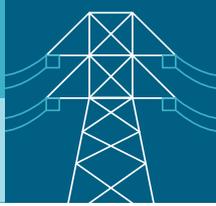


# Market Briefing Note

Further information on outcomes of  
Tender Round 4 for generation infrastructure



On 28 June 2024, AEMO Services announced the award of Long-Term Energy Service Agreements (LTESAs) in Tender Round 4 for generation infrastructure to two projects with a combined maximum capacity of 312 MW<sup>1</sup> and annual generation volume of approximately 980 GWh. One of the awarded projects (Maryvale Solar and Energy Storage) is a 172 MW hybrid, with a battery energy storage system (BESS) nameplate storage capacity of 372 MWh.

These were recommended to Scheme Financial Vehicle (SFV) following the completion of a competitive tender process where the projects comprehensively demonstrated their value to New South Wales (NSW) electricity customers and benefits to their host communities.

The LTESA for the Hybrid Project is contingent on the delivery of both solar and BESS components. It is located within CWO REZ but connecting to existing infrastructure. The other awarded LTESA is a wind project (Flyers Creek) which is expected to commence commercial operations this year.<sup>2</sup>

The purpose of this market briefing note is to provide transparency on the successful bids in Tender Round 4 and to outline how AEMO Services is making tender decisions in the long-term financial interests of NSW electricity customers. This includes supporting NEM markets, such as the wholesale contracts market.

Please refer to [Definitions](#) for further information on terms used throughout this note.

## Context and objectives of Tender Round 4

AEMO Services, as the Consumer Trustee, designs and implements competitive tenders under its mandate to recommend LTESAs that are in the long-term financial interests of NSW electricity customers. LTESAs incentivise the market to bring forward new energy infrastructure investment in NSW. Their design is intended to spur investment and lower the cost of financing while protecting cost exposure to NSW electricity customers.

Tender Round 4 was the fourth NSW Roadmap tender conducted by AEMO Services, and the third to offer Generation LTESAs. It was conducted in accordance with the 10-year Tender Plan set out in the [2023 Infrastructure and Investment Objectives Report](#).<sup>3</sup> The Tender Guidelines provided an indicative tender size of 3,000 GWh p.a. (approximately equivalent to 1,150 MW depending on technology mix) for generation.

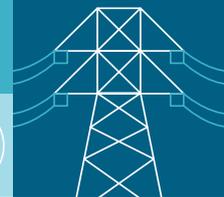
AEMO Services has the flexibility to award LTESAs above or below the indicative tender size where it has been determined to be in the long-term financial interests of NSW electricity customers. LTESAs were awarded to generation projects covering 33% of the indicative tender size. These projects are expected to contribute 3% towards the minimum objective for generation under the *Electricity Infrastructure Investment Act 2020* (EII Act) of 33,600 GWh of annual generation volume constructed by the end of 2029.

An overview of previous tender outcomes is shown in [Table 1](#).

<sup>1</sup> The nameplate capacity for Maryvale Solar and Energy Storage System is 243 MWp and Flyers Creek Wind Farm is 145 MW.

<sup>2</sup> See section [Award of an LTESA to a Project already under construction](#) for more information.

<sup>3</sup> The final 2023 IIO Report, being the most recent, was published on 21 December 2023 and is available at the above link.



**Table 1: Sum of Maximum Capacity (MW) for all projects and Storage Capacity (MWh) for long-duration storage and firming projects contracted to LTESAs across Tender Rounds**

Tender Round	Generation	Long-duration storage	Firming
4	312 MW <sup>4</sup>	N/A	N/A
3	750 MW	524 MW / 4,192 MWh	N/A
2	N/A	N/A	1,075 MW / 2,980 MWh
1	1,390 MW	50 MW / 400 MWh	N/A
<b>Total</b>	<b>2,452 MW</b>	<b>574MW / 4,592 MWh</b>	<b>1,075 MW / 2,980 MWh</b>

Proponents should refer to the AEMO Services [website](#) for the latest information on current and previous Tender Rounds. Market Briefing notes on the outcomes of [Tender Round 1](#) (generation and LDS), [Tender Round 2](#) (firming) and [Tender Round 3](#) (generation and LDS) are available online.

