

Australian Energy Markets Commission

Review of the Electricity Transmission

Revenue and Pricing Rules

Comments on the Pricing Requirements

Draft Rule

by

The Major Energy Users Inc

And

Major Employers Group Tasmania

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Executive Summary

This submission is presented by consumers who directly pay for all the network services in the NEM. Consumers seek balanced outcomes from the AEMC review and therefore consider that a number of significant changes need to be made to the way the costs for transmission services are allocated.

These would achieve greater economic efficiency and meet the long term interests of consumers (the NEL objective).

In the executive summary provided with its response to the proposed Pricing Rules the MEU made the following observations. These are again provided, but in tabular form, with observations as to how the AEMC has responded.

	MEU observation	AEMC response
1	It is incumbent on the AEMC when seeking to make changes to the Rules that the changes reflect three fundamental aspects	
a	Recognise the causal factors for the increases incurred in network costs. The primary increase in transmission costs is a result of the increasing incidence of air conditioning loads, but these are universally seen as distribution network loads at TNSP interfaces. Unless there is a different approach taken by the DNSPs in allocating the transmission costs they incur, then there is little or no benefit achieved by making transmission costs more cost reflective	AEMC has ignored this issue and allowed the TNSPs freedom to develop their own pricing structures
b	The benefit that is provided by all parties sharing a large asset in contrast to allocating cost on the Baumol–Willig basis at the extremes of avoided costs and stand alone cost.	AEMC has ignored this issue and allowed the TNSPs freedom to develop their own pricing structures
c	Network charges (and energy costs) have increased due to transmission constraints and increased exposure to summer peaks yet those causing these peaks in demand see little of the impact of their demand shape	AEMC has ignored this issue and allowed the TNSPs freedom to develop their own pricing structures

2	After consideration of the proposed draft Rules, there remain a number of issues that have not been adequately addressed by the AEMC:-	
a	The cost of network services should be allocated in relation to demand and not by consumption, and this should be assessed on a fixed and representative number of peak demand days in a region	AEMC has ignored this issue and allowed the TNSPs freedom to develop their own pricing structures
b	Consumers are exposed to differing costs related to their location in the network. By allowing generators to pay only “shallow” connection costs, they are not exposed to the locational impacts of their decisions.	This issue has been partially addressed, but allocates the bulk of costs to consumers, and reducing the signals to generators
c	The Rules discriminate against demand side responses and to a lesser extent embedded generation, and this discrimination needs to be urgently addressed.	This issue has been addressed in part but due to difficulties is to be referred to the MCE
d	To assume that parties who are not affected by an outcome will negotiate or follow broad principles is not efficient. If there is no incentive for both parties to negotiate then there will be no negotiation. By removing optimisation of networks there is no pressure on a TNSP to negotiate a prudent discount, as it suffers no penalty if the bypass occurs.	This has been addressed by allowing the AER to refer the matter to commercial arbitration, yet the timing differential still is weighted against the consumer interests
e	The Regulatory Test should be modified so that the party paying most for the transmission assets should be permitted the energy pricing outcomes of augmentation made to the network.	In its draft decision on the RT the AEMC does not permit the economic value to consumers of augmentation to be included, yet it appears that in this draft decision it does permit this for a rational reason. We are confused
f	Consumers should have access to the mediation/arbitration facility of the Rules to assist them in their dealings directly with TNSPs	This has been permitted

g	There are anomalies in allocating the benefits of exporting power to other regions which fall on the consumers of the exporting region. As a minimum the auction proceeds should go to the exporting region and not to the importing region, and there is benefit for the costs of the NEM transmission backbone being separately costed and the costs allocated to all users (generators and consumers) in the NEM in proportion to the annual usage in of each region.	These issues are not addressed, allowing the TNSP to decide
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Overall, the AEMC's draft rule is very **disappointing**. It is **unbalanced** and **contradictory** and fails to adequately reflect the interests of consumers. The draft rule will result in inefficient outcomes, introduce many anomalies in locational signals for generators, incentivise network investment inefficiencies and encourage cost padding. The draft rule is a lost opportunity to bring economic efficiency and rationality to transmission pricing.

Above all, it places the interests of TNSPs above those of consumers, regardless as to whether there might be more appropriate outcomes for consumers.

The MEU considers that the AEMC has failed in its obligation to consider the long term interests of consumers by giving the power to TNSPs to set transmission pricing without providing clear and unequivocal requirements on what is to be achieved in the pricing approaches.

The MEU considers that at the minimum the AEMC must require pricing to be consistent across all regions and to reflect some basic elements. These are:-

1. TNSPs should only recover their costs based on demand as it is demand which drives the cost of providing the service
2. The load and generation data used to develop the prices should only be based on the 10-20 system peak demand days, and for the 6-8 hours on those peak days when the peak is exhibited. This provides a strong basis for allocating costs to those that have caused the maximum system demands (and so the costs of providing the service).
3. TUoS, general and common service costs should be allocated only on demand, and there should be no basis for TNSPs to recover costs on an energy basis. This means that the costs incurred for providing the service are only related to the capacity of the network.
4. Entry and exit charges recover all of the costs associated with the substations to which users are connected. Therefore TUoS, general and common service costs should be recovered in proportion to the demand at the point where the entry/exit assets interface with the transmission lines.

The MEU considers that applying these few requirements will incentivise the following outcomes:-

- **Requiring point 1 above will equitably allocate the costs caused by users due to their load pattern when these demands are placed on the network**
- **Requiring point 2 above will encourage users to reduce their demand at times of network stress reducing the need for future network augmentation to accommodate increased demand**
- **Requiring point 3 above will equitably allocate costs to users based on their load pattern**
- **Requiring point 4 above will encourage consumers and generation to co-locate, reducing the need for future network augmentation**

Applying these will result in economically efficient transmission network investment outcomes, minimise over-investment, and reduce unnecessary cost increases faced by consumers as a whole. It will also increase the input costs faced by Australian industry with the resultant impact of reducing industrial output and employment opportunities.

1. Introduction

The MEU and MEG

The Major Energy Users (MEU) and the Major Employers Group Tasmania (MEG) comprise some 30 major energy using companies in NSW, Victoria, SA, Tasmania and Queensland. We welcome the opportunity to provide comments on the AEMC's Review of the Electricity Transmission Rule Pricing. In particular, this submission represents the views of the Energy Markets Reform Forum (NSW), Energy Consumers Coalition of South Australia, Energy Users Coalition of Victoria and Major Employers Group Tasmania.

The MEU has many members which are regionally located, and they are the major employers in that region. Recognising this, MEU members require that submissions made on their behalf must also support the interests of their employees and dependents. This requirement therefore means that all MEU submissions must not provide any negative impact on residential consumers, and where possible must aim to provide positive support for small consumer views.

Each of the businesses represented by MEU has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required. If sustainable supplies of energy are not available into the future these investments will have little value.

As mentioned in our previous submissions to the AEMC, MEU and MEG are keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

These criteria apply equally to both commercially based and residential enterprises. Whilst it is relatively easy to quantify in economic terms the value of these criteria to commercial business, the same criteria do apply to residential consumers – the value of their investment can be adversely affected by changes in these four criteria. All consumers therefore require all four of these criteria to be achieved in order for the NEL requirement of "...the long term interests of consumers..." to be met.

The MEU has previously pointed out that the AEMC approach to trade-offs between short term and long term benefits needs to be carefully assessed. The approach by the AEMC in both the review of TNSP revenue and pricing has totally failed to recognise this need. In fact the AEMC has consistently assessed the impacts of proposed changes on TNSPs (and to a lesser extent those of generators) without ever assessing the impacts of the changes on consumers. This is a major deficiency of the AEMC review and

is inconsistent with the NEL object of addressing the long term interests of consumers.

The experience gained by members of MEU through the past decade or more of energy (gas and electricity) regulation, shows that once the *amount* of funding regulators have been determined as appropriate for the regulated business, regulators have tended to then allow the regulated businesses to determine the way these funds will be gathered. Regulated businesses are no different to any other profit maximising enterprise in that given the potential for increasing profits, the business will do all that is needed to make sure these additional profits will be attained by the business.

Whilst this drive to maximise profitability is to a degree muted by the use of a revenue cap for transmission businesses, this has a two edged impact – the first is that the TNSP has no interest at all in ensuring equity is applied in recovery of the revenue and secondly, that it will still attempt to maximise profits if this is at all possible. This second driver is seen from the attempts to minimise any difficulties faced by the TNSP in setting the recovery methodology, and to use its ability to maximise early cashflows – at the minimum it is seen as being better to return excess cash, than to face a shortfall of cash.

In its response to the proposed draft Rule on pricing, the MEU stated what consumers see as the fundamental outcomes of the pricing approach. This listing was provided so that AEMC could see the challenges faced by consumers, and where it could address issues of specific importance.

- The national electricity law is written in such a way that it requires the AEMC to assess Rule changes in light of the impact such will have “on the long term interests of consumers”. The AEMC has failed to address these changes in light of the NEL objective.
- All consumers should benefit from the ability of the network to provide a lower cost service due to aggregation of loads. Thus the Baumol-Willig range of acceptable cost allocations (ie between standalone costs and marginal costs) is too wide, and does not provide consumers with the reasonable benefits of sharing the network.
- The design of the network is based on the peak demands placed on the network. Thus allocations must be based on usage applying when the network is providing for the maximum demands.
- Price allocation must provide appropriate signals for efficient operation and future growth of the network. At the lowest common denominator, it is the consumer which causes the need for the network. Thus the approach of using “causer pays” as the driver behind efficient network costings does not necessarily send the correct signals for efficient operation and future development of the network, as the consumer is only a part of the electricity system, and it is essential that for correct signalling, the impact

- of those on other parties also part of the electricity system must be assessed.
- There are a number of anomalies in the current Rules which lead to perverse outcomes. Consumers expect that these perverse outcomes would be assessed. The AEMC has not even attempted to address these perverse outcomes. In particular, the AEMC stated that it wanted pricing signals for consumers to locate nearer to generation, but it has made no attempt to recognise in the pricing allocations the benefits to consumers (and generators) of this occurring.
 - The AEMC makes much of the need to change Rules to increase transparency yet it does not require transparency by the TNSPs in developing the individual tariffs for use of the system. There must be total transparency in cost allocation. Yet the AEMC does not insist on specific direction to the TNSP, allowing the TNSP to decide how it will undertake this task. The AEMC advises that the purpose of the Rule review is to provide consistency and certainty yet in giving the TNSPs these features it has denied consumers the same right.
 - There is a clear need for the usage signals provided in the transmission cost allocation to be transferred into the distribution networks. Currently, most consumers are connected into the distribution businesses and the allocative signals in the transmission networks are lost by the actions of the distribution businesses. What has the AEMC proposed?
 - Point to point costs need to be made clear and allocated appropriately.

The AEMC has not attempted to address any these issues within the context of the draft determination. This is most disappointing.

