



public interest
ADVOCACY CENTRE

Submission to Reliability Panel review of the definition of unserved energy

2 May 2019

About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in Sydney.

Established in 1982, PIAC tackles barriers to justice and fairness experienced by people who are vulnerable or facing disadvantage. We ensure basic rights are enjoyed across the community through legal assistance and strategic litigation, public policy development, communication and training.

Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- St Vincent de Paul NSW;
- Good Shepherd Microfinance;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- Solar Citizens; and
- The Sydney Alliance.

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The Public Interest Advocacy Centre office is located on the land of the Gadigal of the Eora Nation.

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1. Principles

The definition of unserved energy (USE) is an important part of the NEM framework. It is used as an input to the reliability standard which in turn forms a basis for key market settings: the market price cap, cumulative price threshold, administered price cap and market floor price. These flow through to investment in infrastructure and ultimately costs borne by consumers.

USE must be appropriately defined for energy to be supplied efficiently and in the long-term interest of consumers. PIAC considers that:

- the reliability standard is an expression of consumers' willingness to pay for investment in wholesale markets;
- price/ reliability trade-offs need always to reflect consumer preferences; and
- USE should be defined in a way that supports these outcomes.

These principles inform the positions articulated in this submission.

2. Response to issues raised in consultation paper

2.1 Restricting USE to wholesale-level supply interruptions for the purposes of the reliability standard

The AEMC writes:

In the NER, the concept of unserved energy with respect to wholesale-level reliability is applied to measure any supply interruptions consumers experience from generation and interconnection inadequacy. That is, the amount of customer demand that cannot be supplied within a region of the NEM due to a shortage of generation, demand-side participation or interconnector capacity.¹

We endorse this approach as it supports a core function of the reliability standard: enabling regulatory bodies and businesses to plan investment in generation and interconnection infrastructure. We do not agree with Energy Networks Australia's (ENA) proposal to broaden the definition to include supply interruptions that are not wholesale-related (e.g. security-related outages). While this might appear to be consistent with the consumer experience, the reliability standard is primarily an input into planning and market-setting processes, not a signal or parameter directly used by consumers.

Including non-wholesale related outages is likely to lead to distorted incentives for participants, which incentivise over-investment. USE is used in the reliability standard as an input to price settings which influence investment in generation for reliability purposes, not security. Including security events would lead to overestimation of the investment necessary to deliver reliability outcomes. This in turn would lead to market settings such as the price cap being set too high, resulting in inefficient costs for consumers.

¹ Reliability Panel, *Definition of unserved energy*, Consultation paper, 04 April 2019, 14.

Insofar as participants are currently interpreting USE for the purposes of the reliability standard to include non-wholesale related outages, we consider this a misinterpretation to be addressed.

Recommendation – clarify the definition of USE to apply to wholesale-level outages only

PIAC supports clarifying the definition to restrict USE for the purposes of the reliability standard to wholesale-level outages only.

2.2 Treatment of voluntary vs involuntary reductions in demand

PIAC considers that where consumer response in reducing demand is a voluntary response to market signals, this should not be considered as USE.

We strongly disagree with the TransGrid and ENA proposal to treat paid demand response and/or voluntary curtailment in response to market conditions (e.g. high spot prices) as outages for the purpose of the reliability standard. Rather these are efficient responses to price signals, reflecting the trade-off between the cost and benefit of using electricity at a particular point in time. Treating demand response as an 'outage' would unfairly discriminate between generation and demand response. This would run counter to the principle of creating a level playing field for all providers of wholesale market services.

Where reduction in demand is involuntary, as with involuntary load-shedding, this should be included in the definition of USE. We welcome further consideration of ways the definition might be amended to clarify this matter.

Recommendation – clarify the definition of USE to apply to involuntary curtailment of demand only

PIAC supports clarifying the definition to restrict USE for the purposes of the reliability standard to apply to involuntary curtailment of demand, and to exclude voluntary, market-compensated curtailment such as demand response.

2.3 Treatment of out-of-market interventions

PIAC supports further consideration how out-of-market interventions such as the Reliability and Emergency Reserve Trader (RERT) should be treated, and whether they should be regarded as outages for reliability purposes. This should be based on the principles articulated above that USE for the purpose of the reliability standard is when consumers lack supply on an involuntary basis due to wholesale market issues.

