Response to Australian Energy Market Commission Issues Paper on Electricity Transmission Pricing

This submission was prepared by the Energy Action Group and Energy Users' Association of Australia with assistance from Marsden Jacob Associates. Funding assistance was provided by the National Electricity Consumers' Advocacy Panel. All views expressed are those of the EAG & EUAA.

Final: January 2006

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Executive Summary

1. The EUAA and EAG welcome the chance to make a response to the AEMC's Pricing Issues Paper. Unfortunately, this contribution has been constrained by a number of limitations with the review process. Most significant of these is the failure by the AEMC to provide factual quantified evidence on the effectiveness or otherwise of existing regulatory policies, or the impact of any changes to those policies. Despite these limitations, the EAG and EUAA have attempted to provide a sound and useful response to the matters raised in the Pricing Issues Paper.

2. The dominant conclusion from this submission is that there is clear evidence that the current requirements specified in the Rules in respect of transmission pricing are likely to be totally ineffective in contributing to achievement of the single market objective. There is no real prospect that any 'signal' in TNSP prices will provide any incentive for economically efficient response from end users. This should be of significance to the AEMC given its requirement to develop Rule changes based solely on facilitating achievement of that single market objective.

3. The overwhelming majority of transmission costs are passed to distribution-connected end-users through network and retail tariffs derived by distributors and retailers. The analysis presented in Section 3 of this submission demonstrates that there is, as the Pricing Issues Paper suggests, substantial dilution of transmission charging structures most end-use customers are likely to face. In fact, transmission charging structures are almost totally obliterated by distributors in development of their own network tariffs.

4. The simple fact is that charges linked to energy consumption account for between 80% and 90% of end-users' bills, which suggests there is no value in requiring TNSPs to separate their costs into the categories of TUoS Usage, TUoS General and Common Service. Except for the relatively few transmission-connected end-users, there even appears to be no benefit in requiring TNSPs to segregate costs on a locational basis that is finer than distributor service territory. Distributors clearly aggregate total transmission charges and re-allocate them in ways that are obviously unrelated to TNSP cost allocation practices and tariff designs.

5. Further issues of relevance are that:

   a. There is generally no information provided to end-users on the level of transmission charges. This is the case even for very large (sub-transmission) end-users' bills.

   b. TNSPs do not provide sufficient information on their cost allocation practices for end users to form a view on whether these are 'fair and reasonable'.

   c. Documents that explain the distributors' tariff policies do not provide sufficient information to allow end users to form a view about whether distributors 'play games' with re-allocation of transmission costs (i.e re-allocate transmission costs between consumer classes to maximise financial advantage to the distributors).

6. This is very strong prima facie evidence that there is no possibility that end-users can respond to any signals in transmission prices in a way that could conceivably contribute to achievement of the single market objective.

7. These observations do indeed beg the question as to the value of prescribing transmission pricing structures in the Rules.

8. The complicated structures already contained in the Rules that are (presumably) designed to produce efficiency benefits are indeed diluted and averaged by the distributors. There seems to be no point at all in amending the Rules to impose new pricing structures that may cause material transitional costs as TNSPs interpret and implement changes to their pricing methodologies. Such an outcome would do nothing to promote achievement of the single market objective.

9. Conversely, prescribing Rules for charges to generators, or large directly-connected loads, would definitely appear to be not only more worthwhile (as suggested by the AEMC), but the only mechanism for facilitating achievement of economically efficient outcomes through transmission pricing.

10. As a consequence, the EAG and EUAA make the following recommendations of approaches that should be taken by the AEMC.

    a. Given the important role that electricity transmission plays in the NEM and the fact that monopoly ownership of transmission assets has proved to be the only realistic and sustainable model for the NEM, there is no doubt that there is a crucial role for effective regulation of all aspects of transmission services, including service performance standards, overall revenue and pricing.

    b. The way in which prices are regulated must include an obligation for all TNSPs to publish details of their pricing policies, procedures and practices and to disclose all pricing information in the same clearly defined format. This is the only way to ensure transparency of pricing regulation.

    c. If the AEMC is unmoved by arguments in this submission, and decides to make only incremental changes to the Rules governing transmission pricing, it should simplify the Rules and more fully align the structure of transmission charges for distribution-connected end-users with end-user metering capabilities, distributor and retailer tariff designs and the way total charges appear on end-users' bills.

    d. However, the AEMC should address the material deficiencies in the current pricing arrangements (which we strongly recommend) – particularly the 'first instance' allocation of all shared network costs to energy end-users. This would present options to refine the Rules to provide a pricing structure that could create more effective incentives for generators to assist in facilitating economically efficient outcomes consistent with achievement of the single market objective.

    e. The current arrangements where price discounts apply, which are understood to occur infrequently, are considered to be satisfactory and should be continued. It is understood that these arrangements have generally been subject to review and oversight by the ACCC to ensure compliance with the relevant regulatory Guidelines, which provides adequate protection of end-user interests.

f. However, the AEMC may also wish to consider whether there is any potential for conflict between ‘discounting policies’ that may apply in the transmission sector, and policies that could be applied in similar circumstances in the distribution sector. It may be worthwhile for the AEMC to review the correspondence posted on the Victorian ESC Website in respect of ‘price discounts’ arranged for the Somerton gas turbine to ensure that consistent principals can be developed for the transmission and distribution sectors.

1. Introduction

This submission contains a response to some of the issues related to regulating transmission pricing that are raised by the Australian Energy Markets Commission's (AEMC) *Transmission Pricing: Issues Paper* (*Pricing Issues Paper*).[1] The submission has been prepared by the Energy Action Group (EAG) and the Energy Users Association of Australia (EUAA) with assistance from Marsden Jacob Associates (MJA). The submission has been subject to review by members and representatives of both organisations.

Both the EUAA and EAG are long-established consumer representative and advocacy organisations; and both have made other submissions to the AEMC in relation to this review. Outcomes of the review potentially have a significant long-term financial impact on energy users.

The EAG is a membership based, not for profit incorporated association formed in 1977, which advocates on behalf of less than 160 MWh electricity consumers across the NEM and less than 10 TJ gas consumers across the East Coast of Australia. The EAG has actively participated in electricity and gas transmission and distribution revenue/pricing reviews across the NEM since energy reforms actively started in 1996.

The EUAA was formed in 1996. The EUAA is a non-profit organisation funded by membership fees, internally generated revenue and external funds. Members determine policy, priorities and direction. The EUAA represents and advocates on behalf of business users with activities across all states and many sectors of the economy. It has over 80 members, including many of Australia's largest energy users. The EUAA is focused entirely on energy issues, cover national and State issues dealing with electricity and gas, as well as greenhouse and energy efficiency. The EUAA also encourages energy retailers and others with an interest in energy matters that affect end-users to join as Associate Members; and actively seeks cooperation with other organisations representing small to medium business and disadvantaged consumers.

1.1. Essential elements of transmission pricing

Section 5 of the *Pricing Issues Paper* provides an outline of key concepts that the AEMC believes should underlie transmission pricing. A principal theme in these concepts is that there is a direct link – established from economic theory – between achievement of economically efficient outcomes and prices that are related, either directly or indirectly, to a 'marginal cost' of providing transmission services.

The theory is rational, well-founded in economic theory and (almost) universally adopted – even if not well understood – by regulated utility pricing specialists.[2]

[1] *Review of the Electricity Transmission Revenue and Pricing Rules Consultation Program, Transmission Pricing: Issues Paper*, AEMC, November 2005.

[2] The basis for this assertion derives from the analysis of actual transmission pricing information that is presented in Section 3 of this submission.