In a like manner, in response to the Issues Paper on Pricing, MEU provided AEMC with a list of perverse and distortionary outcomes arising from the existing Rules. The AEMC **ignored** these at the proposed draft Rule stage, and despite being reminded of them has continued to **ignore** these matters. The AEMC must demonstrate its objectivity by debating the issues raised by consumers. These issues were:-

Perverse outcome: ancillary service costs

Ancillary services are levied in proportion to the amount of energy delivered, regardless of the actuality of the services provided and the physical relationship between generator and consumer, and the variability of the consumer demand.

A consumer with a flat load profile imposes much less demand on the system for ancillary services than a consumer with an excessively variable demand, yet the larger consumer is levied with a higher proportion of the costs of providing ancillary services than the more demanding yet lesser demand consumer.

Perverse outcome: regional nodes

The assumption that all power goes to a regional node (with losses paid for by the generator) and is delivered from the regional node (with losses paid for by the consumer) creates a distortion which particularly impacts regional consumers. Whilst the logic assumes a radial design of the electricity transmission network, it contains a basic fallacy and cost distortion if the remote generator and the regional consumer are physically located adjacent to each other, or if there is a direct or indirect transmission connection between the two.

For the generator to incur costs to deliver the power to the regional node and for the consumer to pay for the losses for delivery from the regional node and for the costs of transport from the regional node provides a significant distortion and cost penalty which is not reflected in the actuality of the network design

Perverse outcome: locational impacts between generator and consumer

Whilst new generation connected to the transmission network only pays shallow connection costs and losses to the regional node, it is not otherwise exposed to the impact of its location.

This is not the case for a new consumer which is exposed to the losses relating to the regional node and also pays for use of the network as if all power was delivered from the node, thus suffering the impact of its location.

Perverse outcome: Embedded generators

An embedded generator (in the distribution network) is free from the transmission losses to the regional node and gets a relatively modest proportion of the value attributed to its location in relation to transmission load reduction but not for any distribution locational benefit. The embedded generator is required to pay full value for the augmentation of the distribution network to the nearest transmission substation and any augmentation required at the transmission substation and the transmission network.

A generator located adjacent to the embedded generator but directly connected to the transmission network gets no benefit of its location in transmission support and pays for losses to the regional node.

This shows that there is clear discrimination between connecting to the transmission and distribution networks. As noted above there is no benefit to a generator locating adjacent to a large load.

Perverse outcomes: Self generation

A generator located within the confines of a large load (ie downstream of the connection point with the network) receives little benefit as the cost allocation of network charges, being based on the annual peak demand, reflects the occasional use the load has when its generator is off line.

This perversity actively discriminates against self generation and even against demand side responsiveness by the consumer. Direct experience of consumers attempting to provide a demand side response in addition to reducing their costs of power have consistently been marginalised by the processes used by TNSPs and DNSPs to grant a consumer the full benefit of self generation, by reducing the costs of transport.

Perverse outcomes: locational signals

Cost allocations are not cost reflective as 50% of the revenue is “postage stamped” and are different between different NSPs (eg whilst all use the “T-Price” cost allocation model, some use it to allocate for all periods of usage whereas another uses it only for a limited number of “peak demand” days as a better approximation of real usage of the network). These different approaches create distortions and discrimination.

The current allocation of costs for transport services works to the advantage of generators but does not reduce the burden carried by consumers. Currently 50% of transport charges are allocated on a postage stamp basis with the balance being allocated on an asset cost allocation. As generators pay little for use of the assets, locational benefits from the optimum siting of generators and consumers are lost.

Perverse Outcomes: Interconnectors and the Regulatory Test

Inter-regional network augmentations are being constrained by the extent of “postage stamp” prices used by regulators and TNSPs in developing the transmission prices causing a reduction of the full locational signals which would assist in supporting augmentation and inter-regional connections.

It was observed that these perverse outcomes deter sensible decision making by consumers and adversely impact on consumer investment. They also deter the development of demand side responsiveness in the NEM, and attempts to

reduce the loads placed on the generation and networks by reducing demand at critical times.

Yet despite the obvious benefits arising from addressing these , the AEMC has, as it did for the issues raised in the MEU response to the proposed draft Rule, ignored these very real (to a consumer) issues and impacts on consumers.

Despite these issues being identified by MEU the AEMC has decide that page 28) despite

“... various problems raised in submissions ...the Commission does not presently believe there is a case for substantive changes to the existing arrangements for transmission pricing at the present time.”

This matter is addressed by the AEMC (page 57) when it states:-

“The Commission considers that submissions have not suggested that the approach to price structures in the Rule Proposal is materially in need of revision.”

This is **not** a legitimate statement. MEU has consistently advised that the existing price structure is in need of revision and that there are a number of perverse outcomes that have occurred due to the current price structure. Further, the other submissions from consumers also sought changes.

It is clear that the AEMC has made an in-principle decision that whatever is good for the TNSPs (and generators) must perforce be in the long term interests of consumers. This approach is in stark contrast to the approach being taken by the Energy Reform Implementation Group which sees that **all** decisions made must clearly demonstrate the interests of consumers.

The AEMC’s review must therefore have due regard to the impact of its rule changes based on a clear appreciation of consumers’ perspectives. So far, it has failed to do so.

This demonstrates a major failure on the part of the AEMC in regard to this pricing review and the earlier revenue review, in that after reciting broad statements which are in line with the NEL objective, there is a total lack of assessment of the impacts of the decisions the AEMC proposes in light of the objective.

2. Submissions

The principles used by AEMC for TNSPs are not applied to consumers

Throughout the determination of Revenue Rules, the AEMC uses the basis for the changes as the need to incentivise TNSPs to invest in the networks. The MEU supported this approach in principle, subject only to an assessment that the incentives were not excessive. The MEU pointed out that incentives are required but only to the extent that the incentives are just above the point where TNSPs would not invest. The MEU stated that this required the AEMC to carry out an assessment of whether the impediments within the existing Rules had prevented needed investment.

The MEU provided evidence that investment by TNSPs had not been imperilled by the existing approach but the AEMC did not make any assessment in its own right, accepting the principle that more incentive would be better. The AEMC then reduced the constraints applying to TNSPs and increasing the rewards available. This shows that the AEMC sees that incentives to invest must be made even more positive in order that TNSPs will invest in the networks.

As a philosophic rationale for this incentivisation, the AEMC stated that certainty and consistency were essential elements in order to provide the incentive structure proposed by the AEMC, it has totally disregarded that exactly the same needs for certainty and consistency might be required by consumers in their needs for incentives to invest. In fact, to destroy any such basis the AEMC has decided that the TNSPs should be given freedom to set their own prices to recover the allowed revenue, even though the AEMC itself has the very clear view that (page 19)

“... a revenue cap form of regulation provides weak incentives for TNSPs to price services in a way that promotes the NEM Objective.”

The MEU supports this view and has the experiences of its members to demonstrate its correctness. But despite this very clear statement by the AEMC it then goes on to allow the TNSPs to make their own decisions on how they intend to recover their allowed revenue; this view is driven by the very **vague** observations that this will allow TNSPs to introduce innovation and to accommodate local conditions.

The approach by the AEMC fails to recognise that clear and definitive pricing signals are needed to drive consumer (and even generator) investments, yet the AEMC in what appears has become its typical approach, decides that even if there is a small benefit which can be provided to TNSPs this must take precedence over what are very strong needs of consumers.

In light of the NEL objective the MEU can only state that this approach is totally bizarre.

The interests of consumers

The AEMC's views that based on its overview and the extent of the submissions received there is no substantive reason to modify the existing Rules (page 28). It would therefore be assumed that on this basis the stated AEMC aims in relation to the Transmission Review of encouraging TNSP investment, improving clarity and regulatory certainty can be readily met by some "minor treatment around the edges".

This was not the basis on which MEU and its members decided that it needed to be involved in this extensive process. MEU members considered that as the National Electricity Law specifically directed that the NEL was to address the supply of electricity in terms of

"... the long term interests of consumers ..."

that the AEMC would take this view and so assess the changes that are needed to the current version of the Rules, in the context of consumers and the impact the changes will have on consumers. This has proven to be an expectation based on hope rather than reality.

The AEMC has interpreted the NEL objective in a manner which gives greater support to the elements of the electricity supply chain rather than to consumers. It has rationalised this by its own interpretation of the objective where it states (page 2)

"The Commission believes that the NEM Objective is founded on the concept of serving the long term interests of consumers through the promotion of economic efficiency in the provision, use of, and investment in, electricity services. Efficiency refers to the maximisation of the total value consumers and producers jointly obtain from the market."

This interpretation is not assessed by AEMC in any way, nor is there any attempt to get support from consumers that this interpretation has validity with them. Even if this interpretation is acceptable there has been no attempt by the AEMC to verify that this does indeed provide the outcomes **for consumers** that has been assumed.

Of particular concern is that the AEMC has interpreted that the interests of generators (producers) are to be maximised from the market. The NEL objective has no reference to generation, yet the AEMC has assumed that consumer interests will be enhanced by maximising the benefits generators will obtain from

the changes made. This is a very broad interpretation, and one that would not stand investigation – at best it has marginal validity only if the outcome leads to greater competition between generators.

In fact, of the 17 submissions received by AEMC in relation to the draft pricing Rules there were only five submissions from consumers. Two (from Queensland Rail and Alcoa) only addressed the issue of prudent discount and the other three (from MEU, EAG and PIAC) all raised the same point **that the AEMC has made no attempt to assess the impact of its decisions on consumers**. If the NEL objective is to be used as the basis for giving validity to the AEMC recommendations, then there is an explicit need for the AEMC to demonstrate that its work really does provide benefits in the “long term interests of consumers”.

The failure of the AEMC to carryout this very fundamental assessment gives rise to serious concerns as to the effectiveness of the proposed changes to improve the lot of consumers.

Analysis of submissions

There were submissions from consumers, NSPs and generators. The largest proportion of submissions received were from supply side entities. With this in mind, there is a serious undermining of the AEMC approach and conclusions as it consistently refers to the “majority of submissions” having a view and thus giving support for the conclusions and decisions of the AEMC.

If the AEMC is of the view that it is the numbers of submissions that matter in any assessment of change, then it behoves MEU to require each of its members to provide a submission to AEMC. MEU and MEG between them represent over 30 businesses, many of them much larger (in terms of capitalisation, revenue and employees) than the supply side businesses. With this weight of submissions of businesses all with significant standing, there would be no doubt as to the outcome that the AEMC would have to accept!

MEU is strongly of the view that it is the issues of consumers that need to be most closely investigated, particularly where the issues might not be well enunciated or where aspects (in the view of AEMC) might have been overlooked.

MEU is of the view that AEMC has not demonstrated that it has appreciated the views of consumers.

The AEMC points to the need to “encourage investment” by TNSPs. This is a recurring theme throughout the draft determination, just as it was throughout the draft determination on revenue. As with the draft decision on revenue, despite

the repeated requests by MEU, the AEMC has continued to hold the belief that TNSPs need to have even greater rewards than the existing Rules provide, in order to provide for this supposedly needed investment.

