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Australian Energy Market Commission
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Submitted by email to aemc@aemc.gov.au

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Reinstatement of Long Notice Reliability and Emergency Reserve Trader (RERT)

Snowy Hydro Limited welcomes the opportunity to comment on matters raised in the Consultation Paper from the Australian Energy Market Commission (the Commission) on the Reinstatement of long notice Reliability and Emergency Reserve Trader.

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity. We are one of Australia's largest renewable generators, the third largest generator by capacity and the fourth largest retailer in the NEM through our award-winning retail energy companies - Red Energy and Lumo Energy.

Snowy Hydro does not support the rule change request to reinstate the long notice RERT. This and other interventionist proposals do not portend well for the future of the NEM as a deregulated, decentralised market. They also reflect a misplaced desire to 'fix' perceived market shortcomings.

The materiality of potential market distortions and costs created by the long notice RERT are outweighed by the benefits of reinstating it. Inaccuracy in AEMO demand forecasting is unnecessarily triggering activation of the RERT with the direct cost of the RERT being passed on to consumers. As a consequence, AEMO's RERT is impacting market participants by not earning a return on its investment likely decreasing future investment in new or existing plant.

The long notice RERT was removed by the Commission 2 years ago to allow more time for the market to resolve a shortfall ahead of AEMO intervention. Snowy Hydro believes the mechanics of the NEG's "Procurer of Last Resort" appear to be identical to those of the RERT with no justification to duplicate multiple mechanisms targeted at the same market issues.

Market Design

The NEM is an energy-only market. Under this structure, peaking generators such as Snowy Hydro, and others, regularly invest large amounts of capital to ensure they are available during times of scarcity. They do everything possible, at their own cost and own risk, to ensure they are ready to generate during the relatively few periods when demand cannot be met by other types of market generation. They do so without the need for expensive subsidies from AEMO or any other regulatory body.

A long notice RERT is inconsistent with this market structure. Dispatch of the RERT during periods of high demand deprives peaking plant of the sole opportunity they have to recover their cost of capital. It is this revenue which allows these generators to recover their cost of capital, and sustains their ability to reinvest funds into their plant to ensure ongoing availability.

It defies logic for the proponent or anyone else to characterise this Rule Change as a modest proposal to sure-up supply during periods of high demand. It is, in fact, a radical proposal which will fundamentally undermine the market in the long run.

The existing market design and contracting arrangements in the NEM remain effective and will continue to deliver new investment without compromising reliability. The success of the NEM rests with decentralised decision making, liquid and deep contract market and stable regulatory frameworks. The long notice RERT reverse this risk allocation to a market operator with no risk capital at stake and recovery of investments left to energy consumers.


The NEM has served as an explicit recognition that central planning is an ineffective means of co-ordinating a market. The inefficiencies associated with state control of the energy market remains the NEM's most important reason for existence. The International Energy Agency (IEA) recently found that although policies and market rules need to evolve the NEM can remain effective. It highlights that the NEM has remained an effective platform to deliver the energy transformation.

The NEM is going through transition and it is vital that risks are allocated to those best able to manage them. Where the decision-making powers of energy market bodies are enhanced, strong and clear accountability must be maintained. Snowy Hydro's priority is to keep the community safe at the lowest cost. The long notice RERT does not achieve that.

Impact on investments

The materiality of potential market distortions and costs created by the RERT are outweighed by the benefits of maintaining the long notice RERT. Procuring reserves too far in advance of a projected shortfall will likely result in market distortions on both the supply side and demand side.

As mentioned, the RERT would deprive peaking generation from earning a return on investment. The RERT tends to be dispatched during periods of volatility, depriving peaking plant of earning scarcity pricing for making themselves available during these periods. This reduces the number of



participants operating in the 'energy only' market. Over time, the quality of the NEM's generation fleet will decline, compromising its ability to respond to future market events. In short, the system becomes less secure.

Just as current political uncertainty has given rise to an investment strike, the uncertainties associated with the operation of the RERT will have a similar effect. These uncertainties increase the cost of capital and cause difficulties in financing investments in new or upgraded plant. This underinvestment will lead to future price rises.

If generators are denied an opportunity to earn an adequate return on their investment, they will have no choice but to reduce their level of investment. As a consequence, AEMO's long notice RERT will crowd out the private sector, and AEMO will need to continually grow its shadow fleet to fill the gap.

The long notice RERT is a form of moral hazard. A situation where economic actors make inefficient decisions because they are able to avoid costs associated with their conduct. In the case of the RERT, AEMO implements costly intervention measures on the basis they are paid for by principally mass market customers. This risk of moral hazard is that investors undertake projects without adequately assessing the externalities created by the RERT resulting in inefficient investment decisions.

