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# Firm Energy Reliability Mechanism – EEC response



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## Firm Energy Reliability Mechanism – EEC response

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<b>Date</b>	18 December 2024

Question:	Response
<b>Section 3 - Proposed policy framework to support long duration firm capacity</b>	
<p>1. Do you consider that the proposed framework to support long duration firm capacity provides a sound basis to meet the challenges to maintaining reliability and resilience for the South Australian power system?</p>	<p>The EEC understands the challenges that South Australia is facing as the electricity supply transitions to 100% renewable sources. The increase of the proportion of renewable energy in the grid is inevitable. According to the <a href="#">Climateworks Centre</a> deploying renewables with battery storage is the most cost effective way to decarbonise the economy. As noted in the consultation paper, South Australia is on track to meet its target of net 100 per cent of electricity generation from renewables by 2027. As Australia also works towards the federal government’s target of 82 per cent renewables by 2030, ensuring grid security as the sources of supply transition is a national priority.</p> <p>System reliability and resilience are crucial to ensure that energy users are not exposed to price shocks and/or blackouts and the framework proposes to address the challenges of an intermittent supply of renewables through ‘long duration firm capacity’.</p> <p>The EEC understands that the proposed framework will only be available to generators that are over 30 megawatts (MW) and are capable of being dispatched for a minimum of eight hours. The modelling behind this requirement has not been released so the EEC is unable to comment on whether this threshold is required to meet the risk the South Australian government is seeking to address.</p> <p>Despite being technology agnostic, in practical terms, the eligibility criteria favour fossil fuel generators. The EEC notes the need to transition away from gas for firming as soon as practicable, and that Australia should be targeting a zero-carbon electricity system no later than 2050.</p> <p>The proposed framework is missing an opportunity to reduce the cost of providing energy services and enhance grid stability through demand side</p>

## Question:

## Response

measures. Demand flexibility may be used to reduce or shape demand in response to prevailing grid conditions and can be particularly valuable in abnormal or exceptional grid conditions.

The importance of demand flexibility (sometimes also called demand response) in reducing peak demand is recognised in the [AEMO 2024 ISP](#) (captured as “consumer energy resources” and “demand-side participation”) and globally the [IEA’s Net Zero by 2050 Scenario](#) has 500 GW of demand response brought onto the market by 2030.

AEMO’s 2024 ISP also notes that consumer energy resources are expected to grow to almost half of the NEM’s capacity by 2050 and that well-coordinated consumer batteries could avoid \$4.1 billion of utility scale storage.

The proposed framework does not incentivise any co-ordination of resources through the demand side or encourage the market to resolve the optimisation challenge.

The EEC notes that it is likely the eligibility criteria could be adjusted to enable more participation from the demand side, as well as renewable assets, possibly reducing the need for fossil fuel generators.

**Question:**

**Response**

2. Do you consider that the Objectives and Core Principles outlined in this chapter provide a sound basis for developing the FERM. Should we be considering others?

The EEC broadly supports the objectives and core design principles but recommends that 'long duration capacity' have a more flexible definition to enable a wide variety of assets to be accessed.

**Section 4 - Scheme design overview**

3. What factors do you consider most important to encourage the retention or development of long duration firm capacity in order to meet the Scheme's objectives?

No comment.

## Question:

## Response

4. Do you agree with the proposed standard FERM tender eligibility criteria, relating to technology, location and operational status, in order to meet the Scheme's objectives?

As set out above the EEC recommends the eligibility criteria are reconsidered to enable a variety of technologies and demand flexibility to participate in the Scheme.

Weighting factors should also be set out in the framework with positive weighting attributed to:

- Low emissions intensity
- Minimising social licence concerns
- Ability to be rapidly deployed
- Cost effectiveness

The EEC notes that the use of flexible demand could meet these factors: it has no social licence concerns as no new infrastructure is required; it does not require substantial construction or capital so can be built rapidly; and it is highly effective at reducing energy demand at the most emissions-intensive times of grid operation.

**Question:**

**Response**

5. Please provide feedback on how the proposed bid options and obligations outlined in this chapter may influence decision-making to operate existing long duration firm capacity or incentivise the construction of new plant.

No comment.

**Section 5 - Scheme operation**

6. How suitable do you consider the LOR 2/3 event performance to be as the primary contract performance obligation?

The EEC notes that should the framework encourage demand flexibility (including demand response and change time of use initiatives) LOR 2 and LOR 3 events could be minimised. The Scheme as currently designed is a missed opportunity to expediate the energy transition through rapid deployment of demand-side resources.

Question:

Response

7. Please provide any feedback on the proposed 'cap and collar' commercial model. Do you consider it properly balances value for money for consumers with revenue certainty for long duration firm capacity providers?

No comment.

8. Does the proposed cost recovery mechanism for the Scheme represent the most effective way to recover Scheme costs and to ensure Scheme costs are evenly shared across all energy users in South Australia?

No comment.

**Question:**

**Response**

**Other feedback**

The EEC recommends that the modelling which supports the requirement for 30MW generation for a minimum of 8 hours is provided and explained.

The risk that is being addressed should also be set out in more detail. Is thermal generation (with inertia) required (inertia could also be supplied through a large grid-firming battery) or could the ability to reduce the load (or change time of use) through flexible demand (or battery storage) be prioritised?

Given the EEC has not had the opportunity to review this modelling, we only observe that the risks associated with 'dunkelflaute' are likely to be able to be met more cost effectively through a broader portfolio of resources that include demand flexibility measures and clean technologies.

Question:

Response

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