



Major Energy Users Inc.

Australian Energy Regulator

Comments on the

AER Issues and AER's preliminary positions

**Connection charge guidelines for accessing the
electricity distribution network**

by

The Major Energy Users Inc

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**Assistance in preparing this submission by the Major Energy Users Inc was provided
by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.**

**The content and conclusions reached are entirely the work of the Major Energy Users
Inc and its consultants.**

Those who cannot
remember the past
are condemned to
repeat it

George Santayana
(philosopher and critic)

in

The Life of Reason
(Vol 1, Ch 12)

(1905)

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Executive Summary

The AER has, in this review, simply taken the historical approach used by DNSPs in approving connection agreements and the associated costs. The current DNSPs have basically continued to use historical approaches to setting customer capital contributions which were developed and applied by the vertically integrated government owned utilities.

In contrast, the MEU has addressed the issue of funding new connections on a first principles approach and by doing so identified a number of inconsistencies and illogical thinking.

Under the vertically integrated utilities, the discount applied to capital contributions were based on total delivered price based tariffs, which included the costs of generation that is now managed in an entirely different way. Because of this, there was no ability to reflect actual costs involved either in network augmentations and expansions or how the capital contribution could be assessed in terms of the actual impacts on the networks. Therefore, in light of the new business and regulatory structures, the capital contributions need to reflect the fact that the regulated revenue encompasses certain (more limited) parameters which have to be addressed within the assessment of capital contributions.

In this review, the AER has the opportunity to assess the entire approach in setting capital contributions on a more logical and efficient basis to reflect the actualities of how new customers impact the cost structure and the revenue stream of the networks, what incentives there are and how the actual approved regulatory revenue is developed.

The MEU view is that there needs to be a fresh approach taken and not just a "tweaking" of the approach that was perhaps more appropriate under a vertically integrated government owned utilities regime.

In ensuring that new customers can connect in the most efficient manner, regard must be given to ensuring that existing customers are not being disadvantaged as a result of new connections being made but at the same time recognizing:

- Adding new customers to a network, results in better utilization of the spare capacity in the networks and reduces the cost to all existing customers
- Having spare capacity in a network is a cost to existing customers, and has no intrinsic value that can be "sold"
- As soon as a new customer connects it immediately starts contributing to the costs for the existing assets, including the amounts allowed in the regulator approved capex for augmentations and extensions

implying that new customers provide for their own augmentations and extensions once they connect.

- Existing customers are funding augmentations and extensions to the network within the regulatory allowances and unless these are utilized, the cost is sunk and would remain a cost burden to existing customers
- Discounting a new connection cost by a multiple of yearly DUoS payments provides little or no benefit to existing customers as the DUoS contribution is effectively "given away" and provides no value to the revenue stream, thereby defeating the purpose of sharing the same cost by greater numbers
- DNSPs should not be the beneficiaries of new customers connecting as DNSPs provide little or no ability to increase the numbers of customers connected, but have the ability to increase barriers to entry
- Price cap regulation provides additional unearned revenue to DNSPs in the short term, but they can do little to cause an increase in customer connections. Price cap regulation defers any benefit to existing customers of new connections until the next regulatory review
- There is no definition as to how deep "deep connections" should be or at what point they are no longer to be assessed.
- Large generators do not pay deep connection costs so why should embedded generators do so? Equally if generators do not pay deep connection costs, why should new customers when they will contribute to these as part of the DUoS they have to pay?

The MEU considers that analysis shows there is a more preferable approach to calculating capital contributions.

- New customers to a network should pay the costs involved with it connecting to the most appropriate point of the shared network (ie shallow costs). This reflects the concept that new entrant generators only pay shallow connection costs.
- The most appropriate point for the connection cost to be calculated should be determined in relation to the voltage of the supply required and the ability to supply the current flow required. This approach reflects that used to determine where a new entrant generator can connect.
- The costs for augmentation and expansion of the shared network are embedded in the DUoS charge developed from the regulatory reset which the new customer will pay. All customers pay the same DUoS which includes the capex to augment and expand the network. Therefore, there should not be a requirement to pay any costs deeper than the cost to connect to the shared network at the closest point of the voltage sought.
- There should be no discount to a connection charge by using multiples of the DUoS the new entrant will pay as this reduces the benefit the customer will provide to existing customers and which existing customers have paid for through the capex

- Embedded generation should only pay those costs needed to connect to the shared network and not have to pay any deeper costs (similar to the cost of connection for large generators).
- There should be no time limit for providing reimbursement to the first new customer for the assets it funded as subsequent customers connect to the assets. To fail to do this allows a "free ride" for subsequent customers.
- There should be great care taken to ensure that the DB is not a beneficiary from new customers connecting.
- There should be great care taken to ensure that the DB charges only the direct costs associated with providing the connection assets for the new customer and that the DB does not impose a higher barrier to entry than is appropriate.

These alternative concepts meet the requirements of the proposed Chapter 5A in the NER and maintain much greater consistency with other parts of the NER.

1. General Commentary

1.1 About the MEU

The Major Energy Users (MEU), which comprises some 20 major energy using companies in NSW, Victoria, SA, Tasmania, Queensland and the Northern Territory, welcomes the opportunity to provide comments on the AER's discussion on connection charges.

