



public interest
ADVOCACY CENTRE

**Reliability Standards and Settings Review 2018:
submission to the AEMC Reliability Panel**

20 July 2017

Introduction

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon disadvantaged and marginalised people. We ensure basic rights are enjoyed across the community through litigation, public policy development, communication and training. The Energy + Water Consumers' Advocacy Program represents the interests of low-income and other residential consumers, developing policy and advocating in their interests in energy and water markets.

PIAC thanks the AEMC and the Reliability Panel for a highly informative Issues Paper which provides a balanced discussion of many of the complicated matters relating to this review.

In this short submission, we address a number of issues that relate to many of the questions posed in the Issues paper, but have not attempted to answer all of the questions directly. PIAC would be happy to identify answers to specific questions from the Issues paper where this would be of assistance for the Panel.

Level and application of the reliability standard

PIAC supports the current reliability standard, and does not see merit in moving away from the value of 0.002% USE at this time.

PIAC is of the view that 0.002% USE represents a level of reliability that, given the cost trade-offs of higher reliability and the impact of lower reliability, is consistent with the Panels 2nd general principle: "Delivering a level of reliability consistent with the value placed on that reliability by customers"¹

The Issues Paper notes that the "Reliability standard provides a clear, actionable expression of the minimum generation and transmission capacity sought for the National Electricity Market"². PIAC agrees with this summation. However, considering previous decisions on the Market Price Cap (MPC) and Cumulative Price Threshold (CPT), as noted further below, PIAC is of the view there has been little connection between historical changes to price settings, the anticipated investment needed in generation, and the Reliability standard.

Concerns about the Reliability Panel's approach to setting Market Price Cap and Cumulative Price Threshold

As noted above, PIAC is of the view that 0.002% USE represents an appropriate target for reliability, given the cost of higher reliability and the impact of lower reliability.

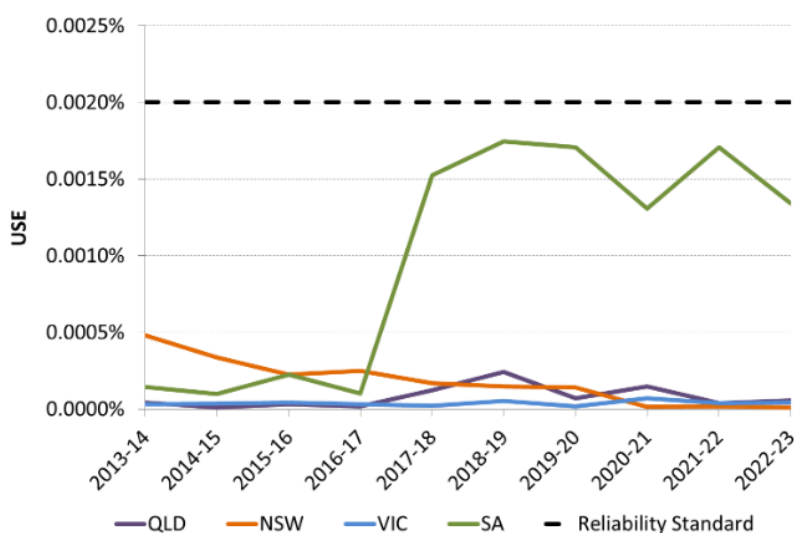
By the same token, PIAC is very concerned that in setting the MPC and the CPT in the past, the Reliability standard appears not to have been applied in a way that is at all consistent with the Panel's second guiding principle of "Delivering a level of reliability consistent with the value

¹ Reliability Panel AEMC, *Issues Paper. Reliability Standards and Settings Review 2018* 6 June 2017, 21.

² *Ibid*, 12.

placed on that reliability by customers”³, where this level of reliability is understood to be the reliability standard.

As illustrated in its 2014 review, modelling commissioned by the Panel⁴ clearly concluded that, in all NEM regions except for SA, the reliability levels under the price settings in place at the time were forecast to be in the order of ten times higher than the standard⁵, suggesting the MPC and CPT could be lowered considerably and still the reliability standard would be achieved:



Stage 2 Market Development Outcomes

- The reliability standard is not exceeded in any region
- The highest level of USE occurs in South Australia

Figure 1: Reliability Standard and Settings Review, ROAM Consulting Modelling Outcomes, presented 4th December 2013 (Slide 34)

In spite of the Panel’s commissioned analysis showing ample opportunity to adjust the price settings downward while remaining within the limit of the Reliability Standard, the Panel decided to not to adjust the MPC or CPT downwards. It is unclear what, if any, connection existed between the expert advice the panel had commissioned, the prevailing market conditions, and the Panel’s decision.

In PIAC’s view, this indicates a risk that the wholesale market is effectively being ‘gold plated’, with a much higher level of reliability than consumers are prepared to pay for.

PIAC considers that, in the context of the above, the Panel’s second principle “Delivering a level of reliability consistent with the value placed on that reliability by customers” makes clear that,

³ Ibid,21.

