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Dr John Tamblyn
Chairman
Australian Energy Market Commission
PO Box H166
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By email to: submissions@aemc.gov.au

Dear Dr Tamblyn

Review of the Electricity Transmission Revenue and Pricing Rules Transmission Pricing: Issues Paper

AGL is pleased to provide comment on the AEMC Issues Paper on transmission pricing. As well as being a generator, retailer and distribution network service provider in the NEM, AGL has actively participated in previous consultations on the Gas Access Regime and is therefore able to comment on this issue from many viewpoints.

In its submission on the Scoping Paper AGL highlighted the importance of taking an integrated view of the role of transmission in reviewing the National Electricity Rules (the Rules) and other major reviews into infrastructure underway. We noted at that time that there were other major reviews under way and we now note that on 7 December the MCE Expert Panel commenced a broad review of both gas and electricity transmission pricing. AGL therefore still believes consideration of most aspects of electricity transmission regulation should be deferred until after other related reviews have been completed so that these issues can be considered within the larger framework.

That said, this issues paper does address matters that the Commission should be examining separately because they are specific to electricity transmission and are impacting the market. These are:

- the incidence of transmission charges, although we believe it is impossible to divorce this issue from the question of access to transmission capacity, which the Commission considers is outside of the scope of this review;
- performance obligations and incentives, which will need to be considered in conjunction with the ACCC and AER work in this area;
- the scope of regulation of transmission assets, which also needs to consider what is covered and dispute or appeal mechanisms available to participants; and
- interstate payments for use of transmission assets and the removal of the use of inter-regional settlement residue funds as a surrogate.

In addition, while we consider that other reviews will also cover this point, the amount of discretion the AER is allowed in its revenue and pricing decisions is so fundamental to the Rule making requirement in Section 35 of the National Electricity Law that it must be examined now.

Incidence of transmission charges

Deep connection charging is required for the NEM to develop efficiently. AGL believes that deep connection charging was always intended for the NEM and mirrors how networks were developed in the pre-market, centrally planned environment. Customers are, of course, charged deep connection costs but usually do not impact past the local network. It is only generators that have been allowed to only pay shallow connection costs. Applying deep connection charging to generators at the time of connection would allow the network costs to be included in their decision process on location and allow for appropriate development of networks to efficiently transfer power from generators to customers.

Implementing a deep connection regime must be accompanied by a right to access to network capacity. This is not full "firm access" but rather a right not to lose the existing level of access without compensation. AGL believes this was the intent of Rules 5.3 and 5.5.

There is, however, no point in charging existing generation on a deep connection basis because their locational decisions have been made and the prime benefit of this regime no longer applies. This is the decision that the ACCC came to prior to the commencement of the NEM when they allowed existing generators to not be charged network charges in Chapter 6 of the (then) National Electricity Code. Generator network charges are determined under Chapter 5 of the Rules on a marginal basis during the connection process.

Deep connection charging, if applied to all new connections, would lead to generators paying their full share of network charges in the long run. AGL believes this is still the correct approach to balance the incidence of network charging while minimising adverse impacts on current participants.

The beneficiary pays approach that was developed, but not implemented, by the National Electricity Code Administrator during its review of transmission charging is a form of deep connection charging. It is, however, not as effective as marginal cost charging at the time of connection because it does not provide a locational signal nor protect access for existing parties. The beneficiary pays approach should therefore be removed from intra-regional network development and limited to charging for new inter-regional networks, as part of a modified regulatory test.

Performance obligations and incentives

AGL supports explicit performance obligations and incentives on TNSPs to meet or exceed those obligations within the transmission pricing regime. We note that the AER has revitalised the Service Standards Working Group and that some useful measures of TNSP performance are being developed.

The actual application of new measures to TNSP performance needs to be considered carefully to avoid perverse incentives. AGL therefore considers that the AEMC should not separately impose TNSP performance standards but rather ensure that the regulatory regime for TNSPs be able to accommodate the outcomes of the AER work. In the short term the current standards should be used.

Scope of regulation

The current rules provide for some services that are provided by TNSPs are outside of the scope of AER regulation. The assumption underlying this distinction is that it is possible for transmission users to negotiate prices and terms effectively with TNSPs.