## Successful Projects in Tender Round 4

A number of competitive bids for solar, wind and hybrid projects were submitted for the Generation LTESA. Other projects were assessed in the tender but were not awarded a LTESA as they did not demonstrate sufficient merit for NSW electricity customers.

The successful projects provided bids that scored well against:

- **non-financial Merit Criteria** – including a diverse range of social licence initiatives, a clear pathway to commercial operations and strong organisational ability to deliver the project, and low impact on curtailment of existing generators; and
- **financial Merit Criteria** – including competitive cost and limited cost exposure, high market benefits, and minimal or no departure from the pro-forma contract risk allocation.

Scoring against Merit Criteria is a key input considered by the Consumer Trustee and under the provisions of the EII Act, the Consumer Trustee may only recommend a Bid where:

- they are considered to be in the long-term financial interests of NSW electricity customers (having regard to the assessment as a whole); and
- the recommendation satisfies or is consistent with all relevant statutory requirements and duties.

An overview of the successful projects is set out in [Table 2](#). Their locations are shown in [Figure 1](#).

<sup>4</sup> The Tender Round 4 awarded Hybrid Project has a storage capacity of 372MWh not captured in this table.

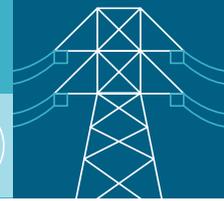
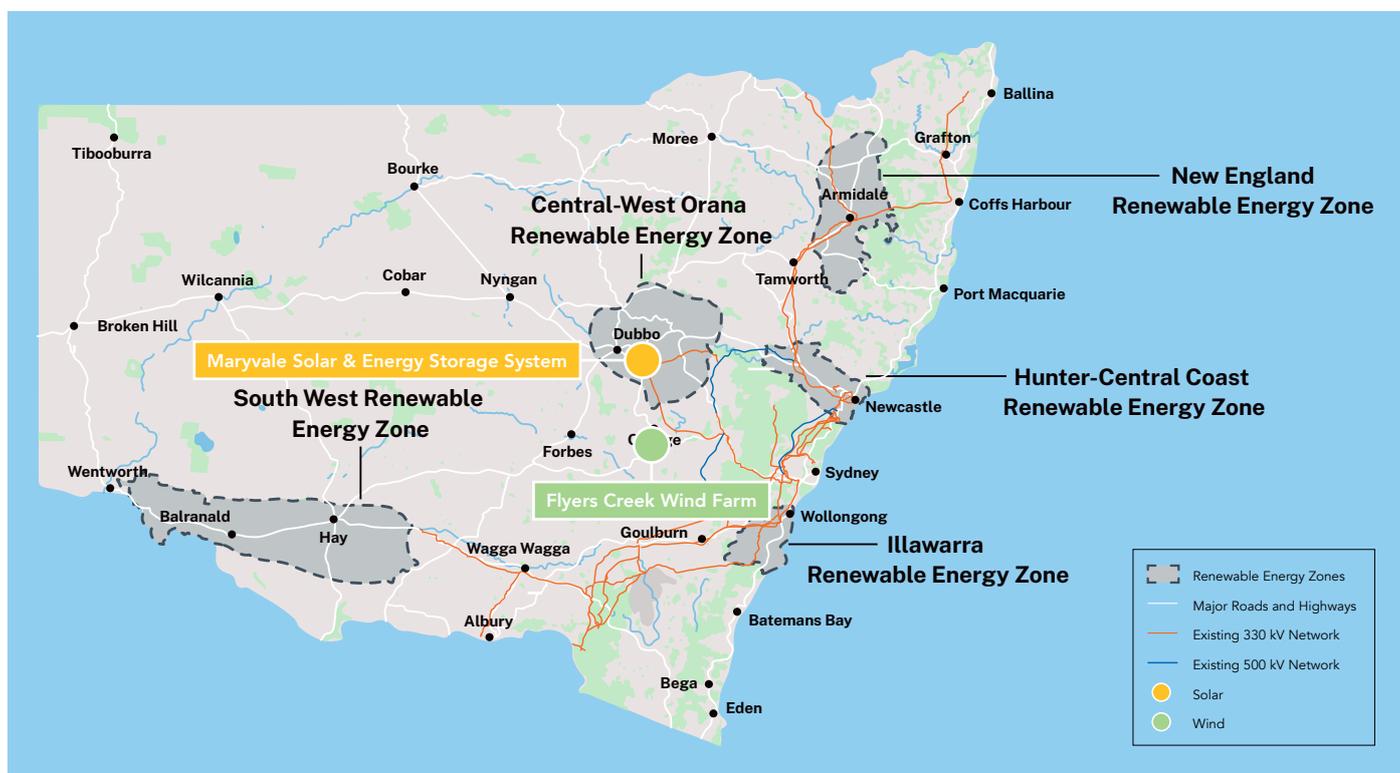


