



19 October 2020

The Chair  
Energy Security Board  
C/- CoAG Energy Council

Sent by: email to [info@esb.org.au](mailto:info@esb.org.au)

**Post 2025 Market Design  
Response to Consultation Paper September 2020**

Major Energy Users Inc (MEU) is pleased for the opportunity to provide its views on the Consultation Paper released by the Energy Security Board (ESB) in relation to the post 2025 Electricity Market Design and its long term, fit-for-purpose market framework to support reliability, to meet the needs of future diverse sources of non-dispatchable generation and flexible resources including demand side response, storage and distributed energy resource participation.

The MEU was established by very large energy using firms to represent their interests in the energy markets. With regard to all of the energy supplies they need to continue their operations and so supply to their customers, MEU members are vitally interested in four key aspects – the cost of the energy supplies, the reliability of delivery for those supplies, the quality of the delivered supplies and the long term security for the continuation of those supplies.

Many of the MEU members, being regionally based, are heavily dependent on local staff, suppliers of hardware and services, and have an obligation to represent the views of these local suppliers. With this in mind, the members of the MEU require their views to not only represent the views of large energy users, but also those interests of smaller power and gas users, and even at the residences used by their workforces that live in the regions where the members operate.

It is on this basis the MEU and its regional affiliates have been advocating in the interests of energy consumers 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.

***2-3 Parkhaven Court, Healesville, Victoria, 3777***

***ABN 71 278 859 567***

The MEU stresses that the views expressed by it 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 view of the market and proposed change**

The MEU has been a consistent respondent to the various ESB consultations since its inception, but it considers that any review of the market design must reflect the realities of the market we are seeing now, including:

1. The NEM is amongst the highest cost electricity markets in the developed world already so any market re-design must be focused on reducing the costs and risks to consumers. All markets have their own specific challenges and views are mixed as to which deliver the best outcomes to consumers at the lowest cost;
2. Along with the major disruption that will occur with any proposed significant change to the market, the new design needs in-depth risk assessment and must be harmonised with the changes already made to the NEM rules that have been or are about to be implemented, but where the outcomes and market consequences have not yet been realised (eg 5 minute settlement, Retailer Reliability Obligation (RRO), enhanced demand side response, RERT changes, wholesale demand response, transmission access reforms etc).
3. Government underwriting of new generation has been implemented (the UNGI program) and commitment to build Snowy 2.0 has been made
4. It is clear that storage options (conventional Li-ion batteries, Tasmania's battery of the nation, mini-hydro and others) are being seriously pursued to address some of the shortcomings already being seen and expected in the NEM of the future.
5. Increased interconnection between the regions is being implemented and this will provide increased diversity of supply from intermittent generation (especially wind). It would be prudent to observe how proposed transmission upgrades from priority 1 and 2 projects of the Integrated System Plan (ISP) – such as EnergyConnect, HumeLink, VNI West and QNI upgrades, Marinus, WestVic, etc – impact the market before committing to major structural interventions.

Considerable effort has been devoted to improving the NEM over recent years within its basic design structure, yet this review has the potential to obviate many of these changes without testing to see if they provide a benefit and better meet the National Electricity Objective (NEO). The MEU sees that it is possible that a number of the investments being made now might well be made redundant by a significant change in the market design, and the cost of these will be borne by consumers for many years to come.

With these thoughts in mind, the MEU considers that the ESB should not look to large scale changes to the market design but should focus on incremental changes that allows the testing for efficacy of changes made to be identified before making the next change.

In its response to the Issues Paper released by the ESB on the post 2025 NEM design, the MEU made a number of observations that still have not been addressed, including:

- There still remains a lack of energy policy at the federal level although most States have introduced energy policies for their own regions which, when aggregated, do provide a sort of national policy, albeit somewhat fragmented
- The electricity market reflects oligopolistic tendencies where much of the supply and market power is held by a few firms that also exhibit a high degree of vertical integration. New entrants tend to be absorbed by the major firms, entrenching the oligopolistic nature of the observed market. The MEU notes that the more the market is disaggregated into a number of sub-markets (eg provision of energy, FCAS, inertia, system strength, etc) the greater the potential for sub-markets to be more concentrated, subject to opportunistic market practices and rent taking leading to unnecessarily high prices.
- The east coast gas market continues to reflect the high level of concentration in production and transport of gas, and this is causing domestic gas prices to remain well above international prices. So whatever design proposals are eventually recommended for the post-2025 NEM review, gas costs will play a key factor in future markets.
- The continuing pressure to enhance reliability of supply (eg the reduction in the reliability standard to 0.0006% USE to trigger the Retailer Reliability Obligation - RRO) is at odds with the overall reliability of supply seen by end users at their connection points (ie after incorporating the much lower levels of reliability seen in distribution networks). That the market operator in the 2020 ESOO sees little risk of breaching the 0.002% standard until 2029/30 supports the view that addressing reliability of supply needs not be a focus.
- Government intervention has massively increased in recent years with the RET scheme (and various state additions to this), Queensland gas incentives leading to more gas fired generation, Snowy 2.0 and the 1000 MW Hunter GT proposal, UNGI, Tasmania "Battery of the Nation, South Australia's reaction to the 2016 blackout, and so forth. All of these interventions have created a market with unnecessary uncertainty for private investors, with chilling impact. What is of concern is that the post 2025 NEM review is heavily driven and maintained by this intervention in a market where prices should drive investment. The MEU considers that the current government concern about the market is in part a direct outcome from their interventions which undermines and distorts investment signals.
- Whilst a number of initiatives (eg two sided markets) are being proposed these appear to be developed as if users are sophisticated generators or active market participants. Whilst some users may have the requisite

capabilities to participate in energy markets, their core business is to produce the products and services required for their markets/customers. The regulatory regime needs to keep this fact front and centre and reduce regulatory barriers and complexity for end users to provide support to the market.