Analysis of the electricity usage by the members of MEU shows that between them they consume about 5% of the electricity generated in the NEM. Many of the members are located in regional parts of Australia, some distance from the regional nodes. As such, they are highly dependent on the transmission network, as well as the distribution network, to deliver efficiently the electricity so essential to their operations. Being regionally located, those members also have an obligation to represent the views of their local suppliers and of the regionally based workforce on which the companies are dependent. With this in mind, the members require their views to not only represent the views of large energy users but also those of smaller power usage facilities and residences located near to their regional operations.

The companies represented by the MEU (and their suppliers) have identified that they have an interest in the **cost** of the energy networks services as this comprise a large cost element in their electricity and gas bills.

Although electricity is an essential source of energy required by each member company in order to maintain operations, a failure in the supply of electricity or gas effectively will cause every business affected to cease production, and members' experiences are no different. Thus the **reliable supply** of electricity and gas is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the distribution businesses because they control the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure by even small amounts now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more dependent on the quality of electricity and gas services supplied.

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

Many MEU members have established on-site generation and many others are expected to invest in embedded generation, as part of risk management

strategies developed in light of changing energy market conditions and security of supply concerns. Efficiency in connection agreements is thus paramount.

Accordingly, MEU is keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

1.2 Going back to basics: the principles behind establishing connection charges

As a key principle, a new customer should not be provided with a benefit at the expense of customers already contributing to the provision of a network nor at the expense of the DNSP which provides the network. This is quite clearly addressed in the AER discussion in the Consultation Paper.

Therefore, by adding new customers to a network there should be benefits to existing customers through better utilization of the existing assets and by the making of a contribution towards paying for the existing assets, so there is a benefit available to all customers. If the cost the new customer has to pay is too high, this will be a barrier to connection and this barrier might prevent the new customer from connecting, thereby preventing a new customer from making a contribution to defray the costs of providing the network.

At the minimum, existing customers should be no worse off because a new customer has connected to the network. This recognizes that existing customers are paying for allowed capex to provide augmentation and expansions as this capex is included in the regulatory reset. Whilst it is logical that this capex for augmentation and expansion is provided to ensure there are new customers to carry the financial burden, even if the new customers do not eventuate, this capex is a sunk cost.

To provide an incentive to a new customer to connect to the network, the costs of connection has historically been minimized by allowing some of the DUoS the new customer will have to pay in the future, to be used as a discount to the costs to connect. This means that, at most, the revenue from the DUoS the new customer will pay for being connected to the network should be limited to the discount to the connection costs involved. However, if all of the DUoS the new customer would otherwise pay is avoided in perpetuity, existing customers get no benefit.

It also needs to be recognized that increasing demand at a connection point could also be considered to be a new connection in that assets used by the existing customer might need to be increased in capacity, and augmentation deeper in the network might be required to accommodate the increased demand. However, the AER discussion regarding capital contributions seems to concentrate purely on new connections only.

1.3 Payments by existing customers for new connections

In analyzing the issue of what new connection costs should be, it is important to identify what the current regulatory approach includes for existing customers of a network.

The current regulatory approach is that adding new customers to a network provides two benefits:

1. There is likely to be better utilization of the network with existing customers getting lower charges because of this
2. New customers benefit because they are able to see greater value by sharing a common supply which provides benefits of scale to all.

This implies that new customers should be encouraged to connect, even though by connecting they would expect lower costs for being a part of the network compared to stand alone costs of providing for their needs if they did not use the network. Once connected, new customers should be treated no differently to existing customers in that they too will be required to contribute to the capex for providing augmentation and expansions to accommodate more new customers.

Because there is a benefit to existing customers of having new customers contribute to the overall cost of providing the network, there is built into regulatory resets, a capex allowance for augmentations and new connections. This means that unless these new connections do occur, existing customers are paying an unnecessary premium in their charges.

Equally, when a new customer starts to pay its DUoS it is also making a contribution for augmentation and new connections and thereby making a contribution for its own new connection and for other new connections.

There is value to existing customers of new connections if they use capacity in the network that is otherwise unused, increasing utilization and by spreading the same cost across more users, reducing charges for all those using these assets.

If the new connection requires augmentation of the network to accommodate the increased usage, there is less, perhaps no, benefit to existing customers, and there could even be a disadvantage if the existing customers are required to contribute to the augmentation. The AER makes this point in its analysis to provide a basis for its view that new customers should pay for using up this spare capacity.

Equally, it needs to be accepted that if the unused capacity is never used, there will be no improved utilization. To make a new customer pay for the unused capacity is not efficient as it is required to pay for something that has no value to existing customers but will only increase the barriers to entry.

1.4 Involvement of the DB

Just as existing customers should not be disadvantaged by a new customer connecting, neither should the DB be worse off. Equally, the DB should not be better off because a new customer has connected. This observation introduces a need to examine the type of regulation that applies to the DB.

Revenue cap regulation provides no incentive or benefit to the DB to connect new customers as its revenue is fixed regardless of what new contributions are made from new customers. This means that as soon as a new customer connects the benefit of the new connection goes to existing customers through reduced tariffs the following year to adjust the change in revenue.

On the other hand, price cap regulation is intended to provide an incentive to a DB to get new customers and to increase usage of the network for the benefit of existing customers¹. By its very nature, an incentive has to result in a DB being better off if a new customer connects, just as the DB should be worse off if a customer exits.

The argument for a price cap is that it encourages the DB to seek new connections so that existing customers get a benefit through better utilization of the existing assets delivering lower costs to existing customers.