The Rules require a TNSP to set up a negotiation process and defines a process for managing disputes but AGL is not convinced that these mechanisms fully redress the imbalance in power that exists during connection negotiations. AGL therefore considers that participants should have recourse to an arbiter to assist in resolving connection disputes. This arbiter should be able to make rapid decisions to prevent time pressures on connecting parties preventing its use.

Charging for interstate networks

The mechanisms to allow interstate charging for networks was removed during the last Transmission Review (by NECA) and its proposed replacement was withdrawn from the Code changes submitted to the ACCC. AGL believes that the current use of Inter-regional settlement residues as a surrogate for network charging should be allowed to lapse and should be replaced by a robust method for charging for interstate networks.

Since the mechanism for determining network charges is now regional, a mechanism is required to determine how much of an adjacent region's network capacity is used in providing supply to that region. AGL considers that this should be simple and suggests treating flows between regions as if they were a load or a generator at the boundary. If a region has a net load from an adjacent region during the peak load period for that region (the period that impacts augmentation decisions) then the region should be able to allocate a charge to the adjacent region. The amount to be recovered should be subtracted from AARR to be recovered within the region added to the AARR to be recovered in the adjacent region.

AER discretion

The regulatory environment of TNSPs should be transparent and predictable to allow all participants some confidence in the outcomes of regulatory decisions. This means that the discretion of the AER must be minimised. The Rules should lay down the key content for the regulation of transmission and, where the detail required is more appropriate for guidelines, a consultative process for development of the guidelines must be required. Guidelines must not be allowed to extend the powers of the AER nor increase obligations on participants.

Responses to specific questions in the issues paper are attached as Appendix A. More detail on the incidence of transmission charges is provided in Appendix B.

If you have any queries in relation to this submission, please contact Alex Cruickshank, Manager NEM Development on (03) 9201 7694 or by email to acruicks@agl.com.au.

Yours sincerely,

Dr Robert Wiles
General Manager Regulation and Policy

AGL submission to the AEMC on its review of the Electricity transmission revenues and pricing Rules

– Questions in the Transmission Pricing Issues Paper

Issue	Questions for Stakeholders	
Requirement for Regulation	<p>Should transmission prices be regulated and why?</p> <p>If regulation is required what form should this take? For example, should it be less prescriptive and involve greater transparency or be more prescriptive?</p> <p>What role, if any, should the AER have in determining the nature and form of price regulation?</p>	<p>Electricity transmission assets are diffuse, essential and difficult to bypass. Access to the supply or load, and to the NEM, therefore requires use of the transmission grid. This unique position (compared to the current situation for gas) means that electricity transmission networks must be regulated both in price and performance. AGL supports the current revenue regulation approach since it supports efficient network development. TNSPs should, however, have some discretion on the form of the prices charged so that connected parties are charged in the most efficient way.</p> <p>The AER should not have any role in determining the nature and form of price regulation except to approve some aspects of charging. Where they need to provide guidance to regulated parties they should be able to develop and publish guidelines using the Rule Consultation process. Such guidelines should not be allowed to extend the powers of the AER, which should be fully defined in the Rules.</p> <p>AGL believes that transmission charging (and operations) should be predictable and transparent. It is therefore essential that charges are unbundled to all but the smallest customers so that parties are able to examine whether their charges are appropriate.</p>
Context and Objectives for the Review	<p>Bearing in mind the NEM objective, should economic efficiency of the Rules be the focus or should it also have regard to the distributional consequences of Rule changes?</p> <p>If the NEM objective should have regard to distributional consequences of Rules changes, how should these be taken into account?</p>	<p>Economic efficiency of the market is the primary objective.</p> <p>AGL believes, however, that parties that make commercial decisions should not be unduly harmed by changes to the regulatory regime. We therefore believe that “grandfathering” or transitional provisions are required if substantial changes are made to the current regime.</p>
Current Transmission Pricing Regime	<p>Is the allocation of network costs between the connection and shared network categories in the Rules broadly appropriate? If not, how could it be improved?</p>	<p>AGL has no concerns with the current allocation.</p>