- There have been a number of refinements made to the NEM in recent years (eg the RRO, 5-minute settlement, wholesale demand response – WDR, actionable ISP, etc) aimed at improving the NEM but there has been no ability to assess whether these will address any of the concerns raised in the post 2025 market review. A prudent approach would be to allow these proposed medium-term interventions time to be implemented and tested, with regulatory adjustments made once more observable market information and behaviour can be empirically assessed. In the ESB post-2025 review there appears to be a hypothesis that further changes are required but this has not been tested and proven or disproven. The existing market design and proposed rule changes may well be sufficient to address the risks and provide adequate investment signals to mitigate the risks outlined in the ESB post-2025 consultation paper.

While the MEU agrees with the ESB that the electricity market is experiencing significant change from both supply and demand side changes, the MEU notes that there have been introduced market modifications to address many of the impacts of these changes. This means that great care is needed to ensure that each market modification is appropriately assessed to identify the reality of the benefits from the modification before introducing more market changes – effectively the MEU considers that the ESB should make haste more slowly than it seems to be doing. The risk is that we see an ‘overshooting’ in regulatory response and that additional costs and risks could be borne by end users for little or no market benefit.

With these thoughts top of mind, the MEU makes the following observations arising from the Consultation Paper.

### **Resource Adequacy Mechanisms (RAMs)**

The MEU accepts that change in the generation supply mix is occurring and will increasingly incorporate generation supply from more weather dependent sources (variable renewable energy – VRE) and less from dispatchable (synchronous) generation and that the impacts of this must be recognised in the market design. Equally the MEU is concerned that there will be unnecessary and more costly changes made to the market where the lowest cost option for consumers might come from slightly lower reliability in supply (but marginal reduction in reliability when seen at consumers’ connection points) compared to the significant increases in costs that might be incurred in the market:

- As retailers seek to insulate themselves from the costs incurred by AEMO in its role as supplier of last resort through the RERT program, and/or
- By the introduction of a form of additional payment to generators to provide “dispatchability” in addition to the supply of energy (eg a capacity payment).

The MEU notes that the introduction of the Retailer Reliability Obligation (RRO) was specifically developed to address the issue of declining dispatchable generation in the market, and the MEU recognises the need for ensuring there is sufficient dispatchable supply (or demand reduction) to meet the Reliability Standard. The RRO has yet to be tested and, even now, AEMO is forecasting that there is no short-term likelihood of the Reliability Standard (or even the Interim Reliability Standard of 0.0006% USE) being breached meaning that the RRO will still be untested into the medium term.

Despite the reality that the RRO has not been demonstrated to be insufficient for the identified need, the ESB seems to have concluded that further change is necessary. The evidence suggests that further changes or enhancements to the RRO may not be justified. The MEU is very concerned that the new changes being contemplated will deliver enhanced reliability (an outcome that consumers have not been seeking<sup>1</sup>) in the supply. In fact, the MEU points out that any increase or decrease in reliability of supply will have a minimal impact of reliability seen by consumers at their connection points because the largest impact (by a factor of over 10 times<sup>2</sup> more than the Reliability Standard) is in the distribution network so any improvement in the supply reliability will provide minimal overall improvement seen at consumers’ connection points because the main contributor to low reliability is the distribution network.

The MEU sees that increasing reliability in supply will have the same impact as the “gold plating” of the networks over a decade ago – where consumers incurred significant increased costs for little benefit, other than government satisfaction they were seen to be doing something.

The MEU has already noted that ESB recommendations led to the implementation of the RRO which so far has not been needed. It then recommended changes to the RRO process by removing the T-3 trigger, triggering the RRO at 0.0006% USE rather than at 0.002% USE and expanding the RERT process by increasing AEMO’s contract capability of the reserve supplies (overall the interim reliability measures – IRM). These decisions (made without stakeholder input) appear to have been made with the objective of having no risk exposure to reliability which does not align with the NEO.

