



The Australian Industry Group
Level 2, 441 St Kilda Road
Melbourne VIC 3004
PO Box 7622
Melbourne VIC 3004
Australia
ABN 76 369 958 788

9 August 2022

Energy Security Board
info@esb.org.au

AI GROUP RESPONSE TO CAPACITY MECHANISM HIGH LEVEL DESIGN PAPER

The Australian Industry Group (Ai Group) welcomes the chance to make a submission on the Capacity Mechanism High Level Design Paper (the Paper).

Ai Group is a peak national employer organisation representing traditional, innovative and emerging industry sectors. We have been acting on behalf of businesses across Australia for nearly 150 years. Ai Group is genuinely representative of Australian industry. Together with partner organisations we represent the interests of more than 60,000 businesses employing more than 1 million staff. Our members are small and large businesses in sectors including manufacturing, construction, engineering, transport & logistics, labour hire, mining services, the defence industry, civil airlines and ICT.

The overwhelming majority of our members are electricity users, though some are also involved in electricity supply and others are taking on a more active demand-side role. All have a strong stake in the achievement of a settlement on electricity market design and policy that contributes to globally competitive cost outcomes, adequate reliability, and a net zero emissions economy.

The case for change is strong

The status quo design of the National Electricity Market is now clearly dysfunctional and unstable. The NEM is producing extreme price outcomes without providing a credible basis for the investment needed to moderate those prices. The NEM recently became inoperable within the rules when the unavailability of 25% of the coal fleet coincided with extreme gas prices and high demand. Governments at all levels have evidently lost confidence in the sufficiency of the current NEM design to bring on needed investment or sustain existing assets while they are needed. They have been intervening extensively through guarantees, contracts, seemingly uncommercial investments by government-owned corporations and other mechanisms to better achieve the outcomes of affordability, emissions reduction, reliability and security. In the process these interventions have themselves greatly reduced the credibility of the energy-only market at the heart of the NEM as a basis for investment and disinvestment decisions.

This is not to cast blame on anyone. Government action is understandable – the outcomes they target are very important, their responsibilities are heavy, and the politics of energy and climate have been very difficult. Advocates for the existing NEM design are also understandable – the design is elegant and a market-wide common rulebook can be much more efficient and workable than a system that is fragmented between different jurisdictions and multiple systems.

However it is now clear that even if the elegant NEM design would be sufficient if allowed to work, it will not be left alone. We can have a more complex common market design, or we can have further fragmentation.

The Paper makes a strong case for change with some points of overlap to the argument above. It has not yet made a convincing case for the specific model of capacity mechanism proposed.

Concerns about the capacity mechanism remain intense

Ai Group has consulted our members about the Capacity Mechanism proposal, as we have on previous iterations of the Resource Adequacy Mechanisms element of the market reform work over the last few years. Throughout that time business energy users' attitudes to a Capacity Mechanism have ranged from unenthused to extremely worried. Our latest round of member feedback has confirmed that industry remains concerned and is not yet in a position to support a Capacity Mechanism, despite the problems of the status quo. Winning industry support is not impossible but depends on addressing the three broad concerns that have been expressed to us.

Excessive costs to energy users

Industry fears that a Capacity Mechanism will result in costs to energy users that are larger than necessary to meet our energy objectives. There are two distinct aspects to this fear.

Firstly users are concerned about the risk that governments pursue excessively high levels of reliability via a Capacity Mechanism, beyond the actual value of reliability to energy users. This concern has been fuelled by Ministers' decision to impose an Interim Reliability Measure targeting not more than 0.0006% Unserved Energy (USE), and to direct, guarantee or incentivise many new energy assets beyond the needs indicated by recent Electricity Statements of Opportunities. The prospect of centralised procurement by AEMO in a Capacity Mechanism does not assuage this fear, given the pressure AEMO evidently feels from Ministers to achieve higher-than-targeted levels of reliability.

Secondly, users are concerned about the risk that they pay more for no better outcome. They are unenthused about paying generators twice to do what they are already doing. Users also worry that capacity payments may not involve meaningful or enforceable obligations on recipients.

