Major Energy Users Inc.

19 October 2018

The Commissioners
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Sent to: AEMC by online lodgement

Dear Sirs

Coordination of Generation and Transmission Investment
Options Paper
EPR 0052 CoGaTI

Major Energy Users Inc (MEU) is pleased to provide its thoughts on the issues raised in the Options Paper for Coordination of Generation and Transmission Investment.

Overall, the MEU considers that the Options Paper defines the issues well and identifies many of the aspects that need to be considered as part of assessing the needs to implement the Integrated System Planning (ISP) for the NEM. However, the MEU would like to make the following comments and observations as it considers that they also should be addressed by the AEMC as it develops its views.

Some general observations

The MEU makes the initial observation that the costs of transmission assets lie predominantly with consumers, with generators making only small contributions to the overall costs of providing these assets, yet the transmission network is fundamental to generators getting their product to market. With this in mind, the MEU has a concern that the issues raised and questions asked have been biased to address the needs of generators and transmission service providers yet the costs are borne directly by consumers. Already there has been extensive commentary on the Rules and their impact on over-investment (and under-utilisation) of network assets to the significant detriment of consumers and being a major contributor to the excessively high costs of electricity in the NEM. With this in mind, the MEU considers that the AEMC needs to be more cognisant of the potential for its review to further exacerbate the unnecessarily high costs for electricity.

The MEU points out that the rules favour network investment and one of the drivers is that the rules examine the benefits of network investment on a market benefit basis, despite the fact that its is consumers that pay directly for over 90% of the costs of

transmission systems – the MEU has long been a supporter of the view that the Regulatory Investment Test (RIT) should be a consumer benefits test rather than a market benefits test[1]. One of the issues that is implicitly raised as part of the ISP, is that that there is an incentive to implement network investment in the hope that it will incentivise generation investment (particularly for renewables). An outcome of imposing costs on consumers for the transmission system rather than generation has been unnecessary generation congestion, which led to the examination of whether there should be an ability of a generator to invest in the network to provide firm access (and so overcome congestion) through the examination of the Optional Firm Access review – a program that has not yet seen the light of day but could be established as a result of this review of the ISP.

The MEU considers that generation investment should be based on the economics of the generation proposal, and not be incentivised, effectively by consumers, by providing "free" access to a network that they would have to otherwise include as part of their economic evaluation. There is considerable risk to consumers in providing "spare" capacity (either directly by over building or indirectly by including potential market benefits of an augmentation) in the network and which might never be used.

The MEU also makes the observation that the concept of identifying renewable energy zones (REZ) within the structure of the ISP is sound from the viewpoint of providing information to potential investors in new generation, but there is the risk of over investment that was addressed at some length in 2010 and 2011 during the discussions about the proposed rule change to introduce scale efficient network extensions (SENE). This proposed rule change was ultimately very much limited to a sharing of information on the basis that the original drafting was considered to impose too great a risk on consumers in that they would be required to fund transmission capacity that might be inefficient, as it might never be used or only after many years.

The MEU has noted that the first of the new interconnection projects highlighted by the ISP – the Riverlink project developed by ElectraNet – incudes in its benefits the savings in connection of new generation which might occur in the SA/NSW Riverland region and in NSW/Vic regions along the Murray River. The MEU is very concerned that this approach of including benefits from reducing connection costs for new generation projects is a reversion to the rejected initial SENE approach. The MEU considers that supposed benefit to new generator connections should not be included in the assessment of the new inter-connector.

Equally, the MEU considers that greater coordination is required so that needed intra-regional needs of consumers are closely matched with any ISP designated needs, which implies a need for the regional TNSP to be active in the process for assessing the optimum outcome for consumers; both directly to supply for their needs and

[1] While the ESB and AEMC consider the same outcome is achieved with both a consumer benefits test and a market benefits test, the MEU is aware that overseas, many regulators use a consumer benefits test as this reflect the reality that it is consumers pay for the costs of providing networks, and providing a counter view that the two tests deliver the same outcome.

indirectly with new generation plants to ensure the transmission network is optimised and utilisation of the assets increases.

At the most basic level, consumers do not want to provide transmission assets that should rightly be included in the connection costs of new generation. Not only would such an approach impose unnecessary costs and risks on consumers, but it would also bias the locational decisions for generation as investors seek to get the lowest capital cost rather than the most efficient locale for generation.