---

<sup>1</sup> Consumers have stated a clear preference for lower prices at current reliability levels

<sup>2</sup> The AER reports in its Electricity Distribution Networks Performance data report that on average across all electricity distribution networks that the average minutes off supply (SAIDI) exceeds 100 minutes for each customer off supply per year yet the 0.002% USE measure averages only 10 minutes for each customer off supply per year

The ESB proposes three potential changes to address their concerns about reliability of generation supply, despite there being no evidence that the changes are needed. These are:

1. Implement an operating reserve mechanism
2. Expand the RRO or implement a decentralised capacity market
3. Further change the RERT and/or IRM as an adjunct to the other two measures

The MEU responds to these proposals as follows

#### Making a step change

As noted above, none of the initial RRO process or the IRM enhancements to the RRO process have been tested to see if they will sufficiently meet the need to overcome falling reliability in supply. Despite this, the ESB is contemplating an expansion of the RRO and even entrenching the IRM without testing to see if the existing RRO (and even with the IRM) will deliver the targeted outcomes. In addition, the MEU points to the near-term implementation of the Wholesale Demand Response Mechanism (WDRM) will also provide additional avenues to allow retailers to better manage their RRO yet there is no evidence to date that the WDRM will not offset any loss in supply reliability, as the uptake of the WDRM by users and aggregators and effectiveness of the scheme is not known at this stage. The implementation of the ISP will also lead to major changes in the abilities of each region to manage reliability of supply and the equalisation of supply risk between regions.

The MEU points to the recommendation of FTI Consulting (FTI) which specifically counsels the ESB to see what happens with one set of changes before embarking on further change, effectively an approach based on incremental change where each change is evaluated after the change has been in operation for a period and then assessing whether more change is required. FTI comments<sup>3</sup> (page 10)

“We envisage that before embarking on each stage, an impact assessment would be undertaken to consider relevant implementation issues and assess whether the continuation to the next stage is feasible and warranted. This process would be informed by the learnings from the previous stage(s)...”

The MEU agrees with FTI on this approach and is of the view that a better solution to implementing the changes proposed in the Consultation Paper is to test the outcomes of the changes that have already put into operation to assess whether they will deliver the targeted outcomes, rather than making

---

<sup>3</sup> FTI Consulting “Essential System Services in the National Electricity Market” 14 August 2020

further changes, which are also unproven, to deliver the targeted outcomes. The MEU points out that this is what is already occurring in the market

The MEU sees that major step changes (especially when earlier changes have not been tested) being made to the market rules increases risk and so leads to increased costs to consumers and distorts investment signals. With this in mind, we are strong supporters of the market incrementally adjusting as change is needed rather than making any step change in the market. An incremental approach to changes allows each step to be tested for efficacy before the next step is taken. It is extremely concerning that the ESB paper appears to want to “experiment” with various “bolt-ons” without defining what the future state of the NEM should be.

For the sake of clarity, we would not support a step change from an energy only market to a centralised or decentralised capacity market and we support the ESB decision not to recommend a centralised capacity market.

#### Sharpening the market – an operating reserve market

The Consultation Paper discusses “sharpening the market” to incentivise an increase in responsive capacity, including by using a scarcity price adder, an operating reserve and/or adjusting the reliability settings. All of these options are likely to lead to increased prices for consumers and there is no certainty that the increase in cost will either deliver the targeted increase in responsive capacity or if the increase in costs will provide a benefit to consumers. Furthermore, the MEU considers that the existing RRO will probably provide an adequate solution compared to the proposed options.

The MEU points out that the Reliability Panel is tasked with setting the market reliability settings and this is carried out in a transparent manner based on the needs of the time. The MEU does not support the imposition of a rule or law to require the Reliability Panel to impose reliability settings other than those which they consider are appropriate at the time. The current process has shown to be sufficient. Equally, the setting of a scarcity price adder would be a subjective assessment which might need adjustment over time. On these bases, the MEU does not support either a scarcity price adder or a rule or law imposing constraints on the Reliability Panel.

The MEU is not sure whether the development of an operating reserve market would achieve what the ESB contemplates. The MEU considers that as a first step it would encourage existing generators (and WDR providers) to move from the spot market process due to the incentive payment it would receive, thereby withholding or delaying dispatch and so reducing supply in the spot market which in turn would increase spot prices. Further, as significant amounts of FCAS are provided by dispatchable generators (and WDR in the future) then the operating reserve market could induce providers of FCAS to be part of the operating reserve, potentially reducing competition in the FCAS market leading to increased FCAS costs.

It is also not clear how the operating reserve would interact with the information processes such as STPASA and PDPASA or the Lack of Reserve process or if having an operating reserve would improve the provision of information needed by the spot market to deliver the most efficient outcome.

What the operating reserve would do is effectively provide an extra payment to many generators (and WDR providers) to do what they would probably do without the operating reserve payment being provided.

It is possible that the operating reserve incentive payment might introduce more certainty of dispatch when needed, but this is what the RRO is required to do and the RRO provides a clearer incentive on retailers to ensure there is adequate dispatchable generation to avoid the risk of being liable for payment of RERT that might be dispatched.

The MEU points out that the RERT has already moved potential providers out of the spot market as the rewards from being a RERT provider can be greater than the rewards a provider might get from the spot market. The MEU is concerned that the provision of an operating reserve which will sit between the spot market and the RERT will, in addition to reducing supply in the spot market, remove supply from the RERT market. Effectively what we see happening with the introduction of an operating reserve market will be the same amount of supply being spread between three different markets, leading to increased costs in all three.

The MEU does not see that the introduction of an operating reserve has been demonstrated as being necessary and if it were implemented, to lead to increased costs without driving increases in supply. The market requires clear investment signals, and to this end an operating reserve is likely to have a distortive impact on the market.