⁴ Roam Consulting, *Reliability Standard and Settings Review ROAM Consulting Modelling Outcomes*, <http://www.aemc.gov.au/getattachment/c1206b00-86ba-4efe-a9ca-1d4d249fb612/ROAM-Presentation-4-December-2013.aspx>

⁵ As in the predicted USE, under the settings in place at the time, was forecast to be about one tenth of the standard in all regions except SA.

outside of SA, the actual level of USE could be much higher than it is and still remain within standard, implying that the MCP and CPT should be lowered.

The function of Market Price Cap is changing

PIAC notes that the Panel views the primary role or function of the MPC to be setting efficient price signals, and a secondary function to be managing participant exposure to price risk.

The Market Price Cap as an investment signal is less relevant

PIAC considers that the notion that the Market Price Caps are influential in sending a signal for new investment may be increasingly outdated and needs to be reconsidered.

In the context of the historical, current and anticipated changes in the National Energy Market, the MCP has become much less a factor in the investment decisions of generation businesses than when it was first established.

Since the establishment of the MCP, a number of other factors (high demand forecasts, low demand forecasts, oversupply, fuel prices, renewable energy incentives, the lack of long term carbon policy to name a few) have all played an increasingly material part in incentivising (and disincentivising) new investment.

New markets (such as for frequency response and inertia) will also incentivise future investment, further diminishing the role of MPC in signalling to investors. Further, governments are investing in energy generation and storage to maintain reliability, and are unlikely to alter these decisions on the basis of the level of the MCP or CPT.

PIAC recommends that the Panel reconsider the primacy of the MCP as an investment signal.

The Market Price Cap for managing exposure to risk is more relevant

As the Panel notes:

Over the last 6 years, the investment decisions that related to scheduled generation have principally been to withdraw capacity. It follows that an assessment of the market price cap should consider the effectiveness of the setting to the decisions of existing generation.⁶

Notwithstanding that high wholesale energy prices will also occur at times in a well-functioning and balanced market, PIAC is concerned that many high price events, including in the current 2016-2020 period, have been caused or exacerbated by strategic bidding behaviour, and even gaming, by existing generators.

Irrespective of the cause of this disparity, the Panel itself notes that

"In 2016, the relationship between price and demand in South Australia is weaker; high prices regularly occurred at levels of demand as low as 1,000 MW⁷

⁶ Reliability Panel, above n1, 26.

⁷ Ibid 31.

In this context, in PIAC's view the function of the MPC to manage participant exposure to price risk should be considered paramount.

Demand Response

PIAC supports the Reliability Panel's view that the settings should "allow for the market to send the price signals needed to support efficient operation and investment decisions"⁸. Considering this, in its assessment of the MPC and CPT, it is important the Reliability Panel considers the role of settings in decisions made by demand response proponents.

Although retailers are able to engage in demand response if they choose to do so, the NEM remains a generation-only wholesale market. When compared to energy markets with effective mechanisms for demand response⁹, the amount of DR in the NEM today is trivial.

A number of recent developments point to a dramatic change to this by 2020, when any MPC's determined in the 2018 review take effect. These developments include:

- AEMO and ARENA partnering to procure Demand Response, rather than generation, to address the potential shortfall in generation in summer 2017/18;
- COAG Energy Council's July 2017 decision to implement a Demand Response Mechanism in the wholesale market by summer 2018/19; and
- Increasing public, industry and political awareness of, and support for, demand response as a tool for more effectively meeting peak demand.

Noting these, and the considerable untapped potential for DR in the NEM¹⁰, it appears likely in coming years that more new 'capacity' will come in the form of 'Negawatts' (DR) than 'Megawatts' (New dispatchable generation). Given this, setting the MPC or CPT based on creating or sustaining an investment signal for generators, without considering the role as a signal to more efficient demand response, would appear misguided.

Further, some of the new DR that is brought to the market as a result of these reforms requires a markedly lower price signal than new generators. This could, in turn, indicate that a lower MPC is appropriate.

To this end, when the Panel considers "changes in the cost of producing an additional unit of generation to meet otherwise unmet demand"¹¹ it is imperative to give weight to the cost of, largely untapped, demand response.

On a related matter, PIAC notes the Assessment Requirement that the Panel "May only recommend a market price cap that the Panel considers will allow the reliability standard to be satisfied without use of AEMO's powers to intervene"¹². PIAC considers that until a Demand Response Mechanism is in place, any demand response procured by AEMO, for example

⁸ Ibid 13.

⁹ For example, over 10% of the WA energy market's capacity is sourced from demand response.

¹⁰ A number of estimates have put the potential NEM DR market at over 2GW.

¹¹ Reliability Panel, above n1, 45.

¹² Ibid 23.

through the RERT, should not be considered “AEMO intervention” for the purposes of setting the MPC and CPT.

Battery energy storage

Between now and when the reliability standard and settings period under review ends (in 2024), batteries are expected to be deployed at scale and interact in the wholesale market in a number of ways. PIAC agrees with the Panel’s assessment that many batteries aren’t currently able to operate in islanded mode, but notes that:

- As battery products become prevalent and innovative, more are likely to be able to operate in islanded mode; and,
- In any case, as more batteries are deployed, a great portion of the load on the grid will be interruptible battery charging loads, that have a much lower VCR than average.

