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Energy Policy WA

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## 2026 Benchmark Technology Review - Draft Determination

Alinta Energy welcomes the opportunity to provide feedback on the 2026 Benchmark Technology Draft Determination.

The State Electricity Objective requires the regulatory framework to promote efficient investment in the long-term interests of consumers. Achieving this outcome depends on benchmark decisions reflecting both the regulatory signals on which participants could reasonably have relied, and the technologies that could realistically have been delivered for the relevant Capacity Year.

In this context, Alinta Energy does not consider that the proposed E-Class SCGT satisfies the definition of the Benchmark Peak Technology under the ESM Rules, nor the intent of the Benchmark Reserve Capacity Price (BRCP) to reflect the costs of the most efficient new entrant in the WEM for the relevant Capacity Year.

The ESM Rules require the Coordinator to determine a technology that is "expected to be able to provide Peak Capacity". The proposed notional E-Class SCGT could not meet that requirement for the 2029 Capacity Year. Since at least December 2023, EPWA has consistently signalled through its determinations that E-Class SCGTs would not be eligible for Capacity Credits as they exceeded the proposed emissions intensity limit of 0.55tCO<sub>2</sub>/MWh. It is therefore not reasonable to assume investors would have pursued these technologies during the relevant period or at all. To do so effectively relies on perfect foresight: it assumes that a developer would have disregarded EPWA's published position, committed substantial capital to a technology expected to be ineligible, and correctly anticipated that EPWA would later reverse course.

Alternatively, if a participant had relied on EPWA's published position and deferred development, EPWA must assume that it could have commenced the project after EPWA changed its position and still procured and commissioned an E-Class SCGT before the 2029 Capacity Year. Based on publicly available information on current gas turbine supply constraints, this is not credible with lead times for E-Class SCGTs being approximately five years.

As a result, the proposed benchmark would not represent a technology that could reasonably have been expected to provide Peak Capacity for the 2029 Capacity Year. This would undermine the role of the BRCP as an estimate of the efficient cost of new entrant capacity and would be inconsistent with the State Electricity Objective. A benchmark technology that could not reasonably have been pursued by investors cannot promote efficient investment.

We provide further detail, discussion and evidence for these points below. We also note that the gas connection costs for dual fuelled E-Class SCGT appear to be materially understated

and that the fixed fuel transport costs for the exclusively gas-fired technologies appear to be overstated.

### **Deliverability is relevant to the Benchmark Technology**

In the consultation paper, EPWA implies that deliverability is not relevant because the Benchmark Technology is a "notional" facility:

"The Benchmark Technologies are determined for a notional new facility that meets the criteria, and do not represent an expectation of the actual technologies that will or should enter the market in the future. Therefore, other project parameters, such as lead times are not taken into account in the selection process."

Alinta Energy does not agree with this interpretation.

Under the ESM Rules, the Benchmark Peak Technology is defined as:

"a notional new Facility of the Facility Technology Type which is expected to be able to provide Peak Capacity at the lowest annual capital cost and annual fixed operating and maintenance costs as determined by the Coordinator under clause 4.16.11."

The definition refers to the technology that is "expected to be able to provide Peak Capacity". While the facility is notional, this phrase requires an assessment of practical capability. The Benchmark Technology must be capable of meeting this expectation.

If the concept of a notional facility were intended to disregard real-world considerations entirely, there would be no need for the analysis to rely on observed market costs, actual technology characteristics and real-world project assumptions. However, this would not reflect a "benchmark" and therefore undermine the purpose of the BRCP to reflect the costs of the most efficient new entrant in the WEM for the relevant Capacity Year.

The definition therefore requires consideration of whether a credible new entrant could reasonably have developed, procured and commissioned the technology such that it would be capable of providing Peak Capacity in the relevant Capacity Year.

### **An E-Class SCGT cannot be expected to provide Peak Capacity by 1 October 2029**

#### **A Market Participant could not reasonably have progressed an E-Class SCGT project**

While we consider deliverability to be relevant, we acknowledge that it would not be reasonable to assume that all project development activities must occur between the date of the BRCP determination and the commencement of the relevant Capacity Year. It is reasonable to assume that a prudent developer would conduct a portion of development activities prior.

However, it is not reasonable to assume that market participants would have pursued an E-Class SCGT project during the relevant period.

Since at least December 2023, EPWA has publicly indicated that open cycle gas turbines, such as the Siemens SGT5-2000E and GE GT13E2, would not be eligible for Capacity Credits because they exceeded the emissions intensity limits proposed for the Reserve Capacity Mechanism. Successive determinations between December 2023 and publication

of the current draft determination maintained this position.<sup>1</sup>

Investment behaviour across the market has been consistent with these signals. There have been no higher-emitting thermal new entrants during this period. Instead, market participants have pursued more efficient technologies, including:

- Perth Energy's K2 project, which has been publicly described as utilising Siemens SGT-800 turbines which have a nameplate emissions intensity of 0.51tCO<sub>2</sub>/MWh<sup>2</sup>; and
- Strike Energy's South Erregulla development, which is based on Jenbacher reciprocating engines that have a lower heat rate than the SGT-800 turbines and therefore have a lower emissions intensity still.<sup>3</sup>

### EPWA's Approach Relies on Perfect Foresight or a Disregard for Deliverability

Noting that a Market Participant could not have reasonably pursued an E-Class SCGT project since December 2023, to conclude that an E-Class SCGT could reasonably provide Peak Capacity in 2029, EPWA would need to assume either:

- That a participant proceeded with development and procurement of a technology that EPWA had consistently indicated would be ineligible for Capacity Credits; or
- That a participant could commence development of an E-Class SCGT following EPWA's indication that it no longer expected to apply an emissions limit and still procure and commission the facility before October 2029.