MEU provided evidence that the existing Rules already provide more than adequate investment encouragement, yet this evidence has been ignored, based on the **intuitive** view that more rewards will encourage investment. The MEU points to the fact that regulation is intended to provide some commercial discipline onto a regulated entity. Commercial pressures limit the rewards available to an investor. The presence of commercial pressure provides an upper limit on the amount of reward that derives from investment.

Commerciality therefore provides an upper and lower limit for investment – if the reward is too low, then investment will not occur and commercial pressure limits the upper bound. The AEMC has made no attempt to identify where this upper bound might lie, and as a result has provided less limitation with greater rewards.

The AEMC has effectively used the unproven need for investment to override considerations of equity between providers and consumers.

The AEMC believes it knows best!

The stand point of the AEMC can be typified by the following example.

In the proposed draft Rule, there was some discussion about the appropriateness of the commercial arbitration facility being extended to include terms and conditions for connection agreements, and responses on this matter were explicitly requested.

After review of the submissions (and accepting that the majority of submissions on this topic were in favour of extending these provisions, including consumers) the AEMC states that there is no compelling evidence that such is required and therefore has decided against the weight of widespread opinion and refused for this feature to be included.

The AEMC states (page 79) that

“while there may be an inequality of bargaining power between a transmission customer and the TNSP, the regime is designed to provide a means of addressing these inequalities ...”

AEMC officers have had little (if any) experience in “negotiating” with a monopoly provider, yet those writing the submissions most likely have had this intriguing

experience. How can the AEMC officers decide on such an important issue in the absence of any direct experience?

The AEMC points to “other means” of balancing this negotiating imbalance through pricing criteria, information provision and commercial arbitration. This again shows that the AEMC officers have not been involved in such activities, and have little understanding of the realities of such activities.

Further, many of the connection agreements are between TNSPs and DNSPs. Both parties are protected by the regulatory environment from being exposed to the rigours of negotiation on connection agreements, as the costs are able to be passed onto consumers under the regulatory process. If a consumer is dissatisfied with the outcome of a “negotiation” between a TNSP and a DNSP with the costs and obligations being passed on, there is no avenue of dispute permitted, as the AEMC has decided in the revenue Rules that actual capex incurred will be automatically passed into the RAB.

The AEMC has shown that it has little understanding of the commercial world as it operates, and in reaching its view it has accepted the blandishments of the TNSPs and the apparent need to provide even greater incentives for investment to over-ride common sense and equity.

3. Objective of the NEL, and investment

The consumer needs

The AEMC states (page 14) that

“...transmission prices ... impact on the incentives faced by TNSPs to invest in transmission infrastructure. If a TNSP is unable to recover the efficient cost of service provision through prices charged, there is little incentive to invest in maintenance or the expansion of operations, even when it is in the long term interests of consumers to do so.”

This is a facile statement. TNSPs have a revenue cap. Any under- or over-run in annual revenue due to an incorrect pricing structure is automatically adjusted the following year. The worst a TNSP can face is a short term reduction in cash flow to support its activities, and the astute TNSP will ensure its pricing structure returns an excess of revenue purely to overcome this problem.

In fact, the pricing structure does impact on investment, but not by the TNSP – it directly impacts on investments made by consumers and generators. If the pricing structure is biased for over recovery, then this provides a direct disincentive for investment by consumers and generators. Thus the pricing structure provides the fundamental signals for investment by others.

It is therefore essential that the pricing structure is as close to correct as possible, and not left to chance.

Bearing this in mind, the AEMC should have taken steps to ensure that investment made by others is based on the most accurate reflection of the costs as possible. Yet following its own thrust that TNSP investment is the dominant and key element, the AEMC has decided that the Rule change must reflect this feature. Following its preferred theme, the AEMC has developed a framework which is meant to provide (page 2)

“... appropriate signals to avoid either under or over investment, address the potential for network operators to exercise market power and enhance transparency and predictability of the regulatory arrangements and approach.”

The focus is entirely on the TNSP!

- There is a desire to ensure appropriate investment but over- and under-investment is not driven by pricing signals – it is driven by the rewards the TNSP for investment that are made available. This issue is address in the revenue element of the Review and as MEU has pointed out, the rewards

- are excessive compared to those achieved with commercial pressures. The price signals are for the use by consumers and generators to ensure **their** investments are made on the correct basis
- There is a desire to address the potential for the exercise by a monopoly (TNSP) its market power. Revenue allocation does not of itself provide a curb on market power. The curb on market power is provided by concise and detailed Rules, coupled with the power of the regulator to ensure compliance.
 - There is a desire to enhance transparency. This provides the ability of consumers to understand how an outcome has been achieved but does nothing to prevent inappropriate outcomes
 - There is a desire to improve predictability. The whole thrust of the predictability is on how the regulator will impose its requirements on the TNSP. But the NEL objective references the interests of consumers. The increase in freedoms that the AEMC grants to TNSPs acts to reduce the predictability seen by consumers.

The AEMC has overlooked the needs of consumers to have exactly these same outcomes in following its obsession with increasing investment incentives.

In practical terms the AEMC has subordinated the needs of consumers in the interests of TNSPs based on an unproven assumption.

The AEMC approach

The AEMC states that the Rules should be principle based, rather than prescriptive, as this

“... ensures the key design features of the regulatory regime for pricing remain in the Rules while providing for implementation and administration issues to be left to the guided discretion of the AER and the TNSPs. The Commission considers that this approach provides transparency and certainty ...”

This may be so, yet to a degree it goes against the decision on revenue where it was of a view that certainty for the TNSP was essential for investment incentives and therefore the role of the AER had to be reduced for the benefit of the TNSP. However, as identified above, whilst giving greater certainty to the TNSPs (as they can now decide for themselves how to carryout their pricing methodologies) it reduces certainty for consumers (and perhaps generators) and introduces an outcome whereby there can be different outcomes in different regions.

This increased flexibility for TNSPs can result in wildly divergent outcomes in different regions, creating insecurity for consumers, and greater difficulty in

identifying the signals that are being generated due to different approaches used by different TNSPs. This in turn creates greater uncertainty for investment decisions being made by consumers.

What is of great concern is that signals which come from the pricing (and thus the outcomes expected by the Rules) can range from extremely muted and biased to energy usage to extremely strong and based on demand. Yet it was the strength and clarity of the signals that the AEMC professes to seek as an outcome from the pricing review as it states (page 14)

“... transmission prices provide signals to the electricity market, which influence the decisions of actual and/or potential electricity consumers and producers. On the demand side, because transmission prices directly affect the delivered electricity price paid by end users at a particular location, they may impact consumption decisions as well as locational investment decisions [and] ... transmission prices can influence both the timing and quantity of electricity production decisions as well as locational investment decisions by electricity generators. This includes investment by embedded generators, inset networks and alternative energy sources.”

Having made the statement that it seeks strong and clear signals for consumers and generators, the draft Rule then reduces the powers of the AER to ensure that cost reflectivity is the result of the TNSP approach, but more importantly it allows the TNSPs to decide the outcomes by allowing them excessive flexibility to set the basis of the prices, and whether there is muting or not. Further, it allows the TNSPs the ability (through the pricing approach used) to destroy any price signals to encourage consumers to locate near generation and for generation to locate near consumers.

It is absurd that such essential elements of the Rules are to be left to the whim of TNSPs when the entire NEM is based on signals to cause desired outcomes.

PIAC, EAG and MEU all noted that the AEMC had used the concepts of efficiency and good regulatory practice to ensure that the goal of the objective would be achieved outcomes and that these were the prime approaches being used in the Review to achieve the objectives. Equally all of them noted that the AEMC had not attempted in the slightest to demonstrate that the actual decisions of the AEMC provided any benefit at all to the long term interests of consumers.

Consumers accept that there is a need to start a Review of this nature with some principles on which to develop conclusions. But to do this without ever testing whether the outcomes from such bases do really achieve the desired outcomes is poor science in the extreme and should be viewed with some trepidation.

The consumer groups raising this fundamental concern were correct in raising this point, but that the AEMC ignored these concerns shows a major failure in AEMC review processes.

4. Revenue allocation

Once the decision on the amount of revenue from a regulatory review is made, it is the allocation of prices for service that determines how this revenue is to be recovered from the beneficiaries of the electricity supply system.

Consumers accept that there are a number of fundamentals which underpin the development of the revenue and therefore careful analysis is required to ensure that the beneficiaries of this investment contribute an appropriate share to reflect the benefit of the supply system.

The design and construction of the electricity supply system is based on:-

- The peak demands placed on the system by consumers
- There is a wide range of consumption patterns by the consumers connected to the network, and to a limited extent the design of the network reflects a degree of non-coincident uses, accepting there is some diversity in the expected loads.
- The concentration of a number of generators in specific locations (usually caused by the availability of fuel; most commonly coal and water catchments) which determine the capacity of the connections to the load centres
- The location of the generators (again caused by the availability of fuel; most commonly coal and water catchments) which determine the length of the supply connections to the load centres
- The establishment of an electricity supply network involves significant capital investment which once committed must be considered as “sunk”.
- Increasing the capacity of a network cannot be carried out on a continuous augmentation basis, and as a result the increases in capacity are “lumpy” and result in significant surplus capacity for a period after the augmentation is completed
- Once the electricity supply network investment is committed, consumers assume that the electricity supply will be available for a significant period and on this basis consumers commit even larger amounts of capital, effectively realising even larger amounts of “sunk” capital.

As a direct result of these factors, the cost of the network needs to reflect the way electricity is supplied and used so that the allocation of determined costs can be made to best reflect the supply and usage pattern.

It is agreed that using the short run marginal cost approach for the entire network will not provide adequate revenue to match the agreed revenue; equally applying the long run margin cost will not necessarily provide adequate signalling to maximise the best use of the network. What is required is a balance between the

two approaches and it would appear that the CRNP approach is an approximation that is better than either of these approaches.

What is of concern is that under the revenue Rules, the AEMC has discarded the power of the AER to optimise the network for the actual demands placed on it and the AEMC confirms this when it states (page 19).

“... [given] a revenue cap ... accompanied with low risk of regulatory stranding of redundant assets, TNSPs will have relatively weak incentives to set prices to promote high network utilisation as a means of reducing the risk of redundancy. If anything, under a revenue cap form of control, TNSPs have an incentive to formulate prices in a manner that is as mechanical and non-controversial as possible, in order to avoid payment disputes with their customers.”

The AEMC goes onto say that:-

“... in the absence of pricing rules, regardless of the form of control adopted, a revenue cap form of regulation provides weak incentives for TNSPs to price services in a way that promotes the NEM Objective ... In view of the importance of transmission prices for efficient utilisation and investment in both the network and electricity markets, and the weak commercial incentives of TNSPs to price efficiently, the NEM Objective is likely to be best served by some form of regulatory oversight of transmission pricing.”