An essential characteristic of marginal cost pricing theory is that prices linked to marginal cost provide a balanced incentive for producers and consumers to act in a manner that is economically efficient. For example:

- if a consumer changes consumption behaviour in a way that increases (or reduces) the producer's costs, this would be directly reflected in an increase (or reduction) in the consumer's bill – and reflect the consumer's perception of value for the service provided; and
- if the producer's costs rise to a level that requires further capacity to be provided (in either the short or long term), there would be an compensating increase in revenue that would justify investment in the additional capacity.

A secondary characteristic of marginal cost pricing, that is equally important to network service providers (NSPs), is that it provides a direct and 'self-compensating' mechanism that can minimise revenue risk. That is, if the price levels reasonably reflect the marginal cost of different consumers' behaviour, changes in that behaviour will not adversely affect the revenue outcome in a material sense. This has an additional (but indirect) benefit to consumers because it provides a clear incentive for NSPs to voluntarily structure tariffs and pricing levels so that they reasonably reflect incurred costs.[3]

An essential element of the 'pricing theory' that is lucidly articulated in Section 5 of the *Pricing Issues Paper* that is directly relevant to energy end-users, is that the theory presumes a link can be established between prices set by TNSPs and economically efficient outcomes <u>that will be facilitated by consumers' response to the TNSPs' 'pricing signals'.</u> This presumption weighs heavily on comments made in this submission.

1.2. Focus on the AEMC's 'key issues' and 'key themes'

The AEMC's *Pricing Issues Paper* sets out what the AEMC sees as a comprehensive background for the review of electricity transmission pricing. Section 1.3 of the *Pricing Issues Paper* contains discussion on 'key issues' for the review that are presented paraphrased as a series of questions:

- Is there a need for regulation of electricity transmission prices?
- Who should pay for electricity transmission services?
- How should charges be structured?

This leads the AEMC to suggest the following as 'key themes' for the review:

- Aligning the interests of TNSPs with grid users; and seeking greater certainty, clarity and consistency of the regulatory arrangements (both of which where also identified by the AEMC as the 'key themes' for the review of transmission revenue arrangements).
- The rationale for regulation (i.e. is their a need for transmission price regulation in some or all circumstances?).

[3] This does not mean that prices can be set to ensure these outcomes will always be achieved. Individual consumers do not all demonstrate exactly the same consumption behaviour; and not all individual cost elements can be precisely allocated to individual consumers (or even groups of consumers who have recognisably similar behaviours). Practical application of sensible, well-founded pricing policies using accepted and robust cost allocation methodologies is dependent on judgement and, sometimes, even arbitrary decisions that can materially effect cost allocations.

- The relationship between discretion and transparency – the less prescriptive price regulation is, the more decisions are implicitly left in the hands of the Australian Energy Regulator (AER) and TNSPs. To provide reasonable certainty for all stakeholders, greater discretion should be accompanied by greater obligations to ensure transparency in price setting.
- The need to make trade-offs in developing Rules for transmission pricing. Appropriate Rules may need to make trade-offs between:
  - theoretical purity and practicability; and
  - efficiency in the short run (static efficiency) and efficiency in the long run (dynamic efficiency). This tension is most obvious when considering pricing arrangements that encourage utilisation of idle transmission capacity (which is efficient in the short run) and pricing arrangements designed to signal future costs that a transmission customer's present demand may lead to (long run efficiency).
- The importance of taking into account other aspects of the NEM arrangements – for example, the regional pricing structure and transmission investment arrangements.

Focus on the three 'key issue' questions posed by the AEMC and the 'key themes' form the basis for the majority of comments in this submission. These embody many of the key issues that are directly relevant, and of direct interest, to energy end-users. The comments in this submission are also specifically focussed on outcomes of an analysis of current arrangements applying to electricity transmission pricing that was undertaken by Dr Jeff Washusen of MJA. These outcomes are summarised in section 3 of this submission.

The EUAA and EAG note that the focus of the *Pricing Issues Paper* deals entirely with hypothesis and theory. Information in this submission attempts to 'interpret' how the hypothesis and theory impact on end users by presenting practical examples of transmission pricing outcomes.

The AEMC's focus is presumably based on the (quite reasonable) assumption that application of sound hypothesis and sound theory are both essential prerequisites for development of sound regulatory policy, which is itself a prerequisite for developing sound Rule changes. The EUAA and EAG have no objection to this focus by the AEMC. Both organisations accept that the Rules will benefit from being founded on sound hypothesis and sound theory. However, future development of the Rules will also benefit from focus on quantified outcomes from a decade of the practice of economic regulation of electricity transmission services in Australia.[4] There appears to be little to be gained overall by limiting the focus of the AEMC's review to hypothetical and theoretical considerations.

[4] Independent economic regulation of electricity transmission services commenced with promulgation of the *Victorian Electricity Supply Industry Tariff Order* on 30 June 1995.

2. Critique of review process

As was the case with the transmission revenue issues paper, the *Pricing Issues Paper* says the AEMC *will have particular regard to the substantial experience in transmission pricing regulation and practice since the commencement of the National Electricity Market as well as the interrelationship of pricing matters to transmission revenue regulation*.[5] The *Pricing Issues Paper* also appears intended to leave all options open and 'on the table'; and raises questions, alternatives and options in a wide range of areas to elicit views from stakeholders.

The EAG and EUAA have made a separate submission in response to the transmission revenue issues paper.[6] That other submission included comments on shortcomings in the AEMC's consultation process that are exacerbated by the time limits placed on the AEMC and funding constraints faced by end-users. These same deficiencies impact on the AEMC's transmission pricing review and limit effective contributions by end-users.

Aspects of the consultation process that relate to transmission pricing that are of direct relevance to end-users are:

(1) There is overlap between the AEMC consultation and the MCE initiative to review principles for the '*regulatory test*'.[7]

This raises a question of how the AEMC will address this overlap. What will the AEMC do to ensure that consumers (and the supply side) will not be faced with the AEMC taking a position on Rule changes affecting the *regulatory test*, only to find that position modified after the current consultation is completed? How will the AEMC co-ordinate responses to these two reviews?

The AEMC appears to hold a belief that the *regulatory test* may *go some way towards fulfilling the role of a regulated transmission pricing regime*.[8] The continued existence of inter-regional transmission constraints that clearly distort outcomes in the wholesale energy market is partly due to failure of the *regulatory test* to bring forward sensible investment in transmission that would remove these constraints. The AEMC needs to ensure that the *regulatory test* is fixed so that it does contribute to '*fulfilling the role of a regulated transmission pricing regime*'.

(2) There is overlap in issues to be resolved in the 'transmission revenue' issues paper and the *Pricing Issues Paper*.

An issue of particular importance to energy users is the status of the suspended NECA review of application of the 'beneficiary pays' principle, which is referred to very briefly in the *Pricing Issues Paper*, viz: [9]

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5 p. 4, *Transmission Pricing: Issues Paper*, AEMC, November 2005.

6 *Response to AEMC Issues Paper - Electricity Transmission Revenue Requirements*, A submission by the Energy Action Group and Energy Users Association of Australia , January 2006

7 Letter from Hon Ian Macfarlane (as MCE Chair) to Dr John Tamblyn headed *National Electricity rules – Rule Change Application, Reform of the Regulatory Test Principles.* The letter is undated was but posted on AEMC Website on 28 October 2005.

8 p. 17, *Transmission Pricing: Issues Paper*, AEMC, November 2005.

