Major Energy Users Inc.

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Mr Chris Pattas
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Australian Energy Regulator
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By email to: repexdevelopment@aer.gov.au

Dear Chris

AER review of repex modelling assumptions
Issues Paper

Major Energy Users Inc (MEU) is pleased for the opportunity to provide its views on the Issues Paper released by the AER in relation to its review of the replacement capital expenditure (repex) modelling assumptions used to test the claims by network firms for their needs for repex and to identify acceptable levels of repex to be used in network revenue resets.

The MEU was established by very large energy using firms to represent their interests in the energy markets. As most of the members are located regionally, and are the largest employers in these regions, the MEU is required by its members to ensure that its views also accommodate the needs of their suppliers and employees in those regional areas. It is on this basis the MEU and its regional affiliates have been advocating in the interests of energy consumer for over 20 years and it has a high recognition as providing informed comment on energy issues from a consumer viewpoint with various regulators (ACCC, AEMO, AEMC, AER and regional regulators) and with governments.

The MEU stresses that the views expressed by the MEU in this response are based on looking at the issues from the perspective of consumers of electricity and it has not attempted to provide any significant analysis on how the proposed changes might impact other stakeholders.

The MEU and the consultants it uses have been intimately involved in distribution network revenue resets over the entire life of the NEM and so the MEU is well qualified to provide the AER with informed comment about this issue.

Consumers have consistently highlighted that they are very concerned at the very high cost of delivered energy and a significant contributor to this high price is the very large asset base for energy transportation assets that they are required to fund[1]. Capital expenditure (capex) is a key driver of the growth in the asset base and as replacement capex (repex) is now the single largest element of capex claims by networks, the MEU sees this review by the AER is both timely and necessary, to ensure that consumers do not continue to see unnecessary growth in the network asset base

As an overarching observation, the MEU has noted that in recent years, networks have been increasing their claims for repex even as their claims for augmentation capex (augex) have fallen. In the earlier years of the NEM, the MEU had noted that repex was a relatively small component of the total capex claimed by networks yet as the decreasing need for augex (resulting from massive reductions in energy consumption and peak demands over the past 5-8 years) occurred, networks have significantly raised the amounts of repex that they consider is needed for the networks, seemingly to offset the reductions in augex[2].

With this concern in mind, the MEU considers that networks have an incentive to reduce the times between replacement of assets and by reducing replacement times will increase the amounts of repex that the network will be allowed, increasing costs for consumers. Observations over time, tend to support this view as repex has increased considerably over time, even allowing for inflation of costs.

The MEU points out that the incentive to shorten replacement periods is twofold – firstly through overstating the amount of repex, the network can generate a bonus through the capital expenditure sharing scheme (CESS) and secondly through shortening the periods between replacements, the network potentially might increase reliability of service, thereby generating a bonus under the service target performance incentive scheme (STPIS). As consumers pay for the repex, effectively they can end up paying the networks for the bonuses the networks get under these two schemes. This is inequitable.

During the AER program developing the better regulation guidelines, the MEU was very much involved with the AER approach to developing guidelines and tools to better assess networks' needs for capex and opex. The MEU had been a strong advocate for regulators to carry out better benchmarking as a core tool to ensure that revenue allowances for networks (especially opex and capex) are efficient. In the absence of benchmarking, each network was able to argue a need for greater opex and capex, and the introduction of better benchmarking has delivered benefits to consumers throughout the NEM.

[1] The RAB*WACC element of the allowed revenue calculation is consistently the single largest element of the allowed revenue

[2] The MEU has also noted a similar coincident rise in the amounts claimed by networks for ICT capex

In particular, the MEU provided considerable input into the process for the AER to gather better data on asset replacement (both in terms of cost and frequency) as part of the development of the category analysis regulatory information notices (RIN). The MEU notes that over the years since the acquisition of data commenced through this RIN, the AER now has a very extensive library of data both in longitudinal terms over time as well across all networks.

The MEU expects that the AER will use this data to its maximum effect to ensure that repex claims are comprehensively examined with careful attention to limiting unnecessary growth in the asst base.