Excess emissions and suppressed investment

Another focus of concern from some members is that a Capacity Mechanism in which existing generators are eligible to participate will wind up extending the lives of high-emissions-intensity assets and dissuading investment in newer and more reliable resources. A Mechanism where, due to scope of eligibility, the way that periods of concern are defined or the methodology for de-rating generators, older coal generators predominate may increase net emissions and fail to provide a price signal to new assets.

Lack of focus

The third line of concern is that it remains insufficiently clear what problems the Capacity Mechanism is trying to solve, or whether it will be sufficiently well-focussed to succeed.

The emerging highly-renewable NEM will need many forms of flexibility to function well. One simple way to think about these challenges is to distinguish a goal of acceptable expected USE outcomes from a goal of managing the risks of high-impact low-probability events (HILP).

Expected USE involves managing a mixture of extremely frequent short-duration flexibility needs, particularly daily peaks in demand as solar is falling off, and longer-duration or less-frequent needs to manage seasonal peaks in demand or troughs in supply.

HILP events include rare and extended outages or periods of low output from large shares of generation. *Dunkelflaute* or renewables droughts are an obvious form of HILP, but so is the simultaneous unavailability of 25% of the existing coal fleet that we have experienced this winter.

By definition, HILP events will not greatly shape the outcome expected in any one year, so a strategy focussed on USE may not provide much assurance on the resilience of the NEM to events that still have a significant chance of occurring.

The most cost-effective assets to manage USE and HILP in the medium and long terms appear to be quite different.

- Frequently used assets can spread capital costs over that usage and need low operating costs. Batteries, pumped hydro and some forms of demand response and demand management are likely to fit this need.
- By contrast rarely-used resources need minimal capital costs, and high operating costs are acceptable since they will almost never operate. Emergency demand response may meet part of this need, but is unlikely to be able to be relied on for very extended durations. Gas peakers, burning natural gas today and biogas or hydrogen in the future, are the most plausible answer for dunkelflaute and other HILP events.

Distinguishing the issues of USE and HILP makes it clear that solving for one is not likely to efficiently solve for the other. Sufficient batteries and pumped hydro to achieve a strong expected USE outcome would provide little reassurance about dunkelflaute, while gas peakers are an extremely expensive way to provide daily flexibility – even when fuel prices are not at current extremes.

So far it is not clear which problems the Capacity Mechanism design is focussing on, and there is little confidence that it will efficiently solve either.

Two further steps to address concerns

The concerns outlined above are currently intense. However Ai Group believes they can be allayed through changes to the substance of the proposal, the narrative around it and complementary reform. Change is needed if the NEM is to meet energy users needs, support national economic social and climate objectives, and avoid further fragmentation. We are hopeful that some form of amended Capacity Mechanism can achieve broad comfort and assent as a part of that change.

There are two steps in particular that are likely to alleviate concern and allow a more productive, less fraught period of design development.

Addressing NEM emissions

Concerns about gold-plating and high emissions ultimately share a common cause: the lack of a comprehensive framework for emissions reduction in the NEM. Governments have put in place a set of partial and indirect proxies for such a framework, including support for renewable energy. But there is no overall constraint on emissions from the electricity sector. The formerly proposed National Energy Guarantee's emissions component would have provided such a framework. The existing Safeguard Mechanism theoretically limits sector emissions, but uses a historic high-point baseline that will never be reached again.

An emissions framework is not currently needed to drive emissions reductions; the economics of renewable energy and fossil fuels will achieve a very substantial emissions cut over the long term. But policy is needed to drive reductions fast enough to meet national and state climate objectives, which involve budgets as well as point targets; and to provide greater certainty to underpin investment.

Another facet of the current lack of an emissions framework is that governments at all levels have purported to believe the existing announced closure dates of current coal generators. At the same time, in the name of reliability they have incentivised, directly supported or otherwise facilitated a large number of new energy assets that have little business case in the absence of a much faster retirement of coal. The underlying logic appears to be to prepare for a rapid retirement without being seen to drive it.

