Mr John Pierce
Australian Energy Market Commission
Level 6, 201 Elizabeth Street
Sydney NSW 2000
Lodged via www.aemc.gov.au

Wednesday, 14 February 2018

Dear Mr Pierce,

RE: Reliability frameworks review (ref EPR0060)

ENGIE in Australia (ENGIE) appreciates the opportunity to comment on the Australian Energy Market Commission (AEMC) Reliability Frameworks Review Interim Report (Interim Report). ENGIE congratulates the AEMC on its very comprehensive and discerning examination of the range of factors that contribute towards reliability outcomes in the National Electricity Market (NEM).

In consideration of the range of matters raised in the Interim Report, ENGIE believes it is important to recognise that, as observed by the Reliability Panel in its November 2017 Draft Report on the reliability standard and settings, the current arrangements are serving their purpose effectively, and were found that they would continue to be effective in modelling of several alternative scenarios. This is not to suggest that there is no need to carefully consider whether the existing reliability framework remains fit for purpose as the electricity sector continues to transition towards increased renewable energy and distributed energy resources (DER), and also comes to terms with likely ongoing high gas prices.

ENGIE believes that the AEMC Interim Report strikes an appropriate overall balance between acknowledging that that the current framework has served us well up until now and observing that the challenges presented by the energy transition warrant careful consideration. .

As with almost all regulatory issues, it is important to be clear and specific on the problem that needs to be addressed before embarking on a quest to find a solution. Once a problem has been identified that is, or may lead to poor reliability outcomes, any attempts at finding a solution should initially seek to operate within the existing market structure, or if necessary, introduce new competitive elements to the NEM. Only when a market solution have been found to be ineffective (i.e. evidence of market failure) should a regulated solution be imposed.

As observed by the AEMC in the Interim Report, any change that moves the NEM further towards a 'central buyer' regulated approach without investor consent will undermine participant confidence in the NEM, and act as a disincentive to any potential new investors.

With these general comments in mind, ENGIE offers the following more specific comments on the various sections of the Interim Report.

Key concepts of dispatchability and flexibility

ENGIE has some concerns with the AEMC's preliminary view that dispatchability and flexibility are already valued and rewarded sufficiently in the existing spot, contract and ancillary services markets. Whilst this statement is a fair reflection of incentives and drivers prior to the dramatic increase in non-scheduled and semi-scheduled generation, there is now a need to consider whether the existing incentives remain adequate given the effects of these external influences on the market and their likely ongoing presence.

In considering whether the existing spot, contract and ancillary services markets sufficiently value and reward flexible capability, it is important to consider the issue across multiple time frames – notably, dispatch (5 minute), commitment (hours to days) and investment (years).

Dispatch (5 minute)

In consideration of the dispatch timeframe, ENGIE believes that the NEM dispatch process has proven to be very effective in optimally dispatching generators in accordance with their energy bids. This has led to the economically efficient utilisation of generators who have been incentivised to bid competitively, in order to cover at least their short run marginal costs (SRMC), in the near term, while seeking to recover their additional fixed costs over the longer term.

The efficient dispatch mechanism that underpins the NEM has been disturbed by the increasing volumes of variable renewable energy (VRE) sources that have a SRMC of zero dollars[1], and an operating profile that correlates with wind strength and solar intensity rather than electricity demand or wholesale prices. As a result, in situations where there is a high volume of VRE being dispatched in a NEM region, the wholesale price in that region will fall to very low levels (or even go negative), which encourages generators with non-zero SRMC to shut down.

In this situation, the market is sending a signal (via a low or negative price) to non-zero SRMC plant that its output is not valued. It is noteworthy; however, that there are an increasing number of instances where high levels of VRE and corresponding low spot prices has created the need for the Australian Energy Market Operator (AEMO) to 'direct' thermal generators to remain online to maintain sufficient system strength services. This serves to highlight the fact that the market price signals are no longer providing sufficient incentives to deliver a secure and reliable plant mix.

[1] In fact, with renewable generators also able to derive an income stream from the sale of renewable energy certificates, their short run marginal cost in the NEM is effectively the negative of the renewable certificate price.