While the sentiment espoused by the AEMC supports the view that pricing methodology is too important to be left to the TNSPs due to their low incentive to get it right, the rest of the AEMC determination goes on to allow the TNSPs so much flexibility in pricing approaches that the sentiment of the AEMC approach (and which is supported by consumers) is effectively lost!

The AEMC appears to have taken the view that TNSPs should be allowed the maximum flexibility without any strong guidance or controls (as allowing this will provide incentives to invest) that it has totally lost the initial point of pricing to provide strong and clear signals to users of the networks.

In its submission, MEU pointed out that there were a number of issues which arise from lack of clarity in the Rules. It pointed to **two real life pricing anomalies** where consumers were being disadvantaged by this lack of clarity, and competitive neutrality between generators was being eroded. The AEMC totally **ignored** addressing these real life issues being confronted by consumers, and in a written response, has formally attempted to distance itself from ensuring the Rules can be understood and will provide adequate direction for resolution. Yet in response to issues raised by a supply side entity, the AEMC has

responded to their issues and acted to ensure their observations were incorporated into the Rules.

Across the whole of the draft determination, it would appear that the AEMC has taken more notice of issues raised by supply side entities and of its own views, rather than address real concerns and issues raised by consumers.

The MEU is firmly of the view that the establishment of prices to return the agreed revenue is much too important to leave to an unincentivised party that the AEMC itself recognises has little incentive to ensure the NEM goals are achieved.

5. Causer pays

General

The AEMC has devoted a significant amount of its proposed draft determination and draft determination in demonstrating to itself that the basic principle of revenue allocation must be that of the “causer pays”. The draft determination goes at great length to demonstrate that any other approach (eg beneficiary, initiator or generator pays) is doomed to lead to anomalies and difficulties.

There is no doubt that it is the consumer that causes the need for generation and networks to ensure electricity can be delivered to where the consumers desires it to be, and in the amounts needed. Thus the causer of the need for networks can only be the consumer.

However, the NEM is meant to be established in a manner that reflects the long term interests of consumers with regard to price, quality, reliability and long term availability. To assist in achieving these sometimes competing goals, the AEMC has used efficiency (productive, allocative and dynamic) as a tool to help balance between the competing elements.

Using its own assessment of these efficiencies, the AEMC has determined that generators should not pay more than shallow connection costs for them to access the network to deliver their product to consumers. In its submission the IPA considers that logic points to maximum efficiency being attained where generators pay for delivery of their product to the major demand points but the AEMC dismisses its views with scant attention.

Where the AEMC totally misses the point, is that it accepts that incumbent generators should not be exposed to the costs of transporting their product to market, and that pricing signals only apply to new generation. The AEMC implicitly accepts that an existing generator has “free access” to the network regardless of its location but that only new generation options will be affected by deep connection costs. This is totally absurd!

The NEM will only operate efficiently if there is competitive neutrality in access to the networks between generators. The AEMC determination implies that an existing generator regardless of its cost structure and the costs involved in delivering its product will not be compared on the same basis to a new generator located elsewhere. This creates an environment of advantage for incumbents over new options.

Secondly, a new generator will be required to pay for the new connection whereas the existing generator possibly has this provided under the grandfathering approach permitting the connection to be considered part of the

shared network. The MEU made reference to this matter but the IPA provides a very clear view of the failure of the AEMC approach to provide competitive neutrality between existing generators and new generation as it is added to the electricity system.

The principle behind this view (and as shown by IPA) is that to demonstrate competitive neutrality, all costs associated with each generation option must be referred back to a single point. This is most appropriately the node for the region. In fact this view makes veritable sense by reversing the onus of assessment from the viewpoint of generation to the viewpoint of consumers, as implied by the NEL objective. If competitive neutrality is to be imposed, and efficiency becomes the driver of assessment, referring the cost of providing the electricity to a point of reference related to the consumer, then many of the concerns between assessing between causer, beneficiary, etc, fall away, and additionally the approach also overcomes the challenge for appropriate reward for embedded generation which generates where the demand is. If the assessment between generation costs includes for the costs of delivery to the node, then the true benefit of generation near demand is recognised.

It is not as if this approach is not based on logic or is a reactionary view for the NEM. It is exactly the way NEMMCo assesses the locational merits of generation and load when it calculates its marginal loss factors. NEMMCo relates all loss factors back to the regional node, and those loads and generation more remote from the node tend to be allocated a greater share of the losses incurred in the system.

Unfortunately, the AEMC follows a narrow focus in this Review, and where it faces challenges (such as embedded generation) it has decided to duck the issue and refer the matter to the MCE. By disregarding the views of MEU which recommended that this approach be examined, and the suggestion of IPA, the AEMC has continued the earlier practice in the drafting of the NEC, which was developed to ensure incumbent generators could be sold for the maximum price.

The AEMC draft determination considers that there are other controls which will minimise the impact of new versus existing generation. It provides an example on pages 31 and 32 demonstrating the correctness of its view.

“A generator that locates in a remote region takes the risk that it will not be able to transport (and hence sell) its power to consumers – in other words, that it will be ‘constrained-off’.⁵⁸ It is only if the generator is sufficiently low-cost that a regulated transmission augmentation to accommodate the evacuation of that generator’s output is likely to satisfy the Regulatory Test by being the least-cost (or otherwise most net beneficial) way to serve load or meet reliability requirements. In this case,

it could actually be *efficient for the market as a whole and hence in the long term interests of consumers* for the generator to locate in its chosen (remote) location. If no regulated augmentation is likely to occur – because the combined cost of remote generation and the augmentation is relatively high – this is likely to discourage the generator proponent from locating in that (remote) area. Alternatively, the generator proponent is free to fund an augmentation at its own expense, which in itself provides a signal against remote location.”

At first blush this appears to be reasonable. What the statement fails to recognise is that the Regulatory Test (RT) as currently drafted under the AEMC draft decision, does not do what is implied by the statement. The current draft of the RT specifically excludes the consumer benefit of lower prices, as this is seen as a “transfer of wealth” between consumer and generator and therefore is excluded from the RT. Thus the RT as currently proposed does not provide the benefit assumed within the statement. This then give the incumbent generator an advantage over the new generator and so creates a detriment to the NEM, rather than the supposed competitive neutrality.

A second consideration is the proposed location of a low cost generator adjacent to an existing generator. Without augmentation of the network it is probable that either one or the other generator will be constrained off due to a capacity constraint in the network, creating a local competition between generators of equal merit for scarce resources. This will permit another generator of higher cost being constrained on, to the detriment of consumers. Unless the RT is rewritten to include the consumer benefit of lower generation then the augmentation will not pass the RT.

Therefore, the supposed argument favouring the basis for the AEMC view losses veracity and does not canvas all possible scenarios. On this basis the AEMC argument that the existing arrangements provide adequate signals is demonstrably incorrect, putting the conclusions derived severely questionable.

The MEU points out that the AEMC assumption that there is adequate signalling for new generation is unlikely to be correct.

What occurs where a consumer is supplied from what is essentially a connection asset?

Following the principle of “causer pays” down some of the less obvious situations that apply in the NEM, the allocation of entry or connection costs for a generator can be manipulated significantly. An example of this is the connection of Gordon Power Station in Tasmania.

Gordon PS is located on the western side of Tasmania. A long transmission asset connects Gordon PS to Chapel Street substation, near Hobart. Sensibly supplies to small communities along the way (including at Gordon PS itself) are attached to this transmission line, but the demand supplied “en route” are a small fraction of the total power supplied to Chapel St S/S.

Under the “causer pays” approach the transmission line is considered part of the shared assets as it provides for supplies to consumers which “caused” the need. In fact prior to the power line being built these consumers were supplied power (if indeed they were supplied power) by other means. In practice the transmission line is a connection asset, predominantly for connecting Gordon PS to Hobart.

This raises the question, at what point does a connection asset become a “shared asset” and costs allocated to consumers, rather than to a generator?

The MEU would suggest that under the Regulatory Test, the connection asset would not be considered ever to be a shared asset, as the cost of providing it would not be recovered from the contributions of the consumers using it, and that alternative means would have to be considered for providing power supply to these remote consumers.

Thus the “clever generator” would always ensure that it had a consumer connected to the connection assets, permitting the generator to claim that the assets should be shared assets as there are consumers connected, and so avoiding the costs it would otherwise incur from being a remotely located generator.

The MEU points out that the AEMC approach of “causer pays” for allocation of costs can be readily manipulated in the interests of generators should they seek to avoid connection and entry costs.

The impact of unschedulable generation

With the trend to increasing renewable generation using direct subsidies by governments using electricity consumer’s money (eg MRET, VRET, NGGA, etc) the bulk of new subsidised generation is either wind generated or solar generated. In principle MEU does not consider these incentives an issue for this review by AEMC except in an indirect way.

The bulk of renewable generation built cannot be scheduled, and therefore these generators are market price takers and exposed to the pool price at all times. Further, as this generation is “not reliable” the market must provide other generation (in the NEM this is usually coal fired) to provide a backup to the wind and solar generators. In addition to the higher costs to build and operate these

forms of generation, additionally there is the need to build additional network infrastructure for them to provide their output to the market.

This creates two problems for the TNSPs – firstly what needs to happen when there would be congestion where these non-scheduled generators connect to the shared network, and secondly how is the Regulatory Test to be applied, following the implied acceptance by AEMC that the economic benefits to consumers are included in the RT. The AEMC states that generators “receive a signal” such as being constrained off by congestion if they locate remote from the consumer unless (page 31)

“... the generator is sufficiently low-cost that a regulated transmission augmentation to accommodate the evacuation of that generator’s output is likely to satisfy the Regulatory Test by being the least-cost (or otherwise most net beneficial) way to serve load or meet reliability requirements.”

In the case of non-schedulable generation, NEMMCo assesses that the output is derated from the nameplate capacity (eg wind generation is derated to less than 25% of nameplate capacity by NEMMCo). This means that there is potential for either the shared network not to be upgraded and so the unscheduled generation causes congestion and some has to be constrained off (and the basis for assessing which must be constrained off cannot be carried out on a dispatch price!) or the network is augmented at consumer cost to allow the modest period of time that the rated capacity is actually being generated.

The Regulatory Test cannot assist in resolving this issue as there is no cost basis to determine the value that generation provides for relieving the constraint. Thus the principle of “causer pays” in the case of generation starts to show inconsistencies due to the different types of generation operating in the NEM.

This example shows that exclusive reliance on the causer pays approach starts to lose validity. In the case of beneficiary pays, there is no doubt that the unscheduled generator is the beneficiary of the augmentation and so should be allocated the deeper connection cost needed to get its product to market.