9 The submission by Bardak Energy & Management Services to the AEMC review also includes reference to the 'perverse incentives' created by this current transmission pricing arrangement – along with several other

> *On the other hand, the beneficiary pays approach has limited economic justification. This is because generators, particularly existing generators, have little influence on where, what type and how much transmission investment occurs. This differs from the provision of most private goods where the beneficiary is also the decision-maker (ie, the causer). Aside from the lack of theoretical backing for such an arrangement it is difficult to see how such a scheme could be put into practice. The calculation of benefit shares from a transmission investment would require a range of assumptions to be made, which would be likely to attract significant disputation.* [10]

The AEMC provides no evidence to support the assertion that the beneficiary pays principle has limited theoretical justification.

This submission makes no attempt to provide that evidence to the AEMC. However, it is surely factually incorrect and naive to suggest 'limited economic justification' is linked to the idea that *generators … have little influence on where, what type and how much transmission investment occurs*. One major reason a substantial portion of transmission assets are located where they are, and have the capacity they have, is because this produced a lower cost outcome for investment in major generation assets due to the comparative costs of coal (or water) and electricity transport. However, the comparative costs of transporting (and storing) gas, and constructing embedded generators close to load centres, are fundamentally different to costs associated with transport and storage of coal (or water). Consideration of these transport cost differentials would deliver fundamentally different outcomes in transmission investment over time if the full impact of transport costs were taken into account in the decision to locate new gas-fired generation assets – <u>and the operation of existing generators</u>.

It may be correct to assume that transfer of costs to existing generators through a 'beneficiary pays' arrangement could do nothing to alter the decision (taken long ago) to invest in existing transmission assets that connect remote coal-fired (and hydro) generators to the market. But current arrangements that transfer 100% of shared transmission costs to end-users undoubtedly create economic distortions. For example:

- the Rules need to provide a negotiation framework to transfer avoided transmission costs to embedded generators;[11]
- the definition of 'avoided' transmission costs contained in the Rules excludes fixed charges, even though the allocation of fixed costs permitted by the Rules is arbitrary and may also be affected by embedded generation investment in the long term; and
- there are distortions in locational decisions affecting gas fired generators that can avoid transmission costs by locating close to a gas production point, while end-users 'pick up

substantial issues not included in the AEMC's issues papers. The AEMC's issues papers make very oblique references to Bardak's focus on this particular issue by way of a reference to "*The convergence of energy markets was also identified in submissions as an important consideration for this Review*" (p. 11, transmission revenue issues paper) and to the fact that "*several Scandinavian jurisdictions apply locational transmission charges to recover some shared network costs*" (p. 53, *Pricing Issues Paper*).

[10] p. 48, *Transmission Pricing: Issues Paper*, AEMC, November 2005

[11] The Victorian ESC Website contains the substantial correspondence between the (then) Office of the Regulator-General and AGL Networks that was needed to 'clarify' how avoided network costs should be treated for AGL Network's Somerton gas-fired generator. While this correspondence focuses on treatment of avoided distribution costs, the issues are almost identical to those that arise in 'negotiation' of avoided transmission cost. (see: http://www.esc.vic.gov.au/electricity286.html)

the tab' for transmission (investment and increased transport losses in transmission assets - which is clearly illogical). It is noted that the same distortions occur in relation to locational decisions for remote wind generators.

The transfer of a 'beneficial share' of transmission costs to generators (and the associated losses) – or the introduction of a locational pricing scheme that differentiated between 'generation poor' and 'generation rich' zones[12] would remove these economic distortions and, most likely, improve the economic efficiency of future generation and transmission investment decisions.[13]

The EAG and EUAA understand that implementation of a reasonable (and rational) 'beneficiary pays' pricing arrangement would transfer significant shared transmission cost from end-users to generators – but only in the first instance. It is also understood that an effectively competitive energy market would ultimately see those costs passed onto end-users in energy prices. However, generators would be more clearly motivated to ensure that transmission costs are efficient and as competitive as possible. Hence, support for this proposition is predicated on the belief that this would:

- remove 'perverse incentives' in the current transmission arrangements (related to the difficulty in 'negotiating' transfer of avoided transmission costs to embedded generators); and
- fundamentally change the response of generators to transmission charges and, most likely, lead to greater pressure to introduce effective incentives for operation of a more effectively integrated transmission network (one that would allow generators access to the 'whole' market during periods of constraint.

Overall, the implementation of a reasonable 'beneficiary pays' arrangement would be much more likely to stimulate economically efficient outcomes than the current transmission pricing arrangements.

2.1. Limited quantified information on transmission pricing

The *Pricing Issues Paper* poses 53 very specific and detailed questions. It is clear these relate to policy options that will have a significant, or possibly substantial, financial impact on TNSPs and energy users. It would, therefore, be prudent for the AEMC to consider information that assists in quantifying the impact of the different policy options. This would inform the AEMC's judgement on which options are most likely to facilitate achievement of the single market objective in the National Electricity Law.

It is also essential that the AEMC consider quantitative outcomes from current regulatory policies and practices – in a formal 'regulatory policy audit' – before making any decisions in this review. The EAG and EUAA understand that the AEMC is required to apply 'the

[12] Examples of such arrangements in other jurisdictions are contained in the Bardak submission to this consultation process. The EAG and EUAA support Bardak's suggestion that the AEMC review these arrangements in detail with a view to implementing schemes of similar effectiveness in the Rules.

[13] Addressing this issue will become a priority as small-scale embedded generation technologies develop and become more cost effective. Proliferation of such technologies, which appears a possibility over the next 10-20 years could result in 'stranding' of substantial investment in 'conventional' network assets in both the transmission and distribution sectors. The current Rules clearly create a barrier to investment in such technologies.

Rule making test'.[14] However, as a matter of principle, decisions on the Rules should only be pursued where the AEMC can clearly demonstrate that:

- existing arrangements meet the single market objective better than some alternative; <u>and</u>
- its decisions on the Rules will facilitate achievement of the objective in a manner that delivers economic benefits to energy users (and the overall economy).

In addition, information that assists in quantifying the impact is crucial to developing an informed position on the AEMC's 53 questions. Lack of access to information that quantifies the potential impact of regulatory policies is a major obstacle to effective participation by end-users in this entire review process.

It is disappointing that the *Pricing Issues Paper* contains very little quantified information on the outcomes of current transmission pricing arrangements. It is also disappointing to note that this puts end-users at a distinct disadvantage compared to other stakeholders in the AEMC consultations.

Regulation of electricity transmission services (by independent regulators) commenced in Victoria with proclamation of the *Victorian Electricity Supply Industry Tariff Order* on 30 June 1995. Australian jurisdictional regulators and/or the ACCC have had responsibility for overseeing regulation of transmission services for up to 10 years. Yet the *Pricing Issues Paper* contains few references to quantified examples that demonstrate how effective existing polices and practices might be in achieving the objectives for effective regulation in the *Pricing Issues Paper*. Instead, the *Pricing Issues Paper* refers primarily to conceptual and theoretical differences in regulatory policy and practice without demonstrating the effectiveness of these.

[14] The Rule making test states:

(1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity market objective.

(2) For the purposes of subsection (1), the AEMC may give weight to any aspect of the national electricity market objective as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles.

3. Analysis of existing transmission pricing outcomes

As part of preparing this submission, MJA conducted an analysis of current electricity transmission pricing outcomes. The analysis provides a means for 'testing' whether or not the AEMC's hypothesis and theory, that supports pricing linked to marginal cost, is appropriately applied through the current Rules. In effect, the analysis is a form of audit of the current Rules.

The analysis was quite straight forward, and was based on the presumption that pricing information should be easily accessible to energy users, should be capable of being readily understood by energy users and should assist energy users make their consumption choices.[15] The analysis examined the consistency of tariff designs and prices contained in the different TNSP pricing schedules and similar information contained in the different distribution business pricing schedules. Information from Western Power was included even though transmission pricing in WA is not determined by the Rules.