## Expand the RRO

The RRO would appear to have already led to some new investments, as retailers have looked to firm up VRE supplies through funding new fast start generation and introduce more batteries. The introduction of increased inter-regional connection has also indicated that it will firm up VRE supplies – indeed, some of the benefits of this increase in inter-regional connection is based on the assumption that this will occur. It would appear that the current arrangements are already showing that they will deliver the targeted outcomes. If this is the case, why is there a drive for increased tightening of the RRO, which will come with a cost?

The MEU questions why there is a need to tighten the RRO as doing so will add costs that are probably unnecessary. The T-3 trigger for firmer supplies was a clear signal that retailers need to take action with sufficient time to

contract with counterparties yet this trigger has been removed by the IRM and proposed by this Consultation Paper, leaving retailers to make decisions on less available data, thereby increasing risk and costs to consumers. The MEU also points out that the removal of the T-3 trigger will impact the Market Liquidity Obligation (MLO) which was specifically introduced due to concerns of market power. Removal of the T-3 trigger and relying only on the T-1 trigger leaves insufficient time to adequately contract for firm supplies.

The MEU does not consider that imposing a 1 in 10-year demand forecast being the basis of the RRO and considers that the current 1 in 2-year forecast of demand provides a reasonable balance between ensuring reliability of supply and the cost to provide that reliability. We consider that moving to the 1 on 10-year forecast of demand will result in significant over-contracting to limit risk yet the risk of exceeding 1 in 10-year forecast demand is quite low<sup>4</sup>. The MEU considers that the likely cost increase to consumers from this imposition on retailers will significantly exceed the benefits that end users might see from its imposition.

#### Decentralised capacity market

The MEU does not consider that a move to a physical contracting process for the RRO, as envisaged by having a decentralised capacity market, will benefit consumers. This concept was widely canvassed during the development of the RRO but was discarded on the basis that it would lead to a severe limitation of market liquidity increasing risks for non-vertically integrated retailers. The NEM has always been based on the view that it should focus on financial contracts as this provides the greatest liquidity and the MEU supports a financial contracting process continuing. A decentralised capacity market would require a reliability market signal but the MEU considers that existing mechanisms are likely to be sufficient for the needs of the market, thereby negating any need to a decentralised capacity market.

#### Policy maker concerns

The ESB refers frequently to addressing policy maker concerns about the extent of reliability in the NEM. The MEU points out that the prime purpose for creating the NEM in the first place was to introduce market forces to drive the desired outcome rather than have centrally (government owned) control of electricity supply.

The MEU is very concerned that many of the proposed changes are based on the giving “policy makers greater direct control” (pages 30 and 41) and “policy makers can set the form and length of the price signal” (page 42).

---

<sup>4</sup> The MEU points out that historically the 1 in 10-year forecasts have rarely been exceeded and that even the 1 in 2-year forecasts of demand have commonly not been exceeded in any two-year period.

The ESB also refers to concerns about assuring “policy makers that necessary investment will occur as thermal generators retire” (page 117).

While the policy makers have a role in establishing the laws that surround the electricity market, they have so far (and should continue) to allow the market processes to operate without undue influence. The MEU does not consider that increased control of the market is one that should be in the purview of the “policy makers” for the electricity market.

## Conclusions

The MEU considers that generally the existing mechanisms in the market should provide the needed amount of reliability in the supply of electricity into the future as the generation mix changes – these elements include the RRO, WDRM, transmission augmentation under the ISP, etc. What is concerning is that despite these new initiatives being implemented, none have yet been needed to be exercised yet and therefore there is no evidence that they will not provide the desired outcome in the future.

The ESB proposes that further change is needed to deliver supply reliability yet supply reliability is currently very high and much higher than the reliability seen in the distribution networks, so the risk is that even if reliability in supply were to fall a little, the overall impact seen by end users would be marginal as USE exhibited in the distribution network is more than 10 times that set under the Reliability Standard.

The MEU therefore does not consider that an operating reserve or a decentralised capacity market are necessary or desired and neither are changes to the RRO process. The MEU considers that as a starting point the existing mechanisms should be allowed to operate and only if market inefficiencies and risks are observed that any adjustments or extensions in RAM scope be considered. What is needed is for governments to get out of the market (directly and indirectly) to concentrate on policy and leave the enacted market processes to address any shortcomings of the market as they arise.

## Ageing thermal generation

While the MEU agrees with the Consultation Paper description of the impact of ageing thermal generation exiting the NEM<sup>5</sup>, but equally, the Paper does not properly identify the realities of the current notice period for generators to exit the market.

Even with the current notice period, AGL provided a 7-year notice for the closure of Liddell power station yet even so the AGL advice has created great concern, with

---

<sup>5</sup> The MEU members only too well recall the market price impacts of the exit of Hazelwood power station with 5 months' notice

governments proposing intervention in the market if their thoughts and ideas are not complied with. The Federal government proposal to build a 1000 MW gas fired GT power station if the market doesn't provide what the government considers is appropriate investment and this belies the forecast that perhaps only an additional 150 MW of generation is required, noting that already the market has signalled that it is considering options to fill this amount of forecast need. The MEU considers that these Government interventions (even if politically attractive) are unhelpful and deter investment.