One area to explore is whether the appropriate focus of the reliability standard should be on market adequacy (i.e., whether the market is sufficient to meet demand), or on broader *systems* adequacy (i.e., whether the broader NEM framework, comprising both the market and supplementary mechanisms for intervention, is sufficient to meet demand.) We consider that the latter approach is more appropriate, as the use of supplementary mechanisms such as the RERT are an expected part of the wholesale supply chain rather than an evidence of systems failure in themselves.

Owing to uncertainty related to the future application of the RERT, and given that RERT is also in part a security measure, including it as an ‘outage’ in the definition of USE could lead to over-estimation of reliability-related outages and send signals for investment that exceed the value consumers place on reliability.

This would be particularly problematic if RERT becomes routinely and/or frequently invoked so that it becomes ‘normal’, and so is effectively priced into the market. Despite being an ‘intervention’, this could be an acceptable outcome in some circumstances. For example, a potential future scenario is that generation sources to meet infrequent, high maximum demand peaks are inadequate, creating a need for frequent triggering of RERT, while at the same time innovation and strong uptake of batteries results in a low cost RERT ‘market’.

Recommendation – further consider how out-of-market interventions should be treated, with a view to avoiding over-estimation of USE

PIAC supports further exploring how out-of-market interventions such as the RERT should be treated for the purposes of reliability, with a view to avoiding inflated estimates of USE which would add to inefficient consumer costs.

2.4 Treatment of contingencies

Under the current framework, unserved energy for the purposes of the reliability standard includes supply interruptions caused by a single credible contingency event, defined as an event considered reasonably possible by AEMO, and excludes outages caused by non-credible contingencies.

PIAC considers the contingency-based framework to be in need of review for a number of reasons, particularly because classifying events as credible/ non-credible is complex to determine in a changing power system. A credible contingency is defined as one AEMO considers reasonably possible given the circumstances. However, what should be considered ‘reasonably possible’ is difficult to determine given that the NEM is evolving in key respects (e.g. increased intermittent generation, distributed energy resources (DER), changing demand patterns, and changing weather).

PIAC further considers that use of the contingency framework for post-event analysis of market performance highlights some ambiguity in the application of the reliability standard. While market bodies emphasise that it is an ‘ex ante’ planning standard rather than a performance standard which is ‘enforced’,² clearly in practice some form of ex post review does occur. We consider this appropriate as the reliability standard has strong implications for market settings that flow through to costs borne by consumers. As such it is vital there are mechanisms of accountability for forecasting bodies.

As a matter of principle, we consider that all targets and forecasts should be subject to a periodic process of review, which compares outcomes predicted with outcomes that actually occurred. This need not take the form of extensive commentary or reportage, but could constitute a simple numeric comparison of ‘forecast/ observed’ values, which need not be administratively burdensome.

² Ibid, 12.

Given the impact of the forecasting on consumer costs it is important for consumer advocates to continue to have input on methodologies and processes.

Recommendation – review the use of the contingency-based framework for USE

PIAC supports:

- *reviewing whether the contingency-based framework is appropriate for USE;*
- *including mechanisms for ex-post review of forecast and forecast-based targets, including the reliability standard; and*
- *including consumer advocates in the development of forecasting methodologies and processes.*

2.5 Making sure consumers do not overpay for reliability

PIAC considers it fundamental that consumers do not pay more for reliability than the value they attach to it. This means considering the trade-off consumers make between reliability and other competing factors such as price and affordability.

In any re-definition of USE, the Panel should consider, in depth, consumers' willingness to:

- pay to maintain or improve on extant reliability levels; and
- accept current or lower reliability levels in return for lower bills.

Recommendation – prioritise consumer interests in any re-definition of USE

PIAC supports prioritising consumers' willingness to pay for reliability, and considering the trade-off between reliability and price, as part of any re-definition of USE.

3. Continued engagement

PIAC welcomes the opportunity to meet with the AEMC, the Panel and other stakeholders to discuss these issues in more depth.

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