Two questions therefore arise when considering the effectiveness of a DB in securing new customers and if they do, how much better off a DB should be from a new customer connecting?

As electricity supply is an essential service (more so than gas), in reality, a DB can do little to provide new customers – it is customers themselves that initiate new or increased capacity connections to suit their needs². Therefore, new connections are driven by a consumer's need rather than the blandishments of a DB. As the DB can do little to increase the numbers of new connections, any benefit it gets from these should be minimal.

However, a DB is in the primary position of being able to prevent new connections if it so wishes. Essentially imposing a cost for a new connection can be a barrier to entry. As it is the DB that determines the cost of the new connection, by increasing the cost, it can increase the barrier and thereby prevent a new connection.

¹ A price cap is implicitly intended to encourage the increased usage of energy. This is in direct contradiction to stated government policy of increasing efficient usage of energy with the stated aim of reducing consumption and demand of energy. This raises the question as to whether price cap regulation should be eliminated.

² The same arguments apply in the case of customers exiting. The actions of a DB are minimal in relation to this decision. Therefore should the DB be penalised if a customer leaves? Why then is a price cap needed?

A DB is incentivised to maximise the cost of a new connection because it can retain the benefit of unused capex included in its reset if the new connection does not occur. If the customer accepts the higher cost for the new connection then the DB also benefits, albeit perhaps receiving lesser benefits.

Current practice (and proposed to be continued by the AER) is that the cost for providing the new connection should be discounted by a number of years of DUoS contributions. Prima facie, this would indicate that the DB is disadvantaged because it has to provide the capital required over and above any capital contribution from the new customer. But as the revenue allowed in the regulatory reset includes allowances for augmentations and new connections, the DB is not disadvantaged by foregoing the DUoS driven discount³.

Effectively, DBs have little ability to bring new customers to the network, but have the ability to raise barriers to them. Whether new customers connect or not, DBs are better off, although under a revenue cap approach, a DB is less well off and existing customers get a benefit from new connections earlier than under a price cap approach.

1.5 Deep connection costs

There is an essential difficulty with attempting to define what “deep connection” costs actually entail and where is the end point at which they are not to be assessed in terms of actual augmentations required and how to allocate the usage of “spare capacity”.

The AER provides a view (which the MEU does not support) that a new entrant should reimburse existing customers for using up spare capacity. When taken to a logical conclusion, a new customer will utilize spare capacity in the network right up to the generator terminals. It would be a massive task to assess the value of the spare capacity used to this extent. But to do this requires the DB to assess where to cease its analysis⁴. To avoid such an in-depth analysis there is needed a point at which further assessment should cease. Such a point is quite arbitrary – should it be in the shared network up to the substation involved, should it include the substation, should it go further into the higher voltage system?

It is also very difficult to assess the value of the spare capacity that has been identified and therefore this exercise can become quite arbitrary and at the discretion of the DB. Is the assessment of the spare capacity to be made on an avoided cost basis, replacement cost basis, value to existing customers or

³ The parties affected are the existing customers who are funding the capex involved.

⁴ For example, the MEU is aware that when a proposal was received for an embedded generator to be located in the Sydney area, the local DB assessed that augmentation of the network would be required at the Tumut substation in the transmission network, some 500km away from where the embedded generator was to be located.

a cost reflective basis? If to be made on a cost reflective basis, parameters are needed to define how this is to occur.

The AER needs to identify more clearly the basis on which spare capacity is to be valued, bearing in mind that once the new customer starts paying DUoS it is contributing to the provision of this spare capacity along with the existing customers (and therefore benefits should also flow to them).

In the case of generation, there is no deeper connection cost than to the appropriate point of connection to the shared network. There is no doubt that the cost for dedicated new connections should be borne by the new customer, but for consistency of principles, why should a consumer be required to pay deeper costs than does a generator? A new entrant generator is exposed to congestion, along with all other generators connected at the same point unless there is deep connection augmentation. Existing generators have no rights of access because of their prior use and this does not change even when the network is augmented at one generator's expense. Following this logic, an existing consumer should have no greater rights of use of the network than a new consumer. If there is no augmentation and congestion occurs, then all consumers connected to the network should be equally affected. Just as a new connecting generator has no rights of access, neither should an existing consumer.

If the network has spare capacity it is in the interests of existing customers that this spare capacity be utilized so that costs for using the assets involved are shared over a larger number of customers so that the cost for each customer is reduced. To require a new customer to contribute to "replacing" this spare capacity is inefficient as the assets are not otherwise used. Following this concept, when the assets are fully utilized the next new customer triggers a need to augment the network. Either this new customer pays for this augmentation (which would increase the barrier to its entry) or all customers using the assets should contribute.

If the new customer is required to pay for using the spare capacity or to pay the augmentation, this implies some right of ownership and access. No existing customer has any right of ownership or access. If new customers are required to pay for using spare capacity it implies that existing customers would have paid for the assets at an earlier time and should therefore have greater rights than new customers. There is no evidence that existing customers have paid for this spare capacity other than through their DUoS charges and as a new customer also pays the same DUoS charges they have equal rights to existing customers. It is therefore appropriate that all contribute to the augmentation needed when a new customer might trigger this need⁵.

⁵ A cost analysis would show that as greater utilisation occurs, existing customers are better off. Even when an augmentation becomes necessary, the cost of the augmentation when shared by all customers should be less than the cost the existing customers were paying before the spare capacity started to be used.