Essentially, MJA was seeking to determine whether or not existing pricing practices by TNSPs (and distributors) were likely to provide information that might allow energy users to respond in ways that would be expected to facilitate achievement of the single market objective, that is, protect the long term interests of consumers of electricity.

Given that energy users directly bear the overwhelming majority of transmission costs, the economic theory of marginal cost pricing would suggest that it is changes to end-users' behaviour due to 'signals' in transmission prices, and the consequent actions of TNSPs, that would facilitate economically efficient outcomes in the transmission sector.

A summary of outcomes and conclusions from this analysis is presented below.

3.1. Pricing disclosure needs to be strengthened

The ability to undertake the analysis of transmission pricing outcomes was hindered to some extent by lack of reliable and consistent public domain information on electricity transmission pricing across Australia. In particular, it is noted that:

- Powerlink initially declined to provide MJA with a list (or any detailed information) of Entry and Exit prices,[16] even though such information is published by ElectraNet,

[15] This presumption is entirely consistent with the AEMC's 'key theme' relating to 'discretion and transparency', noting that full and open public disclosure of pricing information must be an essential element of any sound regulatory regime.

[16] Powerlink subsequently advised that detailed price information would be provided to any individual customer who was seeking connection to the Powerlink system. Powerlink also acknowledged that the Rules required pricing disclosure, but there was no specific requirement to make the information public. An offer was made to seek the consent of Powerlink's customers to release this information to MJA. It is MJA's view that this offer, while well-intentioned, does not constitute an acceptable level of transparency.

MJA remains firmly of the view that the AEMC should amend the Rules to oblige public disclosure of all pricing information that are subject to regulatory oversight, including an explanation of pricing policies, practices and procedures that relate to costs borne by end-users. This is the only satisfactory way of ensuring 'transparency' in the regulatory process.

Transgrid and Western Power and was provided by SP Ausnet in response to an e-mail request sent to the general contact nominated on the SP Ausnet Website.

- No information is currently available in the public domain for transmission pricing in Tasmania, pending the outcome of a detailed review of network pricing in that jurisdiction.
- Distributors in NSW and Queensland either do not publish details of TUoS charges included in their network tariffs or do not so to the same level of detail as distributors in SA, Victoria and WA.

The lack of consistency in this information, and in particular the reluctance of Powerlink to provide the information requested, shows conclusively that that the AEMC must, as a minimum, amend the Rules to require full disclosure of all transmission charges. The AEMC should also amend the Rules to require publication, <u>in a precisely specified and simple common format,</u> by all NSPs of their pricing policies, including a credible explanation of their procedures and pricing practices.

The disclosure requirement should cover pricing for all connection arrangements and any price discounts offered by TNSPs that are subject to regulatory oversight. The EUAA and EAG understand that each connection arrangement can be designed and constructed to meet the requirements of a connecting party and even constructed by a non-TNSP third party under a negotiated arrangement. However, where the pricing is determined or charged by a regulated TSNP – and the cost recovered in full (or part) from energy users, it is in the public interest for the information to be fully and transparently disclosed. This is particularly important given that TNSPs provide monopoly services that have a major impact on both upstream and downstream competition. This disclosure requirement should include details of technical capability of the connection point, including load characteristics for all connection points paid for by energy users through regulated charges.

3.2. Variations in TNSP tariffs

Section 4 of the *Pricing Issues Paper* contains a relatively comprehensive description of how existing transmission charges are determined under the Rules. This procedure, which contains elements that cover cost allocation, tariff design and pricing is specified in greater detail than equivalent provisions in the Rules covering distribution pricing and retail pricing (specification of retail pricing is virtually non-existent in the Rules on the quite reasonable basis that this is a matter for ‘the market’ to determine).

Despite this relatively detailed specification, tariff designs and pricing outcomes vary considerably between TNSPs and between TNSPs and distributors. A partial illustration of this is presented in Chart 1 below, which shows the elements contained in each TNSP’s tariff.

CHART 1 : TRANSMISSION TARIFF COMPONENTS

TNSP	Exit Price ($/day)	TUOS Usage				TUOS General		Common Service	
		Peak ($/MWh)	Shoulder ($/MWh)	Off-Peak ($/MWh)	Demand Price ($/MW/day)	Capacity Price ($/MW/day)	Energy Price ($/MWh)	Capacity Price ($/MW/day)	Energy Price ($/MWh)
EA/ Transgrid	✓	✓	✓		✓	✓	✓	✓	✓
ElectraNet	✓				✓	✓	✓	✓	✓
VENCorp/ SP Ausnet	✓				✓	✓	✓	✓	✓
Powerlink	✓	✓			✓	✓	✓	✓	✓
Western Power	See note				✓	✓		✓	

Note: Western Power's distribution tariffs included a minimum fee for connection to transmission assets. But this is linked to a 'minimum demand' at the transmission connection point specified in MVA. While this charge is 'fixed', it is similar to the 'Demand/Capacity' charges imposed by other TNSPs. Western Power also imposes an 'Entry Fee' at generator connection points that appears identical to the Entry Fees of all other TNSPs.

It is notable that only ElectraNet and VENCorp/SP Ausnet use the same tariff structure and that only EnergyAustralia/Transgrid and Powerlink segregate components linked to energy consumption by (different) time periods. However, it is also notable that these distinctions become less relevant once the tariff information is 'converted' to pricing information. For example, TNSPs apply only one of the tariff components under the TUoS General and Common Service categories one the basis of either the 'Capacity Price' or 'Energy Price' components. The level of explanation of how this process is applied varies between TNSPs, but none is particularly detailed. For example, VENCorp provides the following 'explanation' of how the Common Service component is applied:

> *The Common Service price is either an energy price or a capacity price, each of which have a common value across all locations and recovers the non-locational transmission costs including the costs of planning and operating the network. Of the energy price and the capacity price, the Common Service price that applies to a connection point in a financial year is the price that results in the lower estimated recovery from Common Service charges for that connection point.*[17]

For simplicity, the pricing information has been concatenated in Chart 2 below into categories for the 'Fixed charges', 'energy charges' and 'Capacity/Demand charges', which is similar to the tariff information that (might) appear on end users' bills. It should be noted that the price levels shown in this table are not those that would appear on a transmission customer's bill. The actual combination of charges would depend on whether a Capacity Price or Energy Price was applied for TUoS General and Common Service charges.

[17] p. 1, *Electricity Transmission Use Of System Prices*, 1 July 2005 to 30 June 2006, VENCorp. This price list is posted on the VENCorp Website. Note 7 says *Exit and Entry charges are charged separately by SPI Powernet (www.spipowernet.com.au)*, but no explanation is provided about Entry and Exit Charges.

Some other TNSPs include both prices and a brief explanation of Entry and Exit Charges on their price lists; and some provide a brief explanation, but no price information. There is no list of Entry and Exit charges posted on the SP Ausnet Website, but a copy of the price list was provided in response to an e-mail request sent to a general contact nominated on the SP Ausnet Website.

However, there is no public domain information in the TNSPs' pricing documents that enabled MJA to determine exactly how or where these charges are applied.