Over the years, the MEU has seen that TNSPs have had an incentive to over-invest in network assets to the detriment of consumers. While this over-investment has been permitted (even encouraged) by the rules and regional governments, the TNSPs had the ability to limit investment but chose not to. On the other hand, AEMO has demonstrated in Victoria that it has attempted to limit investment in augmentation to the minimum required – something it was able to do because it had no vested interest in the outcome. The MEU sees that this independence has delivered value to consumers. This inclines the MEU to consider that greater involvement in investment decisions by AEMO is a significant step forward to maximising consumer interests.

Assessment of the options for AEMO vs Network responsibilities in augmentation

In developing its response to this options paper, the MEU recognises that AEMO has a much better NEM wide understanding of the issues (especially future generation needs in each region and inter-regional flows) but that the regional TNSPs have a better understanding of local and current issues. The key for the AEMC options is therefore to get the best balance between “thinking globally and acting locally” between AEMO and the regional TNSPs.

While the AEMC options address the concepts, the MEU is concerned that the ability to implement to the investments through direction to TNSPs by AEMO raises a very concerning aspect – that AEMO might require a TNSP (a business in its own right with responsibility to its shareholders) to implement actions that the TNSP does not consider are in its own best interests. In addition to this concern, the issue of limiting the incentive for the TNSPs to minimise costs is critical, so the MEU considers that when considering the five options, options 4 and 5 probably are not realistically feasible.

While the MEU was initially supportive of the concept applying in Victoria (where AEMO decides on what is required and calls tenders for augmentations), actual practice has resulted in almost all of the transmission augmentations being carried out by Ausnet Services, as alternative providers found challenges in integrating their activities with Ausnet which is the provider of most of the assets. Ultimately the MEU questions the value to consumers of extending this concept to all NEM regions.

The MEU considers that option 1 (effectively a status quo with enhancement) does not impose significant pressure on the regional TNSP to comply with the needs of the ISP

and so is too reliant on the good will of the regional TNSP to deliver what should be the best option for consumers, rather than what is in the best interests of the TNSP. The MEU also considers that option 2 does not go far enough in managing the requirements but considers that option 3 goes too far.

On balance the MEU considers that option 2.5 (a hybrid of options 2 and 3) would best serve the interests of consumers. Under this option, AEMO decides the best option for the new transmission investment to meet the expectations of the ISP with the TNSP negotiating with AEMO (even moderating) the best option proposed by AEMO to reflect local interests and needs. Should AEMO and the TNSP not reach agreement, the AER would have the power to decide on the project parameters and to set the cost as it does under its normal regulatory processes. The MEU sees that option 2.5 would be as described in the table below. Text in bold italics show the changes to the option elements from AEMC option 2.

	Stage in investment process	Responsibility
1	**Identify need**	AEMO identifies network needs through its modelling in the ISP, with TNSPs providing inputs into this process.
2	**Identify credible options that address the need**	AEMO identifies the credible options that could meet the identified need through the ISP process, with TNSPs providing inputs into this process. ***AEMO to undertake robust consultation to assist in identifying options, including non-network options***
3	**Assess costs and benefits of credible options**	***AEMO undertakes robust and transparent cost/benefit assessment of the various credible options, including seeking out non-network options.*** ***(It is expected that AEMO and the TNSP will work cooperatively just as occurs now)***
4	**Determine "best" option**	***AEMO determines which of the credible options provides the best net market benefit through the ISP. TNSPs provide input into the "best" option selection.*** TNSPs have responsibility for network options in deciding preferred route; technical specifications of the assets; interfaces with the existing transmission network.

5	**Make decision to implement "best" option**	***TNSPs either formally agree or reject the AEMO "best" option, providing reasons for any rejection. AER resolves any dispute as part of the formal acceptance of the capex for the project.***
6	**Undertake detailed costing and planning for the investment**	TNSPs undertake the detailed, project specific costing and planning for the investment. For a network investment this will include obtaining land easements and environmental approvals; developing functional specifications for the assets and ordering / procuring the equipment. (It is typical at this stage that AER involvement in the economic regulation will begin, as under current incentive-based regulation arrangements)
7	**Implement the investment**	TNSPs implement the investment - either building and commissioning the transmission investment; or finalising contracts with the non-network provider.