The MEU points out that continuation of the current RRO process will provide incentive for the replacement of ageing generation plant at appropriate times and that any additional imposition (eg contracting between AEMO and the generators to ensure the ageing plant does not prematurely exit the market) may result in gaming of the system to the detriment of consumers. The MEU considers that the market structure and rules already provide adequate incentive for the provision of new generation as and when older plant must exit and to provide payments to generators to remain available for dispatch until a given time detracts from the concept of an energy-only market which has reasonably well served consumers since the NEM inception.

Despite its view that the RRO should be sufficient to maintain reliability of supply, the MEU does consider that there might be a need in the future to provide some support to assist a generator considering early retirement, to receive some support to remain operating for a limited time in order to ensure reliability of supply is maintained. The market operator must always be guided by risk assessment of the market and the objective would be to avoid market shocks such as occurred in the case of Hazelwood and Northern Power Station closures. It is possible that contracts with AEMO (or Government) with thermal plant exiting early might be appropriate in the future to ensure an orderly exit of thermal plant and enable new plant to enter as needed. So, whilst not desirable, some form of support may be a market mechanism that could be used sparingly, depending on market conditions and supply risks at the time.

On balance, the MEU considers that, at least, the ESB consider an extension of the notice period and for this to be backed up with some degree of enforcement.

### **Essential system services**

The MEU recognises that the growth of VRE and the exiting of synchronous generation does result in a loss of some services that were a by-product of synchronous generation supply, including inertia, system strength and fast response frequency control.

The MEU does not consider that the provision of dispatchable reserves is necessarily an outcome of this change (especially with the introduction of the RRO) as a reduction of dispatchable reserve is really a function of generator replacement rather than a function of VRE growth. The MEU views on

dispatchable reserves is addressed above under Resource Adequacy Mechanisms.

Generally, the MEU supports market-based solutions to provide for any elements needed to ensure that the market delivers supplies of electricity to end users. But the MEU is also aware that to ensure a market operates properly, requires sufficient competition in the provision of the services. So, while a market-based solution is preferred, this only applies if the structure of the market and its size is likely to deliver sufficient competition to prevent rent taking. The MEU sees that the worst outcome for consumers is where there a market is assumed to be competitive but is dominated by too few providers<sup>6</sup>. Even in the energy spot market, the ACCC has identified that some regions are highly concentrated, and a lack of competition was seen in SA region early in 2020, where the FCAS market prices spiked to very high levels after the failure of the Heywood interconnector.

As an over-riding aspect, the MEU considers that where the ESB proposes the structure a new market for services, detailed analysis is undertaken to confirm that there will be adequate competition in provision of the service. If there is not likely to be strong competition, then other means of service provision (eg by regulation) should be investigated.

As a matter of principle, the MEU considers that valuing products for the market should be clear and transparent as this provides price discovery and allows the development of derivative markets for the products. This principle tends to militate against combining products yet combination of some products<sup>7</sup> might ensure there is adequate competition.

Equally, the MEU notes that there are combinations of service delivery where some ancillary services are provided integral with other services<sup>8</sup>. This means that AEMO should be tasked with optimising the dispatch of a mix of generation to deliver the overall lowest cost and, by doing this, manage the various elements that make up the supply of electricity, FCAS, inertia, etc. The MEU considers that this issue is somewhat vexed and probably needs to be investigated in more depth to ensure that:

- There is transparency of price
- There is adequate competition in the service delivery
- Services are not separately paid for when they are an integral with the delivery of another service (ie no double dipping)
- Services are structured in a way that allows the development of derivatives

---

<sup>6</sup> The MEU points to the gas market (production and transport) where the ACCC has identified that the east coast gas market is oligopolistic to the detriment of consumers

<sup>7</sup> Such as suggested by ERM/CS Energy in their rule change proposal introducing the concept of a Power Systems Security Ancillary Service (PSSAS) which seems to aggregate a number of ancillary services such that AEMO could manage system events in real time, rather than there being a number of different ancillary service markets

<sup>8</sup> For example, the dispatch of a synchronous generator would include not only energy but also some inertia and some FCAS and potentially some system strength.

## Forecasting the need

The MEU sees that it is essential that the need for these additional services is clearly identified well ahead of the need (eg in the annual ESoO or in TAPRs) so that actions by others can be identified ahead of time and implemented before the problem becomes significant. This early forecasting would become the trigger for the AER to ensure that the appropriate actions by regulated bodies are implemented in accordance with the rules established for the supply of these services.

## Operating reserve market

As noted above in the section on Resource Adequacy Mechanisms, for a number of reasons, the MEU does not support the implementation of an operating reserve market.

## Fast frequency response market

The MEU notes that already we have a comprehensive frequency response market and if a fast frequency response mechanism is required, the MEU considers that this could be added to the other frequency response elements as a contingency FCAS element.

This would be an evolutionary change and not a step change

## System strength market

The MEU notes that system strength has a geographical aspect and therefore it is less adaptive to a market-based approach. The MEU notes three options proposed by the ESB for provision of system strength, but the MEU does not see that any one approach would necessarily provide the lowest cost for end users.