RERT Costs


AEMO's review of summer 2017-18 found the total cost to have the reserves on call and to activate RERT twice was \$51.26 million equating to an annual average of less than \$6.00 per household bill. Snowy Hydro however believes the RERT costs could be presented by more relevant statistics to understand the actual impact of triggering the RERT¹. If the cost of energy procured under the RERT were compared under the cost of energy supplied by the private sector, RERT energy contracted by AEMO would have likely been more expensive than energy supplied by market generators in the market. AEMO's activation of the RERT on 19 January 2018 cost nearly four times the Market Price Cap. The costs associated with such reserves are significant.

2016 AEMC Extension of the RERT Rule Change

Until the recent summer, the RERT had only been used to a minor extent and its ongoing role was frequently questioned. A 2016 Commission rule change reduced the period ahead of a shortfall that AEMO could contract with providers from 9 months to 10 weeks, in order to allow more time for the market to resolve a shortfall ahead of AEMO intervention and thereby reduce its use further.

The Commission's assessment in 2016 was that uncertainty is likely to always be a feature of the NEM, noting the extent and impact of changes in the generation mix associated with an increasing penetration of renewables in the NEM, uncertainty associated with the impact of demand side policies and the mechanisms needed to achieve Australia's post-2020 carbon reduction policies.

¹ AEMO, 2017, "Summer 2017-18 operations review", pp32



Despite the uncertainty the Commission considered that the RERT creates market distortions and implemented the rule change to reduce such distortions by increasing the time the market has to respond to possible reserve shortfalls by reducing the time frame in relation to which AEMO can contract reserves. Snowy Hydro believes this is still the case and the long notice RERT should not be reinstated.

AEMO is currently assessing the need to procure reserves for summer 2018-19. Initial AEMO analysis indicates potential shortfalls in Victoria and South Australia. We are unsure how this is different to the outcomes assessed by the Commission in 2016 when the MTPASA showed reserve shortfalls in South Australia in the summer 2016-17 and 2019-20 following the announcement from the cease of operation of Northern and Playford B power stations.

Figure 1: Timing of the first reserve shortfall projected by AEMO in 2016²

| Region | EAAP (2-year outlook; March 2016 projection) | ST PASA (7-day outlook; 14 June 2016 projection) | MT PASA (2-year outlook; 10 June 2016 projection) | ESOO (10-year outlook, medium demand scenario; October 2015 projection) |
|-----------------|---|---|--|---|
| NSW | No shortfall | No shortfall | No shortfall | Shortfall 2022-23 |
| South Australia | No shortfall | No shortfall | Shortfall summer 2016-17 | Shortfall 2019-20 |
| Victoria | No shortfall | No shortfall | No shortfall | Shortfall 2024-25 |
| Queensland | No shortfall | No shortfall | No shortfall | Shortfall 2021-22 (high demand scenario only) |
| Tasmania | No shortfall | No shortfall | No shortfall | No shortfall |

Reliability in the current NEM

Snowy Hydro notes that following the conclusion of the Commission’s reliability standard and settings review, the Panel proposed to leave the reliability standard and reliability settings unchanged for the period 1 July 2020- 1 July 2024 because:

- The existing standard and settings are achieving their purpose and are likely to continue to do so.
- No change will ensure regulatory stability and benefit consumers and market participants.

AEMO’s rationale for reinstating the long notice RERT is that the power system has continued to undergo rapid transformation change with a increasing chance of supply shortfalls since the Commission allowed the long notice RERT to expire in 2016. Snowy Hydro however believes that the