CHART 2 : SIMPLIFIED TRANSMISSION PRICE COMPARISON (INCL GST)

Tariff	TNSP	Fixed charges ($/day)	Capacity / Demand charges ($/MW/day)	Energy charges (TUoS Usage + TUoS General + Common Service)		
				Peak ($/MWh)	Shoulder ($/MWh)	Off-Peak ($/MWh)
Average Metro	EA / Transgrid	2,985	65.3	6.53	6.53	3.61
	ElectraNet	7,993	99.4	6.78	6.78	6.78
	Powerlink	Not disclosed	100	6.93	5.10	5.10
	VENCorp/ SP Ausnet	6,571	9,615	5.35	5.35	5.35
	Western Power	0	135	0	0	0
Max	EA / Transgrid	14,120	176	28.2	28.2	3.81
	ElectraNet	11,815	905	6.78	6.78	6.78
	Powerlink	Not disclosed	219	13.8	5.10	5.10
	VENCorp/ SP Ausnet	13,914	36,025	5.35	5.35	5.35
	Western Power	0	415	0	0	0
Min	EA / Transgrid	0	46.6	4.12	4.12	3.43
	ElectraNet	0	69.5	6.78	6.78	6.78
	Powerlink	Not disclosed	82.6	5.67	5.10	5.10
	VENCorp/ SP Ausnet	0	2,586	5.35	5.35	5.35
	Western Power	0	0	0	0	0

Note: Some Capacity and Demand charges are specified in MVA, not MW. No adjustment has been made to the values quoted by the relevant TNSP.

The form of presentation adopted in Chart 2 was chosen is to illustrate the following points:

- there is a considerable range in values of the price components between different TNSPs. For example:
  - Fixed charges range from 0 to nearly $14,000/day, which presumably reflects the direct cost of providing specific connection assets and the level of 'capital contribution' paid by the transmission customer towards the connection assets.
  - Peak energy and 'Shoulder' energy charges vary considerably for EnergyAustralia/Transgrid and Powerlink only.
  - Combined Capacity/Demand charges range from $0/MW/day to $36,000/MW/day.
- such a wide variation in price level would:
  - create significantly different 'signals';
  - that would (presumably) produce considerably different 'incentives' for consumer behaviour;
  - that would lead to substantially different (economic) outcomes;

  <u>assuming of course that transmission prices have any significant impact on consumer behaviour when they account for less than 20% of the total delivered energy cost.</u>

Presentation in this format also assists in comparing TNSP prices to the TUoS components in distributors' network tariffs – since none of the distributors adopts a tariff that emulates the structure illustrated in Chart 1.

3.3. Variations in distributor TUoS tariffs

One issue of substance that is not dealt with in depth in the *Pricing Issues Paper* is how the overwhelmingly vast majority of transmission charges are passed to end-users. Section 4 of the *Pricing Issues Paper* provides a detailed description of the process specified in the Rules that is used by TNSPs to determine their prices. But there is only indirect reference (in Sections 2.3 and 6.2) to the role of distributors in passing on TNSP costs to end-users, and no reference at all to the role of energy retailers. As the *Pricing Issues Paper* states:

> *In the NEM, end-users connected to distribution networks (which are the overwhelming majority of end-users in number and a substantial majority of overall load) may not be faced with a transmission pricing structure imposed by the Rules, the AER or even the TNSP. Clause 6.13.7(b) of the existing Rules provides that transmission costs must be allocated to (distribution) asset categories by DNSPs using an appropriate methodology agreed with the jurisdictional regulator and consistent with the objectives of the distribution pricing regime set out in clause 6.10.2(b)(4). That clause requires that where end-use customers have appropriate metering technology in place, distribution prices to those customers should preserve the locational and time signals of the customer TUoS usage charge. However, there is no mention of preserving signals to other types of customers or in relation to other prices.*[18]

and

> *Given the level of dilution of transmission charging structures most end-use customers are likely to face, this begs the question as to the value of prescribing transmission pricing structures in the Rules. Complicated structures designed to produce incremental benefits may be diluted or averaged by the DNSP. At the same time, new pricing structures may cause material transitional costs as TNSPs interpret and implement changes to their pricing methodologies. The overall effect may not promote the NEM objective. Conversely, prescribing Rules for charges to generators or large directly-connected loads may be more worthwhile.*[19]

Despite that fact that each TNSP has a limited range of tariff designs, Chart 3 below shows that distributors allocate the transmission costs they incur to a large range of individual tariffs. The overwhelming majority of end-users in number (virtually all Residential and most Small Business customers) face very simple energy tariffs comprising an Annual Service Charge (that is generally wholly unrelated to any TSNP tariff component) and a single 'flat rate' energy tariff or a 'Peak rate and Off-Peak rate' energy tariff.

Of those distributors that have introduced tariffs for half-hourly interval meters, only United Energy has attempted to 'mimic' the (distribution) tariff form applied to larger end-users by incorporating a Summer Demand Incentive Charge into relatively complex time-of-use tariffs. EnergyAustralia has introduced a 3-Phase 'air conditioning' tariff with relatively high 'peak rate' charges, but other distributors have (generally) simple applied the same 'Peak and Off-Peak rate' tariff designs developed for accumulation meters. There is no

[18] p. 41, *Transmission Pricing: Issues Paper*, AEMC, November 2005.

[19] p. 42, *Op Cit*.

information in the public domain on the number of 'competitive market' retail tariffs that include any further innovation in tariff design. However, most retailers appear to offer 'matching products' that reflect pass-through of distributor tariffs – although it is worthy of note that:

- not one retailer has developed a 'matching product' for the interval meter tariff that United Energy 'offers' to Residential consumers; and
- at least one retailer (TRU Energy) has developed a 'bill smoothing' product that requires consumers to pay the same monthly amount linked to total annual consumption, which effectively removes 'time-of-use' pricing signals to those consumers.

CHART 3 : NUMBER OF DISTRIBUTOR TARIFFS

Region	distributor	Network Tariff Summary			Comment on Interval Tariff for small consumers
		Total	Closed	IM ToU - Small	
ACT	ActewAGL	20	0	No	
NSW	EnergyAustralia	23	4	Yes	IM Tariff with Peak, Shoulder and Off-Peak rates
	Integral	15	0	Yes	IM Tariff same as small multi-rate, but higher Standing Charge
	Country Energy	106	37	Not clear	4 multi-rate ToU tariffs with Peak, Shoulder and Off-Peak rates.
SA	ETSA Utilities	43	15	Yes	IM Tariff same as Small multi-rate.
VIC	AGL	26	0	No	
	CitiPower	23	7	Yes	IM Tariff same as Small two rate.
	Powercor	32	5	Yes	IM Tariff same as Small two rate.
	SP Ausnet	35	17	No	
	United	18	7	Yes	Multi-rate with ToU 'demand' charge.
QLD	Energex	20	0	Not clear	FRC limit >100MWh
	Ergon	29	3	Not clear	

The various explanations of distributor pricing policies, procedures and practices generally describe much the same process of dealing with transmission charges in the development of distributor network tariffs. That is, transmission charges imposed at each connection point are aggregated and then re-allocated in accordance with the distributors' own pricing policies, procedures and practices with no specific intention of retaining any of the 'pricing signals' inherent in the TSNPs' tariffs. This is illustrated in Chart 4 below, which summarises the available TUoS component prices in distributors' 'single rate' Residential network tariffs.

The essential messages to take from this information, apart from the fact that it is incomplete because distributors in NSW and Queensland do not publish sufficient detail of their network charges, are:

- The price levels in each TUoS tariff component are markedly different to the price levels for the relevant TNSP summarised in Chart 2 – bearing in mind that these price levels are not directly comparable for the reasons stated in that section of the submission.
- Only in Victoria do distributors (AGL, Citipower and Powercor) include a 'fixed charge' component in their TUoS tariffs – even though the VENCorp/SP Ausnet and all other TNSPs imposed fixed 'Exit Price' charges on distributors.

- No distributors include a Demand/Capacity charge in their Residential single rate TUoS tariffs even though all TNSPs impose such charges – because standard 'accumulation' meters cannot record demand.