Table 2: Successful Projects in Tender Round 4

Project Name	Proponent <sup>5</sup>	Technology	Maximum Capacity <sup>6</sup> (MW) / Storage Capacity (MWh)
Flyers Creek Wind Farm	Iberdrola Australia	Wind	140 MW
Maryvale Solar and Energy Storage System	Gentari Solar Australia	Solar and associated BESS (Lithium-Ion)	172 MW / 372 MWh

Figure 1: Location of projects awarded LTESAs in Tender Round 4



<sup>5</sup> Please note that the LTES Operator's parent entity may be listed in this table. The legal entity name for the party that has entered the LTESA may differ.

<sup>6</sup> The nameplate capacity for Maryvale Solar and Energy Storage System is 243 MWp and Flyers Creek Wind Farm is 145 MW.



## LTESA Prices

The Generation LTESA provides Proponents with significant flexibility. To maximise competitiveness in Merit Criteria 1 (Financial Value), a Financial Value Bid should be developed in a targeted way to suit the Proponent’s use-case and minimise Forecast LTESA Costs to NSW electricity customers.

The winning projects had an average contract term of less than 20 years. A Proponent may reduce their contract term if they forecast sufficiently high merchant revenues in uncontracted years or expect to have a Power Purchase Agreement (PPA) in place for those years. Where the contract is not active, the Proponent is foregoing the right to enter a Swap Period and SFV will not be required to make any LTESA payments in these years. This is a lower potential LTESA cost outcome for NSW electricity customers compared to these periods not being excluded. Both winning projects also bid a Contracted Percentage of less than 100%, which reduces the Forecast LTESA Cost in the assessment.

The flexibility of the LTESA can result in a wide variety of Financial Value Bids. To help with communicating the Tender outcomes, AEMO Services has used a method of converting the Generation LTESA Fixed Price to a weighted average Fixed Price.

The weighted average Fixed Price is determined using a method to remove differences in Bids due to:

- LTESA price escalation;
- Contract Terms less than the maximum of 20 years; and
- Excluded Swap Periods where the Proponent has forfeited the right to exercise certain option periods.

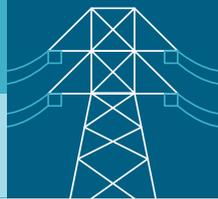
A weighted average Fixed Price is communicated across the winning projects to protect the commercially sensitive information of tender participants. The weighted average Fixed Prices across Tender Round 4 winning bids are displayed in real dollars<sup>7</sup> in [Table 3](#) below.