At present, the generators that are best able to provide the dispatchability and flexibility services are those that typically have a non-zero SRMC. ENGIE recognises that this may change in the future as new technologies such as battery storage proliferate, although presumably even batteries will need to bid into the energy market at a price above zero dollars to ensure that it can effectively arbitrage against the price paid for charging the battery.

In summary, ENGIE believes that the dramatic increase in VRE with zero (or negative) SRMC has interfered with the price signals that would otherwise provide the incentives for dispatchable and flexible generation to remain online and be ready to respond to variations in supply / demand balance.

Commitment (hours to days)

The decision to commit (start) a large thermal generator occurs on the expectation that the generator will be able to recover the costs of starting and operating the unit and make a contribution towards fixed cost recovery.

Plant such as gas turbines are able to start and stop relatively quickly, but this type of plant has particularly high costs associated with starting, running, and stopping[2]. The decision to commit this type of plant therefore is critically dependent on expectation of relatively high spot prices for a period of at least approximately 30 to 90 minutes.

Plant such as combined cycle generators have longer start up times than gas turbines, ranging from four hours to several days, depending on the standby mode of the plant. Once started, this type of plant typically needs to be run for a period of several hours, preferable at least eight or more, to justify the costs and maintenance penalties associated with starting and subsequently shutting down the plant.

Coal fired generators that have been shut down for some time and are therefore in a 'cold storage' mode typically require 24 to 72 hours to start, and would then need some additional hours to be able to ramp up to full output. This type of plant has relatively low running costs but has very high start-up and shut down costs. As a result, coal fired generators would typically need to be operating continuously for several weeks, preferably more, in order to justify the very high start-up and shut down costs.

The above discussion for the three generic plant categories outlined is based on consideration of the short term operating and maintenance costs, which are components of what is referred to as SRMC. All generator participants need to be in a position of covering not only their short-term costs, but also the longer-term costs associated with the capital costs of the initial investment, financing costs, depreciation, licencing etc. Generators seek to recover these long run costs through short periods of time when the pool price goes to unusually high values. These short duration high price periods can occur for a range of reasons and are typically very difficult to predict. Nevertheless, unless a generator is actually online and being dispatched, it will not achieve any benefit from the high price periods in the energy only NEM.

As outlined above, the decision to commit a large thermal generator in an energy only market such as the NEM is one that participants make based on their expectations of future spot prices as well as many other commercial and operational matters. Although this has always been a decision underpinned by a degree of uncertainty, previously

[2] For example, the wear and tear cost associated with starting an open cycle gas turbine generator is in excess of 20 equivalent operating hours.

the NEM has enabled competitive tension between generators seeking to cover their variable costs, leading to efficient utilisation of generation resources. However, an increasing proportion of energy in the NEM is now supplied by VRE with variable cost of zero dollars, which is therefore somewhat indifferent to the NEM spot price. The increase in zero variable cost VRE has therefore disturbed the competitive tension between generators in the NEM, and has reduced the opportunity for thermal generators to achieve the economic minimum run times that they need to cover their variable costs, let alone their long-term costs.

Investment (years)

One should expect that as large thermal plant withdraws from the market, spot prices would rise. Indeed, there has been evidence of this in the past 12 months with closure and withdrawal of large thermal generators leading to a dramatic rise in the spot market prices. Further, a large enough contraction in supply (in the absence of a surge in demand) would lead to sustained prices above long run marginal costs, thus providing an incentive for new entry.

Whether there is enough certainty or justification for investment based on current prices alone is a matter of debate. There are a number of factors contributing to this including difficulty for potential investors gaining bank finance, and uncertainty about the likely duration of the current high wholesale prices.

However, where capacity that is still fully capable of generating competitively is withdrawing from the market in response to expected poor commercial outcomes, and new entry is not primarily driven by energy prices but environmental policies, the link relied upon by the energy only market for new investment is undermined.

Further, where prices are supressed they do not incentivise new investment in synchronous generation at the level required by the market. This means there is a disconnect between the investment signals that are required and real world outcomes. It also means investors are less certain they will be able to recover their fixed investment costs.

In summary, while ENGIE is not suggesting the NEM needs to be abandoned, a more fulsome exploration of this issue and possible remedies is required to ensure delivery of flexible and dispatchable generation and services where they cannot be substituted. This includes whether market reform is warranted or whether bridging mechanisms are needed in the interim.