CHART 4 : TUOS COMPONENTS IN DISTRIBUTOR RESIDENTIAL 'SINGLE RATE' NETWORK TARIFFS (INCL GST)

Tariff	Region	Fixed charges ($/day)	Capacity / Demand charge ($/MW/day)	Energy charges		
				Peak ($/MWh)	Shoulder ($/MWh)	Off-Peak ($/MWh)
Average Metro	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	0	17.1	17.1	17.1
	QLD (Energex Only)	0.0000	0	9.73	9.73	9.73
	VIC	0.0109	0	11.3	11.3	11.3
	WA (South West)	0.0000	0	14.41	14.41	14.41
Max	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	0	17.1	17.1	17.1
	QLD (Energex Only)	0.0000	0	9.73	9.73	9.73
	VIC	0.0212	0	19.5	19.5	19.5
	WA (South West)	0.0000	0	14.41	14.41	14.41
Min	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	0	17.1	17.1	17.1
	QLD (Energex Only)	0.0000	0	9.73	9.73	9.73
	VIC	0.0000	0	7.80	7.80	7.80
	WA (South West)	0.0000	0	14.41	14.41	14.41

An examination of tariffs offered to large (sub-transmission) industrial end-users suggests the distributors' practices are applied more or less uniformly, irrespective of the end-users' load characteristics. This is illustrated by the tariff comparisons in Chart 5 below.

CHART 5 : TUOS COMPONENTS IN 'SUB-TRANSMISSION' NETWORK TARIFFS (INCL GST)

Tariff	Region	Fixed charges ($/day)	Capacity /Demand charge ($/MW/day)	Energy charges		
				Peak ($/MWh)	Shoulder ($/MWh)	Off-Peak ($/MWh)
Average Metro	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	66.4	6.25	6.25	5.74
	QLD (Energex Only)	Not disclosed	7.16	3.89	3.89	0.00
	VIC	11.3505	12.2	13.2	13.2	3.13
	WA (South West)	111	132.74	n/a	n/a	n/a
Max	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	66.4	6.25	6.25	5.74
	QLD (Energex Only)	Not disclosed	7.16	3.89	3.89	0.00
	VIC	56.7525	25.1	18.3	18.3	6.01
	WA (South West)	111	449.86	3.89	3.89	0.00
Min	NSW	n/a	n/a	n/a	n/a	n/a
	SA	0.0000	66.4	6.25	6.25	5.74
	QLD (Energex Only)	Not disclosed	7.16	3.89	3.89	0.00
	VIC	0.0000	0.00	7.35	7.35	0.00
	WA (South West)	111	107.59	3.89	3.89	0.00

Note: Tariff charges are for Demand Category greater than 10MW. Supply voltage is typically 66kV.

Notable observations arising from comparison with information in Chart 2 and Chart 4 are:

- Fixed charges are not always applied, despite imposition of fixed 'Exit charges' by all TNSPs. It is also notable that only one Victorian distributor (AGL) imposes fixed charges in sub-transmission TUoS tariffs, even though Citipower and Powercor both also impose a fixed charge in the 'single rate' Residential TUoS tariff.

- Virtually all distributors appear to include a Capacity/Demand charge in the TUoS component of the network tariff (except SP Ausnet in Victoria) – noting that there is no suitable information readily available in NSW. However, the magnitude of these charges is generally substantially different to those imposed by the relevant TNSP.

The overall conclusions from the above analysis are consistent with the comments in the *Pricing Issues Paper* quoted above. There can be no doubt that there is substantial *dilution of transmission charging structures most end-use customers are likely to face*. In fact, the transmission charging structures are almost totally obliterated by distributors in development of their own network tariffs.

A further issue of relevance is that, based on information provided to the EUAA by its members over a number of years, there is generally no information provided to end-users on the level of transmission charges in their bills. This is the case even for very large (sub-transmission) end-users' bills; notwithstanding that NSPs are obliged by the Rules to provide break downs to larger customers of the cost reflectivity of their transmission charges and the separation to transmission and distribution charges. The fact that this 'service' is not well 'advertised' to end users, that they must proactively seek it and that their relationship is with a retailer not an NSP almost certainly contributes to this.

These observations do indeed *beg the question as to the value of prescribing transmission pricing structures in the Rules.* The complicated structures already contained in the Rules that are (presumably) designed to produce incremental efficiency benefits are indeed diluted and averaged by the distributors. Amending the Rules to impose new pricing structures that may cause material transitional costs as TNSPs interpret and implement changes to their pricing methodologies would achieve little. Such an outcome would do nothing to promote achievement of the single market objective. Conversely, prescribing Rules for charges to generators, or large directly-connected loads, would definitely appear to be not only worthwhile, but a far better mechanism for facilitating achievement of economically efficient outcomes through transmission pricing.

4. Comment on issues of direct relevance to end-users

Given the outcomes of the analysis described in Section 3 above, there seems little point in responding in detail to each of the issues identified in the *Pricing Issues Paper*. It is impossible to imagine that there could be any conceivable link between 'signals' in transmission prices, end-user behaviour and economically efficient outcomes. Therefore, further comment in this submission is limited to those general issues that are obviously of direct relevance and importance to end-users.

4.1. AEMC's 'key issues' and 'key themes'

The answers to questions that paraphrase the AEMC's 'key issues' for the transmission pricing review appear eminently self-evident to energy end-users.

Is there a need for regulation of electricity transmission prices?

Given the important role that electricity transmission plays in the National Electricity Market (NEM) and the fact that monopoly ownership of transmission assets has proved to be the only realistic and sustainable model for the NEM,[20] there is no doubt that there is a crucial role for effective regulation of all aspects of transmission services, including service performance standards, overall revenue and pricing.

The way in which prices are regulated must include an obligation for all TNSPs to publish details of their pricing policies, procedures and practices and to disclose all pricing information in the same clearly defined format. This is the only way to ensure transparency of pricing regulation.

Who should pay for electricity transmission services?

As indicated in this submission, there is a need for radical review of the current Rules that govern regulation of electricity transmission pricing. This is because the relatively detailed and prescriptive arrangements that currently exist are totally ineffective and have no possibility of contributing to achievement of the single market objective.

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[20] The submission by Bardak Energy and Management Services to the AEMC's Scoping Paper provides a sound summary of Australia's 'failed experiment' with Market Network Service Providers. Bardak's conclusion is that:

While maybe well meaning, the whole concept of MNSP's is fatally flawed, as simple calculations can show. In order to gain sufficient revenue, MNSP's must perpetuate and increase regional price differentials — the very opposite of what one would desire from a national market approach — and they can never operate in a financially viable manner without causing regional price differentials of $12-15/MWh as a minimum.

The MNSP flirtation caused confusion, delay in dealing with the fundamental issues, and was the cause of extended legal actions and costs, and has left the NEM with two installations, now regulated or soon to be regulated, that are decidedly nonoptimal solutions.

(p. 6, *A Commentary on the AEMC Scoping Paper for the Review of Electricity Transmission Revenue and Pricing Rules*, Bardak Energy & Management Services, 11 August 2005.)

The overwhelmingly major proportion of transmission service costs are allocated to energy end-users in the first instance, and in an arbitrary way, based only on the notion that it is end-users who will eventually 'pick up the tab' in any case. This effectively eliminates any incentive for electricity generators, who are also major users – and beneficiaries – of electricity transmission services, to respond to signals in electricity transmission prices in a way that stimulates economically efficient outcomes.[21]

Any 'economically efficient' signals that might be contained in electricity transmission prices are only likely to be noticed by a very small number of (generally) large end-users[22] who are directly connected to transmission assets. Even then, there is no direct evidence to support the notion that these 'direct-connected' end-users are better able to respond to these signals in ways that promote economically efficient outcomes than are electricity generators. Any such signals for the overwhelmingly vast majority of other customers, including large distribution-connected industrial and commercial end-users, are totally obliterated by electricity distributors (and energy retailers) who aggregate transmission charges and re-allocate these costs in very different ways to transmission service providers.