Issue	Questions for Stakeholders	
Types of Charges	<p>Should a common service charge be maintained or should these costs be incorporated into another charge? If not, how should common service costs be allocated or incorporated into other charges?</p> <p>Should generator and MNSP use of system charges remain a matter for negotiation with the TNSP or should they be prescribed in the Rules?</p> <p>If a modified CRNP usage charge is to remain an option: should the Rules prescribe the criteria for the AER to accept implementation of modified CRNP?; and</p> <p>should any network customer (rather than just the TNSP) be able to request that the modified CRNP methodology be implemented?</p>	<p>Yes. The common service charge, which is the only charge actually specified to be charged on a “shallow connection” basis collects non-network charges that are incurred by network owners. This should be separately identified.</p> <p>Generator and MNSP charges are currently only loosely prescribed in the rules and this needs to be clarified and improved. A negotiation element should remain but the charges should be more explicitly set out in the Rules based on costs identified in Rule 5.3 and compensation requirements determined under Rule 5.5. The lack of clear Rules for charging generators and MNSPs has adversely impacted the NEM and AGL considers this an important aspect of the Rules that needs to be fixed during this review.</p> <p>MNSPs, to the extent this issue is still relevant in the NEM, should not be exempt from network charges and should be charged as customers where they draw energy during peak times.</p> <p>The modified CRNP usage charge should remain an option. If participants feel they are disadvantaged then the dispute mechanism should be used.</p>
	<p>How well do the CRNP and modified CRNP methodologies accord with efficient pricing principles? Could simpler approaches be applied to produce similar outcomes?</p> <p>If the CRNP and/or modified CRNP methodologies were to be retained are the descriptions of the methodologies in the Rules sufficiently detailed and clear? If not, how could they be clarified?</p>	No comment
	<p>Is it appropriate to provide scope for TUoS discounting in the Rules?</p> <p>If so, could the existing arrangements be refined and how?</p>	<p>Prudent discounts should remain in the transmission pricing arrangements to prevent inefficient bypass of the network. Equivalent options exist in the gas access regime (prudent discounts) and in distribution pricing (specific tariffs). The actual amount discounted should be limited so that other network customers are no worse off than if the inefficient bypass had occurred. This could be inserted in the Rules as a requirement that the increase in the General Charge paid by the other network customers should not increase more than it would have had the bypass occurred (eg a side constraint on the price changes for a customer). This may, however, lead to difficulties in enforcement. AGL is therefore content to retain the current Rule that limits discounts to the Usage Charge.</p>