Increasing the capital contribution above the actual costs it incurs also adds to the benefit a DB might gain. So if it overcharges a capital contribution, it will get an increased payment. In theory, a DB only charges for a CC if the cost of the connection is greater than the revenue from the DUoS. As the cost of the new connection is already in the allowed capex for the DB, the DB receives additional return on capex from the CC, thereby increasing its return.

1.7 Current practice

Current practice is that a DB will assess the cost of the new connection, including the cost of any needed augmentation. The new customer will pay this cost less a discount calculated on the current DUoS charge the new customer will pay in a given number of years in the future. Such an approach reduces the barrier to entry for new customers.

This approach, whilst easy to apply, is illogical. Existing customers want the new customer to immediately contribute to the cost of paying for the network whereas current practice avoids this for a number of years.

Already in the charges for existing customers is an amount of capex for augmentations and expansions, and this is a sunk cost so not having new customers does not reduce the charges existing customers pay. Additionally, the DUoS that a new customer would pay also includes for its share of the sunk costs for augmentations and expansions. Such an approach is not consistent with the way new entrant generators are treated, who only have to pay shallow connection costs.

Where dedicated assets are provided by the new customer (ie assets that only it can use when the connection is made) if another new customer seeks to connect and use these same assets, this is permitted (if there is available capacity) and providing this additional new connection is made within a limited number of years (commonly seven years) then the initiating new customer is reimbursed a proportion of the cost of the assets it paid for. Once this time is elapsed, there is no offset to its costs.

This is illogical, even though it is easy to apply. If a customer pays for assets which are dedicated to its use, it should always have exclusive rights. This is the principle used in the case of generators connecting to the shared network and should apply equally to consumers.

It can be demonstrated that it is inefficient to:

- Discount the connection costs for a new customer by using a multiple of the DUoS as this effectively removes the reason why new customers provide a benefit to existing customers
- Require a new customer to pay twice for deep connection costs – once directly in the CC, and again in the payment of the DUoS which includes an element of capex for the augmentation and expansions of the network to provide the ability for new customers to connect

- Limit the period of time where using dedicated assets paid for by one customer should not benefit from connection of an additional new customer to the same assets.

1.8 Embedded generation

Connection of large generation only requires shallow connection costs (ie the costs to connect to the existing network). Large generators take the risk that they may be constrained off if there is congestion in the shared network.

To maintain competitive neutrality, embedded generation should only pay for shallow connection costs. If there is a constraint, then the embedded generator can only be dispatched to the extent of the constraint limit. If the embedded generator pays for deep connection, then it should have some rights of dispatch.

1.9 The AER proposal

The AER advises that the requirements of the new NER chapter 5A are that a new customer should pay a “reasonable” capital contribution for connecting to the shared network and those new customers with a demand greater than an amount to be set by the AER, should pay deep connection costs.

The AER proposes that a new entrant should pay the costs for the dedicated assets for the new connection plus an amount to reflect the usage of “spare capacity” deeper in the network with potentially some augmentation costs.

The AER then suggests the total costs for the new connection are discounted by a multiple of the annual DUoS the new customer will pay – a multiple of 15 in the case of a business and a multiple of 30 in the case of a residence.

Customers seeking a demand higher than a 100 amps 3 phase at low voltage should pay deep connection costs. By setting such a fixed figure, the AER has not addressed the need for a customer to make sensible locational decisions. The AER has used historical approaches to setting a cut point for those customers insulated from deep connection costs. Such an approach will not ensure that locational signals are used to ensure the maximum efficiency of network utilization.

In assessing the value of the DUoS to be used for the discount, the element of DUoS that is related to operating and maintenance of the network assets is to be removed.

Embedded generation should pay the costs for the dedicated assets needed for the connection plus the costs of augmentation deeper in the network.

Where a customer has dedicated assets provided, if a new customer connects to these dedicated assets before seven years, then a share of the costs for

the dedicated assets will be made to the initiating new customer. Once seven years has elapsed, there will be no sharing required.

Except with some refinements, the AER proposal reflects current practice.

1.10 Conclusion

It would appear based on the analysis above, that:

- New customers to a network should pay the costs involved with it connecting to the most appropriate point of the shared network (ie shallow costs). This reflects the concept that new entrant generators only pay shallow connection costs.
- The most appropriate point for the connection cost to be calculated should be determined in relation to the voltage of the supply required and the ability to supply the current flow required. This approach reflects that used to determine where a new entrant generator can connect.
- The costs for augmentation and expansion of the shared network are embedded in the DUoS charge developed from the regulatory reset which the new customer will pay. All customers pay the same DUoS which includes the capex to augment and expand the network. Therefore, there should not be a requirement to pay any costs deeper than the cost to connect to the shared network at the closest point of the voltage sought.
- There should be no discount to a connection charge by using multiples of the DUoS the new entrant will pay as this reduces the benefit the customer will provide to existing customers and which existing customers have paid for through the capex
- Embedded generation should only pay those costs needed to connect to the shared network and not have to pay any deeper costs (similar to the cost of connection for large generators.
- There should be no time limit for providing reimbursement to the first new customer for the assets it funded as subsequent customers connect to the assets. To fail to do this allows a "free ride" for subsequent customers.
- There should be great care taken to ensure that the DB is not a beneficiary from new customers connecting.
- There should be great care taken to ensure that the DB charges only the direct costs associated with providing the connection assets for the new customer and that the DB does not impose a higher barrier to entry than is appropriate.