In addition, the 'cost pass-through' provisions available to electricity distributors and energy retailers remove incentives for them to effectively respond to any 'economically efficient' signals that might exist in electricity transmission prices.

How should charges be structured?

The answer to this question is: It depends!

If the AEMC decides to make only incremental changes to the Rules governing transmission pricing, it would make sense to substantially simplify the Rules. In this case, the Rules should require the structure of transmission charges for distribution-connected end-users to be aligned with:

- existing end-user metering capabilities,
- distributor and retailer tariff designs; and
- the way total charges appear on end-users' bills.

Even then, there is unlikely to be any significant economic efficiency benefit to be derived from end-user response to transmission pricing signals. Typically:

- Transmission charges account for around 5% to 11% of a Residential end-user's bill and around 15% for a large (sub-transmission) Industrial end-user's bill.

  It should also be noted by the AEMC that the variability in the transmission component of total Residential bills has nothing to do with differences in cost imposed by the consumers on the transmission system, or the locational pricing 'signals' contained in transmission charges. In Victoria (for example), such differences are overwhelmed by

[21] This deficiency is aggravated by fundamental misalignment between gas transmission and electricity transmission pricing arrangements that allow large electricity generators to avoid the consequences to electricity transmission costs that arise solely due to their locational decisions.

[22] While the comments in submissions made by the EUAA and EAG focus primarily on many of the less than satisfactory aspects of the current arrangements for regulating electricity transmission services in the NEM, there are a few isolated examples that the arrangements can benefit end-users. A notable example has been the ability of Perseverance Mining and Air Liquide to organise direct connection of relatively small loads to SP Ausnet's transmission assets at Fosterville and Altona. (see VENCorp and Powercor Websites for further details).

the *Equalisation Adjustments* to transmission charges imposed on distributors by VENCorp made in accordance with Victorian derogations under clause 9.8.4(a)(3) of the Rules, the individual distributors' tariff designs and their own aggregation and re-allocation of transmission charges in their (the distributor's) TUoS tariff components. Similar 'contaminants' to TNSP pricing signals exist in other jurisdictions.

- Variable charges linked to energy consumption account for around 80% of a Residential end-user's bill and around 90% for a large (sub-transmission) end-user's bill, with the fixed component of a Residential consumer's bill generally unrelated to transmission charges and typically less than 1% (generally zero) in a large (sub-transmission) consumer's bill.

If the AEMC decides not to implement an effective and reasonable 'beneficiary pays' arrangement, and make only minimal changes to the Rules affecting transmission pricing, serious consideration should be given to setting transmission charges applying to all distribution-connected end-users with:

- the price linked entirely to energy consumption (i.e. set on a $/MWh or $/MVA basis);
- no fixed charges;
- no demand or capacity charges; and
- no distinction between energy time-of-use.

There would also seem to be little point in retaining the arbitrarily allocation of costs between pricing categories related to TUoS Usage, TUoS General and Common Service, since these are clearly not consistently reflected in any network tariffs determined by distributors (and may be entirely absent from some retail tariffs in the competitive market).

Changes such as these would have the benefit of being (more) readily understood by end users and other transmission users (including distributors).

However, the EAG and EUAA strongly recommend that the AEMC address the material deficiencies in the current pricing arrangements – particularly the 'first instance' allocation of all shared network costs to energy end-users. This would create options for the AEMC to further refine the Rules to provide a pricing structure that could create more effective incentives for generators to assist in facilitating economically efficient outcomes consistent with achievement of the single market objective.

4.2. Continuation of transmission price discounts

One area of particular interest to EUAA members with direct transmission-connected assets is to maintain the maximum level of flexibility in negotiating all aspects of transmission service provision.[23]

Adopting either of the approaches recommended above still means that TNSPs should be permitted every available avenue of promoting economically efficient outcomes. This includes end-user support for continuation of 'price discounts' to individual transmission

[23] It is emphasised that this preference by large energy users for negotiated outcomes extends to all aspects of energy service provision including in respect of distribution services.

users where this can be demonstrated to facilitate achievement of the single market objective and deliver overall benefits to end-users.

The current arrangements where price discounts apply, which are understood to occur infrequently, are considered to be satisfactory. It is understood that these arrangements have generally been subject to review and oversight by the ACCC to ensure compliance with the relevant regulatory Guidelines.[24]

It is understood that at least two such discounts have been agreed, following a process that has included the following steps:

1. The discount 'review process' was initiated by the relevant TNSP covering an increment of load that would not be supplied if the discount was not available. This outcome was confirmed by the TNSP following detailed discussions with the end-user and the end-user's energy supplier.

2. The end-user received the discount because it proved to the ACCC that it met the relevant guidelines; specifically:
   - Guidelines 1 (bypass arrangement is physically viable and that a substantial discount to TUOS general and common service charges is required to ensure the end-user does not construct an uneconomic bypass); and
   - Guideline 2 (no other users worse off).

3. The 'application' for the discount was supported by:

   a. calculation of the costs of bypassing transmission depending on the level of additional power plus other costs, including TUOS standby charge to estimate the total costs of bypass;

   b. calculation of the costs the end-user would avoid from having bypass;

   c. calculation of the net cost of bypass to the end-user (i.e. sub-step (a) less sub-step (b) above);

   d. calculation of the end-user usage charge (bypass pricing rules say this charge is the minimum charge if bypass pricing is allowed)

   e. calculation of the discounted TUOS as the higher of sub-step (c) or sub-step (d) above.

4. The end result is that the end-user makes a contribution to the TNSP's overall revenue requirement equal to the net cost of bypass for the end-user. If there was actual bypass then this contribution would be considerably less (perhaps some stand-by cost) and all other users would have to pay more.

A question arises about the likelihood that such transmission price discount arrangements might be repeated.

[24] *Statement of Principles for the Regulation of Transmission Revenues - Guidelines for the Negotiation of Discounted Transmission Charges*, ACCC, 3 May 2002

The EUAA members that had successfully completed the price discount process suggest that the instances where bypass would be economic (and discounts justified) would be rare given the investment required to actually achieve bypass.[25] Only large end-users with long contract terms could justify this investment. This appears to be the main reason so few discounts have been agreed. In at least one case, the contractual arrangements between the end-user and a (relatively) nearby generator meant the generator was little different from onsite generation. This situation is unlikely to be replicated in more than a few situations in the transmission sector.

However, the AEMC may also wish to consider whether there is any potential for conflict between ‘discounting policies’ that may apply in the transmission sector, and policies that could be applied in similar circumstances in the distribution sector. It may be worthwhile for the AEMC to review the correspondence posted on the Victorian ESC Website[26] in respect of ‘price discounts’ arranged for the Somerton gas turbine to ensure that consistent principals can be developed for the transmission and distribution sectors.

On the basis of the examples of which the EUAA is aware, there would appear to be no problem with price discounting *per se*. It is commercially sensible for utilities to include consideration of discounting in their pricing policies where this can be demonstrated to be of overall benefit to energy users and where regulated entities are required by regulators to “mimic’ competitive market outcomes (a key aspects of the present regulatory regime). However, any ‘discounting policies’ should also recognise that discounts should be discontinued where there is an alternative ‘market’ for the service that is subject to the discount. This is not likely to be very common in the utility sectors.