Issue	Questions for Stakeholders	
	<p>Is it appropriate to prescribe arrangements for TUoS rebates in the Rules? If so, could the existing arrangements be refined and how?</p> <p>Do the current pricing arrangements appropriately cover alternatives which contribute to the avoidance or postponement of transmission augmentation?</p> <p>Should TUoS rebates also apply to generators connected to the transmission network, DSM or other non-electricity options? Does this depend on whether generators generally pay shared transmission costs?</p>	<p>TUoS rebates have always been part of the rules. The initial approach, based on true avoided costs proved ineffective due to the inability of connected parties to negotiate with NSPs on an equal footing. This led to the less efficient method currently in the Rules. This has also proved ineffective due to charging regimes of TNSPs.</p> <p>TUoS rebates exist in the Rules for two reasons: true network savings and to compensate for shallow connection charges to remote generators. The first is appropriate and the second should be removed when deep connection is implemented.</p> <p>If the economic principle of charging the marginal cost of connection at any location in the NEM is to be adopted (deep connection) then, as a logical corollary, true network savings from the use of demand side response or embedded generation should accrue to the connecting party. This approach requires both the connecting party and the relevant NSPs to negotiate in good faith (and realistically). The imbalance in power between the NSPs and connecting parties lead to the current Rules, which are inefficient. The AEMC will need to redress this imbalance if efficient rebates are to occur.</p> <p>NECA and the ACCC both stated (in the submission and determination on the changes to the Code that resulted in the current Rules) that TUoS rebates are required to redress the lack of generator TUoS charges for remote generators. This is inappropriate and should be removed when the more appropriate deep connection charging is implemented.</p>
<p>Efficiency and Transmission pricing – Key Concepts</p>	<p>Should transmission pricing arrangements principally seek to promote efficiency in the short or long run?</p> <p>If transmission pricing arrangements should consider both the short and long run, what approach should the Commission take to determine the appropriate balance between these aims?</p>	<p>AGL considers that transmission pricing arrangements should promote both long term and short term efficiency. Where there is conflict between these aims, the balance will depend on the aspects being considered but should be guided by the market objective, which focuses on the long term benefits for customers.</p> <p>Generators should be charged on a marginal basis for connection since their impact on the network is in large lumps and determined by decisions made at the time of investment.</p>
<p>Relevant NEM Context</p>	<p>To what extent are existing signals from other aspects of the NEM arrangements (or requirements from regulatory settings outside the NEM) sufficient to promote efficient behaviour by actual and potential consumers and producers of electricity in the short and long run?</p>	<p>There are two current mechanisms in the market that provide some locational signalling to connecting parties; congestion and losses. Congestion impacts have not been effective as evidenced by generation and MNSPs locating into Southern Queensland, the South East of SA and the LaTrobe Valley in Victoria. The LaTrobe Valley congestion is being remedied at customer cost but both of the other situations have not been resolved. Losses have also not proved effective.</p> <p>The proposed CSP/CSC/Nodal regimes, while not current do provide an alternative to deep connection and provide location signal effectively. At the limit they should provide the same outcome. The implementation of a CSP or nodal regime is still very problematic and its impact on current parties is likely to be negative. AGL therefore considers that they are not currently feasible options.</p>

Issue	Questions for Stakeholders	
	<p>Given current distribution network pricing arrangements, is it appropriate to prescribe transmission pricing structures in the Rules?</p> <p>If so, should prescription be limited to prices for particular network users?</p>	<p>AGL considers that distribution network pricing arrangements should not impact on considerations of transmission pricing.</p> <p>AGL suggests that all transmission charges should be reported separately on all but the smallest customer accounts.</p>
<p>Allocation of Regulated Revenue Across Transmission Users</p>	<p>Should NEM connection charges continue to be based on a shallow connection approach or should a deep connection approach be adopted?</p> <p>If a shallow connection approach is broadly to be maintained, are there any circumstances where connecting parties should pay for up or downstream upgrades to the shared network?</p> <p>If a deep connection approach is to be adopted in the NEM, how should it be formulated?</p> <p>Is a deep connection approach compatible with the open access transmission regime of the NEM (which is not a subject of the present Review)? If so, how should potential “free-rider” effects be managed?</p>	<p>NEM connection charges for customers are already deep connection charges under Rule 5.3. Only generators have not been charged deep connection costs because Rule 5.5 has not been clear. The lack of deep connection charges has led to intra-regional congestion, which distorts dispatch and reduces the volumes in the contract market.</p> <p>Deep connection is the correct approach since it provides for a connecting party to include the costs of necessary network development in their locational decisions, optimising the development of the network. In addition, if applied correctly it protects the access of existing parties to the network.</p> <p>To paraphrase elements of Rules 5.3 and 5.5:</p> <ul style="list-style-type: none"> • a connecting party should seek access at their planned level of load or generation • all relevant NSPs should determine necessary augmentations to allow the requested level of access. • The coordinating NSP and the connecting party should agree the charge (or payment) for the party connecting at that location. • The charges and payments should include the cost of any compensation to other parties should the level of load or generation be exceeded and compensation to the party if the level of access is not provided to an agreed standard • The TNSPs should either construct the network or compensate parties so that the agreed access is provided. <p>Deep connection is part of the open access regime in the NEM. Free rider aspects need to be examined to see if they are material. AGL believes they should not be used to prevent efficient charging for development of the network.</p> <p>It is worth noting that use of deep connection charging would, in the long run, mean that generators would be paying a significant share of network costs. The charge would be efficient since it would have provided appropriate signals for generator location and network development. At this stage no general TUOS rebate would be required since the saving in network costs would be a benefit to embedded networks. Embedded generation and DSR would be correctly valued since their contribution to reduction in network costs would be obvious.</p>

