



## Purpose:

This market briefing note provides information on Long-Term Energy Service Agreements (LTESAs) for firming infrastructure and the expected Eligibility Criteria for the firming LTESA that will be included in Tender Round 2, expected to be held in Q2 2023.

## Briefing context



AEMO Services, acting as the NSW Consumer Trustee, has been directed by the NSW Minister for Energy to conduct a Tender Round for firming infrastructure LTESAs. This direction was issued in response to a forecast breach in the Energy Security Target (EST), which predicted a shortfall in the level of firm capacity required to meet the NSW's maximum consumer demand in the summer of 2025-26.



Following the direction, AEMO Services is preparing an updated Infrastructure Investment Objectives Report (IIO Report) to include firming infrastructure. The draft IIO Report indicates the indicative size and timing of the Tender Round as set out below. The report does not amend the timing or indicative size of Tender Round 1, which commenced on 4 October 2022.



The inclusion of a firming LTESA in the Q2 2023 Tender Round supports the construction of firming infrastructure that is necessary to meet the EST requirements and the reliability standard<sup>1</sup>.

Product	Indicative tender size	Location	Minimum requirements
Firming LTESA	380 MW <i>Commercially operational in advance of Dec' 2025</i>	Sydney-Newcastle-Wollongong sub-region <sup>2</sup>	Dispatch (at registered capacity) <sup>3</sup> for 2 hours continuously
LDS LTESA	To be confirmed (contingent on outcomes of Tender Round 1)	All NSW	Dispatch (at registered capacity) for 8 hours continuously
Generation LTESA	2,500 GWh	All NSW	Generation capacity of not less than 30 MW

Table 1: Overview of Tender Round 2 – Q2 2023

1. under section 44(2)(c) of the EII Act

2. Or in close proximity to that sub-region, if the project can demonstrate its contribution to meeting the EST (taking account of transmission constraints).

3. In the case of demand response assets, the maximum responsive component (MRC) needs to be capable of dispatching for 2 continuous hours.



# What you need to know

## Firming Infrastructure Eligibility:

It is expected that:

- ✓ Any firming infrastructure that is scheduled by AEMO under the central dispatch process (for a duration of 2 hours or more) will be eligible to participate. This includes assets capable of participating in the wholesale demand response mechanism (WDRM).
- ✓ You will be eligible to apply for firming LTESA if your specific Project is not in receipt of federal or state government funding<sup>4</sup> (e.g., through direct government support, government ownership, NSW government emerging energy program, or NSW whole of government procurement) to achieve commercial viability.
- ✓ Your project must either be geographically located in the Sydney-Newcastle-Wollongong (Sydney Ring) sub-region or alternatively, if situated outside (but in close proximity), you will need to demonstrate firming asset contribution to meeting the requirements of EST in the sub-region (taking into account of transmission constraints).

Firming Infrastructure (expected) Commercial Model<sup>5</sup>: two draft firming LTESA term sheets are now available for market feedback representing two distinct commercial models that are on offer. In both commercial models the LTES Operator of firming infrastructure will have the option to access a variable annuity payment (up to a cap) in the form of a top-up to the operational revenues of the project. The 'demand response model' term sheet only applies to demand response assets while the 'firming supply model' covers non-demand response firming infrastructure.



## Questions and Answers

### What firming technology types are eligible?

The Consumer Trustee expects to maintain a technology-neutral approach to firming LTESA eligibility. Any firming infrastructure that is scheduled by AEMO in the central dispatch process is expected to be eligible to participate provided the eligibility requirements (as per Table 1) are met. This includes projects that AEMO would register as a 'Scheduled Generator', for example battery storage<sup>6</sup>, thermal storage, gas peaker plants, biomass, diesel generators, and assets capable of participating in the wholesale demand response mechanism (WDRM). Renewable generation projects that AEMO would register as a 'Semi-Scheduled Generator' are not eligible. The NSW Government has regulated with regard to the participation of certain technologies, specifically biomass generated from native timber. The most up to date regulations can be found [here](#).