With this in mind, the MEU considers that perhaps all three options might be needed where new generation is required to comply with providing some system strength to offset the impact they make on a local network. TNSPs would provide under their regulatory approach system strength in a specific locality with AEMO potentially providing system strength which is less geographically driven.

The issue of system strength has been deliberated on in recent times and we do not see that structuring an approach along the lines proposed to be a step change

## Scheduling and ahead markets

The MEU is intrigued that some of the discussion about scheduling and ahead markets revolves around end users moving their demand to periods of high DER export and solar generation. The MEU points out that almost all electricity users operate in a market separate from the electricity market and they see that electricity is a service they require at the times they require it. Specifically, MEU members have their own markets which drive the times they need an electricity supply and their interest in responding to electricity market signals is limited – in fact MEU members and other commercially driven electricity users only limit their usage of electricity in order to reduce their costs<sup>9</sup>, potentially limiting the value of ahead markets to end user for hedging decisions or other purposes (eg providing WDR)

We also see that residential users of electricity will continue to move certain of their electricity usage (eg pool pumps and hot water services) with little movement in the bulk of their usage which are more driven by scheduling needs (eg cooking) and comfort needs driven by weather (eg heating and cooling). Even residential consumers with some generation (the “prosumer”) has limited ability to move its supply or use of electricity to other times more convenient for the electricity market

This means that for most of electricity consumption, there will be modest, at best, interest in moving electricity demand (ie load shifting). What is also important to note is that demand is no less unpredictable now as it was in the past and probably into the future. So, the MEU considers that aspects to address scheduling should be more focused on the supply side of the market, although where an end user is prepared to limit its use of electricity (ie as a WDR provider), they mostly need some forward notice of price and need in order to schedule their demand reduction.

The MEU is concerned that a formal “ahead” market process has the potential to create an ability for service providers to obtain payment for providing certainty of dispatch – effectively a surrogate capacity market. At the same time, the energy only market would be operating such that consumers would experience the worst of both worlds – paying an energy-only market price for energy that effectively includes payment for capital cost recovery but also a further payment for being prepared to be available at a given time in the future – effectively a payment for capacity. So, while the MEU can see the advantage of having some knowledge as to what generation (or even some WDR) might be available in the short term (eg 24-48 hours), it does not consider that a formal market is required.

The MEU is therefore supportive of a Unit Commitment for Security (UCS) process tool being developed and implemented which will give the market knowledge as to what might be needed at a point of time in the near future, and provide guidance

---

<sup>9</sup> For example, an end user would seek to avoid excessively high prices (ie near MPC) by load shedding but in the main would be unlikely to change its production schedule to take advantage of lower prices

for market operators (AEMO and TNSPs) and so enable better scheduling of services that might be needed to keep the market secure.

The MEU recognises that a transparent UCS would allow market participants to trade bilaterally with more confidence if they wish and therefore, if the tool works well, the MEU does not consider that any formal ahead (either voluntary or compulsory) market is required.

## **Two-sided markets**

In its 18 May 2020 response to the ESB paper issued in April 2020 on its proposal for a two-sided market, the MEU summarised its position of the proposal for a two-sided market by stating:

“Overwhelmingly, the consultation paper addresses the concept of a two-sided market for the viewpoint of benefits for the electricity market without considering the realities of how a wider cohort of end users (including residential and small business end users) might interact with the market if the two-sided market was in operation. When considering the two-sided market from the viewpoint of how end users might interact, there are significant aspects that would minimise end users wanting to participate and their ability to do so if they wanted to. It is also not made clear where the certainty of receiving these incentives (presumably financial) would come from to encourage end users to want to participate and whether these would be big enough to deliver the outcomes sought.

So, based on its own knowledge of how end users would view the way they would have to modify their behaviour to gain any value, the MEU does not consider that a two-sided market is warranted, even though it might provide some theoretical benefits and increase efficiency in the electricity market.

While the consultation paper does provide some views on why a two-sided could provide an improvement, there is no discussion on the costs to implement such a change. The MEU sees that there would be massive costs incurred by AEMO in the development of such a market and making its operation possible but also there would be major costs incurred by retailers and new entrant traders to be able to deliver the end users interaction with a two-sided market. These costs need to be added to the market operating costs that consumers will ultimately bear.

On top of these costs, are the costs that each end user would incur in order to be able to participate in a two-sided market and secure sufficient benefit to offset these costs. A core aspect of this, would be to ensure that those end users not able to absorb these costs are not made more disadvantaged should it be introduced.

In addition to the costs, the MEU points to the increases in risks that market participants and end users would be exposed to and that to manage these risks, costs would increase for both cohorts<sup>10</sup>

Without examination of these costs – AEMO, retailer/trader and consumer direct costs – the MEU considers that an essential next step regarding the concept of a two-sided market must be to assess these costs coupled to a better analysis of the benefits that consumers might obtain from the change.”

The MEU has not changed its views on a two-sided market and refers the ESB to the more detailed response it made in its 18 May 2020 response to the ESB paper on two-sided markets on the specific issues discussed and questions raised. Specifically, we do not consider that a two-sided market is a necessary

The MEU also adds that as a member of the WDRM technical working group discussions established by AEMO to implement the WDRM rule change, the detailed procedures and compliance regime and the ‘mirroring’ of generator obligations on prospective WDRM participants by AEMO increases complexity and may preclude many potential providers of WDR from being able to participate.