Issue	Questions for Stakeholders	
	<p>Do signals from the regional pricing structure of the NEM, non-firm generator access and transmission investment arrangements provide efficient locational and operational signals to generators, loads and competing sources of energy supply?</p> <p>Are there reasons why generators should make some contribution to shared network costs? If so, what approach should be used to determine the share of shared network costs should be paid by generators?</p>	<p>The currently applied approach for charging generators and MNSPs does not provide sufficient locational signalling nor efficient development of network to support generation. As applied by TNSPs it allows inefficient constraints to develop within regions, reducing the efficiency of both the spot and financial markets. Not charging for locational network costs also means that local generation and demand side response options are undervalued.</p> <p>The main benefit from charging generators deep connection costs is to optimise locational decisions and maintain agreed access levels for existing participants. AGL considers, therefore that deep connection should only be applied prospectively and does not support charging generators for sunk network costs nor for general development of intra-regional networks. For this reason we do not support the use of the beneficiary pays approach for intra-regional development.</p> <p>AGL considers that beneficiary pays is an appropriate charging mechanism for inter-regional development of networks and could allow an increased level of interconnection if applied correctly.</p>
	<p>Is the current shared network charging regime the best approach for achieving the NEM objective? If not, what improvements could be made?</p> <p>Are there arrangements operating in other jurisdictions for the recovery of shared network costs that would be more appropriate for the NEM? If so, which jurisdictions and which aspects of their arrangements would be appropriate for the NEM?</p>	<p>See above.</p> <p>It is not appropriate for this review to fundamentally change the Rules but rather to investigate issue with the current Rules and determine gaps where Rules re required to fully define the current regime for application by the AER.</p>
	<p>How much discretion should TNSPs have to discount charges?</p> <p>Should TNSPs be entitled to recover the cost of discounts from other loads?</p> <p>Should any conditions for recovering the cost of discounts from other customers be prescribed in the Rules or left to the AER to determine? If so, what should be the general content of these Rules or AER discretions?</p>	<p>The discretion of TNSPs should be limited by the Rules. Prudent discounts should remain in the transmission pricing arrangements to prevent inefficient bypass of the network. Equivalent options exist in the gas access regime (prudent discounts) and in distribution pricing (specific tariffs). The actual amount discounted should be limited so that other network customers are no worse off than if the inefficient bypass had occurred. This could be inserted in the Rules as a requirement that the increase in the General Charge paid by the other network customers should not increase more than it would have had the bypass occurred (eg a side constraint on the price changes for a customer). This may, however, lead to difficulties in enforcement. AGL is therefore content to retain the current Rule that limits discounts to the Usage Charge.</p>

Issue	Questions for Stakeholders	
	<p>Should avoided TUoS rebates be retained in the Rules or left for negotiation between the DNSP and connected party?</p> <p>Is the appropriateness of TUoS rebates contingent on whether generators pay shared use of system charges?</p> <p>If TUoS rebates are retained, what charges should they comprise?</p>	<p>TUOS rebates exist in the Rules for two reasons: true network savings and to compensate for shallow connection charges to remote generators. The first is appropriate and the second should be removed when deep connection is implemented.</p> <p>If the economic principle of charging the marginal cost of connection at any location in the NEM is to be adopted (deep connection) then, as a logical corollary, true network savings from the use of demand side response or embedded generation should accrue to the connecting party. This approach requires both the connecting party and the relevant NSPs to negotiate in good faith (and realistically). The imbalance in power between the NSPs and connecting parties lead to the current Rules, which are inefficient. The AEMC will need to redress this imbalance if efficient rebates are to occur.</p> <p>NECA and the ACCC both stated (in the submission and determination on the changes to the Code that resulted in the current Rules) that TUOS rebates are required to redress the lack of generator TUOS charges for remote generators. This is inappropriate and should be removed when the more appropriate deep connection charging is implemented. Until then the full cost of transmission, calculated on an energy basis, should be rebated to embedded generators. The current charging practices of TNSP's prevent embedded generators from receiving appropriate rebates for TUOS savings. This is not a structural fault in the regime but rather a choice by some TNSPs to implement a regime where any outage by an embedded generator has the potential for high penalty cost. This does not allow appropriate rebates to embedded generators and should be explicitly disallowed.</p>
Structure of Prices	<p>To what extent is it necessary or worthwhile to prescribe transmission pricing structures in the Rules in order to promote the NEM objective?</p> <p>Would it be appropriate to provide guidance to TNSPs on what pricing should achieve instead of prescribing the structure? If prescription is required, which charges should have price structures prescribed in most detail?</p> <p>Should the degree of pricing structure prescription vary depending on the relevant class of network user paying the charge? If so, how could this be implemented?</p> <p>How much discretion over charging structures should be left to the TNSP and the AER?</p>	<p>Pricing structures could be described in objective terms rather than detailed in the Rules as long as connecting parties were able to effectively negotiate with NSPs and appropriate dispute mechanisms were available.</p> <p>Smaller customers may have difficulty negotiating with DNSPs and therefore more prescription may be required for distribution pricing but this should be dealt with in the transfer of distribution regulation to the AER.</p>