**Table 3: Weighted average equivalent Fixed Price for awarded Generation LTESAs in Tender Round 4**

Project Name	Technology	Weighted average <sup>8</sup> Fixed Price (real \$2024 equivalent)	Contract Term (avg.) Contracted Percentage (avg.)
Flyers Creek Wind Farm	Wind	Approximately \$65/MWh	Contract term: <20 years Contracted Percentage: <100%
Maryvale Solar and Energy Storage System	Solar with BESS		

<sup>7</sup> The Fixed Price of awarded Generation LTESAs are in nominal dollars and are not subject to change with CPI. The real 2024 dollars equivalent of the Fixed Price as shown in Table 3 has been converted from nominal, based on an assumed CPI increase of 2.5% per annum.

<sup>8</sup> Weighted by expected generation volume contracted to LTESA



The average Fixed Price (\$/MWh) as displayed in [Table 3](#) is the average strike price of each swap period across the LTESA term. LTESA auctions continue to deliver price outcomes below the estimated Levelised Cost of Energy (LCOE). The Generation LTESA provides options to enter Swap Periods as distinct from the standard swap structure used in PPAs, and hence these prices are not directly comparable with PPA prices. The average Fixed Price (\$/MWh) should not be compared to Tender Round 3 due to differences in the technologies awarded.

The Fixed Price for the Hybrid Project is higher than historically awarded solar only projects, impacted by the additional capital expenditure for storage. The Hybrid Project is expected to be registered as a scheduled generator with AEMO, which benefits the electricity system as the storage will dispatch at times when the solar resource is not available. The plant effectively provides a firm generation profile to the market. This benefit to NSW electricity customers outweighed the higher cost in the MC1 assessment. AEMO Services will continue to support innovative commercial and technical structures where it benefits NSW electricity customers.

## Assessment against Merit Criteria – MC1 Financial Value

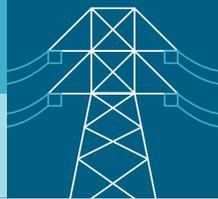
AEMO Services used seven Merit Criteria, with each Merit Criteria given an individual weighting, to assess the quality of bids and make recommendations as the Consumer Trustee. See [Appendix 2](#) for the weightings across all Merit Criteria. This section provides insights into the assessment of MC1, which together with MC2 have a combined weighting of 45%.

The Consumer Trustee uses the Tender Assessment Committee's assessment as a key input to its decision-making process, while retaining discretion to decide which Bids to recommend to the SFV. The Consumer Trustee may only recommend a Bid where it considers that the recommendation would be in the long-term financial interests of NSW electricity customers, and the relevant statutory requirements and duties.

For both projects, a portion of options across the 20-year maximum LTESA term were forecast to be left unexercised under the Tender Round 4 MC1 scenarios, either due to a reduced contract term or projects' bundled dispatch-weighted average price being forecast above the Fixed Price for those periods.<sup>9</sup> Both projects also bid in a contracted percentage less than 100%.

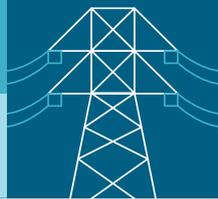
[Table 4](#) outlines some insights from the MC1 assessment of Generation LTESA bids in Tender Round 4. This illustration does not represent an exhaustive consideration of financial value.

<sup>9</sup> The bundled Dispatch-Weighted Average Price considers revenues from both the wholesale energy market and green products.