At this stage of development there is uncertainty in the volume of WDR that could be possible which tends to reinforce the MEU view that WDR integration will be at the margins of the electricity market rather than being a major element. However, as stated in the ESB paper the market obligations to participate in two sided markets needs to be moderated and barriers removed to make it easier for participants and new entrants to operate in two sided markets such as the WDRM.

### **Demand flexibility and integrating DER**

The MEU considers that two-sided markets, demand flexibility and DER are all closely related and could/should be treated together and comments in the sections above are also applicable to this section.

With regard to demand flexibility and DER, based on widespread and consistent anecdotal observations provided by MEU members and other end users, the MEU reiterates that end users will:

- Only get involved in the electricity market to reduce their costs<sup>11</sup>
- Focus on their core markets rather than trying to make the electricity market more efficient
- Seek a “set and forget” approach rather than be active in the electricity market

---

<sup>10</sup> The MEU notes that the concept of hedging to minimise risk is not costless as the counterparty expects payment for taking on the risk

<sup>11</sup> The MEU does accept that some end users do get active in the electricity market for altruistic reasons, but they are a minority

- Expect retailers and aggregators to manage their DER but only if this does not impact their ability to operate as normal with minimal cost<sup>12</sup>

What the ESB paper seems to be predicated on is that end users will be incentivised to be active in the electricity market and that they will be driven by the electricity market needs. The MEU disagrees with this ESB assumption and advises the ESB to carry out detailed economic behavioural analysis to verify (or otherwise) the assumptions it has made in the development of its consultation paper. The outcomes of such analysis should then inform the ESB in its design.

Notwithstanding the need for such behavioural analysis, the MEU agrees that further investigation is needed into:

- How DER services are most likely to be delivered into the market and how the majority of providers will seek to interface with the market
- Creating the conditions for end users to want to be involved and the cost to benefit they will generate for themselves by being more active in the market
- How the distribution networks will best manage the increase in DER to ensure the maximum benefit of DER will be translated into the electricity market overall<sup>13</sup>
- The extent of requirements in the rules to balance the control of DER needed with the disincentive of making these too onerous
- Whether DNSPs should be provided with the ability to install assets (eg grid scale batteries) to allow more DER within their networks as part of their normal activities including management of constraints

The MEU notes that consideration 6 contemplates “distribution-level markets”. The MEU is not convinced that implementing such sub-markets is necessarily appropriate but points out that the same issue is being examined at the transmission network level by the AEMC as part of its CoGaTI (Transmission Access Reform) project where the AEMC has effectively excluded such an approach by setting a locational marginal price (LMP) for generators but still requiring end users to pay the regional reference price (RRP) for energy. As noted below, the MEU does not support the AEMC proposal.

Further, the MEU notes that there is a rule change under consideration where small generators (DER providers) would pay the distribution networks to augment their networks to allow export of their generation. In contrast, the AEMC has specifically excluded the option for large generation to pay for augmenting the transmission networks and granting the generator firm access for their export. The MEU considers that there needs to be consistency across the NEM whether the

---

<sup>12</sup> For example, in Germany, a battery provider offered to subsidise end user PV and battery systems if the battery provider was able to integrate the end user assets into its VPP. To offset end user concerns, the battery provider undertook to provide external electricity supplies at no cost to the end user if the end user assets were not able to provide electricity to the end user at any time

<sup>13</sup> The MEU notes that the AER is currently looking at this issue as it impacts on tariff structures and the cost of the assets needed to permit increasing amounts of DER

generation is small and embedded in distribution network or large and embedded in the transmission network

### **Transmission access and CoGaTI**

The MEU notes that the AEMC has been active in developing an approach to address increasing congestion in the NEM through the development of Locational Marginal Pricing (LMP) and its associated Financial Transmission Rights (FTRs) as part of their Transmission Access Reform (TAR) which arose from the Coordination of Generation and Transmission Investment (CoGaTI) review. While recognising there is some value in identifying LMPs, the MEU is not a supporter of the process of generators accessing the transmission network through the FTR process.

The MEU considers that

- The FTR process is extremely complex and is unlikely to deliver the benefits assumed by the AEMC from the analysis carried out by NERA on its behalf. The MEU considers there are a number of significant flaws and unsustainable assumptions in the NERA study and that as a result the benefits identified by NERA are grossly overstated.
- There is little evidence that FTRs will drive new investment in the transmission network and their value dissipates as augmentation assets are provided to relieve congestion
- In particular, the MEU notes that while NERA considers that their analysis is supported by international experiences, the MEU points out that the NEM rules are significantly different to most other jurisdictions and that the governments involved with the NEM have and continue to demonstrate active involvement in the market, creating considerable distortions.
- For example, the Victorian government has used its powers to require AEMO to build new transmission network assets in western Victoria to relieve congestion in the area caused by an over-build of VRE. Similarly, the SA government has provided extreme pressure to ensure the construction of the new interconnector between SA and NSW and the NSW government has intervened in developing a number of new Regional Energy Zones (REZs). The NERA assumptions exclude the effects of government interference such as this, yet the government actions will result in the value of the FTRs falling as these actions relieve congestion.
- Similarly, the NERA assumptions exclude any impact of the normal activities carried out by TNSPs as they build new assets within each region as part of their annual planning processes.