Yet many energy users and other stakeholders understandably take governments' statements and actions at face value. In that light, governments have appeared to be both wildly gold-plating and planning for a very high-emissions future energy system. That interpretation naturally colours the reception of a Capacity Mechanism.

The broad embrace of the 2022 Integrated System Plan, which centres a widespread expectation of rapid retirement, may alleviate some of these concerns. But while there is substantial evidence to

support the expectation of something like the ISP Step Change Scenario, there is nothing to guarantee that emissions cuts or asset retirements will take place. A new more comprehensive solution would greatly reduce both emissions and gold-plating fears by clarifying the pace of asset exit.

There are many options for a NEM emissions framework. There appears to be some movement towards adding an emissions or environmental element to the National Electricity Objective. While the details matter, this could be useful and positive. It may be too abstract to directly address concerns about a Capacity Mechanism, however.

Without closing off other options, Ai Group suggests that reforms to the electricity element of the Commonwealth's Safeguard Mechanism could provide an elegant solution.

The current scheme applies a sector-wide emissions cap to electricity (set at the historic high point of emissions, and hence never to be reached given past coal retirements and the growth of renewables). If the sector cap were ever breached, individual generator baselines would be triggered (which currently would be absolute and based on historic highpoints, with great potential for unintended distortions).

It would be mechanically simple for the Commonwealth to rework this mechanism. The sector-wide cap could be lowered annually in line with collective emissions goals – perhaps pegged to the central scenario of the ISP, with some allowance for the emissions paths of Australia's non-NEM electricity systems. That sector cap could be divided up annually amongst generators. There would be many options for that division – amongst all generators, or only those currently captured by the Safeguard Mechanism; evenly according to share of sector output, or according to different technological starting points; or with individual facility pathways.

It would be important to allow crediting of performance below baseline by relevant generators, and the transfer of those credits to other generators, to provide flexibility for the most efficient mix of assets to operate at any point in time. However there would be no need to connect the electricity component of the Safeguard to the wider Safeguard or other domestic and international crediting systems through the export or import of credits.

A reform along these lines would not force asset retirement – economics, age, investor appetite and consumer preference will do that. But it would provide a backstop for the outcome that stakeholders expect anyway, and an extra layer of confidence about the overall emissions outcome and pace of retirement. We expect that would exorcise the bulk of concerns about gold plating and emissions with respect to a Capacity Mechanism.

While the development of a reform along these lines is legally a matter for the Commonwealth, any solution to NEM emissions will require consultation and coordination with the States and Territories and with the ESB and its constituent governance bodies.

Focussing and/or bifurcating the Capacity Mechanism

Resolving the concern about an unfocussed Capacity Mechanism will be difficult as long as it is seen as trying to resolve both USE and HILP worries within a single undifferentiated mechanism. There are two broad options.

One is to focus the Capacity Mechanism on just one of these problems, leaving the other to be addressed separately. Some industry stakeholders believe that the existing energy-only market and the financial markets around it would suffice to underpin investment in frequently used batteries and some degree of pumped hydro and demand response. On this view a resource adequacy mechanism would best focus on rarely used backup assets, whose business case currently depends on rare extreme high price events that are uncertain and politically toxic. On the other hand some other industry stakeholders have called for a mechanism that focusses only on new storage for relatively frequent usage. There does not seem to be a consensus.

An alternative would be to bifurcate a Capacity Mechanism, with separate targets for the resources needed under distinct conditions, separate procurement processes, a bar on the same resource participating in both divisions, and presumably the emergence of distinct prices for capacity in each category. This would allow the right least-cost mix of assets to emerge for the different purposes of shoring up USE and guarding against HILP.

We look forward to participating in the remainder of this reform process. While the case for this Capacity Mechanism has not yet been made to the satisfaction of our members, Ai Group acknowledges that change is needed to secure our energy objectives in a shared electricity system.

For any questions in relation to this submission, please contact Ai Group Director of Climate Change and Energy Tennant Reed (tennant.reed@aigroup.com.au, 0418 337 930).

Sincerely yours,

Louise McGrath
Head of Industry Development and Policy