Issue	Questions for Stakeholders	
Pricing of Non-prescribed Services	<p>Are the negotiation provisions in the Rules regarding prices for non-prescribed services appropriate? What difficulties (if any) have been experienced?</p> <p>Should Rules provide criteria in relation to pricing outcomes for non-prescribed services?</p> <p>Should a price monitoring regime be considered for non-prescribed services?</p> <p>If so, what criteria would be appropriate? Would these be the same for all nonprescribed services?</p> <p>Are the current dispute resolution provisions in Chapter 8 of the Rules appropriate for disputes over pricing of non-prescribed services? What (if any) alternative dispute resolution processes may be appropriate?</p>	<p>The Rules require a TNSP to set up a negotiation process and defines a process for managing disputes but AGL is not convinced that these mechanisms fully redress the imbalance in power that exists during connection negotiations. AGL therefore considers that participants should have recourse to an arbiter to assist in resolving connection disputes. This arbiter should be able to make rapid decisions to prevent time pressures on connecting parties preventing its use.</p> <p>No rules nor monitoring is required if a suitable dispute resolution approach is available.</p>
Inter-regional Issues	<p>Could the current provisions in the Rules regarding inter-regional TUoS payments be improved? If so, how?</p> <p>What are the impediments, if any, to reaching interregional agreements?</p> <p>Should the Rules provide criteria for determining the 'extent of use of a network'? If so, what criteria would be appropriate?</p> <p>Is there a need for greater clarity in the Rules on the treatment of the negotiated charge paid by the importing region to the exporting region for the purposes of determining annual aggregate revenue requirement of a TNSP?</p> <p>Would it be appropriate to extend the expiry date of clause 3.6.5(a)(5)(ii) from 1 July 2006 to 31 December 2006 to coincide with the conclusion of the Commission's review?</p>	<p>There are currently no effective provisions in the Rules for inter-regional charging. Using settlement residues as an offset for inter-regional network costs is inefficient. When the NEM was developed it was proposed that the usage of the grid as a whole be assessed to allow calculation of use of inter-regional networks. These provisions were removed in 2002 and not effectively replaced. At that time it was proposed to treat adjacent regions as if they were loads or generators depending on the direction of flow at the boundaries.</p> <p>Simply, if a region draws on another region during the peak periods for the exporting region then the exporting region should be entitled to charge the importing region as if the importing region were a load. Since the peak periods for each region will be different the TNSPs will need to compare notes on an annual basis and determine what net charge is payable. (It is possible for both regions to be net importers or exporters at the various peaks). The amount collected from an adjacent region reduces the exporting region's AARR to be collected from the region and increases the AARR to be collected from the importing region.</p> <p>Clause 3.6.5(a)(5)(ii) should be allowed to lapse and should be removed from the Rules as part of the Rule changes that result from this review.</p>