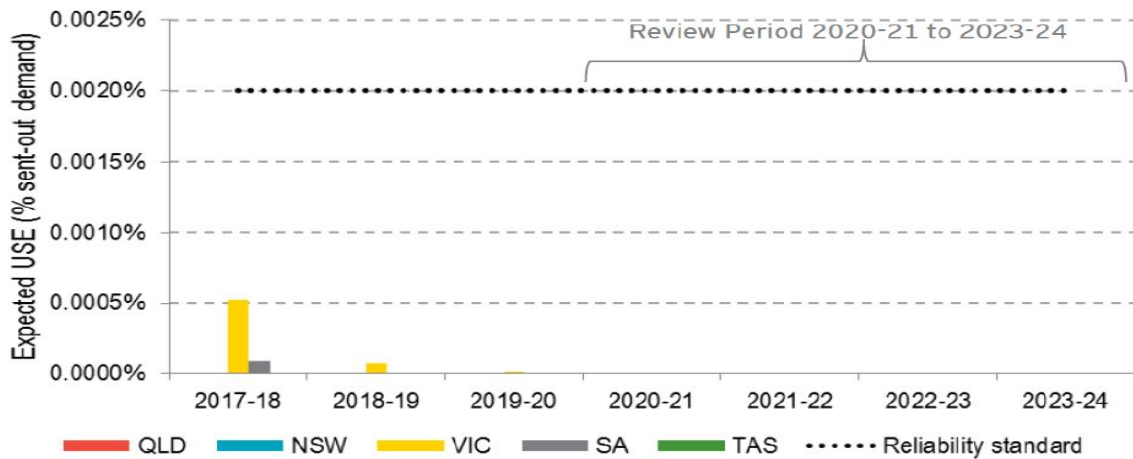
² AEMC 2016, Extension of the Reliability and Emergency Reserve Trader, Rule Determination, 23 June 2016, Sydney



analysis commissioned by the Reliability Panel, dated 30 April 2018, indicates relevant observations that directly counter AEMO's logic to reinstate the long notice RERT.

The EY was commissioned by the Reliability Panel to forecast the likely expected unserved energy to 2024 based on the current reliability standard and settings. The results of the EY forecasts highlight that for the "base case" scenario there is no Reliability Issue with all regions well below the 0.002 per cent standard.

Figure 2: Expected unserved energy outcomes for the base scenario from 2017/18 to 2023/24³



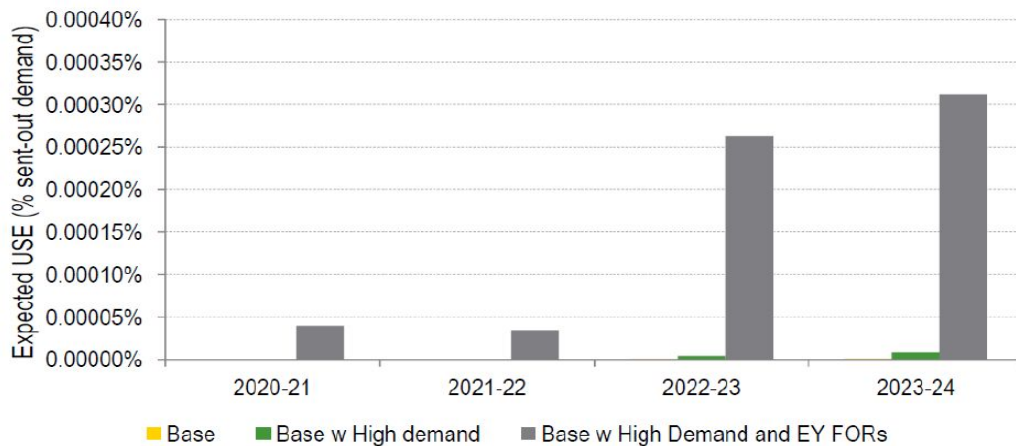
Furthermore the report undertook a strong demand and high generator outages rates sensitivity scenario. In this scenario EY varied several key parameters:

- Demand – using AEMO's most recent strong demand forecast rather than neutral demand.
- Generator outage rates – using EY's own higher generator forced outage rates (significantly higher than the base assumptions for many generators).

The findings indicated that the level of unserved energy forecast by the base scenario model under these sensitivities remains well below the reliability standard. The highest forecast level of unserved energy under this sensitivity analysis is in New South Wales, where the impact of high demand and EY's forced outage rates is to increase 2023-24 forecast unserved energy to approximately 0.0003 per cent, compared with the reliability standard of 0.002 per cent, or around one seventh of the standard.

³ EY, 2018, "Reliability Standard and Settings Review 2018 – Modelling Report - The Reliability Panel"

Figure 3: Expected USE outcomes in NSW for the base scenario sensitivities⁴



*Note that y-axis scale shows up to one fifth of the reliability standard of 0.002 per cent.

The work commissioned by the Reliability Panel indicates no risk of breaching the reliability standard. Furthermore, existing RERT provider panel is now well populated and there is no need for AEMO to contract early for the coming summer.

Reliability Guarantee in the NEG

The inclusion of a reliability requirement as part of the development of the NEG will negate the need for a long notice RERT. The mechanics of the NEG’s “Procurer of Last Resort” appear to be identical to those of the RERT, except that it is to be triggered only on the reliability standard and that AEMO forecasts will receive independent oversight. The reliability guarantee will oblige retailers to hold a minimum amount of contracts with dispatchable generators in relation to their own demand. The additional incentive and price signal for dispatchable synchronous plant which provides services such as synchronous inertia and system strength would negate the need for a strategic reserve.