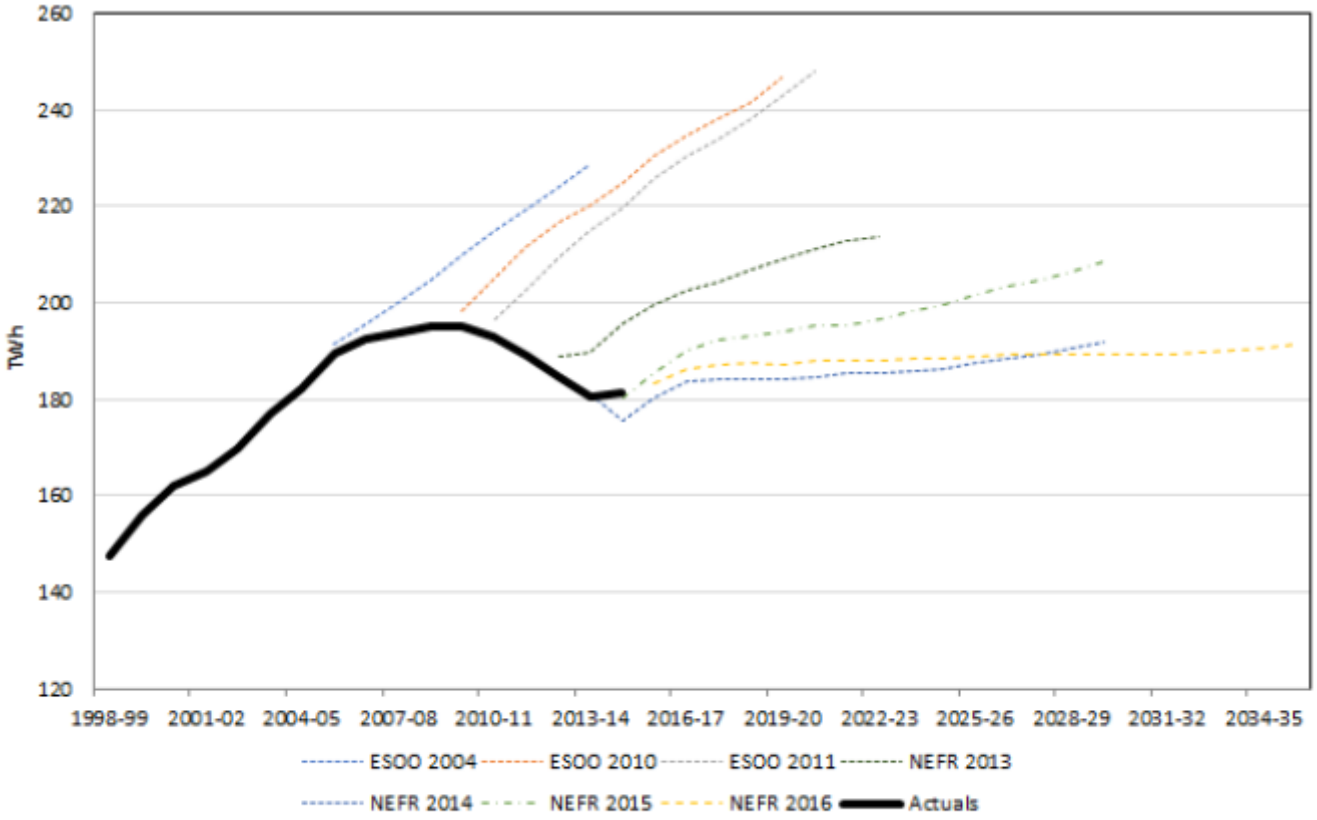
Forecasting and information provision

ENGIE agrees with the AEMC's characterisation in the Interim Report that forecasts and information provision to the market are the foundation of the reliability framework. ENGIE also acknowledges that forecasts of any kind are invariably wrong and that AEMO have an especially difficult task in forecasting electricity demand given the numerous factors to consider. Furthermore, it is also true that the task of accurately forecasting electricity demand is becoming even more complex as we see additional variability introduced by increasing levels of VRE and demand response.

