact. Because of the high impact, it is not acceptable to determine that the relative few occasions when it occurs makes the issue one that is not material.

The Directions Paper points to the consequences of congestion on generator behaviour, causing mispricing and dispatch risks and disorderly bidding. It requires AEMO to have to dispatch generation not in accordance with proper merit order and in some cases to pay compensation to a constrained-on generator. These are all market distortions that should be minimised so that generator competition can be maximised.

Congestion leads to a number of consequences that would not be present in the NEM if the transmission system was sized so that there was free flow of electricity at all times. It is also generally accepted that the cost to provide continuous free flow of electricity would be prohibitive. This means that the market design must accommodate some degree of congestion if the least cost to consumers is to be achieved.

As there will be congestion, it must be accepted that generators will use congestion to maximise their opportunity to increase revenue – such a response is implicit in the Corporations Act. The task for the AEMC is to ensure that the market optimises the market so that the least cost to consumers eventuates, remembering that the least cost is assessed in terms of the combination of generator and transmission costs.

As the MEU points out in earlier sections, the current market arrangements do not provide any signalling to incentivise generators to invest in addressing congestion as they are not exposed to the costs of the shared transmission system and any investment they might make does not specifically and uniquely address their needs, but provides a general benefit to all generation.

If generators were exposed to the costs of transmission and by paying these costs were entitled to rights to use the network, then many of the concerns that the Directions Paper raises would have less impact and in some cases would disappear.

If a generator was behind a constraint, the generator could make a market based decision to either relieve the constraint or not. It would assess the benefits of investment in the transmission system or suffer the costs associated with being constrained at times. The party best able to assess the

impact of the constraint is the affected generator, yet the Directions Paper seems to overlook this obvious solution in attempting to define the problem in terms of the TNSP and even the consumer. However if the generator is to invest in augmenting the network to relieve the constraint, then it must have some rights to use the augmentation it has paid for.

Currently the decision to augment the network to ease congestion is not market driven but addressed on a central planning basis. An obvious market based decision to relive constraint by a generator was the decision by Hydro Tasmania to underwrite the costs of Basslink and so permit Hydro Tasmania to supply into the Victorian region. Whilst there were other considerations in why Basslink was developed, the fact that it has been maintained as a market based inter-connector providing Hydro Tasmania with the opportunity to optimise its generation in the long term provides a good example of why generators are well placed to assess the risks and benefits of relieving constraints.

#### 6.1 Inter-regional constraints

What is concerning about the Directions Paper discussion, is that it does not address the obvious costs of congestion that are costed by the market. Interregional price separations are a clear example of the cost of congestion. As there is little or no contracting by generators across regional boundaries, then this cost does not have to be adjusted to reflect contracted positions as is the case in intra-regional constraints.

The reason given for not using the inter-regional price differential as the basis to assess whether an interconnector augmentation can be justified is that the high price paid to the regional generators is a transfer of wealth from consumer to generator and there is no net market benefit from a transfer of wealth. This argument is still maintained even though the NEO is written in terms of the consumer (with no reference to the generators receiving the transfer of wealth).

Yet if a generator wants to invest to augment the network to relieve the constraint (in this example an interconnector) it is effectively prevented from doing so even if the outcome would provide the least cost to consumers.

For example, consider a new generator deciding to locate near a regional boundary. It is located well away from both regional nodes so its loss factors are similar. This generator should have the option to sell into the market which will maximise the value of its output, and by doing so would provide consumers with the overall least cost outcome. Because of the current arrangements, it is constrained to only bid into the region where it is located and cannot directly benefit from higher prices in the adjacent region. It is not

permitted to get firm access on the interconnector, and even if it paid to augment the interconnector, it is still not permitted to have firm access.

From the point of view of the consumer in the high priced region, it is required to pay to the regional generators the high price set, yet there is a generator willing and able (subject to congestion which it might seek to relieve by investing in the interconnector) to sell into the high priced region and by doing so increase the competition in the region.

Such a scenario is prevented by the current rules yet if transmission was paid for by generators and in return received firm access rights for its contribution to the shared network and any augmentations it paid for, then suddenly there becomes a strong locational signal for new generation and an incentive to invest in network augmentation. Whilst this example uses inter-regional congestion, the same principle applies for intra-regional congestion and provides a market driven solution to the issue which is not possible under the current structure.

#### 6.2 Network Reliability and Availability

The MEU concurs with the Directions Paper that network reliability and availability (especially at peak demand times) is a critical issue for both generators and consumers.

The use of financial incentives to improve the reliability and availability of networks is seen as the best approach to maintain and improve these features. Within this regime, the actual standards need to be set so that the costs of maintaining the standards do not overly inflate the base cost for providing the service, but need to be sufficiently challenging that a reward cannot be achieved without expending some effort. Over time it is expected that the incentive program will result in improvement in both reliability and availability. There should be a value for money approach adopted.

The MEU, however, has a concern that the incentives would need to be sufficiently large so that the rewards for improvement will, to some extent, encourage TNSPs to invest in their assets so as to gain the rewards on offer.