These alternative concepts meet the requirements of the proposed Chapter 5A in the NER and maintain much greater consistency with other parts of the NER.

It is against the above understanding, that the MEU makes its comments regarding the AER connection guidelines

Major Energy Users Inc
AER Issues and AER's preliminary positions
Connection charge guidelines

The MEU notes that it appreciates the opportunity to review and comment on the issues and draft guidelines for connection of new customers to be included in the regulation of electricity distribution businesses.

2. Responses to the Specific AER Questions

The Major Energy Users Inc. provides comments to each of the questions raised in the AER's Issues Paper on Electricity Distribution Network Service Providers Service Target Performance Incentive Scheme.

Comments below address each section of the AER Issues Paper.

	Heading	AER question	MEU comment
3.0	Typical connection works	The AER seeks comments on the above proposed definitions and those in appendix A for use in the connection guideline.	The MEU concurs with the definitions
4.0	AER's design criteria and considerations	The AER seeks comments on its design criteria for the connection charge guideline.	The MEU concurs with the principles but as noted in the introductory remarks, it has to be recognized that as soon as a new customer connects, it is contributing to the approved capex allowances provided for extensions and augmentations. Further, the MEU considers (see section 1.4) that the DB should not be a beneficiary in any way as a result of a new customer connecting and that this should be added as a principle.
5.3	Method of determining capital Contributions (cost-revenue-test)	The AER seeks comments on its preliminary position to apply a cost-revenue-test of the form $CC = ICCS + ICSN - IR(n=X)$.	The MEU refers to its introductory remarks and points out the essential inconsistency of discounting the connection costs by deleting any contribution made to DUoS. The reason for wanting new customers is to increase utilization of the existing assets so that existing customers can pay less. Existing customers, after all, carry the risks of excess capacity as well as carrying the costs. As the DUoS paid by new customers includes for a contribution to

			<p>augmentation/expansions, to require the new customer to pay for this again is inconsistent.</p> <p>It is more logical that new customers only pay the direct costs to connect to the existing shared network at the closest most appropriate point in the shared network.</p> <p>The MEU does not agree with the proposed AER formula.</p>
6.1	Appropriate measure of revenue	The AER requests comments regarding whether DUoS is the appropriate measure of revenue to use in the cost-revenue-test.	<p>A new customer should pay the DUoS that other customers of the same class pay as soon as it receives service. This is effectively avoided if there is a discount provided based on a number of years of DUoS. However, as the MEU considers a new customer should only pay for the direct connection costs (and no contribution for works deeper into the network) using the DUoS contribution as a measure of added revenue is not needed.</p>
6.2	Appropriate time period	The AER requests comments on the appropriate assumptions regarding the connection period for new connections.	<p>A new customer connecting to the shared network should deliver lower costs to all existing customers as the demand of the new customer should increase utilization of the network assets. By discounting the customer capital contribution by the contributions the new customer will add to the overall revenue by its DUoS contributions, is essentially illogical.</p> <p>Further, as the existing customers are already paying for the augmentations and expansions within the DUoS they pay, to allow new customers to connect, only makes sense if the new customer contributes to the revenue stream. If the DUoS payment is effectively eliminated for 30 years (residential) or 15 years (business), then there will be no net benefit to existing customers from the new connection, yet this provides the purpose for existing customers to fund augmentations and expansions.</p>

			<p>If the new customer pays full value for the DUoS (ie with no discount to its capital contribution) then it is also contributing to the augmentations and expansions and should not be required to pay twice for the deep connections costs that are included in the DUoS by the regulatory decision.</p>
		<p>The AER requests comments on how much flexibility DNSPs, or new business customers, should have to alter these default assumptions.</p>	<p>As noted in the introductory comments, it is possible that DBs will be beneficiaries of new connections. This should not occur. It is possible that if flexibility is provided to DBs, then they will use this to increase the benefit they get from new customers connecting. New business customers should have the flexibility to make locational decisions based on the optimum costs for connecting. Under the MEU proposal, there will be a need to assess the closest point in the shared network a new customer can connect at reflecting the voltage and demand it has. This might mean that it will be less expensive to connect at a closer point to the new customer and for that customer to pay for augmentation rather than connect to an appropriate but more distant point in the shared network. This option should be at the customer discretion. The AER should be the arbitrator in the case of a dispute between the customer and the DB</p>
6.3	Discount rate	<p>The AER requests comments regarding whether the WACC is the appropriate discount rate to use in performing the net present value calculation.</p>	<p>Under the MEU Proposal, this is not an issue and the problem is avoided. If the DB is prepared to provide funding to connect a new customer, the WACC would be an appropriate discount rate. In other circumstances, the DUoS cost increases are related to CPI and the rate of increasing revenue allowed by the AER. Customers are not directly exposed to the WACC awarded to the DBSs and probably have</p>