ENGIE also supports the AEMC statement that any changes to the existing process should seek to make sure that incentives are created for demand forecast variances to be minimised over time.

The AEMC Interim Report in section 4.4 down plays the concerns raised by many stakeholders regarding the impact of inaccurate demand forecasts. Demand forecasts are carried out for both energy (MWh) and power (MW) across many time horizons ranging from 5 minutes to 10 years. The AEMC Interim Report contains one example in

figure 4.1 which is reproduced below. This clearly shown that the annual energy forecasts have been highly inaccurate over a period of many years.



Source: AEMO and AEMC analysis

Perhaps of even greater importance to scheduled generators in the NEM is the accuracy of the medium term and short term projected assessment of system adequacy (PASA) demand forecasts. The accuracy of these demand forecasts has a direct bearing on participant's maintenance and operational decisions in how they decide to schedule their plant to ensure maximum availability at times of maximum need. Equally, the accuracy of the PASA forecasts are critical to AEMO themselves, as they make assessment of the expected supply demand balance, and the need to issue low reserve notices or in the extreme, whether to intervene in the market.

There is a view among many participants that the accuracy of PASA demand forecasts is generally poor, and typically over estimates demand. ENGIE refers the AEMC to analysis carried out by ERM Power (see ERM Power submission to the Interim Report) which provides evidence that despite temperatures in all regions this summer up to the 90th and 95th percentile of historic temperature measurements, the demands in all regions has barely exceeded the 50 per cent probability of exceedance regional values.

The need to ensure accurate PASA forecasts was brought into sharp focus on 30 November 2017 when AEMO activated some Reliability and Emergency Reserve Trader (RERT) capacity in the Victorian region due to its assessment that reserve levels were too low. Until a comprehensive report has been released by AEMO, it is

difficult to be conclusive on the circumstances of that particular day but based on information available to participants to date, it would seem that the actual demand in Victoria did not reach the forecast levels, and that the RERT may have been activated unnecessarily.

To be clear, ENGIE is not intending to infer criticism of AEMO's specific actions on the 30 November. ENGIE recognises that the task of managing the power system during periods of high demand is particularly difficult, and that AEMO's primary task is to ensure that the power system security and reliability are maintained at all times. The point that ENGIE does wish to highlight however is that effective deployment of RERT capacity relies on accurate demand forecasts, and that demand forecast inaccuracies can lead to additional costs.

ENGIE notes that previously, NEMMCO used demand forecast accuracy targets for each region of the NEM as part of its corporate key performance objectives. Perhaps AEMO could be required to reinstate similar targets.

In addition, ENGIE believes that the National Electricity Rules (NER) should place an obligation on AEMO to provide regular reports on the accuracy of its demand forecasts for all relevant timeframes including 5 minute, pre-dispatch, short term PASA and medium term PASA.

No one expects completely accurate forecasts for any timeframe. Regular reporting would however, draw attention to any errors that are unusually large, or any trends towards diminishing accuracy. Such information would be helpful to participants and AEMO in deciding whether further improvements might be possible or warranted. Regular reporting on demand forecasting accuracy would also contribute to the AEMC's preliminary view that any changes to the existing processes should seek to make sure that incentives are created for variances to be minimised over time.

The contract market

In the Interim Report the AEMC have highlighted that information on the contract market is not widely available. This observation is relevant to over the bilateral contracts which tend to be somewhat bespoke to suit the needs of individual counter parties. Exchange traded derivatives are transparently reported by the Australian Stock Exchange on their ASX Energy website[3].

The bespoke nature of many bilateral derivative products is important in meeting the individual needs of each counter party. Although some elements of these contracts are common, participants have found that to achieve the necessary risk mitigation and commercial outcomes within the constraints of their physical plant underlying the contract, a certain degree of customisation and tailoring has been necessary.

The importance of being able to customise bilateral derivative contracts is noted in section 5.3.1 of the Interim Report where the AEMC refer to discussions within the technical working group, which noted examples of the "changes in contracts being considered to combine different assets and contracts to provide a firmer hedge", including "solar-following and FCAS[4]-following hedges".