Batteries are often described as a “game changer”, and their potential interaction with the reliability standard and settings must, in time, be well understood. At this time, however, the battery and energy services market may not be mature enough for the future wholesale market implications to be fully understood.

Considering this, and noting PIAC’s preference for an interim review in 2020, PIAC recommends that the Panel asks the AEMC to undertake a review examining the role of battery energy storage in the reliability and security of the energy market in time for an interim review. Alternately, if an interim review is not undertaken, the Panel should at least engage an appropriate specialist to consider the interactions between energy storage and reliability standard and settings for this review.

New energy service markets introduce new costs, suggesting lower energy-based price settings

A number of rule changes and reviews in train point to the likelihood that there will be new markets for energy services introduced in coming years. These markets may include:

- a market for inertia (either as a wholesale ancillary services market, a secondary market created by new inertia obligations on TNSPs, or both);
- new frequency ancillary services markets;
- a market for emissions reductions; and,
- markets for demand response.

The development of these new markets will, importantly, send financial signals for investment in the services that are valued in the system at a given time and, in some cases, location.

Some services, particularly inertia, have historically been provided by generators that are paid through their participation in the wholesale energy market, with behaviour and investment influenced by the MPC and CPT accordingly.

In PIAC's view, it is appropriate that as markets evolve to reward the services that are most needed in the system, it is efficient and cost-reflective to shift some of that cost-recovery from wholesale energy to new markets.

In PIAC's view, this entails considering whether the MPC and CPT should be lowered to rebalance these incentives as markets for new services are introduced.

Different MPCs and CPTs for different regions

Analysis undertaken for the RP for the 2014 review, and the outcomes since, have made it clear that SA is the only region that has come, or is likely to come, close to having the Reliability Standard unmet over the longer term.

In PIAC's view, it is entirely inconsistent with the intent of the price settings, and functions of the price settings, to maintain a common MPC across all jurisdictions.

While there is some link between wholesale prices in neighbouring jurisdictions, constraints in interregional trading and the lack of coincident price peaks between regions would appear to limit the extent that would efficiently act as an investment signal.

Further, it is possible that the lack of distinction between regions with respect to MPC and CPT has led to the perverse outcome of favouring investment in regions that are less in need of generation capacity to meet the reliability standard.

In any case, wholesale prices have clearly differed, over the long term, between jurisdictions. The reasonable expectation that price outcomes over such different ranges would naturally be expected to have different upper and lower bounds, reinforces the need consider setting different prices in different regions.

PIAC strongly recommends that the Reliability Panel consider setting different MPC's and CPT's in different regions.

Consideration of the contracts market in setting the MPC and CPT

PIAC agrees with the Panel's overall assessment of the contract market¹³. PIAC notes however that the contract market is a means to an end, and should not be treated as an end in itself.

Hence, limiting changes to the MPC and CPT over the longer term, in the interest of preserving stability in the contract market, may compromise the long-term interest of consumers.

Considering indexation and other matters that are closed

PIAC supports indexation of the MPC and CPT over time in line with CPI, and this being subject to a materiality threshold, except for in the case of where the MPC or CPT may need to be reduced over time.

Hence PIAC is concerned that whether or not indexation is applied is out of scope.

¹³ Ibid 18,19.

On one hand, this suggests that if the MPC and CPT is to be lowered - as may be appropriate for reasons discussed herein - the Panel may be restricted from smoothing that reduction over a number of years, as may be needed to avoid sudden changes that might diminish the clarity the MPC and CPT as a signal to investment decisions.

On the other hand - and of more concern - including indexation as a minimum requirement would suggest an assumption that the MPC and CPT would only ever be sustained or increased, with no intention to adjust them downwards.

In PIAC's view, this assumption would continue the trend of ratcheting up of prices, resulting in increasingly inefficient price signals that fail to reflect changes in the market or consumer preferences. This outcome would represent an outright failure of the 'Review of reliability standards settings and guidelines', and hence the decisions of the Panel, to reflect the NEO on a number of levels.

Noting also that:

The question the Panel is to answer through this review is therefore whether a recommendation to change the reliability standard or (one or more of) the reliability settings would likely promote more efficient investment in and operation and use of electricity services, which would ultimately promote the long term interests of consumers *with respect to price and reliability of supply of electricity and the reliability of the national electricity system*.¹⁴

PIAC considers that leaving the application of indexation out of scope for the review limits the Panel's capacity to fully answer that question as posed.

Interim review

Noting the environment of unprecedented change and uncertainty in which this review is being undertaken, as articulated well by the Panel in its Issues paper, and considering the panel "may also recommend responses we consider necessary ... such as requiring a reassessment of the findings of the 2018 Review prior to the next four-yearly review", PIAC recommends that the Panel undertakes an interim review in 2020 in light of the extensive market developments anticipated between now and the end of the review period (2024).

Continued engagement

PIAC lauds "the Panel's intention that the assessment framework, as well as our analysis and findings against this assessment framework, will be transparent and open to stakeholder input." and welcomes the opportunity to meet with the AEMC, the Panel and other stakeholders to discuss these issues in more depth.

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¹⁴ Ibid 20