An additional aspect of causer pays

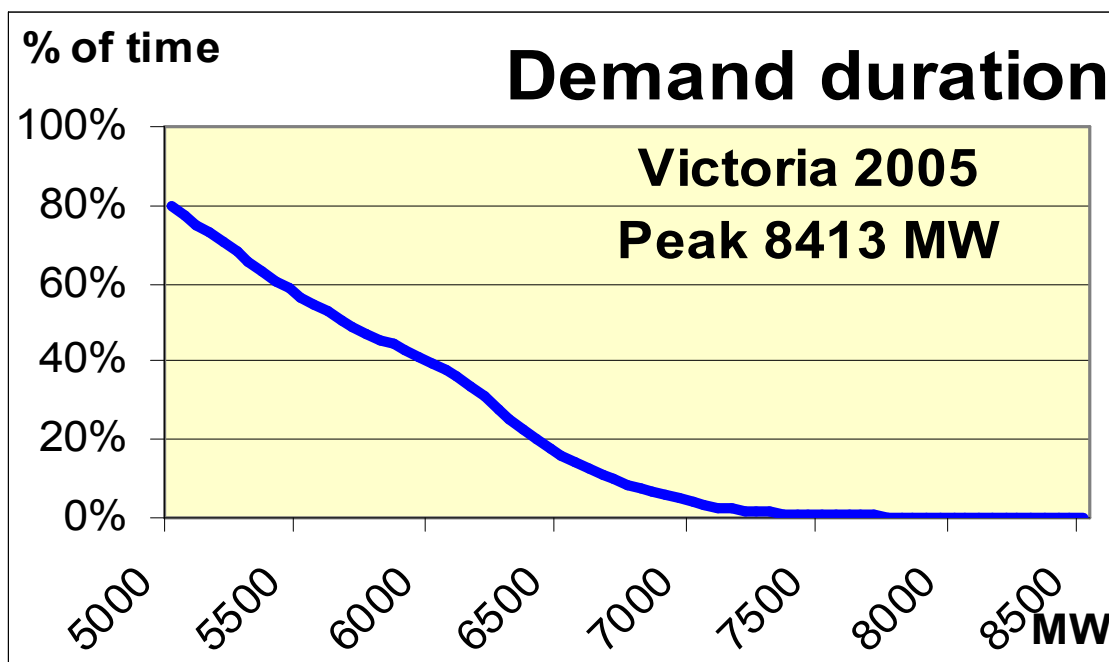
The AEMC has concentrated on only one element of causer pays (that of absolving generators from paying deep connection and/or delivery costs), but there are in fact two elements to “causer pays”.

The first is allocation between consumer and generators, and the AEMC has decided that as consumers are the cause of the need generators should only pay to connect to the “consumers” network and is discussed above.

The second is allocation between consumers and is totally ignored by the AEMC, as the AEMC acquiesces to allowing the TNSP to decide on this important issue.

A consumer which has a continuous flat load does not lead to the maximum demand on which the network is designed. The design is based on the expected peak demand at various points in the network.

The network is designed to provide service for the peak demand, and as the following graph shows, the peak demand applies for very short periods.



Source NEM Review

This shows that the last 10% of the delivered capacity in Victoria was needed only for 0.5% of the time. The question of “causer pays” applies equally to this issue as it does to the allocation between generator and consumer. This trend is even more pronounced in SA but less so in NSW, Queensland and Tasmania. The cause of the high proportion of capacity needed for short periods is usually attributed to the prevalence and penetration of air conditioning, particularly within the distribution networks.

Despite this obvious driver for investment by TNSPs to meet these short lived demand spikes in the NEM, the AEMC has made no attempt at all to require the TNSPs to follow the “causer pays” approach to allocation of revenue in the pricing signals. At most the AEMC states that the allocation of costs within the distribution network is outside of its remit and therefore it cannot provide direction

in this regard. Notwithstanding this the AEMC should require the TNSP revenue to be allocated to address this significant issue.

The only observation the AEMC makes in regard to this issue is (page 32)

“As for the MEU’s point about whether it is appropriate for consumers to be charged for transmission based on their peak annual demand, the Commission believes that this is the correct outcome. Even if a consumer only requires an asset once per year, that asset nevertheless needs to be developed – and the costs incurred – to serve that need.”

This view supports the concept that if the network is designed to suit the maximum demand on the system, then the costs associated with provision of the service must be allocated to meet this usage. If this approach is not followed then there is a cross subsidy being inappropriately provided. However, it is clear from the charging structures used by the TNSPs that they either do not concur with the principle espoused by the AEMC, or they do not care.

An example of one approach used by a TNSP, in this case ElectraNet SA¹, is where load and generation data is collated for every half hour of the year, and using the program T-Price, the costs are allocated in proportion of the average usage over the whole year.

“Customer TUOS Usage charges (the cost reflective or locational component of shared network costs) are priced on a contract demand basis (\$/MW/day).” (page 7)

“Two TUOS General prices are calculated, one based on contract demand and the other based on historical energy usage. These two prices are calculated in such a way that the customer exit point with median load factor would be indifferent to which price applies. The TUOS General prices are the same for each exit point on ElectraNet’s transmission network.” (page 8)

“The method of recovery of Common Service charges is specified in the Code10 and is identical to that described for TUOS General charges in the previous section.” (page 9)

Variations on this approach are used by other TNSPs.

Short but high peaky demands require massive investment which are but used occasionally. The impact of this approach is that there is an obvious bias which

¹ ElectraNet SA Transmission Pricing Methodology 15 May 2003

imposes higher costs on large flat continuous loads, benefiting the short demand but peaky loads.

This shows that although the TNSPs are following the requirements of the Rules (in that the allocation of demand must be based on demand incurred on at least a certain number of maximum peak demand days), they have not attempted in the slightest to allocate costs following the precept AEMC stated in response to an MEU observation.

In fact the Draft Rule (S6A.4.1(c)) states

“The range of operating scenarios is [to be] chosen so as to include the conditions that result in most stress on the *transmission network* and for which *network* investment may be contemplated.”

This clearly implies only that the TNSP must include in its processes for those times when the network is most stressed, yet does not state that there is a maximum number of scenarios, allowing the TNSPs to continue with current practices.

Further the TNSPs follow the principle of allowing charges to be assessed on demand or energy *whichever gives the lower cost* to the user. The TNSPs point out that these costs are equal at the usage point which is at the average of the system load factor.

Allocating costs based on demand reflects most accurately the impact of consumers on the size and capacity of the network. Allowing consumers to select to pay on an energy only basis, the approach used by TNSPs allows those users (especially those which only use the networks at the times of peak demand) never to see the impact of their occasional demand in the costs for providing the network.

By not prescribing the approach to be used by TNSPs, the AEMC permits the TNSP to decide on the how consumers should be charged for the use of the network, and to incorporate pricing approaches which clearly do not reflect the cost of providing the network. This clearly does not follow the policies stated by the AEMC as being fundamental to the allocation of costs on a cost reflective basis.

In granting freedom to the TNSP, the AEMC has failed to insist on its own precepts of “causer pays” to be implemented.

6. Price certainty

The AEMC states (page 2) that :-

“... the rules for transmission pricing should also promote good regulatory practice by enhancing:

- Stability and predictability – that is, transmission prices should be stable and predictable enough to enable market participants to make long term decisions; and
- Transparency – the process for setting prices should be as transparent as practicable to give participants confidence that pricing outcomes will be consistent with the NEM Objective and the Rules.”

These sentiments are supported yet when the detail is examined, the decision do not lead to stability and predictability for consumers as the AEMC cedes responsibility for the detail of pricing decisions to the TNSPs, who the AEMC admits have a low incentive for allocating costs (and setting prices) to suit the needs of users for these very needs. Whereas the AEMC directed most of its decisions on Revenue Rules to incentivise TNSPs to invest by providing certainty and clarity in the Rules, it has taken the reverse decision in the Pricing Rules that certainty, consistency and transparency are not needed by users and that the TNSPs should have flexibility within wide parameters to set prices.

Throughout the review of transmission revenue and pricing, the AEMC has consistently stated that one of its fundamental goals is to ensure that investment by TNSPs is to be incentivised. One consideration of the AEMC has been that an essential element of encouraging investment is certainty.

For example in the Final Determination on Revenue the AEMC states (page 37)

“As a result of the ambiguity of these definitions in the Rules, the Commission understands that the current practices of different TNSPs in allocating assets (and therefore costs) to prescribed services differs markedly such that charges for essentially the same connection service may vary widely across the NEM, with no underlying rationale.”

Likewise on page 39 of the same determination it states

“The Commission considers that the increased clarity provided in the Rules on the definition of services should ensure that services are allocated on an appropriate basis.”

It is quite clear that the AEMC sees that clarity and certainty play an immense part of their review. Consumers are totally supportive of increasing clarity and certainty and have consistently supported the AEMC in this goal.

Having agreed that clarity and certainty are essential, the AEMC then decides to allow TNSPs almost total freedom in the way the revenue for the TNSPs are to be recovered – this in spite of the recognition by AEMC that under a revenue cap approach, TNSPs have little or no incentive to allocate costs in the most effective way.

The Draft Determination allows almost complete flexibility in the allocating of the revenue recovery, allowing the TNSP to:-

- use data which reflects the minimum use of the networks,
- recover revenue on a basis which is not reflective of the cost of service provision,
- allow different approaches to different classes of users to minimise the costs they incur rather than the true costs they impose, and
- allow TNSPs to decide which elements are to be allocated to each user.

As a further refinement of the approach allowed TNSPs, they are permitted to vary the approach to revenue recovery at each reset if they so desire.

Users need clarity and certainty just as much as TNSPs. Users (consumers and generators) need certainty of the costs they will incur, and not just for the next 5 year reset period. Decisions made by consumers and generators are made for long periods (comparable to the investment decisions made by TNSPs). Thus to allow a party which has an admitted low incentive to “get it right” to be able to change the basis and cost structure which will not impact on the TNSP (as it has a guaranteed revenue stream) but will impact significantly on the financial performance of investments made by users, is an absolute travesty of the principles AEMC requires to apply to TNSPs.

A review of the pricing structures between TNSPs shows there is little consistency between them, each having their own specific approach. Decisions being made between investments by users (consumers and generators) need to have consistency between the pricing structures so that decisions can be made on a truly comparative basis. There tends to be consistency within a TNSP region, yet little between TNSPs. The AEMC points to the views that there are locational differences between TNSPs and there should be facility for innovation. When these considerations supporting flexibility are compared to the needs of users for certainty and consistency to support their investment decisions, there is no doubt that the need for certainty and consistency for users must take precedence.

The AEMC has elected to allow unnecessary freedom to the TNSPs to set charges without any reference to the needs of consumers, in total contradiction to the NEL objective which requires the Rules to be in the long term interests of consumers.

There is no doubt that pricing of the transmission services is to provide strong signals to users – consumers and generators. This is clearly stated as an essential element of the pricing Rules by the AEMC. Development of consistent and cost reflective pricing provides clarity and certainty to users of the transmission network. In the Revenue determination and Rule, the AEMC has some validity in debating the merits between a benefit to the TNSP needs for certainty and clarity.

In the matter of price setting, as the TNSP is guaranteed a revenue stream, to put a low powered incentive (if even that) as being more important than a higher powered incentive to the needs of consumers, is totally irresponsible.