			a different WACC related to their own activities. It would be better to use a discount rate that reflects the customer's view on the cost changes for its DUoS, than one which has no relation to the DB activities.
		The AER requests comment regarding whether it is appropriate to use a pre-tax WACC, or a post tax WACC with a separate adjustment for taxation.	Under the MEU Proposal, this is not an issue and the problem is avoided. In principle, as there is so much debate as to what is the appropriate tax cost, for this sort of purpose a pretax WACC is less open to debate.
6.4	Appropriate price path	The AER requests comments regarding the appropriate assumption of future price path to use in the cost-revenue-test.	Under the MEU Proposal, this is not an issue and the problem is avoided. In principle, if a benefit is to be provided by not requiring payment of DUoS, then the NPV of this benefit should be related to the real change in costs seen by the customer. As it is accepted that DUoS charges have consistently increased in real terms, if the current cost is used then the customer is disadvantaged over the long term. This reflects actuality and does not discount the benefit that the AER approach does
7.2	Extensions cost	The AER seeks comments on its preliminary view that an extension should be funded by the customer requiring the extension, subject to the cost-revenue-test.	Under the MEU Proposal, this is not an issue and the problem is avoided. In principle, the only cost that a new customer should see is the cost to connect to the shared network as its payment of DUoS includes for augmentations and extensions. What is not considered by the AER, under its proposal, is that if the cost to revenue is a negative amount, then the DB becomes the beneficiary of the negative amount. This is not equitable, and the MEU approach avoids this occurring.

		<p>The AER seeks comments on its preliminary view that:</p> <ul style="list-style-type: none"> - Subject to customer agreement, DNSPs should call tenders for connection works over \$3000. - For works below this threshold, DNSPs should use pre-established period (standing) contract prices from qualified third party contractors as the basis for cost calculation 	<p>The MEU supports that there be competition in pricing new connections. It is accepted that each new connection is likely to be different to others and therefore a cash value is seen as an appropriate method to limit operational costs. The basis the AER uses to identify the \$3000 limit seems reasonable. The approach used for connection works less than \$3000 is reasonable.</p> <p>However, if the new customer disputes the DB quote, then the customer should have the right to seek quotations of its own and the DB should be required to accept the customer's quote that meets the technical requirements.</p>
7.3.4	Shared network augmentation cost	<p>The AER seeks comments on its preliminary view to charge for shared network augmentation on a per unit rate based on the calculation method outlined in the South Australia Guideline No. 13.</p>	<p>Under the MEU Proposal, this is not an issue and the problem is avoided. As discussed at length in section 1.5, there is doubt as to who "owns" the spare capacity in a network. It is funded by existing customers who want it used so that DUoS costs will reduce. Requiring new customers to pay for the spare capacity they uses raises barriers to new entry and introduces concerns as to how this spare capacity can be costed. The MEU considers the approach proposed by the AER (to use the SA guideline) is quite arbitrary and not necessarily reflective of the actual costs that are involved.</p>
7.3.4.1	Locational signals	<p>The AER seeks comments on its preliminary view to allow DNSPs</p>	<p>Under the MEU Proposal, this is not an issue and the problem is avoided. The MEU is concerned that under the current approaches used, the DB</p>

		<p>to segment their network into areas where different shared network augmentation charge rates would apply.</p>	<p>is a beneficiary of new customers connecting and as discussed in section 1.4, a DB should not be a beneficiary. If a DB is permitted to segment its networks for new customer connection costs, then this provides the potential to increase the benefit.</p> <p>The AER proposal also overlooks the concept that all network customers of the same class have the same network tariffs, regardless of their location within the network. To segment the network moves away from the concept of equal standing for all customers of the same class.</p>
<p>7.4</p>	<p>Operation and Maintenance (O&M) cost</p>	<p>The AER requests comments on</p> <ul style="list-style-type: none"> - what is the most appropriate manner to calculate the operation and maintenance costs imposed by a new customer - should the O&M cost be excluded from the incremental cost calculation; and instead the incremental revenue calculation be adjusted, based on the equivalent network tariff with the O&M component removed? 	<p>Under the MEU Proposal, this is not an issue and the problem is avoided.</p> <p>The observation by the AER is inconsistent and predicated on the concept that a new customer increases the costs of O&M. If spare capacity is taken up by the new customer, there is no increased O&M other than perhaps for the new assets provided for assets dedicated to the new customer.</p> <p>There will be new assets provided between the shared network and the point off connection, but the amount of O&M for these will be negligible in comparison to the total network O&M, and certainly well within the tolerance of the AER assessment of what is allowed O&M for the network as a whole. To attempt to quantify the O&M added by a new customer and to deduct this from any calculation of the capital contribution is pointless and beset by inaccuracies and tolerances already allowed.</p> <p>The new customer commences paying its share of the overall O&M charges with its first payment of DUoS. As the current DUoS charge already includes O&M for assets dedicated to existing customers, then the new customer is paying for the network O&M as well as for the O&M on its dedicated assets. To remove the O&M costs becomes a double</p>

			penalty on the new customer and increases the barrier to entry needlessly.
8.4.1	Setting the threshold for shared network augmentation charges	The AER seeks comments on its preliminary view to set a fixed demand threshold rather than a threshold dependant on local capacity.	Under the MEU Proposal, this is not an issue and the problem is avoided. Applying a fixed value does not recognize that there will be differences when connecting to different parts of the network. However, new customers of the same class should be treated equally regardless of their location in the network. The MEU considers that equal treatment is a more preferable approach and this should be the driver for setting rules.
		The AER seeks comments on its preliminary view to set a threshold for most areas of networks on the greater of: <ul style="list-style-type: none"> - the level of customer demand in each DNSP's network that would result in approximately 10 per cent of new customers paying for specific shared network augmentation (based on existing customer demand information); or - 70 kVA (equivalent to 100 Ampere 3-phase low voltage supply). 	Under the MEU Proposal, this is not an issue and the problem is avoided. Providing locational signals for new connections is supported. However for the bulk of new connections, the decision of where to locate is not an option as it is driven by council zoning and use of available space. To attempt to try and force locational signals on such new customers is not practicable. The MEU considers that method 2 is preferred as it relates to specific needs of the new customer and the ability of the network to accommodate the needs of the customer in the customer's preferred location. This allows the locational signals to be incorporated into the customer's decision processes. It must also be noted that the higher the current demand, the more likely that a higher voltage will be more efficient. Therefore the voltage of the supply the customer needs, should also be a factor of where in the shared network the connection will be set. The decision to set an arbitrary 10% upper limit on demand as the