The NEG is intended to incentivise investment in dispatchable generation which provides the services of system inertia, system strength, and dispatchable energy which should address the system security issues targeted by the strategic reserve. Hence there is no justification to duplicate multiple mechanisms targeted at the same market issues.

In addition, Snowy Hydro advocates that the Medium Notice RERT which allows AEMO to purchase reserves 10 weeks from the anticipated shortfall provides the appropriate trade-off for the last resort mechanism of maintaining appropriate levels of unserved energy in the NEM. The medium notice RERT with 10 weeks to procure is the right balance between accuracy of demand forecasts and costs of procuring too early.

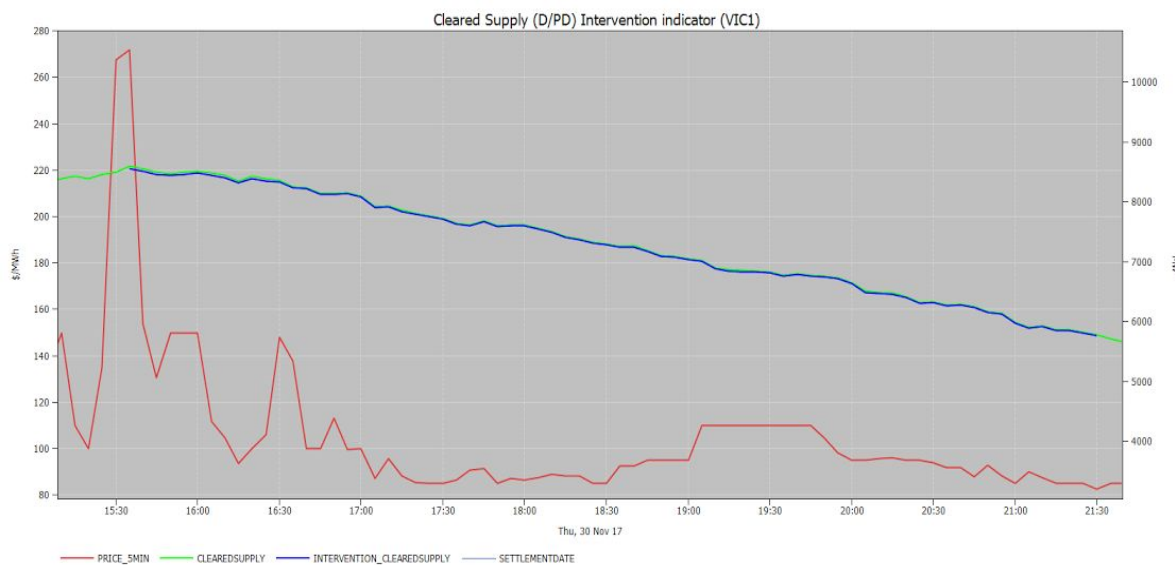
⁴ EY, 2018, “Reliability Standard and Settings Review 2018 – Modelling Report - The Reliability Panel”

Forecasting

Significant forecast uncertainty is contributing to the activation of the RERT which will continue to misallocate capital and increase costs for generators, retailers and consumers⁵. The Australian Energy Council correctly noted that AEMO “anticipated a high demand peak and dispatched several providers with long notice periods and minimum run times. On each day the demand subsequently fell below AEMO’s forecast, and, in hindsight, the dispatch proved unnecessary.”⁶

Inaccurate demand forecasts have unnecessarily triggered activation of the RERT. The need for better forecasting was displayed last year when the RERT was activated on the 30th of November 2017. On this day the RERT remained in place until 21:30 despite demand having dropped by close to 2,800 MW from the time the RERT was initiated. Figure 4 below shows graph of cleared supply and price indicating the demand levels the RERT was in place for on the 30th November 2017.