### Can shorter-duration firming assets participate in the tender?

Shorter duration firming assets (that are unable to provide continuous firming support for 2 hours or more) are not expected to be eligible to participate in the firming tender.

### How is the 2-hour or more firming requirement defined?

The underlying project should be able to dispatch at its 'registered capacity' for 2 hours continuously. For example, it is expected that the following projects would **not be eligible**:

- Battery storage projects that are capable of discharging over two 1 hour cycles with charging in between.

4. Federal or state government support does not include:  
 i. non-concessional funding provided by the CEFC;  
 ii. certificates accruing to the project that are also available to projects beyond the specific project in question (e.g. LCGs/STCs/ESCs, ACCUs); or  
 iii. funding that was provided solely for the purpose of establishing the feasibility of a project (e.g. certain ARENA funding, pumped hydro recoverable grants).  
 5. The commercial term sheets for firming LTESA are now open for market consultation and subject to feedback, these considerations may change.  
 6. Including hybrid and battery storage projects AEMO would register as 'Scheduled Integrated Resource Provider'



- Demand response projects that cannot offer at least uninterrupted service for 2 continuous hours at registered capacity.

Any firming infrastructure that meets the 2-hour duration requirement initially cannot reduce the response duration (during the term of LTESA) through a modification of the original project at a later date or by changing its 'registered capacity' with AEMO.

### **What are the performance requirements to consider for my firming project?**

The Consumer Trustee is considering introducing performance requirements for firming infrastructure, that may require the asset to be available at critical times in the NSW electricity system. For example, this could be in the lead-up to or during Lack of Reserve (LOR) events. These performance requirements, if introduced, are expected to be based on capacity mechanisms in international electricity markets. The decision on performance requirements, when finalised, will be communicated to the market at a later date.

### **Are Virtual Power Plants (VPPs) eligible for a firming LTESA?**

VPPs which aggregate distributed energy resources are currently unable to be scheduled into the energy market by AEMO under current regulatory arrangements and as such are ineligible for the Q2 2023 firming LTESA tender. VPPs that are registered in the WDRM, and therefore can be scheduled by AEMO in the central dispatch process, will be eligible. Future reforms which seek to schedule distributed energy resources into AEMO dispatch processes may allow these assets to be eligible.

### **Can I apply for firming LTESA if my project is situated outside the geographical boundary of the Sydney-Newcastle-Wollongong (Sydney Ring) sub-region?**

All firming projects that can contribute to meeting the EST in the Sydney-Newcastle-Wollongong

(Sydney Ring) sub-region (as defined in AEMO's latest Integrated System Plan (ISP)) are expected to be eligible to apply for the firming LTESA tender.

It is anticipated that the projects must either be geographically located in the sub-region or alternatively, if they are situated outside (but in close proximity), they will need to demonstrate their contribution to meeting the EST in the sub-region (taking account of transmission constraints).

The details on the assessment of firming asset ability to support the network constraints are currently being developed and expected to be shared with the market once available.

### **Are Projects in receipt of existing government support eligible to bid for a firming LTESA?**

The objective of the LTESA is to provide a financial incentive to invest where the market needs support to bring forward projects that are in the long-term financial interests of NSW electricity customers. Projects that have received support in the form of development funding (e.g. ARENA, NSW pumped hydro recoverable grant) or non-concessional funding by the CEFC are likely to be eligible to apply for firming LTESA.

If your Project received government funding to achieve commercial viability, then you are unlikely to be eligible to bid for a firming LTESA, as that may negatively impact the long-term financial interest of the NSW electricity customer.

### **What is the minimum size, in megawatts, for a Project to meet firming eligibility?**

The EII Act sets no minimum requirements for the size of a firming Project's 'registered capacity' (MW). However, the anticipated requirement to be scheduled with AEMO sets a minimum bound on project size for eligibility which is generally 30MW for generation projects and 5MW for battery storage projects and 1MW for wholesale demand response (WDR) mechanism.

**To find out more please visit [aemoservices.com.au](https://aemoservices.com.au) or email us at [stakeholderengagement@aemoservices.com.au](mailto:stakeholderengagement@aemoservices.com.au).**

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