**Table 4: Characteristics of high performing bids in Generation LTESA assessment in Tender Round 4**

Key	Outcomes
Forecast LTESA Cost	<p>The successful projects were assessed as having low Forecast LTESA Costs relative to unsuccessful projects. Forecast LTESA Costs were assessed to be lower where bids had the following features:</p> <ul style="list-style-type: none"> <li>• Low Fixed Prices</li> <li>• Low Contracted Percentage</li> <li>• Earned a higher Dispatch-Weighted Average Price (DWAP)</li> <li>• Reduced Contract Term</li> <li>• Excluded Swap Periods.</li> </ul> <p>These features improved the competitiveness of a bid if it reduced the assessed cost and risk to the SFV under the LTESA.</p>
Bid Prices	<p>Bids with lower Fixed Prices were seen to have a significantly greater impact on MC1 assessment outcomes than those with lower Repayment Threshold Prices. This is because Fixed Price is a key driver in minimising Forecast LTESA Cost.</p>
Generation profile	<p>Higher scoring projects were modelled to consistently reduce NSW wholesale market prices across forecast scenarios. MC1 considers each project's benefits in terms of lowering cost to NSW customers through wholesale price suppression.</p> <p>These benefits were assessed as being higher if a project's generation was correlated with times of tight supply demand balance. These peak pricing periods generally occurred around the afternoon and evening where it was more common for wind projects to be generating. Adding storage capacity as a hybrid allows a solar project to suppress prices at times when solar is not generating and prices are generally higher.</p>
Network Location	<p>Projects located further from regional interconnectors (e.g., Vic-NSW and NSW-Qld interconnectors) were in general assessed to be more additive to NSW supply.</p> <p>Projects electrically closer to interconnectors are more likely to displace low-cost interconnector flow due to transmission constraints along flow-paths. This lessened their impact on suppressing high wholesale prices in NSW and reduced their Project Benefits for NSW electricity customers.</p>
Contracted Percentage	<p>Both successful bids put forward a Contracted Percentage of less than 100% which lowered their Forecast LTESA Cost, compared with if they had bid 100% of their output with the same terms. Contracted Percentage was assessed to have a significant impact on Forecast LTESA Cost in MC1.</p> <p>A low Contracted Percentage would not always lead to a low Forecast LTESA Cost, for example if a Proponent bids a low Contracted Percentage but comparatively high Fixed Price.</p>
Active Swap Periods	<p>Some Financial Value Bids forfeited at least one swap start date or bid a Contract Term below the maximum of 20 years. Forfeiting an LTESA swap period indicates that the project will not be reliant on LTESA payments in that period.</p> <p>Forfeiting periods is assessed as being more competitive for the same Fixed Price, compared with not applying this adjustment. The extent to which forfeiting a particular swap period lowers Forecast LTESA Cost is dependent on the forecast wholesale energy price for that period.</p>
Schedule of Fixed Price	<p>One of the awarded projects bid a schedule of Fixed Prices, that stepped down after 10 years. The Alternative Financial Value Bid gives Proponents more flexibility in how the LTESA Fixed Price changes between swap periods. LTESA costs are forecast against a range of future energy market scenarios in Merit Criteria 1. In scenarios where wholesale energy prices reduce in later years, AEMO Services assessed that there is less risk for NSW electricity customers where a Proponent:</p> <ul style="list-style-type: none"> <li>• forfeits a Swap Start Date in the later years of the Contract Term</li> <li>• offers a Fixed Price bid with no Fixed Escalation factor applied, as an escalating bid increases over time while the wholesale price may reduce</li> <li>• fashions the LTESA Fixed Price such that the LTESA Fixed Prices are low in periods where electricity prices are also forecast to be low.</li> </ul>



## Award of an LTESA to a Project already under construction

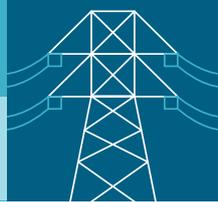
Section 43(3) of the EII Act specifies that infrastructure that was not committed (as per AEMO Generation Information) before 14 November 2019 is eligible for LTESA tenders. This is a core policy principle of the NSW Electricity Infrastructure Investment Roadmap which prevents the unintended slowdown of project development which has been observed in other markets. It instead encourages projects to continue their development without the need to pause or delay while waiting to be awarded an LTESA. As such the LTESA product and tender process have been designed to accelerate investments and accommodate projects in both early and late stages of development.