Issue	Questions for Stakeholders	
	<p>Do the current, or alternative arrangements provide TNSPs with adequate incentives to invest in assets that facilitate electricity flows between adjacent jurisdictions? If not what improvements could be made?</p> <p>Should the negotiations of inter-regional payments be between TNSPs rather than jurisdictional governments?</p> <p>Should incentives/penalties be in place in the Rules to ensure that an inter-regional agreement is in place?</p> <p>Should the provisions of clause 3.6.5 be replaced by a modified approach to TUoS pricing more generally?</p>	<p>The primary change to assist in the development of the inter-regional network is to improve the regulatory test.</p> <p>Jurisdictions should not be involved in negotiations of TUoS payments.</p> <p>See above.</p>

Incidence of transmission costs (deep connection charging)

Introduction

AGL considers that transmission costs should fall on participants in proportion to the participant's use of the network and in the way that provides the best economic signals for network development. Conceptually it can be argued that the costs should fall totally on customers (they need to get supplied and the network is for their benefit), generators (they need access to customers) or somewhere in between. The decision on incidence therefore needs to be guided by the Market Objective and the Principles for Network Pricing (see extracts in Appendix C)

The Market Objective and the Principles for Network Pricing both put efficient development of the network as a priority. The Principles also seek to ensure participants pay for usage. The Market Objective also requires a long-term view of the market and its efficient use. AGL believes that, in the context of incidence of transmission costs, this means that participants should have incentive to locate where the most efficient use and development of the network is possible. Pricing should therefore provide a clear locational signal. Parties should also be dissuaded from locating where the efficiency of the network will be reduced.

Deep connection charging for all connecting parties best provides the correct locational signals. If a party was provided with a cost of connecting at any particular location they could include that cost in their decision making. They would therefore choose the best location for them when all factors are considered. If the cost provided to them included the costs of any network development required to allow them to locate at their chosen connection point, efficient development should result.

What the Rules say now

The Rules currently differentiate between generator and customer charges. Customers pay charges calculated in Chapter 6 of the Rules. These charges cover both the sunk costs of the network and connection charges and are based on amounts worked out in Chapter 5 and 6. Generators pay charges calculated in Chapter 5 only. This has led to a perception that generators should only pay shallow connection charges.

AGL believes that this perception is incorrect. The rules require:

- NSPs to determine the full cost of connecting a party to the network on a deep connection basis (rule 5.3)
- Connecting parties to pay the full cost of connecting to the network through connection charges.

Customers pay deep connection charges. In general the difference between deep connection and shallow connection for customers is very small since most customers do not impact the shared network. Where they do, however, they are required to contribute towards the cost of necessary modifications to allow them to connect. In addition, the combination of Rule 5.3 and Chapter 6 ensures that they contribute to the cost of maintaining their access.

A similar arrangement is in place for Generators but, since a generator generally has a large impact on the network and can choose to locate to optimise their costs and operations, the relevant rule (5.5) allows for a generator and the NSP to:

1. negotiate a level of access for the plant. This is appropriate where the generator wishes to take advantage of spare capacity of a network. For example, a peaking plant that only expects to be used during periods when other local plant

is out of service could seek access at zero output. When other plant is out of service the marginal cost of the generator using the network is zero.

2. agree on a level of compensation when the generator is denied its agreed level of access. The NSP could calculate the cost of actually building assets to provide the access and if the generator contribution is too low choose to compensate rather than build the assets.
3. agree on compensation to be paid by the generator if it causes others to be denied their agreed level of access. If our peaker from point 1 displaces a generator that has an agreed level of access then the peaker pays the NSP compensation, which can then fund the compensation under point 2.

This Rule (5.5) effectively provides a generator with access to the network since the generator knows that any later entrant will either pay to augment the network, use it so that it doesn't interfere with its access or pay compensation if it does. It is not firm access *per se* because it does not require an NSP to guarantee the network availability under all conditions but rather to guarantee the available network to existing parties. In simple terms a connecting party is not allowed to reduce the existing parties' access to the grid.