The MEU has also noted there appears to be some inconsistency both between outcomes:

- Of the category analysis data and the depreciation schedules used by each network[3], and
- The data recorded between the different networks for the same activity[4].

While the MEU accepts that there will be some variance between the data provided in the category analysis RIN by each network, one of the core principles behind developing the category analysis was to implement a high degree of benchmarking to ensure that there is internal consistency over time within each network's cost structure but also that there would be comparisons between each network such that both depreciation and replacement of assets exhibited similar outcomes; this would ensure that consumers were not being penalised by actions of specific networks.

The MEU points out that if depreciation schedules use lives shorter than the actual lives of the assets (as measured by the rates of replacement) then consumers are being levied a premium through rapid depreciation and imposing a cost on current consumers for the benefit of future consumers.

Similarly, if one network is allowed to replace its assets faster than another network for the same assets, then the concept of benchmarking to ensure efficient longevity of the assets is lost and consumers are again the loser.

The MEU expects that the review of the repex modelling assumptions will ensure that there is greater consistency between depreciation and actual replacement lives and that there is greater consistency between different networks for replacement of assets of the same type. It is by these means that outcomes for consumers will improve in terms of costs and reliability of supply through out the NEM.

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[3] See for example the observations made by CCP3 in relation to the Victorian electricity networks initial applications for a reset in 2015, section 6.4.3 available at https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/ausnet-services-sp-ausnet-determination-2016-20/challenge-panel

[4] ibid

The MEU is very concerned that the AER is not using benchmarking to its fullest extent as it is tending to push networks to average outcomes, rather than pushing them to the efficient frontiers. The MEU sees that the current repex modelling does not deliver an outcome where there is a driver to ensure more efficient practices for asset replacement and the MEU expects that the AER will use this review as a part of ensuring all networks are operating closer to the efficient frontier than they are at the moment.

The MEU provides the following responses to the specific questions raised in the Issues Paper. These responses reflect the more general comments made above.

Question 1: Do you consider that setting defined maximum and minimum expected asset replacement lives would improve the forecasting accuracy of the repex model?

The purpose of the category analysis process is the provision of data to support benchmarking for activities that have a medium to high degree of repetition so that all networks can have their costs driven to the efficient frontier. By setting any maximum or minimum levels in terms of costs and frequency of replacement, has the potential to limit the value of the benchmarking process.

The import of the AER discussion is that it contends that the average asset life as applied across the NEM is where the benchmark should be set. The MEU disagrees – the asset life that reflects the most efficient outcome (ie approaching the frontier) will be an asset replacement life that is longer than the average but still delivers an outcome that leads to a level of reliability that is acceptable to consumers.

The MEU accepts that statistically, outliers should be excluded from informing the data outcome. Outliers are unlikely to be consistently same over time and they will be different for different assets at different times. With this in mind, the MEU considers that outliers should be considered on a case-by-case basis without imposing any arbitrary upper and lower bounds.

Further, the MEU considers that the level used for the asset life in the model should be based, not on the average, but at a higher percentile (eg the level of the fourth quintile) as a way of driving the outcome to the efficient frontier.

Question 2: What do you consider would be the preferred approach to setting maximum and minimum expected asset replacement lives, including supporting engineering and statistical evidence?

The MEU does not consider that setting arbitrary upper and lower bounds is the appropriate approach as this has the potential to reduce the benefit of benchmarking which is essential to driving outcomes to the efficient frontier

Question 3: Is the current approach of addressing these concerns on a case-by-case basis sufficient, as we have done for previous decisions? If not, why not?

Yes. See comments above

Question 4: Do you consider that there are any other elements we need to consider should we limit expected asset replacement lives?

The MEU is concerned at the lack of consistency between the asset lives used for replacement and the asset lives used in the depreciation schedule, even within the same network. The MEU considers that there is a reasonably high degree of homogeneity within the distribution networks so there should be very similar asset replacement periods (and costs) across all networks for the same asset. Further, depreciation schedules and replacement periods should also reflect a a high degree of correlation.

Question 5: Do you consider that there is a better approach to selecting the calibration period?