			<p>decision point for augmentation costs does not reflect the potential that there may already be significant unused capacity that can be used. The MEU considers that rather than a hard upper bound of 10% being set, the amount of spare capacity should also be a factor to be considered as getting a contribution for assets already sunk may be more in the interests of existing customers and requiring an automatic augmentation charge.</p>
		<p>The AER seeks comments on its preliminary view to allow DNSPs to nominate less developed areas of the network where a different threshold would be more appropriate.</p>	<p>Locational signals are of little value if they are not known. DBs should advise where there is spare capacity available for use in the networks. This point then reinforces the MEU response to the comments to the previous question. Advising where there is spare capacity for use is pointless if a potential new customer has to pay for the augmentation to provide for augmentation regardless. The MEU approach recognizes that if there is spare capacity available, then it is preferable to use it and so benefit all existing customers rather than create additional capacity in a location that has little.</p>
		<p>The AER seeks comments on its preliminary view that customers connected on SWER lines should pay for shared network augmentation on demand above 25kVA as the default level unless a different threshold is nominated by a DNSP and deemed appropriate by the AER.</p>	<p>The MEU considers that a new connection should be made at the closest point in the shared network that can accommodate the customer's demand. If there is a lower cost to the customer by augmenting existing assets that would provide a closer (and less costly) connection point in the shared network, then this should be available at the customer's discretion.</p>
		<p>The AER seeks comments on its</p>	<p>Great care needs to be addressed in this regard. It is agreed that peak</p>

		preliminary view that it will be difficult to verify and enforce a customer's peak coincident demand and therefore the threshold should be a set based on peak demand.	demand is the driver for network augmentation, but a DB has a vested interest in network augmentation. Networks can also tolerate over current demands for limited periods. If a customer considers that it is being required to unnecessarily augment or connect deeper in the network, it should have the easy ability to seek AER arbitration on the issue.
		The AER seeks comments on its preliminary view that the approach outlined in ESCOSA's Guideline No. 13 is a fair and practicable approach for estimating peak demand that should be adopted.	Under the MEU Proposal, this is not an issue and the problem is avoided, particularly as the new customer is contributing its DUoS from the time of connection and thereby paying for the augmentation of the network included in the regulatory allowed revenue. The drawback of the ESCoSA approach is that the customer is required to pay the value set by the DB and then get restitution three years later. This requires the customer to outlay costs upfront and this becomes a barrier to entry. The assessment of the network peak demand needs to be verifiable and data provided to the customer by the DB as to what this is. An independent review at the time of seeking the connection of the DB and customer claims would assist in earlier settlement of the issue. An alternative approach is that, if there is a dispute, the DB could apply a limit on the demand with an automatic shut down if the customer's demand is exceeded.
8.4.2	How to charge for shared network augmentation	The AER seeks comments on its preliminary view that a customer who is required to pay for shared network augmentation, would pay for shared network augmentation	Under the MEU Proposal, this is not an issue and the problem is avoided. In principle, a customer should not have to pay twice for the same service. If the new customer's demand takes the peak demand above the limit of the network, then augmentation is required. However, in the DUoS the new customer pays, is included an element of costs for

		on the amount of their peak demand above the shared network augmentation threshold.	augmentation and extensions of the network. Existing customers should get a benefit from the utilization of the spare capacity by the new customer. Augmentations take place as step increases so it is probable that the new augmentation will provide more spare capacity above the needs of the new customer. It is unreasonable that the new customer should pay for all the added spare capacity that will be created, and just as the existing customers together paid for the spare capacity, so to should the existing customers (including the new customer) carry the cost of the spare capacity provided.
8.4.3	Shared network augmentation charges to embedded generators	The AER seeks comments on its proposal that embedded generators should fund specific network shared network augmentation to remove constraints on their outputs due to limits of the existing network.	Under the MEU Proposal, this is not an issue and the problem is avoided. The MEU disagrees that embedded generators should carry any deep connection costs at all. Large generators connecting into the shared network (transmission and distribution) are not required to pay these costs, so neither should small embedded generators. If the embedded generator desires to overcome a network constraint, it should be allowed to do so but it should then have firm access rights to this capacity it funds.
9.2.2	Prepayments	The AER seeks comments on: Should the AER place limits on the maximum amount of prepayment that a DNSP can charge the connecting customer? If so, should the AER specifically	The MEU does not consider any prepayment should be levied in excess of the costs it directly incurs. To allow any additional payment above costs, provides the DB with an unearned benefit. In this regard it should be noted that the regulator has already allowed the DB O&M costs which include for providing a service to existing and potential customers. To allow the DB to charge a new customer for costs it is already receiving from the regulatory allowances is double dipping.