[3] See https://www.asxenergy.com.au/
[4] Frequency control ancillary service

If this ability to customise bilateral contracts were artificially constrained due to the imposition of uniform reporting obligations, it would most likely lead to a diminishment in the liquidity of such contracts. This in turn would diminish investment signals for new generation sources.

The desire to see greater transparency of bilateral derivative contracts has been expressed previously by the AEMC and other agencies. Whilst ENGIE understands the drivers behind these aspirations, it should be acknowledged that ill-conceived attempts to increase transparency will likely result in the need to require counter parties to use standardised contracts. In acknowledging that there is an ongoing desire to have greater transparency into bilateral contracts, ENGIE supports the Australian Financial Markets Association (AFMA) initiative of restarting its survey of the turnover of these products. ENGIE believes that by seeking this information from a well-informed entity such as AFMA, there is less risk that the survey will impede the customisation and innovation that the AEMC have acknowledged is required.

In summary, ENGIE cautions against any measures to increase bilateral contract transparency that could undermine the ability of these products to meet the needs of counter parties, since this is likely to reduce the number of these products being traded. Such a reduction in the liquidity of these important derivative products would have dramatic negative consequences for the effectiveness of the energy only NEM in meeting its reliability objectives.

Demand Response

ENGIE welcomes the section of the Interim Report that discusses in detail, the various drivers and limitations that impact on demand response in the NEM. This has been a topic of ongoing discussion and debate since the early days of the NEM.

Like most stakeholders that have an interest in the long term viability of the NEM, ENGIE is a supporter of a demand response, including for wholesale energy market operation, emergency operation and for a range of network and system support services. ENGIE does not support however, special mechanisms intended to encourage demand response that would have a detrimental impact on the under-lying wholesale and retail electricity markets. The arguments for a special mechanisms to encourage demand response were examined and correctly, rejected by the AEMC in consideration of the Demand Response Mechanism rule change request which was concluded in November 2016[5].

ENGIE is encouraged by the AEMC's preliminary view that despite concerns raised by various stakeholders, it has not found evidence of regulatory barriers to wholesale demand response. ENGIE also cautiously supports the AEMC's intention to explore ways to make it easier for aggregators and others to capture the value of demand side response, and to do so in a manner that does not have detrimental impacts on other parts of the wholesale and retail markets.

The AEMC note in their Interim Report that, somewhat similar to the discussion on financial derivative contracts, there is limited visibility regarding the extent of wholesale demand response in the NEM, making it difficult to draw conclusions about how much is occurring. Similar to the financial derivatives contracts, ENGIE suggests that it is

[5] See AEMC website at http://www.aemc.gov.au/Rule-Changes/Demand-Response-Mechanism#

important to encourage innovative solutions to the full range of potential uses for demand response, and that such innovation is not stifled through the imposition of restrictive reporting or other regulatory requirements.

Given that a number of stakeholders have indicated that they are reluctant to engage in demand response activities due to the cost and effort involved not being justified, then imposing new regulatory burdens is unlikely to be successful in encouraging additional growth.

ENGIE agrees with the AEMC in describing the existing underutilised wholesale demand response as an opportunity for new and existing participants. As noted in the Interim Report, one obvious avenue for demand aggregators to become more successful in deploying demand response would be for them to establish a direct relationship with the customers by becoming electricity retailers. The regulatory and compliance burdens imposed on electricity retailers however would seem to be a significant barrier to entry for smaller aggregators.

ENGIE supports the AEMC's consideration to build on the existing small generator aggregator framework as a potential means to encourage wholesale demand response aggregators without the need for them to become retailers. As noted by the AEMC, there are likely to be a number of flow-on effects that would need to be carefully considered.

Strategic reserve

The RERT principles established in the NER require AEMO actions to have the least distortionary effect on the operation of the market, and to maximise the effectiveness of reserve contracts at the least cost to end use consumers of electricity. These are important principles that should not be undermined by any strategic reserve mechanism.

The AEMC has identified what they regard as a lack of clarity in the NER regarding the calculation by AEMO of how much reserves it procures under the RERT process. ENGIE believes there is a tension between achieving perfect clarity on the calculation method on the one hand, and ensuring that the RERT provisions are flexible and adaptable to a range of circumstances that are difficult to predict in advance. ENGIE believes that at present, the RERT arrangements are non-transparent and leave participants unsure about their use. ENGIE therefore supports measures that improve the level of clarity around how AEMO decide to procure and utilise RERT capacity.