Assets do not have a “use by date” at which point replacement should occur and the time for replacement of the same assets should not vary much over time. While the changes in reliability levels might result in taking less risk in allowing an asset to remain in service longer than might be considered appropriate, networks should be assessing the need for replacement based on actual service assessments (eg through condition monitoring), rather than the time an asset has been in service.

The MEU therefore considers that it should not be changes in reliability standards that drive the life of an asset and when replacement should occur. For example, will a wood pole have a shorter useful life because a government has changed a reliability standard? The MEU does not consider that the useful life will be impacted in the slightest.

This means that the calibration period should encompass all of the data that is held and not be limited by an arbitrary decision to exclude older data based on an assumption that the asset lives have been impacted by a change in a standard of reliability.

The MEU considers that networks have an incentive to shorten replacement times and accepting that asset lives might be affected by more recent outcomes provides the networks with the tool to increase their repex.

Questions 6: Are there any issues with the current approach to select the calibration period?

Yes. All data should be used that is available and this data should not be truncated because of an assumed but incorrect view that regulatory change has any impact on the engineering life of an asset.

Question 7: What other issues or factors should we take into account when determining the calibration period?

As noted above, all data should be used, and none excluded, and the AER should identify anomalies (especially where these reflect a shortening of the replacement periods) and make adjustment for them in the model.

Question 8: Is our current approach to forecasting repex for wooden poles clear and appropriate based on the information available? If not, why not?

The MEU considers that asset life data on unstaked poles and staked poles should not be just within one network's replacement program but should use the data from all networks. It is by this means that every network will be driven to the efficient frontier. Using data from all networks will provide a better idea of what the most efficient replacement periods should be.

So while the MEU considers the AER approach to assessing replacement lives for staked and unstaked poles is appropriate, the MEU considers the AER should use the data from all networks and from all times to establish the appropriate replacement periods.

Question 9: What are your views on the appropriate estimation method for wooden pole staking or replacement volumes when the required data is not available?

Using data from all networks obviates this concern. Effectively, the asset life for a staked pole in one network should be similar to that for a network that has less data to support the life of such an asset

Question 10: Are there any other approaches that could be applied to reasonably forecast repex for wooden pole asset categories?

The MEU does not consider there are other approaches that are better than the AER approach

Question 11: Do you consider the assumption and rationale underpinning the exclusion of unique assets is clear and appropriate based on the information available?

The MEU does not consider that any asset should be excluded from the modelling because there are fewer than three distributors providing the data. The MEU considers that the AER should use the data it has from the networks and if possible, augment the data using information from other sources where there is some paucity of data.

For example, the AER notes the instance of replacement of 132 kV underground cabling being excluded from the model. While the MEU accepts that few distribution networks have 132 kV cabling, the replacement periods for similar underground cabling but of a lower voltage would be similar for cabling with the same cores and external sheathing. Further, data from transmission networks could also be used as most transmission networks have 132 kV assets.

The MEU considers that the process of benchmarking is critical to ensuring the most efficient outcome is achieved. So where there appears to be less data available, the AER should look to find other sources of data to ensure that the replacement lives (and costs) are all benchmarked. To do less than this is not in the long term interests of consumers and to exclude data because there is only data available from two networks is not in consumers long term interests.

Question 12: Are there other any approaches that could be applied to reasonably model excluded asset categories, while incorporating a level of benchmarking?

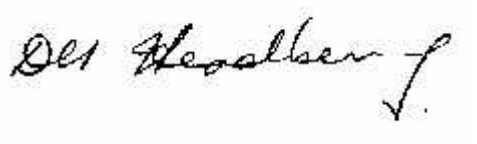
See comments to Q11

Question 13: What other repex model issues outside the scope of this review should the AER consider in future repex model reviews or forums?

The MEU considers that the AER should be actively looking to expand the concept of benchmarking to ensure that outcomes are efficient and do not allow networks to use the AER approaches to “game” the repex modelling to result in more capex than is required; this approach will limit the growth of the Regulatory Asset Base.

Should the AER require additional explanation as to the concerns expressed herein, please contact the undersigned at davidheadberry@bigpond.com or (03) 5962 3225.

Yours sincerely



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