In its draft determination, the AEMC provides policy statements in addition to the specifically stated requirements for recovery of allowed revenue and that pricing should lie within the Baumol-Willig range of stand alone and avoided cost pricing, that the pricing structure should:-

- Recognise the locational impacts made by users of the network
- Encourage consumers and generators to locate efficiently so that the efficiency in the provision of the shared service can be maximised.
- Recognise that the cost of the network relates to the peak demands placed on the network.
- Provide signals for future investment by TNSPs, generators and consumers.

Having made such policy observations, the AEMC does not insist on these being implemented and delivers the responsibility for the pricing to the TNSPs to interpret, and prevents the AER from requiring modification if the TNSP approach meets the specifically stated requirements.

It then allows the TNSP to allocate its revenue, with as little control from the Rules and the regulator as possible, averring that this is good regulatory practice. This is totally an incorrect approach to regulation.

The MEU points out that ensuring certainty and consistency for the users of the networks can only be achieved by the AEMC codifying the policy observations it makes, and developing these into Rules which the TNSPs must follow.

The MEU therefore considers that the Pricing Rules must provide certainty and consistency in pricing and reflect the policy observation that the AEMC considers are good practice. This will require the imposition of the following:-

1. TNSPs should only recover their costs based on demand as it is demand which drives the cost of providing the service
2. The load and generation data used to develop the prices should only be based on the 10-20 system peak demand days, and for the 6-8 hours on those peak days when the peak is exhibited. This provides a strong basis for allocating costs to those that have caused the maximum system demands (and so the costs of providing the service).
3. TUoS, general and common service costs should be allocated only on demand, and there should be no basis for TNSPs to recover costs on an energy basis. This reflects the costs incurred for providing the service are only related to the capacity of the network.
4. Entry and exit charges recover all of the costs associated with the substations to which users are connected. Therefore TUoS, general and common service costs should be recovered in proportion to the demand at the point where the entry/exit assets interface with the transmission lines.

The MEU considers the insertion of these directions which derive from the AEMC policy views must become part of the Pricing Rules and will incentivise the following outcomes:-

- **Requiring point 1 above will equitably allocate the costs caused by users due to their load pattern when these demands are placed on the network**
- **Requiring point 2 above will encourage users to reduce their demand at times of network stress reducing the need for future network augmentation to accommodate increased demand**
- **Requiring point 3 above will equitably allocate costs to users based on their load pattern**
- **Requiring point 4 above will encourage consumers and generation to co-locate, reducing the need for future network augmentation**

7. Signals to consumers

In its submission to the proposed draft Rules, the MEU made the points that it supported the decision to apply principles to the setting of transmission prices. It did, however, note that there were conditions to this support. These were:-

1. There should be a driver to ensure that the costs reflected the peak demand usage on the system. In its draft decision the AEMC states agreement with this, but then proceeds to allow TNSPs total freedom to set prices
2. The MEU pointed out that demand side responsiveness would be jeopardised iff there was not a clear requirement on TNSPs to address this in pricing. The AEMC states a desire for more demand side responsiveness but then either ignores this or states that these need to be referred to the MCE
3. The MEU pointed out that the supposed benefit of allowing TNSPs freedom would allow the advent of innovation due to metering changes. The MEU pointed out that TNSPs already had sophisticated metering and that additional innovation was unlikely. This matter was not even addressed by AEMC, yet it continued to believe in innovation as a basis for TNSP freedom
4. The MEU pointed out that the AEMC support for the diversity that would arise from TNSP freedoms was in total opposition to the consistency that the AEMC sought from the Revenue Rules. The AEMC totally ignored that consumers might benefit for consistency in pricing.

It is apparent that the AEMC has ignored these points and taken little notice of what consumers might want, continuing in their belief that any advantage given to a TNSP must be beneficial to consumers also.

This view is typified by a general statement of the AEMC that (page 14):-

“... transmission prices provide signals to the electricity market, which influence the decisions of actual and/or potential electricity consumers and producers. On the demand side, because transmission prices directly affect the delivered electricity price paid by end users at a particular location, they may impact consumption decisions as well as locational investment decisions ... On the supply side, transmission prices can influence both the timing and quantity of electricity production decisions as well as locational investment decisions by electricity generators. This includes investment by embedded generators, inset networks and alternative energy sources.”

These sentiments are fully supported by MEU, but the AEMC has then structured the Pricing Rules so that these laudable outcomes are left almost entirely to the

discretion of TNSPs. Examination of the Rules shows that there is no certainty that these outcomes will result from the new Rules. If they do it has nothing to do with the AEMC requiring there are appropriate outcomes but because a TNSP has decided that it suits the TNSP to price in this way.

This is hardly the good regulatory practice the AEMC states is the goal of its review.

There are two fundamental issues that need to be addressed in relation to transmission network pricing.

The first relates to who are the users which will be exposed to the pricing structure, and the second is confirming whether the pricing structure really does provide accurate and appropriate signalling which users can see are sufficiently consistent and certain on which to base investment by users.

Who is exposed to the transmission pricing structures?

Those users directly exposed to transmission pricing are generators (excluding embedded generators), directly connected consumers and large consumers in some jurisdictions where the jurisdiction has decided that the large consumer should be exposed to the transmission pricing.

All other consumers are exposed to transmission pricing to the extent that the DNSP decides to pass these signals through. As almost all DNSPs allocate costs based on the class of customer, then the transmission signals have little impact on consumers embedded in distribution networks. This accounts for the overwhelming number of consumers.

As the AEMC has decided that generators should not be exposed to the locational impacts of their decisions (by exposing them only to entry costs and no deep connection costs), this reduces the number of users exposed to TNSP pricing signals to a very few.

It is supported that there should be price signals, even if they impact on a relative few consumers. Because of the impact these signals have, it is essential that they are useful. If they are not useful then there is little value in expending effort in having them at all.

How to make the signals useful

The AEMC makes many references to the need to provide appropriate signalling to TNSPs and users by the careful setting of prices to provide the services offered. This approach is fully supported by the MEU. Having made these statements the AEMC then effectively dismisses its own goals by allowing the

TNSPs such wide flexibility in price setting that there is no certainty that the AEMC aspirations will be achieved. In allowing this wide flexibility, the AEMC points to locational differences between TNSPs, the potential for innovation and that pricing will provide incentives for investment by TNSPs as the reasons for not being more prescriptive in price development. This approach is bizarre, particularly the view that pricing provided incentives for TNSP investment decisions!

The AEMC also states that it considers that the NEM objective (in relation to the transmission pricing review) can be fulfilled by:-

- The TNSP being able to recover its efficient costs, and
- Prices providing clear signals to users (both generators and consumers) of the cost impact of the decisions the users might make.

Despite the statement of these high level objectives, the AEMC ultimately allows each TNSP to develop its own unique pricing approach providing it complies with:-

1. The demand and generation flows being developed using at least the 10 peak system demand days
2. The pricing attempting to recover the allowed revenue
3. Prices *should* lie between the standalone cost and the avoided cost for providing the service
4. Prices being based on costs associated with entry and exit services (in \$/time), TUoS usage, general and common services (in \$/MW and/or \$/MWh)
5. Common services incorporating all the non locational costs
6. TUoS prices being based on 50% of the locational costs (or some other approved assessment)
7. TNSPs providing an explanation as to how the prices were developed for the period after a reset, to show that they comply with the overarching requirements of the Rules
8. The pricing approach applying for an entire reset period, with a side constraint of price movements of no more than 2% per year.

Ultimately the signalling must be useful to those users exposed to them. By allowing flexibility to TNSPs to apply their own views, different approaches and answers must be the inevitable result. Users need to be able to accurately compare the transmission prices between different locations in a region and between different regions. If there is no consistency in approach (and certainty that the approach will result in consistency between resets), then the value these signals have to users is greatly diminished.

The AEMC makes passing reference (page 49) to marginal loss factors (compared to actual losses) as applied to the NEM; these loss factors are

developed so as to accurately allocate the line losses experienced in transport of electricity. Losses can account for up to 8% of the cost of electricity transported, but on average the cost of losses is in the range of 1-3% of the delivered cost to consumers. Because of this variation and to ensure equity between users, NEMMCo uses a consistent approach across the NEM to ensure that the allocation of losses to users best reflects the locational impacts of the user decisions.

NEMMCo does not apply different approaches to cost recovery to reflect variations between regions. The loss factors are evaluated on a consistent basis and users can readily see the impact of the losses on the investment decisions they make.

In counterpoint, with the relative impact of transmission costs to the total costs consumers see of the supply of electricity can vary greatly. For a large consumer, directly connected to the transmission network, transmission costs will be as high as 25% of the delivered cost of electricity, but for a small consumer embedded in a distribution network, they comprise 6-10% of the delivered cost of electricity. When comparing the cost of transmission to the cost of losses, it is quite clear that transmission costs have by far the greater impact on consumer costs than do losses.

Despite this disparity in relative value to users, the Rules are quite explicit on how NEMMCo is to estimate and allocate losses in the NEM. This results in a commitment to ensure the consistency of approach and equity between users, regardless of where in the NEM they are located.

In relation to transmission pricing the AEMC allows the different TNSPs to decide how they will set the prices.

Why is it that for a smaller element of user incurred cost there is an open, consistent and equity driven approach to allocating losses, yet for a larger element of the total delivered cost, the AEMC permits different approaches, resulting in wide variations between regions and TNSPs.

To support their approach the AEMC states that this flexibility is needed due to locational differences and to allow for innovation. Yet at the same time, the Rules do not consider that this flexibility is appropriate for allocating losses in different regions – for very good reasons.

Rather than assessing the issue from a TNSP viewpoint, if the AEMC addressed its assessment from the viewpoint of users, it would see that providing certainty and consistency of price setting between regions and between resets, has a greater value to "... the long term interests of consumers ..." than does allowing the TNSPs flexibility to develop their own approaches to price setting.

If it is appropriate for loss factors to be developed on a consistent basis, then it must also be appropriate for transmission prices to have this same feature.

TNSPs to get approval of the approach used

The AEMC requires the TNSP to develop its approach to pricing, have this assessed by the AER to ensure conformity with the Rules (including getting user input into the approach), and for this to be published. The AEMC considers that this is adequate to ensure that users of the transmission network are adequately informed and accept the approach. Thus the AEMC opines (page 59) that

“With the removal of existing detailed requirements from the Rules for transmission pricing, the Commission sought to ensure that transmission network users have the opportunity to be well informed on the price-setting process. The Commission believed that by requiring approval and publication of a pricing methodology as the basis for setting prices during a regulatory control period, the TNSP’s pricing decision making is more transparent and improved participant understanding of the transmission price setting mechanism.”

That this will be the case is not disputed, but it still does not ensure that the outcomes will meet the needs of users, who are required to accept the way the TNSP decides to approach the issue.

There is no doubt that users must accept the approach, as the Rules are so wide that the approach would indeed have to be very inappropriate for it not to comply with the Rules as proposed by the AEMC. If the Rules allow such a wide range of approaches to be implemented, then this process loses any effectiveness in users getting their needs of consistency and long term certainty incorporated.