Figure 4: Price Dispatch 5min (Intervention) – 30th of November⁷



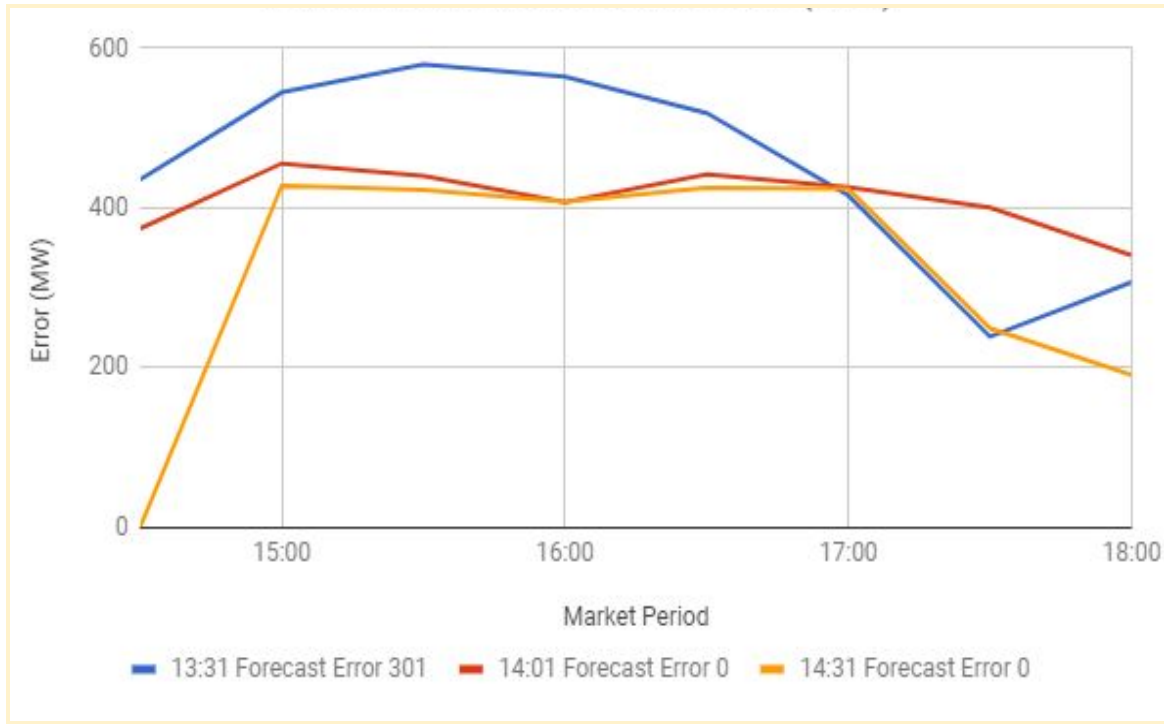
On the 19th January 2018 when the RERT was again activated for 6 hours, AEMO significantly over forecasted demand. Figure 5 shows that AEMO’s last VIC/SA demand forecast before the RERT was activated was around +550MW in error, and subsequent forecasts were also around +400MW in error.

⁵ AEMO, 2018, “Activation of unscheduled reserves for Victoria and South Australia – 19 January 2018”, pp9

⁶ Australian Energy Council, The RERT locker, March 2018, accessed at: <https://www.energycouncil.com.au/analysis/the-rert-locker/> on 6 April 2018.

⁷ Snowy Hydro analysis

Figure 5 - VIC/SA Demand Forecast Error (MW)



AEMO should be responsible for the accuracy of the market demand forecast and openingly consult with Market Participants to understand how their forecasts can be improved. The increased RERT activations have resulted in two significant impacts:

1. In the short term, usage payments are made to Service Providers thereby driving up costs to consumers.
2. In the long term, confidence in market prices that drive investment is eroded thereby increasing the cost of capital to invest in new plant. As a result the dynamic efficiency of the NEM is reduced driving up long term prices to consumers.

It is important that capacity is dispatched in an orderly, economically efficient manner. However, plant contracted through the RERT sits outside the market. The efficiency of the merit order, and therefore the ability of AEMO to match demand with lowest cost supply, is compromised.

Co-ordinated approach to market design reform in the NEM

Snowy Hydro is concerned that parallel to the NEG consultation there has emerged a parallel debate on the design of the National Electricity Market. This has evolved implicitly through the RERT rule changes. The processes are being discussed variously but separately when together they constitute a

material reform of the existing energy-only market. It is clear a coordinated approach is essential to any reform on this scale.

With the upheaval and structural change already under way in the NEM, this is an inopportune time to be implementing such a radical proposal. Generators are already grappling with the shift to five minute settlement. The long-notice represents narrow thinking which trades long term, effective policy for temporary expedients. We urge AEMO to promote evidence-based solutions which provide a stable investment framework, low prices and a secure system of energy supply.

Snowy Hydro appreciates the opportunity to respond to the Consultation Paper. Any questions about this submission should be addressed to Panos Priftakis, Regulation Manager, by e-mail to panos.priftakis@snowyhydro.com.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'K. Ly', with a stylized flourish at the end.

Kevin Ly
Head of Wholesale Regulation
Snowy Hydro