As well as improving transparency of RERT procurement, any enablement or activation of RERT capacity needs to be reported in a transparent and timely manner, so that the industry have a clear understanding of when and where RERT capacity is being called upon, and the cost implications.

ENGIE notes that the emergence of the current levels of strategic reserve arranged by AEMO has come about at least in part as a result of concerns raised regarding a number of events during the summer of 2016/17. Notably, the load shedding events of 8 February in South Australia and 10 February in New South Wales brought the issue of supply reliability in the NEM into sharp focus.

As noted in the Interim Report, prior to 2017 although AEMO had procured RERT capacity on three occasions, this capacity had never been dispatched. As noted in the Interim Report, there has only been one occasion when

RERT capacity has actually been dispatched, and that was on 30 November 2017 in the Victorian region[6]. AEMO is yet to release its report on this application of RERT capacity but based on the information that is publically available, ENGIE remains uncertain as to whether there was a legitimate need to activate the RERT on this occasion.

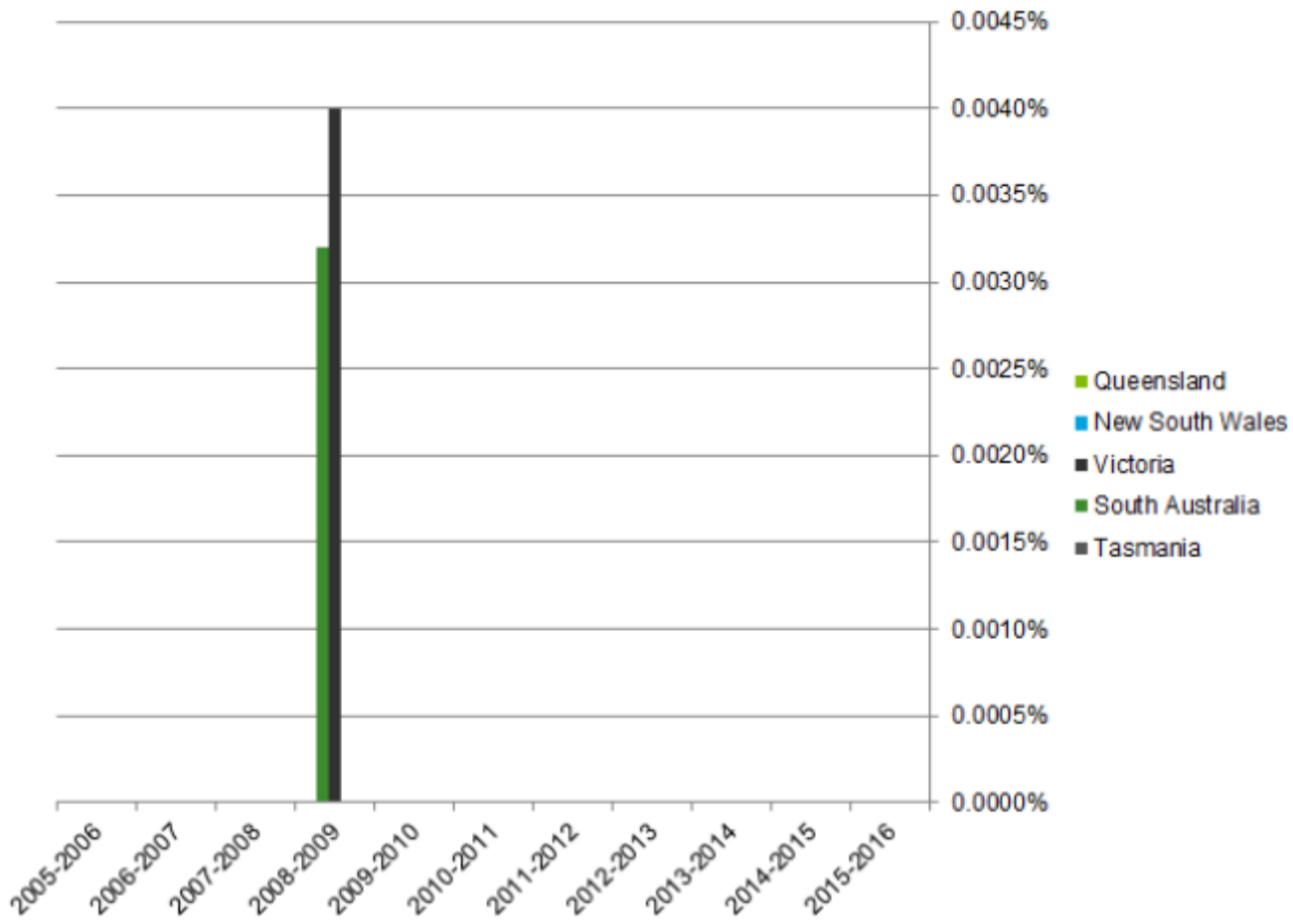
Given the concerns raise regarding the energy transition, ENGIE supports the AEMC conclusion that there needs to be an enduring 'safety net' mechanism which comes into effect when the wholesale market signals have failed to deliver sufficient capacity to achieve the reliability standard of 0.002 per cent of unserved energy. As noted, the RERT compliments the other intervention tools available to AEMO under the NER such as directions and clause 4.8.9 instructions.