It would appear that this is just a deliberate ‘concession’ to users to minimise any opposition to the AEMC proposals, but it does nothing to provide certainty or consistency for users.

Other issues on pricing

Despite there being a number of other issues raised in submissions, the AEMC has either decided that they are **beyond its purview**, or elected to **ignore** them. These issues include:-

1. Demand side responsiveness

The AEMC states that it seeks consumers to be responsive to locational signals and to be aware of the costs they impose on the networks. The AEMC points to this as being a fundamental part of the pricing approach.

However by not setting out how the prices are to be developed, it creates a condition where consumers are not able to provide a demand side response and further are not encouraged to do so!

For example, all TNSPs levy costs based on the peak demand incurred by a consumer, regardless of the time when this demand occurred. Many TNSPs allocate costs based on demand and generation flows occurring for every half hour period, rather than at times when the peak demand occurs (eg ElectraNet and Transend). Under this approach, there is no incentive for a consumer to be responsive to price signals, other than to reduce its maximum demand regardless whether to do so will provide a benefit to the NEM.

If the pricing structure was developed based only on the 10 system peak demand days, and it was on these days that the costs were allocated, there is a direct incentive on consumers to reduce their demand when it is likely that that day might be one of the system peak days. This would lead to a reduction of the total demand on the system, which is one of the purposes of the pricing approach.

The AEMC has not provided any direct incentives for demand side responsiveness, and relies on the TNSP to secure this goal. This is unlikely to occur as the TNSP has no incentive to do this.

2. Entry and exit costs – causer pays

The Rules point to a circumstance where a substation assets are used by both consumer and generator (eg Clause 6.13.6). In practice such an issue does not arise, as either the assets associated with transmission have to be separate for technical reasons, or they are allocated by the distribution business as if they are a cost and not entry/exit services.

The outcome is that there is potential for a generator to use assets paid for by a consumer to gain entry to the NEM where its competitors pay full value for entry assets. This creates a circumstance where the pricing approach to transmission assets can be manipulated so the network owner does not provide competitive neutrality between generators and where a specific consumer is levied with a cost where if the beneficiary paid for its share of use of the assets, then a specific user would not be required to pay for a benefit which all consumers have.

This issue was raised in the MEU submission to the proposed draft Pricing Rule but was ignored.

3. Where is the connection point to assess TUoS and G&CS

In its submission to the proposed draft pricing Rule, the MEU raised the issue of where the connection point is for the assessment of general and common

services charges. The MEU pointed out that as entry and exit charges are fully costed and allocated to those directly connected to the entry/exit point, the point of assessment for G&CS should be at the connection of the substation to the transmission line. This approach make sense, as the costs for entry and exits are fully attributed to the assets involved and are only allocated to those that caused the need for the assets to be there, G&CS charges can only applicable to the shared network, and not entry and exits.

The MEU pointed the outcome of following this view is that it directly encourages generators and consumers to co-locate, minimising the need for future augmentation of the networks.

In response to this matter, the AEMC has advised that (page 60)

“... this will generally be a matter for negotiation between the parties and – consistent with the approach in the Revenue Rule – this will often be the point up to which the TNSP considers transmission investments will satisfy the requirements of the Regulatory Test or can otherwise be justified as part of the cost of providing prescribed TUoS or common services.”

Effectively, this states that it is up to the TNSP and the user to negotiate on such an important issue.

Firstly, there is no reason for the TNSP to want to negotiate, so the issue is left hanging, or is referred to the AER for direction to commercial arbitration on an issue that should be clear in the Rules.

Secondly, this approach can then lead to different outcome for different TNSPs, and therefore inconsistencies across the NEM. By failing to address the issue, the AEMC does not enforce its views that the pricing structures should encourage consumers and generators to locate near to each other to minimise the need for extensive transmission networks

The AEMC has decided that there are a number of uncertainties and unclear issues in the Rules. Where these have been raised by TNSPs they have been addressed by the AEMC. Why cannot the Rules be made clear and certain for all parties, rather than leaving some to uncertainty due a lack of clarity in the Rules?

4. Occasional use of assets by a consumer

In the draft Rule, the AEMC states that in relation to the issue is it (page 32)

“... appropriate for consumers to be charged for transmission based on their peak annual demand, the Commission believes that this is the correct outcome. Even if a consumer only requires an asset once per year, that

asset nevertheless needs to be developed – and the costs incurred – to serve that need.”

Thus a consumer should be charged for the use of assets even if infrequently used. The AEMC implies that as transmission network is developed to suit the maximum demand and therefore the charge should relate to the assets actually provided – this can only be on the basis of demand and not volume.

The current practice of TNSPs is that for consumers with an occasional use, they are able to pay for their usage on a volume (MWh) basis rather than a demand (MW) basis if this approach provides for a lower cost to the consumer. Thus the occasional user is subsidized by other users who are required to pay more for their use due to under-recovery from the occasional user. This is inequitable, but permitted by the AEMC allowing TNSPs to charge for the use of networks based on either demand or volume, at the election of the user.

The AEMC other than making the above passing reference does no more to ensuring equality than this, and then allows the TNSP to continue with current practices.

By not requiring TNSPs to charge for service based on the capacity (ability to respond to demand) of the network, the AEMC has achieved two poor outcomes.

- There is a clear cross subsidy being permitted by the pricing approaches imposed by TNSPs (and against which users have no comeback), and
- The AEMC has excluded the potential of a sound demand side response being incentivised by the encouraging this occasional demand being initiated at times when the system is not stressed, and to use available unused spare capacity. This reduces demands at times of system peak demand events for which the network is designed.

This issue was raised by MEU but has not been addressed in the AEMC report.

Overall, the AEMC has abrogated its responsibilities to consumers by ceding its powers for ensuring that there is appropriate signalling of transmission costs. It has ceded these powers to a party which the AEMC concedes has little incentive to get the signals correct, all in the vain hope that the TNSPs will try and “do the right thing”.

What is amazing is that the AEMC accepts that it is important that there is certainty, consistency and clarity in the Rules, but has elected to apply these only in the interests of TNSPs, and to ignore the concerns of consumers.

8. Signals to generation and demand side responses

The design of the NEM and its Rules is intended to provide signals to all participants so that the most economically efficient outcome is achieved. The AEMC states that it is under this principle that it derives its decisions.

To be able to demonstrate economic efficiency, it is essential that the different outcomes possible for providing a service can be assessed on the same bases, and that prices are truly structured to provide a clear and cost reflective basis. If the input prices are not based on this premise then all of the outcomes will not be truly comparable. This follows the computer adage of GIGO – garbage in gives garbage out.

The AEMC has ignored consumer views that the approach that it used in the proposed draft Rule does not provide a sound basis for sensible and equitable decision making. By addressing the issues from the viewpoint of TNSPs, and even generators, rather than from the viewpoint of consumers, the AEMC has delivered an outcome which provides a bias towards remote (ie from consumers) generators rather than equity between remote generators, embedded generation and demand side responsiveness.

Point 1

The initial element identifying this bias is that remote generators only pay shallow connection costs, and (if the Regulatory Test is modified) augmentation of the prescribed services and all other costs are to be attributed to consumers as this reflects the “causer pays” basis for allocation of TNSP revenue.

Thus actions by an embedded generator or consumer to reduce load on the prescribed services network have the same value as a remote generator increasing its output. This is despite the fact that the embedded generator and the demand side response do not need the transmission network to deliver the same outcome *where it is needed*. Contrasting to this, the remote generator must have the transmission system to deliver the needed outcome.

This by addressing the issue from the view point of the consumer (ie the power is needed at the consumer connection point, to compare the outcomes of the different approaches, it requires the analysis to add the costs of the transmission network to the costs of the remote generator to identify the most efficient cost to the consumer between the options of remote generation, embedded generation and demand side responses.

The AEMC has decided that this is not an efficient approach and that the consumer should assess the three options, *excluding the costs of the transmission* which effectively the AEMC says will be paid by the consumer regardless.

This is not equitable and provides a benefit to remote generation.

This benefit can be assessed along the lines of comparing Australian Made to imported goods. For comparison purposes, the imported goods need to include the costs of transport to Australia whereas Australian Made avoids this cost.

Point 2

Every demand side response and embedded generator is assessed as providing a unique input. Thus if the response is not available at any time, then the assumption is made that the transmission network is essential and therefore the consumer should pay even if the service is used only once a year (eg when the embedded generator is down for service, or the demand side response provider has shut down for annual maintenance).

Yet remote generators shut down for service, and other generators attached to the network are assumed to be available to pick up the shortfall. This implies that the NEM recognises the support that is provided by a number of generators being connected to the NEM and that diversity of supply is accepted *by the remote generation supply*.

This diversity of supply benefit is not permitted to the embedded generator or the DSR provider.

Point 3

The embedded generator and DSR provider can schedule its necessary down time to periods when there is a low demand on the network, just as can the remote generator. The approach to cost allocation by the AEMC penalises the embedded generators and DSR provider as the AEMC states that even if the service is used once a year (regardless of the timing and network load conditions) then they should be levied the cost of providing the network for all the year.

This is not a cost that the remote generator is required to bear, providing a benefit to the remote generator.

Point 4

The approach used by the AEMC makes no differentiation as to the load on the network when the embedded generator or DSR provider supports the NEM. The network is designed to accommodate the peak loads and embedded generation and DSR providers can add value by reducing the stress on the network.

However, there is no incentive for these sources of supply to be available and to ease the demand on the network at the times when the networks are stressed.

TUoS and the remote generator

The AEMC has decided that it is not necessary to provide remote generators with signals to reduce the impact of transmission costs on the NEM. It avers that generators already have sufficient signalling and that therefore the “causer pays” approach recognises that generators do not cause the problem – obviously it is consumers that cause the problem.

In addressing the point that remote generation will pay its connection cost to connect to the network, the AEMC considers that this is a part solution to providing locational signals to remote generators. The AEMC does nothing to recognise that consumers also face this locational signal and therefore there is a sensible balancing of the needs and aspirations between consumers and generators in this regard.

The AEMC points to the fact that a new remote generator will have to compete with existing generators for the right to use the shared network should there be insufficient capacity in the network and so congestion is caused. The AEMC goes on to point out that if the new remote generator is of sufficiently low cost the congestion might be relieved by the Regulatory Test permitting augmentation to relieve the congestion. As noted above, this presupposes that the Regulatory Test is changed to include the commercial benefits that would accrue to consumers by the augmentation. Otherwise the RT will not benefit the new remote generator, giving the incumbent generators a degree of “transmission right” over new entrants.

This right of incumbency whilst not explicit, is implicitly an outcome of the AEMC approach. New generation will not take the liability of competition in such a circumstance as it will not receive commercial funding without some degree of certainty of revenue recovery. If all generation had to pay for access to the load centres then new generation would see that it was in fair competition with incumbent generators, and the cost of the augmentation would be carried by all the generators using that element of the network.

The approach taken by the AEMC does not provide the needed signalling for new generation to locate in the most effective way, and therefore this is a clear disincentive to encouraging new generation.