#### 6.3 Management of basis risk

The MEU notes and agrees with the AEMC:

"The Commission notes the views expressed by stakeholders, especially in relation to issues associated with the implementation of a congestion pricing mechanism that can be applied on a localised, time-limited basis.

The Commission also continues to believe that the principal drawback in introducing localised pricing for generation would be the implications for contracting, and that the issue of allocating residues or rights to manage basis risk would be likely to be particularly challenging.

Nevertheless, the Commission intends to give further consideration to the costs and benefits of congestion pricing, and agrees with stakeholders that a range of models, including one which allocates residues according to plant availability, should be assessed. Clearly, there is a significant interaction with the Access workstream, and the development of any models for assessment will need to be undertaken on an integrated basis.

The Commission also intends to assess the risks that already exist with regards to interregional trading. To this end, the Commission would welcome information and views from stakeholders as to the extent of trading between regions and the effectiveness of the IRSR units as instruments to manage the risks associated with this." (AEMC, page 61)

## 7. Planning

The MEU agrees with the Directions Paper, that there is a need to ensure there is efficient and timely investment to meet required service standards and that the least cost is incurred by consumers. In this regard, the MEU supports the AEMC's statement that:

"The challenge for the planning and investment frameworks will therefore be to ensure efficient and timely investment in transmission, especially in light of the anticipated different and uncertain patterns of flows across the network in future". (AEMC, page 62)

#### 7.1 Market benefit or consumer least cost?

However, despite support for the general observation on investment made in the Directions Paper, the MEU is concerned that the Directions Paper adds a proviso that in addition to meeting least cost, transmission investment is

"... to deliver net market benefits." (AEMC page 62)

Examination of the NEL does not support this contention. The six principles for network investment do not cite that there is to be a "net market benefit" only that the investment be efficient. The NEO makes no reference to "a net market benefit" but it does require the investment to be in the long term interests of consumers so that the least cost for consumers over the long term will be the outcome.

The second reading speeches for the 2005 and 2007 amendment Bills, discuss the need for investment to achieve the least cost to consumers but do not discuss that investment needs to deliver a net market benefit.

This point is very important and was discussed briefly in section 6.1 above. The Directions Paper in its early sections points out that the market is to be seen holistically and that the least cost to consumers in the long term is to be the outcome of investment. It is a long bow to draw indeed to convert this requirement to deciding that there needs to be "a net market benefit" as a result of investment in the transmission network!

"A net market benefit" implies that as a whole, the market should show an overall reduction in relative cost, whereas the NEO is very specific that benefits are to be assessed in terms of what costs consumers incur.

"A net market benefit" means in the case of transmission investment, that the transmission investment is seen in isolation and if the outcome results only in a transfer of wealth between consumers and generators, then there is no net benefit and the investment is not required.

However, the Directions Paper points out that the costs of transmission and generation are combined to assess on a holistic basis whether the investment provides a benefit to consumers. This means that if an investment in the network results in greater competition amongst generators then the costs of the network investment needs to be assessed against the benefit that will result from greater generation competition. Thus, there might not be "a net market benefit" from the network investment but the result would be a "least cost" result for consumers.

This change in emphasis is a major change from previous assessments made by the ACCC and NECA in earlier years and arising from the changes to the NEL in 2005 and 2007, with the introduction of the NEO, thereby focusing outcomes in terms of consumers. The MEU considers that the AEMC needs to address this issue much more closely so that there is no continuation of the previous interpretations that "a net market benefit" is required from network investments.

#### 7.2 The RIT-T

The current design of the RIT-T is to:

"to identify the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the market."

The MEU has concerns with this description as it runs counter to the requirements of the NEO. The MEU concerns in this regard are addressed in section 7.1 above. The MEU considers that the RIT-T (in order to be consistent with the NEO) should be rewritten as follows:

"to identify the credible option that maximises the present value of the net economic benefit to consumers when assessed on a holistic (delivered electricity) basis."

The MEU considers that its amended RIT-T objective more closely matches the requirements of the NEO and, therefore, the RIT-T should be reworked to achieve this outcome.

Overall, the MEU agrees that the RIT-T processes can be extensive, but highlights that investment processes used in competitive industry are quite intensive and always look at ensuring the investment provides an outcome that enhances the businesses to retain market share or increase profitability.

The constraints applied to the use of RIT-T tend to weaken the principles that it seeks to impose and allows much greater freedom of action by TNSPs than would be the case for a business operating in a competitive market.

#### The AEMC comments:

"... that there are aspects of the RIT-T that may require further consideration, while being cognisant that the RIT-T is still in its infancy. In particular, this is likely to include the effectiveness with which competition benefits may be quantified for assessment. The Commission is concerned that the perceived complexity of such quantification may lead to competition benefits not being considered in some RIT-T assessments." (AEMC page 70)

The MEU agrees that the RIT-T needs more work on it, especially to address the issues raised in section 7.1.