At least one EUAA member suggested that existing discount policies could be enhanced by allowing the approval of longer term discounts (20-25 years) to provide the necessary certainty for investment decisions of energy and capital intensive industries. The EUAA has considerable sympathy for this view, particularly given the near obsession by regulators and policy makers to assure the supply side faces a predictable investment environment. However, it is difficult to see how such a policy could be implemented without risking disadvantage to other end users. Should circumstances arise where a discount has been

[25] This may well be the case in the transmission sector. Network bypass opportunities may be more numerous in the distribution sector, which is why consistent policy across sectors is important. The EUAA is aware of a number of cases where end users have been unable to negotiate ‘fair’ discounts in the distribution sector, which suggests closer regulatory scrutiny of distributors’ tactics (and over reliance on regulatory strictures) may be necessary.

[26] See: http://www.esc.vic.gov.au/electricity286.html. MJA notes that the Office of the Regulator-General’s (ORG) response to AGL Network's attempt to 'seek regulatory clarification' of the basis for discounts for the Somerton gas turbine, has set an undesirable precedent in Victoria. This demonstrates the ‘dead hand’ effect of regulatory involvement in the negotiation process.

There was no requirement for AGL Network to seek regulatory intervention on this arrangement, even though it involved a ‘negotiation’ between AGL Power Generation and AGL Networks. For reasons that were not clearly articulated in the correspondence, the ORG insisted that AGL Network allow 50% of the locational distribution benefits to be 'retained' by the distributor and subsequently passed through to all general consumers in network prices. There appears to be no rational argument to support this requirement. The 'general consumer body' had done nothing to 'earn' such a benefit, since any such benefit would only have occurred because of AGL Power Generation’s investment in the embedded generator. Nor is there any direct evidence that the ESC managed to pass through any benefit to consumers generally. Any amount of such pass-through was subsumed within the general cost-revenue requirement determined in the subsequent distribution price review.

The most undesirable outcome of this initiative is that it has resulted in all Victorian DBs using the ORG’s ‘decision’ as an 'excuse' to only offer 50% of the distribution locational benefit in negotiation with embedded generators.

agreed, it would appear likely that termination of the discount should be anticipated where this makes sound commercial sense and would produce lower prices to the majority of users without any compromise to the TNSP's commercial viability. This could be a potential issue where a TNSP expects new load that would require additional investment unless the 'discount user' bypassed the transmission system. If that circumstance arose, the TNSP should be expected to make a rational commercial decision, which would be to discontinue the price discount even if this led to bypass. If the price discount is set at the 'right' level (i.e. the 'true' bypass marginal cost to the 'discount user'), this would not disadvantage the 'discount user', nor would it disadvantage other system users.

5. Conclusions and recommendations

The EUAA and EAG welcome the chance to make a response to the AEMC's *Pricing Issues Paper*. Unfortunately, this contribution has been constrained by a number of limitations with the review process. Most significant of these is the failure by the AEMC to provide factual quantified evidence on the effectiveness or otherwise of existing regulatory policies, or the impact of any changes to those policies.

Despite these limitations, the EAG and EUAA have attempted to provide a sound and useful response to the matters raised in the *Pricing Issues Paper*.

The dominant conclusion from this submission is that there is clear evidence that the current requirements specified in the Rules in respect of transmission pricing are likely to be totally ineffective in contributing to achievement of the single market objective. There is no real prospect that any 'signal' in TNSP prices will provide any incentive for economically efficient response from end users. This should be of significance to the AEMC given its requirement to develop Rule changes based solely on facilitating achievement of that single market objective.

The overwhelming majority of transmission costs are passed to distribution-connected end-users through network and retail tariffs derived by distributors and retailers. The analysis presented in Section 3 of this submission demonstrates that there is, as the *Pricing Issues Paper* suggests, substantial *dilution of transmission charging structures most end-use customers are likely to face*. In fact, transmission charging structures are almost totally obliterated by distributors in development of their own network tariffs.

The simple fact is that charges linked to energy consumption account for between 80% and 90% of end-users' bills, which suggests there is no value in requiring TNSPs to separate their costs into the categories of TUoS Usage, TUoS General and Common Service. Except for the relatively few transmission-connected end-users, there even appears to be no benefit in requiring TNSPs to segregate costs on a locational basis that is finer than distributor service territory. Distributors clearly aggregate total transmission charges and re-allocate them in ways that are obviously unrelated to TNSP cost allocation practices and tariff designs.

Further issues of relevance are that:

- There is generally no information provided to end-users on the level of transmission charges. This is the case even for very large (sub-transmission) end-users' bills.
- TNSPs do not provide sufficient information on their cost allocation practices for end users to form a view on whether these are 'fair and reasonable'.
- Documents that explain the distributors' tariff policies do not provide sufficient information to allow end users to form a view about whether distributors 'play games' with re-allocation of transmission costs (i.e re-allocate transmission costs between consumer classes to maximise financial advantage to the distributors).

This is very strong *prima facie* evidence that there is no possibility that end-users can respond to any signals in transmission prices in a way that could conceivably contribute to achievement of the single market objective.

These observations do indeed *beg the question as to the value of prescribing transmission pricing structures in the Rules.*

The complicated structures already contained in the Rules that are (presumably) designed to produce efficiency benefits are indeed diluted and averaged by the distributors. There seems to be no point at all in amending the Rules to impose new pricing structures that may cause material transitional costs as TNSPs interpret and implement changes to their pricing methodologies. Such an outcome would do nothing to promote achievement of the single market objective.

Conversely, prescribing Rules for charges to generators, or large directly-connected loads, would definitely appear to be not only more worthwhile (as suggested by the AEMC), but the only mechanism for facilitating achievement of economically efficient outcomes through transmission pricing.

As a consequence, the EAG and EUAA make the following recommendations of approaches that should be taken by the AEMC.

1. Given the important role that electricity transmission plays in the NEM and the fact that monopoly ownership of transmission assets has proved to be the only realistic and sustainable model for the NEM, there is no doubt that there is a crucial role for effective regulation of all aspects of transmission services, including service performance standards, overall revenue and pricing.

2. The way in which prices are regulated must include an obligation for all TNSPs to publish details of their pricing policies, procedures and practices and to disclose all pricing information in the same clearly defined format. This is the only way to ensure transparency of pricing regulation.

3. If the AEMC is unmoved by arguments in this submission, and decides to make only incremental changes to the Rules governing transmission pricing, it should simplify the Rules and more fully align the structure of transmission charges for distribution-connected end-users with end-user metering capabilities, distributor and retailer tariff designs and the way total charges appear on end-users' bills.

4. However, the AEMC should address the material deficiencies in the current pricing arrangements (which we strongly recommend) – particularly the 'first instance' allocation of all shared network costs to energy end-users. This would present options to refine the Rules to provide a pricing structure that could create more effective incentives for generators to assist in facilitating economically efficient outcomes consistent with achievement of the single market objective.

5. The current arrangements where price discounts apply, which are understood to occur infrequently, are considered to be satisfactory and should be continued. It is understood that these arrangements have generally been subject to review and oversight by the ACCC to ensure compliance with the relevant regulatory Guidelines, which provides adequate protection of end-user interests.

6. However, the AEMC may also wish to consider whether there is any potential for conflict between 'discounting policies' that may apply in the transmission sector, and policies that could be applied in similar circumstances in the distribution sector.

It may be worthwhile for the AEMC to review the correspondence posted on the Victorian ESC Website in respect of ‘price discounts’ arranged for the Somerton gas turbine to ensure that consistent principals can be developed for the transmission and distribution sectors.