Embedded generation

The AEMC devotes much of its attention to the issue whether embedded generation should receive any benefit and if it does that there should be no ability to get a double benefit (eg from network support as well as the TUoS rebate).

After contemplating limitations on output for embedded generators to get a TUoS reduction benefit, the AEMC finally decides that it is all too hard and the matter should be referred to the MCE as the rewards for embedded generation is a policy issue (page 6).

The need for rewarding embedded generation is a direct outcome of the approach taken by the AEMC to assume that it is consumers that “cause the need”. There is no doubt that consumers need for power is the basis for the establishment of the electricity supply system. But the cause of the need for a transmission system is an outcome from the desire to build large generators remote from the point of consumption.

History shows that in the early days of power systems, generation was provided near to the demand points. There would be a power station built near to a large number of consumers, and the power station and consumers would be connected by the distribution system, and the fuel for the power station would be transported to the power station. With the increasing need for power came the decision to move the power generation closer to the fuel source, resulting in the need for the transmission system. High voltages were used as this reduced the size of the transport network.

With deregulation this was the normal approach used by the jurisdictional vertically integrated supply authorities.

What the outcome of addressing the jurisdictionally structured power systems has been is a view that embedded generation, while affording some benefit to the system, is only considered a small component of the system and therefore to be addressed as an adjunct to the overall system.

Here is no doubt that embedded generation can and does provide a number of benefits to the network. Because of this there has been an attempt to incorporate the needs of the embedded generation into a economic approach that was developed to suit large remote generation. Thus was the concept of the TUoS rebate. The AEMC has decided that it is too hard to address the needs of the embedded generator and has referred it to the MCE.

But the problem of embedded generation arises because of the economic model that underpins the entire pricing approach. It is the model that is wrong, as it does not reflect the actuality of how power is produced, transported and used. This would be resolved if the AEMC approached pricing form the viewpoint of the consumer. The issue of embedded generation disappears.

The problem of embedded generation can be readily resolved if the AEMC took the viewpoint that NEMMCo is required to do with regard to system losses.

Nodes are located at the largest *demand* point in each region, not the largest generation point. Losses are calculated in relation to this centre of demand, and remote generation faces a larger cost for losses than generation located nearer to the consumer usage point.

If this fundamental issue of allocation of costs is addressed as the Rules requires losses to be addressed, then the requirement to develop a unique locational reward system for embedded generation disappears.

By deciding that TUoS charges on generators are not appropriate and that the ability should be removed, the AEMC has decided that there should be no ability to provide locational signals to generation at all. This decision has not been tested against the NEL objective, other than to comment that it simplifies the Rules and provides improved certainty in the regulatory framework. Where is the consumer interest being assessed?

9. Prudent discounts and Negotiation

Commercial negotiation

The AEMC has decided that it will not extend the rules on commercial negotiation to include terms and conditions (page 7), and it states that the reason for this decision is that there is no evidence that this is needed.

The AEMC points out that there was overwhelming support for this feature to be included (page 79), and in its Final Decision on the Revenue Rules (page 41), it stated

“The Commission agrees that it is not desirable to limit arbitration to pricing matters as this could limit the parties’ ability to arbitrate innovative solutions to user needs including by varying the package of price, service and reliability offerings to meet customised needs. In addition the outcome of TNSPs using service and reliability levels as an adjustment mechanism to accommodate pricing outcomes achieved through arbitration is not consistent with the NEM objective.

The Commission believes it would be desirable to include within the Rules a comprehensive commercial arbitration framework for non-price outcomes with regard to both negotiated and prescribed transmission services. However, the Commission is reviewing the implementation of such a regime in the context of the Pricing Rules, and if feasible, would strongly support its inclusion in the Rules.”

The only condition the AEMC (Revenue Rules) sees that might have prevented the extension of the commercial arbitration, is the feasibility of implementation. The AEMC (pricing Rules) sees that there is no compelling evidence to implement this extension.

Where is the consistency of AEMC decision making? On the one hand it sees strong reasons for this feature, yet on the other hand it sees no compelling evidence!

Users would advise the AEMC that despite the fact that a price might be arbitrated, it is the terms and conditions that provide the basis for the price development. This is elementary negotiation 101. To separate the two elements is ridiculous and was obviously a “top of mind” issue during the Revenue Rules assessment.

In making this decision the AEMC demonstrates its lack of understanding of commercial issues.

Prudent Discounts

The AEMC was provided with a number of responses from consumers on prudent discounts, yet despite this the AEMC has decided that TNSPs should be given greater freedoms and less constraints than consumers think should apply to a mono poly provider. It would seem that the underlying reasons for denying consumer requests is that inclusion of the conditions might upset the TNSP's incentive to invest

There is little pressure on a TNSP to negotiate with a consumer. If the discount not given, the TNSP still faces little potential of it not recovering its revenue. The AEMC has limited the optimisation to (page 65)

“TNSPs will only face the risk of regulatory optimization of assets within their RABs if:

- those assets no longer contribute to the provision of Prescribed Transmission Services;
- those assets are worth more than \$20 million (indexed) and are dedicated to a single network user or a small number of Transmission Network Users; and
- the TNSP has not sought to negotiate a discount or enter arrangements to manage the risk of the assets being commercially stranded.”

The AEMC opines that this gives strong incentives to negotiate. MEU would point out that under the existing Rules, there was even stronger incentives to negotiate as the assets could be optimized without condition. History shows that prudent discounts were seldom achieved. Yet the AEMC has reduced the incentive on TNSPs to negotiate by reducing the penalty if they don't achieve an outcome agreed between the parties.

The AEMC gives the benefit of its wide experiences in negotiating with monopoly providers when it states (page 68):-

“As for whether TNSPs should be obliged to negotiate discounts in good faith with discount seekers with recourse to binding dispute resolution, the Commission has not been persuaded that such measures are required to ensure that [sic] effective commercial negotiations occur. No evidence has been presented to the Commission that TNSPs currently lack incentives to negotiate discounts with customers that have genuine bypass options (including deciding to relocate or not to invest).”

Other than in the case of the SA-Vic interconnector, the MEU points to the fact that the TNSPs have never seen the need to negotiate (either in “good faith” or otherwise), when costs can be passed on to consumers. The pressure for them to negotiate under the existing Rules which allowed optimisation of assets that

are under-utilised provided much greater pressure than the obviously weaker incentives included in the draft Rule.

The AEMC has continued with its practice of giving the TNSPs greater freedoms and lower external controls even when consumers point to the challenges they have faced over a decade of deregulation.

In other decisions made by the AEMC it has used intuition where there does not appear to be actual data to support their assumptions. Intuitively a monopoly does not need to negotiate with its customers (especially if the costs can be passed to others), yet despite this intuitive assessment the AEMC has decided that it will not provide support to consumers without explicit and detailed evidence.

This is yet another example of the implicit bias the AEMC shows in favour of TNSPs in the drive to ensure there is no impediment to incentives to invest.

10. Inter-regional issues

The MEU accepts that the AEMC needs to refer the issue of inter-regional TUoS to the MCE. The MEU has already made representations to ERIG that there is a requirement for a national transmission planning and implementation entity which must address the NEM as a whole and identify the ways and means to incentivise augmentation of interconnection and to ensure that efficient economic principles underpin the cost allocation of inter-regional flows.

However, within the AEMC draft decision there are a number of outcomes that arise from the decisions built into the Pricing Rules.

Settlement residues

The AEMC exhibits concerns about the current treatment of IRSR and points to the fact that IRSR are attributed to consumers of the importing region through lower transmission charges. While pointing to the fact that many of the issues surrounding payment for the use of inter-regional connectors is a complex one and should be referred to the MCE, it does in fact include in the detail that there is a need for some better allocative mechanism for these funds.

The AEMC is of the view that a portion of the IRSR should be allocated to generators, and it provides support for this view (page 39).

“As for intra-regional settlement residues, these largely result from generators being settled on the basis of bids that are adjusted by the generators’ assigned static marginal loss factors. As marginal loss factors tend to be about double average losses, this means that generators are effectively paid for less electricity than they actually supply. In this regard it is appropriate for generators to receive some benefit from intraregional settlement residues.”

To see that this occurs, the AEMC requires the residues to be included as an “up front” adjustment to the AARR which effectively allows some of the IRSR to be allocated to generators, and a lesser amount allocated to consumers. The observation that marginal losses for generators are greater than average losses is provided by the AEMC as a supporting argument for this approach.

This is an **absurd** concept for a number of reasons.

Firstly TUoS is not paid by generators at all – they only pay for the connection costs that they directly need. The TUoS is an element of the cost of providing the shared network which generators do not pay for. Consumers pay for the entire shared network including the supply assets to an interconnector, the interconnector itself, and the delivery assets to all consumers.

Secondly, in its support of generators receiving some of the IRSR, the AEMC notes that it is generation scarcity that is the cause of inter-regional price differences. This is a facile observation. It is not the scarcity of generation that causes inter-regional price separation, but largely the constraints on interconnectors that allow generators in the importing region to increase their prices due to less competition. It is consumers that pay these increased prices and the importing regional generators that enhance their profits due to the constraint. It should be remembered that if there was no constraint than consumers would be getting lower generation prices.

Thirdly, it is noted that generators may actually provide more generation than they are paid for due to a supposed disparity between marginal loss factors and average loss factors. This might have some merit as a reason to provide some benefit of the IRSR, but in fact the bulk of the generation in a region does not export to other regions as the ability to export is limited to the capacity of the interconnector – and as MEU has pointed out in other forums the capacity of interconnectors is a very modest share of the total capacity in each region. This means that the losses attributed to the difference in loss factors used in the NEM as a share of the generation revenue is extremely modest.

Fourthly, generators only pay losses in relation to the node in its own region. Therefore the losses that are registered between regions is a relation of the amount of power transported and the inter-nodal losses, and bear little relationship to the regional losses paid for by generators.

Fifthly it is the generators in the exporting region that would incur the penalty for the loss differential, and not the generators in the importing region.

For the AEMC then to decide that importing region generators should get a share of the funds that their own practices caused in addition to the higher prices they get through the out of merit order dispatch due to the constraint is truly absurd and defies logic!.

The AEMC itself sees that double dipping like this has to be avoided – just as it did for embedded generators perhaps getting grid support and the TUoS rebate.

The MEU stated in its earlier submission that there is an argument that the IRSR should be passed to the exporting region as a partial reimbursement for use of the transmission assets used to transport power across the exporting region. There also might be an argument that the exporting generators constrained off by the inter-regional constraint might be entitled to some of the IRSR, but this is an extremely “long bow” to use in support of this argument.

It is consumers that pay the bulk of the transmission costs, and until this approach is modified, there is no doubt that any benefit from the IRSR should be used for the benefit of consumers.

Whilst the Rules continue to grant IRSR to the importing region there is no basis for any of the IRSR to be allocated to the importing region generators. Thus the

AEMC must change its approach to the “up front” adjustment of the AARR so that generators do not get any share of the IRSR.