ENGIE notes that in their submission to the Reliability Frameworks Review Issues Paper, AEMO have highlighted that the current reliability standard of 0.002 per cent unserved energy is a planning standard, and that this is difficult to apply in an operational sense. ENGIE is somewhat puzzled by this statement as the reliability standard has been in place since the commencement of the NEM, and this has not been identified as an issue up until now.

ENGIE does accept that in converting the 0.002 percent unserved energy into an operational reserve margin, there are a number of assumptions that will be required, and as noted earlier, AEMO enjoys a considerable degree of latitude in deriving its operational reserve margin. If AEMO is of the view that there needs to be greater clarity provided within the NER as to how the reliability standard should be converted to an operational reserve margin, then ENGIE would be supportive of this. As noted earlier however, ENGIE is inclined to believe that the uncertain nature of the circumstances that can contribute to reserve shortfalls means that a somewhat flexible approach may be justified.

As shown in the following diagram, there has been very little actual unserved energy in the NEM due to inadequate levels of supply. In fact, there has only been actual unserved energy due to insufficient supply on 29 and 30 January 2009 due to high temperatures over a prolonged period[7]

[6] Since publication of the Interim Report, RERT capacity was activated in the Victorian region on 19 January 2018
[7] See section 4.1.1 of the Reliability Panel's Annual Market Performance Review 2016 Final Report at http://www.aemc.gov.au/getattachment/c8a0a093-4bf2-432b-8e7b-6157c58a3785/Final-report.aspx



Source: Reliability Panel Annual Market Performance Review 2016 Final Report

ENGIE notes that this graph will be updated shortly by the Reliability Panel as it completes its review of 2017 and this is expected to show that there was some unserved energy in February 2017.

Notwithstanding the events of February 2017 and January 2009, there appears little evidence to support the notion that the current wholesale market and supporting RERT mechanisms are failing to achieve the reliability standard of 0.002 per cent of unserved energy. Whilst ENGIE is open to consideration of any proposals to improve the existing RERT mechanism, it is not apparent that there is any inherent market failure that would support dramatic change.

If there is a new political or public view that the current standard of 0.002 per cent unserved energy is inadequate and needs to be changed to say 0.001 per cent, then the increase in cost that this will introduce (as outlined in box 7.2 of the Interim Report) needs to be justified against the fact that the actual unserved energy for most years under the NEM has been zero.

ENGIE understands that the subject of supply reliability is a particularly sensitive one, particularly as it is often reported alongside the equally important and contentious subject of electricity costs to consumers. ENGIE also

recognises that some commentators, either deliberately or otherwise, conflate supply reliability with disruptions due to network events, which are far more numerous than supply deficiencies. This contributes to the general sense within the public and some less informed commentators that there is a major issue associated with supply reliability when the evidence clearly suggests otherwise.

The AEMC Interim Report puts it well by stating that if stakeholders think that the current level of reliability standard is no longer appropriate, it will be important to make the case for why that is so and also recognise that this will come with a cost.