Options for managing REZs

The Options Paper discusses four new options to address REZs. Option 1 is basically as now but with better planning proposed and the MEU sees there is value in the enhanced reporting.

Options 2, 3 and 4 range from generators managing the connections at a REZ area (option 2) through TNSPs funding the augmentation for consumers picking up costs in the future (option 3) to consumers funding the augmentation – effectively a reinstatement of the initial but properly rejected SENE concept – (option 4).

The MEU does not consider that consumers should be required to accept any costs or risks for augmentations that do not have an immediate driver caused by the needs of consumers. The MEU was (and remains) supportive of the Optional Firm Access approach that allowed generators to fund augmentations of the network and to acquire firm access to the network for the sale of their products – a concept that operates well in the commercial sector where MEU members all operate. So the MEU sees value in further investigation for option 2.

Under the current rules, generators are (and should be) required to fund their own connections to the shared network. The MEU does not support option 4 as it passes considerable risk to consumers (and this concept was proposed under the initial SENE concept and rejected) and the MEU does not see that consumers should be exposed

to the costs that are inherent in option 3 either, as it requires consumers ultimately to bear the costs that under other circumstances would be a cost to the generators seeking connection to the shared network.

Storage

The Options Paper seems to have focused its review of the issues of storage almost exclusively on batteries – ie where the storage is both a user and a supplier of electricity and therefore has features of both. The AEMC has consistently made the point that the NEM needs to be neutral with regard to generation fuel type, yet this discussion a battery's liability for TUoS costs confuses batteries with just being a generator.

Storage can be carried out in multiple ways – as water, heat or as electricity storage. In the case of water and heat storage, the generator has to provide the necessary infrastructure to enable the source of energy to be available (eg through building dams, storing fuel for later delivery when needed for generating electricity, or providing the infrastructure ability to store heat as in thermal solar). In the case of a battery, it sources the electricity from the market and, therefore, as a consumer of electricity should pay the requisite costs to be able to provide the services. In the case of electricity, this is through connection costs. In the case of a thermal source of storage this may be through the cost of a gas pipeline network, coal bunkering or by providing significant additional mirror work or heat storage tanking.

When considered in comparison to other forms of storage, a battery should be considered as a consumer when accessing its "fuel" and as a generator when exporting the electricity at a later time. So as not to get preferential treatment compared to other forms of storage, a battery should pay for the costs associated with its acquisition of the energy it will later release as electricity.

The MEU has consistently been of the view that any generator that draws electricity from the shared network should be required to pay for the importation of electricity like any other consumer. That some generators are not required to pay network charges for importing electricity to drive their auxiliaries is inconsistent with the concept of the NEM rules where a customer pays network costs if it imports electricity regardless of magnitude or frequency of that usage.

To be consistent, a battery should pay for its electricity network costs as an importer of electricity, just as (say) a gas turbine pays pipeline network charges for importing its gas.

Summary

It has become very clear that the cost of network investments has led to the very high cost of electricity supplies in the NEM. That this has occurred lies with the Rules that have allowed for this to occur. The MEU notes that the Regulatory Asset Base (RAB)

of all networks has more than doubled in the past decade (in nominal and relative terms) and that the utilisation of these assets has fallen dramatically over the same period as demand has flat-lined and consumption fallen. Consumers want to see that the Rules only allow for network investments that they pay for only deliver real value to them, not be a vehicle to allow unnecessary network investment or to allow others to minimise their costs at the expense of consumers and increase their competitive advantage.

The MEU is very concerned that the concept of the ISP provides an avenue for networks to use the process to increase network investment – an investment that consumers will end up paying for over the next 40+ years. To recognise that a network augmentation passing through a defined REZ provides the network with another avenue to increase the potential benefits of its preferred option. It is clear that the Rules already provide significant bias towards over-investment in networks and the MEU (along with many other consumer advocates) is very cognisant that unless the Rules are very carefully crafted , the result will be that consumers will still be exposed to significant increased costs and under-utilised network assets.

The MEU considers that consistency in approach is essential in ensuring that there are not introduced anomalies into the rules that will result in consumers taking more risk and/or incurring costs that are rightly the purview of others.

The MEU is happy to discuss the issues further with you if needed or if you feel that any expansion on the above comments is necessary. If so, please contact the undersigned at davidheadberry@bigpond.com or (03) 5962 3225

Yours faithfully

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