This Rule has not been applied this way to date. AGL believes, however, that the Rule should be read this way since:

- it is consistent with the principles for network pricing contained in Schedule 6.7 (see attached Legislative Extracts). Principle 2 clearly envisages deep connection.
- the only mention of shallow connection charging in the Rules is in schedule 6.2, which states that common service charges are to be calculated on a shallow connection basis. If shallow connection was intended it would therefore have been mentioned in Rule 5.5 or in one of the schedules.

Impact of shallow connection charging for generators and MNSPs in the NEM

Not applying Rule 5.5 in the way AGL consider it should be has allowed intra-regional congestion to develop. This inter-regional congestion then has to be removed at customer expense. For example, the upgrade to the fourth line out of the LaTrobe Valley is being funded by customers on the basis that it reduces losses¹ on transferring energy out of the Valley and prevents a supply shortfall due to congestion on the link. Had Valley Power and Basslink been charged the full cost of their connection, they would have either paid to upgrade that line or located their connection at a less congested portion of the network².

Intra-regional congestion impacts market dispatch by limiting NEMMCO's ability to fully dispatch plant. It also impacts on the financial markets by reducing the availability of contracts since parties who face limits on their ability to be dispatched are unable to contract as highly as they otherwise might.

What is required

An improved set of Rules would:

- provide both Generators and customers with locational signals for their connection. This would promote the efficient use and development of the network;

¹ Interestingly, the beneficiaries of the reduced losses on the line are the generators since the pool price in Victoria is normally set by flows from the North.

² Which is what AGL did by locating its peaking generators at Somerton in Victoria, where the generation reduced network congestion.

- allow a generator to connect on a non-firm access, or opportunity basis to lower costs and to maximise use of the network
- give a connected party certainty on the access that they have negotiated to the network (and may have paid for), including compensation when the agreed access is not provided.
- allow an NSP to develop the network at an efficient rate while providing access without the risk of having to compensate when access is limited for good technical reasons.

AGL believes that what is required to achieve these points is to make Rule 5.5 work as AGL believes it was intended to work. The Rule should still be only applied to newly connecting parties so that it grandfathers existing access for connected parties. This is the correct approach since payment for sunk network costs should be recovered on a basis that does not distort energy market signals, which means from customers.

In the long run this arrangement will:

- require generators to pay a fair share of the cost of the network;
- optimise the development of the network;
- value alternatives to generation more highly since the avoided network costs will be included in the energy price; and
- reduce pressure for more intrusive measures, such as constraint pricing or regional boundary changes.

Beneficiaries pays

NECA attempted to introduce changes to the (then) National Electricity Code such that beneficiaries of network investments should pay the costs of that investment. The concept is appealing but very difficult to implement.

AGL considers that the beneficiaries pays approach is less effective than deep connection charging since it does not provide locational signals. If locational signals are not provided at the time of connection there is no actual benefit in charging generators for the use of networks since the effective cost to customers is the same.

AGL has previously proposed a modified regulatory test based on the concept that the regulator should act on behalf of the beneficiaries of the investment to determine whether an interconnection should proceed. Under this approach if there is enough benefit to those that will be charged for the network investment then the investment should proceed. This is a financial test rather than an economic test since it allows for wealth transfers to be counted as a benefit on the basis that *in the long run* everyone benefits from increased interconnection. This means that dis-beneficiaries *in the short run* are ignored in the test but are not charged any cost of the interconnection.

AGL therefore considers that the current provisions in the Rules that provide for beneficiaries pays should be removed unless they relate to inter-regional networks.

Relevant legislative extracts.

Extract from the National Electricity Law

“7—National electricity market objective

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

Extract from Schedule 6.7 of the National Electricity Rules (30 June 2005)

“2. Non-discriminatory pricing of network services

Network pricing should provide non discriminatory access to the *network*. This implies a common approach for all *Market Participants*, no matter where they are located or whether they participate or not in competitive *market* trading. Actual prices at different locations will differ because of the *network* configuration and patterns of use. In this way, prices will equitably recover the costs of the *network*.

Network pricing should be based on the location in the *network* and the assets employed in providing *transmission* or *distribution services*. The price for each *Market Participant* should be influenced by the location in the *network* and the assets employed in providing *transmission* or *distribution service*. “