The Tender Round 4 results, where projects have been awarded LTESAs at both early and late stages of development, demonstrate the ability of projects to provide value to NSW Electricity Customers across the development lifecycle.

## Update for Q2 2024 NSW Generation Infrastructure Tender

AEMO Services announced on 22 April 2024 the Consumer Trustee's determination that the next competitive tender for generation infrastructure in NSW will be conducted as part of the Australian Government's Capacity Investment Scheme (CIS) with at least 2.2 GW allocated for NSW projects.

Projects that would have been eligible to bid for a Generation LTESA will be able to bid in the upcoming Capacity Investment Scheme Agreement (CISA) tender. A LTESA tender will also run simultaneously, offering Long-Duration Storage (LDS) LTESAs, and Access Rights for storage and generation projects in the South-West Renewable Energy Zone.



## Appendix 1 – Definitions

Term	Definition
<b>Bid variables</b>	Input assumptions supplied by a Project in the MC1 Returnable Schedule. Includes Fixed Price, Contracted Percentage, forfeited periods, Contract Term, and Repayment Threshold Price.
<b>Contracted Percentage</b>	Contracted Percentage is a bid variable. It is the percentage of a Project's total registered capacity that a LTESA relates to. For example, a project with a registered capacity of 500 MW may request an LTESA for 250 MW by nominating a Contracted Percentage of 50%.
<b>Fixed Price</b>	The Fixed Price is a bid variable. It is the strike price of each swaption period in a Generation LTESA.
<b>Forecast LTESA Cost</b>	The present value of forecast costs that may be incurred by the Scheme Financial Vehicle for an LTESA, weighted across a range of future potential scenarios.
<b>Real Dollar Equivalent</b>	The Generation LTESAs awarded have Fixed Prices which are in nominal dollars and not subject to escalation. A real 2024 dollars equivalent of the Fixed Price has been used in this Market Briefing.
<b>Repayment Threshold Price</b>	<p>The Repayment Threshold Price is a bid variable. A fixed price per megawatt hour, higher than the Fixed Price, that is used to calculate potential repayments.</p> <p>The repayment mechanism applies in non-exercise periods if the LTES Operator's dispatch-weighted average price is above the Repayment Threshold Price. 75% of the revenue above the threshold is paid to the SFV, which is capped at the historical cumulative net payments from the SFV to the LTES Operator and is reduced where the LTES Operator has entered an eligible contract.</p>
<b>Swap Period</b>	A period of two financial years in which a Generation LTESA swap is available.

## Appendix 2 – Merit Criteria Weightings

Merit Criteria	Weighting
<b>MC1 – Financial value</b>	45%
<b>MC2 – Contract departures</b>	
<b>MC3 – Impact on electricity system</b>	
<b>MC4 – Pathway to commercial operation</b>	33%
<b>MC5 – Organisational capacity to deliver Project</b>	
<b>MC6 – Community engagement, shared benefits and land use considerations</b>	22%
<b>MC7 – Regional economic development</b>	

**Important notice:** The contents of this documents are for information purposes only. This document is not intended to provide any advice or imply any recommendation or opinion constituting advice. This document may include assumptions about future policy outcomes and generalisations. It may not include important qualifications, details or legal requirements. It may not include changes since the date of publication. AEMO Services Limited (ABN 59 651 198 364) does not guarantee the accuracy, currency or completeness of any information contained in this document and (to the maximum extent permitted by law) will not accept responsibility for any loss caused by reliance on it. The information in this document is not a substitute for obtaining professional advice. AEMO Services retains discretion to score and assess Bids and make recommendations. It reserves full flexibility in structuring and implementing its tender and processes, to ensure that it is satisfied that any recommendations it makes are in the long-term financial interests of NSW electricity customers and otherwise compliant with statutory requirements. Nothing in this document is indicative in relation to future tender processes or their outcomes.