The fact that the new RIT-T has not been used since it was introduced in 2010 (even though there have been extensive investments in the transmission businesses since, indicates that the application requirements of the RIT-T are so limited that it is not providing the necessary oversight that is expected. The MEU considers that the RIT-T should be reviewed to increase the requirements for its application.

#### 7.3 Planning issues

In its response to the Issues Paper, the MEU provided a view that there is merit in:

"... a national, consistently coherent set of load projections will likely to be achieved by a national networks body responsible for forecasting, planning and operating a national transmission grid and on which to identify optimum growth for inter-regional connections." (MEU page 19)

#### The MEU notes that:

"The commission considers that the concept of a single transmission owner and operator across the NEM might have merit in terms of realising scale economies and promoting national consistency. Given there are currently five TNSPs of significant scale in the NEM with a mix of private and government ownership, implementing such a model might, however, be a challenging task". (AEMC, page 76)

The MEU agrees that implementing a model where all five TNSPs in the NEM are integrated would be challenging, nevertheless, the MEU believes that the AEMC should give more consideration to the concept and propose it to the MCE for assessment.

As an alternative, the AEMC could consider proposing a model similar to that used in Victoria where the bulk of the transmission assets are held by the main transmission service provider (SP Ausnet) but augmentations and expansions are identified and implemented by AEMO under contracts with TNSPs which then hold the assets.

Such an approach would achieve many of the benefits of coordinated management of the NEM transmission network (especially in relation to interconnection) but which would avoid the challenges inherent in seeking a transfer of ownership of the assets to a central body.

#### 7.4 General

The MEU generally agrees with other aspects in the Directions Paper discussed under "planning" and agrees with giving further consideration to:

- A national transmission reliability standard that is designed on an economic basis.
- More work to assess the effectiveness of the NTP and LRPP to ensure that needed investment (especially for interconnectors) is not being overlooked

#### 8. Connections

The Directions Paper provides a very good summation of the challenges faced by consumers (and generators) when interfacing with a monopoly TNSP about a new connection. Bearing this in mind the MEU agrees with the following observation by the AEMC:

"The Commission notes the views expressed by stakeholders, and intends to give further consideration to the issues raised around the negotiation of connections.

In particular, more detailed exploration of the issues is merited for both the technical interactions during the connection process outlined above, and information and transparency requirements of the negotiation process. This may further illuminate the difficulties faced by generators and users in negotiating connection services with monopoly service providers, in order to identify possible solutions that may optimise generator and user connection outcomes". (AEMC, page 89)

The MEU recognises that the Rules are not clear with regard to the provision of a "contestable" service. The MEU notes that in earlier discussions with the AER on the issue, it was decided that the aspects of a connection which involved the assets owned by the TNSP which constituted the shared network would have to be undertaken by the TNSP that owned the asset. The provision of assets which were not part of the connection to the TNSP assets could be built by any party and were therefore "contestable".

For example, an end user seeking to connect to the shared network would be required to negotiate with the incumbent TNSP to create the connection to the shared assets including the provision of isolation and monitoring equipment necessary to maintain the integrity of the shared network. The end user could build the assets downstream of the connection assets on a contestable basis although the incumbent TNSP could be one of the potential providers of these downstream assets.

After reading the Directions Paper, the MEU is concerned that this interpretation is not correct and therefore the aspect of what is required to be provided by the incumbent TNSP (whether as a negotiated service or a non-regulated service) needs to be clarified.

The MEU therefore agrees with the AEMC that it should:

"... consider... investigating the interaction between Chapters 5 and 6A [as it] is fundamental to the connections workstream. In particular, the ambiguities highlighted in the treatment of elements related to the connection service, such as extensions and augmentations, will be an area of increasing concern as new and remote generation increases on the transmission system in

response to both demand and climate change policies such as the RET." (AEMC, page 91)

The MEU also considers that consistency across the NEM to address jurisdictional differences is a worthy goal and therefore the MEU supports the AEMC's current view that:

"The Commission considers it would be useful to determine the magnitude to which jurisdictional regulatory differences contribute to an inefficient connections regime. The extent to which jurisdictional differences can be separated from requirements of the Rules and the practices of TNSPs will provide significant insight into the manner in which the Rules may be improved to deliver greater efficiencies with respect to connection outcomes." (AEMC, pages 91 and 92)

However, the MEU does add a caution that in seeking consistency, the effort should be to implementing best practice rather than seeking only to incorporate the lowest possible common elements into any changes.

The MEU also agrees with the Commission's view that it:

"...considers that the connection arrangements in Victoria should be further investigated under the connections workstream of the review, with a view to assessing whether they would benefit from specific refinements under the Rules to ensure their efficient operation". (AEMC, page 93)

Whilst the MEU is concerned at the extent of the requirements for connections in Victoria, it also points out that some elements of the AEMO approach might provide value in the development of new methods. To this end the AEMC should seek to incorporate those "good" elements of the AEMO approach into the new methodology.