The MEU has consistently been a supporter of the Optional Firm Access (OFA) process developed by the AEMC in 2015 but equally, the MEU is aware that the AEMC has, subsequent to the development of the OFA, been opposed to allowing generators to fund transmission augmentation and holding firm access rights to the augmentation they fund. The MEU considers that generators should be able to

augment the networks but if they do invest in transmission assets, they should have the right of access to the increase in capacity they fund for the life of the assets they cause to be built. The MEU considers that if they do not have a firm right to the capacity they cause to be built, then investor/generators will not invest in any transmission assets.

In summary, as an overarching principle we broadly support transmission access reforms that support the efficient and timely capital investment, efficient system operation and reduced costs to consumers. However, the MEU considers the transmission access reforms process as proposed by the AEMC should be delayed or paused, as the cost/benefit and impacts on users is not definitive.

The proposed shift to Locational Marginal Pricing and Firm Transmission Rights whilst in theory might provide appropriate signals for transmission investment and generation locational signals these may at best be temporal and it is unclear what costs or unintended consequences and risks will impact users in the long run. The purported benefits of this proposed reform appear theoretical and do not appear to be sufficient enough to justify the implementation of the TAR at this stage. Furthermore, given other priorities in the ESB post 2025 workstream, existing reforms and proposed ISP investments over the next decade, undertaking such a reform may not be a prudent and risk-based approach.

## **Conclusions**

The MEU is aware that increased VRE in the generation mix does impose some challenges to AEMO in operating the NEM in a secure and reliable manner. What is obvious is that these challenges are different to those that occur in a more conventional/traditional system, but they are not insurmountable as is evidenced by the continual refinement of the rules and procedures as the increase in VRE has occurred. There is no evidence that a step change in the market structure will make operating the NEM less challenging compared to introducing modifications to the existing structure on an incremental basis as each new issue is identified; conversely a major change may even increase the complexity and risk in operating the NEM.

In contrast, the MEU is aware that a step change to the market structure will come at a very high cost to consumers so there have to be extraordinary reasons for making a change merely to make operating the market less challenging for AEMO. Change must always be measured by the NEO with the constraint that investment must be efficient with regard to the long-term interests of consumers.

The MEU notes that the ESB has identified seven workstreams for action. Of these the MEU considers that:

- Workstream A (Resource Adequacy Mechanisms) involves considerable change to the market but where changes have already been made but the outcomes of these changes have not been tested. The MEU considers that

before any change is recommended, the existing changes must be tested to assess if they address the concerns identified before any more change is made. With this in mind, the MEU considers that less attention is applied to this workstream pending the assessment of the efficacy of the changes already implemented.

- Workstream B (ageing thermal generation) requires, at most, an extension of the notice period and for this to be backed up with some degree of enforcement with an option to provide some support to prevent early exit of generators to avoid market shocks.
- Workstream C (Essential Services) involves change that can be carried out through incremental change to the existing approaches. The MEU supports market-based pricing mechanisms, but the design elements and the expected level of competition are paramount in creating new markets. The development of essential service derivative markets should be considered as it will provide hedging instruments and improve market liquidity which will lead to overall costs reduction for the essential services. Alternatively, as different providers can provide a different mix of the services, perhaps they can be provided as an integrated service or by adding to an existing service (eg adding fast frequency response category to the existing FCAS). System strength is somewhat vexed and might need a range of approaches.
- Workstream D (scheduling and ahead markets) proposes a transparent Unit Commitment for Security (UCS) service tool which would identify a need and also allow market participants to trade bilaterally with more confidence if they wish. If the tool works well, the MEU does not consider that any formal ahead (either voluntary or compulsory) market is required.
- Workstream E (two-sided markets) addresses an issue that the MEU does not consider is necessary and does not reflect the reality of how end users interact with the electricity market
- Workstream F (demand flexibility and integrating DER) is closely related to workstream E and could be integrated with it. The MEU considers that further investigation is needed on:
  - How DER services are most likely to be delivered into the market and how the majority of providers will seek to interface with the market
  - Creating the conditions for end users to want to be involved and the cost to benefit they will generate for themselves by being more active in the market
  - How the distribution networks will best manage the increase in DER to ensure the maximum benefit of DER will be translated into the electricity market overall
  - The extent of requirements in the rules to balance the control of DER needed with the disincentive of making these too onerous
  - Whether DNSPs should be provided with the ability to install assets (eg grid scale batteries) to allow more DER within their networks as part of their normal activities including management of constraints
  - Consistency to ensure that large and small generators are treated the same way and transmission and distribution networks support generation

- Workstream G (CoGaTI) is running in parallel to the AEMC workstream. The MEU does not support the LMP and FTR concept developed by the AEMC and considers that the NERA cost benefit analysis undertaken grossly overstates the benefits. The MEU considers that an approach based on the AEMC developed Optional Firm Access approach is a preferred model.

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](mailto:davidheadberry@bigpond.com) or 0417 397 056

Yours faithfully

David Headberry  
Public Officer