It is within this somewhat confused context that AEMO commenced its new initiative for strategic reserve. ENGIE recognises that AEMO was placed in a difficult position of having to be seen to respond to a perceived issue of supply reliability, and so it is difficult to be overly critical of its subsequent actions in procuring strategic reserve. Like most industry participants, ENGIE is monitoring the outcomes of this latest venture and hopes that valuable lessons can be learned from the experience.

ENGIE's view in summary is that the wholesale market works effectively in delivering sufficient supply in most instances, and this fundamental mechanism must not be undermined through ill-conceived interventions. ENGIE also supports maintaining the safety net arrangement that are provided by the RERT, and any proposals to improve the RERT should be carefully examined.

ENGIE does not support maintaining a separate reserve mechanism over and above the RERT as this creates confusion between the objectives of the RERT versus the strategic reserve, as well as potential for overlapping processes.

Day ahead market

As noted by the AEMC in the Interim Report, although the NEM does not have a formalised day ahead market, the forward looking function is achieved through other means in the NEM including the pre-dispatch schedule, drivers on participant behaviour through derivative contracts, 5 minute dispatch and rebidding. In the context of system reliability, i.e. ensuring sufficient generation supply is available to meet the demand for electricity, these drivers have proven to be effective and robust in delivering ongoing system reliability. Put simply, when the market indicates a supply shortfall through high price forecasts, there are strong incentives for the generators to respond by making additional generation available.

ENGIE does not agree with the statements in AEMO's submission to the Reliability Frameworks Issues Paper where AEMO suggest that contract markets can provide hedges, but do not provide the necessary transparency to the system operator to operate a secure and reliable system. Although the financial contract markets may not be as transparent as AEMO might prefer, it is through the short term PASA and pre-dispatch that AEMO becomes aware of the intentions of generator participants. The specifics of any financial contracts are of no consequence to AEMO or any other regulator. It is the participant intentions with regard to the NEM mechanisms such as the PASA and pre-dispatch that provide AEMO with the insight that they require to understand and assess reliability.

ENGIE is also puzzled by statements in the Finkel review that suggest the NEM reliability mechanisms are insufficiently transparent, leading to AEMO having to take an overly cautious approach. The key NEM mechanisms that contribute to reliability are the PASA (both short term and medium term) as well as the pre-dispatch. It is difficult to imagine a more transparent framework that these mechanisms, with all participants being obliged to offer their availability intentions for all periods up to two years ahead, with increasing levels of detail for two weeks ahead, and price intentions for a day ahead.

The ultimate test as to whether the current NEM mechanisms are achieving the supply reliability objectives is whether the reliability standard has been achieved, and whether there has been an over reliance on interventions such as the RERT of directions be AEMO. As noted previously in this submission, there have been very few instances of unserved energy due to insufficient supply in the NEM to date, and very few occasions that the RERT has been activated.

Put simply, the NEM framework has to date has resulted actual unserved energy being well below the 0.002 percent that is provided for under the reliability objective.

ENGIE strongly supports the AEMC in stating that it is not yet convinced that there are significant problems with the current market design that would be addressed in an efficient manner by the introduction of a day-ahead market.

ENGIE does have some concerns regarding the conflicting market signals at times of high levels of generation from VRE sources. For example, when wind and solar generation in the South Australia region are at high levels, the spot price in that region will fall to very low levels (perhaps zero dollars or even negative). This is signalling to the market that there is a surplus of generation, and generators with non-zero SRMC will be encouraged to shut down. However, AEMO require a proportion of the generation in South Australia to be flexible (as well as provide support services such as system strength, inertia and frequency control). Despite the fact that AEMO require an amount of flexible plant, the market does not value this capability.

As noted in our submission to the AEMC Issues Paper, ENGIE believes that if there is to be consideration of a day ahead market of some kind, then its focus should be not on energy, but on providing a market-based mechanism for ensuring flexible plant is online to balance VRE, and to provide system support services. If such a mechanism were to be considered, it should be implemented in a way that has the minimum possible distortionary impact on the wholesale market.

ENGIE trusts that the comments provided in this response are of assistance to the AEMC in its deliberations. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 03 9617 8331.

Yours sincerely,

Chris Deague
Wholesale Regulations Manager