		limit the amount of a prepayment to the actual upfront costs incurred by the DNSP, or should it set a maximum percentage	
9.3.1		The AER seeks comments on whether its connection guideline should have an option for DNSPs to implement security fee schemes.	<p>A security fee is a barrier to entry. It is designed to limit the exposure of the DB to under-recovery of costs from a new customer. In fact the regulatory allowance already includes for augmentations and expansions, so that this work is already funded by existing customers. Under the MEU proposal, default by a new customer is limited to the value of the direct connection assets with augmentations and extensions being funded by existing customers.</p> <p>In the event of a default, there is a concern that if the security fee is claimed by the DB due to default, the benefit goes to the DB and not existing customers. At the next regulatory reset, presumably the security will be included as a capital contribution but so will the assets provided. Therefore existing customers are still carrying the costs of any asset provided although the DB has the benefit until the next reset.</p> <p>The concern is that the security fee might prevent the new customer from connecting and providing the better utilization benefit targeted in the regulatory reset.</p> <p>Any security fee should be set in value by the AER and not the DB. The right to require a security fee should be based on the "bankability" of the new customer and the extent of works the new customer has committed to that requires the new connection.</p>
9.3.2		The AER seeks comments on its proposed principles for a	Any security fee should be held in trust and be in a form such as a bank guarantee or insurance bond.

		security fee scheme.	The DB should not be able to claim the security except in the case of a default by the new customer. If the security is in cash, any interest while it is held should go to the new customer
9.4.2		The AER seeks comments on its preliminary view that the assets subject to a rebate scheme should be depreciated over a 20 year term.	The MEU considers that augmentations and extensions should be depreciated over the economic life of the assets along with other assets of the shared network. Assets which are dedicated to a specific customer have been paid for by the new customer and so there is no depreciation by the DB on them. The MEU notes that the new Rule 5A.E.3 stipulates that there is no rebate for dedicated assets used by another ceases after 7 years. The MEU considers that this is iniquitous and should be changed. There is no reason why assets funded by a new customer and subsequently used by another customer should be depreciated faster than the economic life of the asset. To do so reduces the value of the asset to the initial customer when another customer wants to use the asset. This approach reflects the basis for allocating costs when developing tariffs. The replacement value of the asset is used (not the depreciated value) so that as assets are replaced when fully depreciated, there is no price shock on the customers using them. .
		The AER seeks comments on its preliminary view that a rebate scheme should have regard to the length of an extension and the capacity of the assets used by subsequent customers.	The rebate should be based on cost reflectivity. Cost reflectivity includes recognizing extent of the physical assets used and the demands of each of the customers connected. The MEU considers that there is an argument for the second new customer having to pay the stand alone cost and that this should be the rebate. The fact that the initial customer's rights are extinguished after 7

			<p>years adds weight to the initial customer being able to get as much as possible for someone else using the assets the initial customer has funded.</p> <p>As cost reflectivity is used as the basis for setting tariffs within a network, cost reflectivity is considered to be equitable and recognizes the value to the new customer of being able to use assets someone else has paid for.</p> <p>However, once the seven year period has expired, the MEU considers that the DB should not be able to require the new customer to make a further contribution for using those assets funded by the initial customer.</p>
		<p>The AER seeks comments on its preliminary view that a \$500 refund threshold strikes an appropriate balance between a DNSPs’ administrative costs and the materiality of a refund.</p>	<p>The AER has not provided a basis for setting the \$500 limit. The MEU considers that the AER should substantiate this amount rather than just stating a value.</p>
		<p>The AER seeks comments on its preliminary view on customer payments when the network is built to a greater standard than a customer or group of customers would otherwise require, if the DNSP did not consider it more efficient to build the network to a greater standard based on forecast load</p>	<p>New connection assets should not be built to a higher standard than the standards used in the upstream parts of the network. For example, it would be imprudent to build the new connection to N-2 reliability when the upstream network can only provide N-1 reliability.</p> <p>On this basis the new connection should not be built to a higher standard than what is available upstream of the new connection.</p> <p>If the network decides that it considers a higher standard is required, then it should carry the costs itself.</p> <p>Such an approach reflects the recent AEMC rule change for scale efficient network extensions (SENE) where the network owner (or another party) can build a larger SENE than is initially required but take</p>

		growth.	the risks that its design is not used at a later date. The SENE decision allows the network owner to have a higher return on the augmentation when it is put into operation. A new customer should only be required to pay for a new connection that meets its requirements.
		The AER seeks comments and alternative approaches to deal with the costs allocation issues where a DNSP provides a network extension on request of a single customer, to a standard greater than that customer requires due to the DNSP's network planning process.	This issue is one that arises because of the AER approach which the MEU considers is flawed. Under the MEU Proposal, this is not an issue and the problem is avoided. A new customer should only be required to pay the costs for a new connection that meets its requirements. If the augmentation is built larger than needed by the initial customer to accommodate expected additional connections, then the rebate should be calculated at the time of the building of the assets and the customer charged on a cost reflective basis, following the approach suggested above when the asset is used by another customer at a later date.
App A		The AER requests feedback on the completeness, consistency and adequacy of the proposed definitions.	The definition of augmentation repeats the definition of shared network augmentation. Why have both?
		The AER seeks comment on whether stakeholders require clarification of any additional terms.	