Neither assumption is credible.

The first assumption requires that a participant would have needed to disregard the Coordinator's published position, commit substantial development expenditure, procure turbine manufacturing slots and then anticipate that EPWA would subsequently reverse its position and permit the technology to earn Capacity Credits.

Publicly available information indicates that current lead times for large-frame gas turbines may extend to approximately five years. This is consistent with public announcements concerning substantial order backlogs and constrained manufacturing capacity.<sup>4</sup>

### **Selecting an E-Class SCGT would be inconsistent with the State Electricity Objective**

The State Electricity Objective is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity in relation to:

- the quality, safety, security and reliability of electricity supply;
- the price of electricity; and
- the environment, including reducing greenhouse gas emissions.

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<sup>1</sup> Energy Policy WA, *Coordinator of Energy Determination: Benchmark Capacity Providers Peak Capacity Provider and Flexible Capacity Provider*, 18 December 2023; *Coordinator of Energy Determination: Benchmark Capacity Providers Peak Capacity Provider and Flexible Capacity Provider*, 30 September 2025.

<sup>2</sup> AGL Energy Limited, [Greenhouse Gas Management Plan \(31 July 2025\)](#).

<sup>3</sup> INNIO Jenbacher, [Jenbacher Type 6 J624 Gas Engine](#).

<sup>4</sup> Prometheus Institute, [GE Vernova Gas Turbine Backlog Hits 100 GW as Prices Rise](#), 23 April 2026. Utility Dive, [Siemens Gas Turbine Backlog Nears 70GW as Company Expands Manufacturing](#) POWER Magazine, [Ansaldo Eyes U.S. Gas Turbine Market Amid Equipment Crunch](#).

Selecting an E-Class SCGT as the Benchmark Technology would not support these objectives:

- The BRCP would no longer reflect a technology that market participants could realistically have developed and delivered for the 2029 Capacity Year. The resulting BRCP would therefore cease to represent the costs faced by a credible new entrant and instead become a theoretical construct disconnected from actual market conditions. A benchmark that does not reflect realistic investment opportunities cannot promote efficient investment and risks suppressing investment in capacity required to maintain the reliability and security of electricity supply.
- Regulatory predictability and investment certainty would be undermined. Since at least December 2023, market participants have received consistent signals that E-Class SCGTs would not be eligible for Capacity Credits due to their emissions intensity. Investors have made development and procurement decisions based on those signals. Reverting to this technology while it is not realistically available would reduce confidence in future regulatory guidance and investment signals, particularly if EPWA were to subsequently reintroduce an emissions limit. Efficient investment depends on participants having confidence that regulatory signals can reasonably be relied upon.
- The Reserve Capacity Mechanism's investment incentives would be distorted. The purpose of the BRCP is to estimate the efficient cost of new entrant capacity. A benchmark based on a technology that could not reasonably have been procured or delivered for the relevant Capacity Year risks understating the efficient cost of entry. This may discourage investment in technologies that are capable of delivering reliable capacity when required, ultimately increasing reliability risks and the long-term cost of securing sufficient capacity for consumers.
- The resulting BRCP would not reflect the efficient costs faced by an actual market participant seeking to invest in new capacity, undermining the efficient investment objective that underpins the Reserve Capacity Mechanism.
- The proposed Benchmark Technology would also have probable near-term investment consequence. Participants may be progressing lower-emissions technologies in reliance on the investment signals described above and a BRCP based on EPWA's published estimates of materially lower-cost E-Class SCGT would risk reducing expected capacity revenues to a level that renders these projects unviable. If this contributes to a capacity shortfall, it is unlikely that the gap could be addressed in time through an NCESS or Supplementary Reserve Capacity contract, given the equipment procurement, project development, approvals, connection, construction and commissioning lead times for new gas-fired generation. In any event, contracting capacity outside the Reserve Capacity Mechanism would likely increase costs to consumers because capacity procured through the Reserve Capacity Mechanism increases available Capacity Credits and, all else equal, lowers the Reserve Capacity Price.
- Finally, selecting an E-Class SCGT would not support the environmental limb of the State Electricity Objective. As noted, Market Participants have responded to EPWA's previous policy signals by pursuing technologies with lower emissions intensities, including higher efficiency turbines and reciprocating engines. Selecting a benchmark technology that is less efficient and more emissions intensive than the technologies

that investors have actually pursued would weaken incentives to invest in lower-emissions technologies and would not support the objective of reducing greenhouse gas emissions over time.

For these reasons, selecting an E-Class SCGT as the Benchmark Technology would not promote efficient investment, would risk undermining reliability and security outcomes, could lead to less efficient pricing signals, and would not support the environmental objectives embodied within the State Electricity Objective. Rather than supporting the long-term interests of consumers, it would create a disconnect between the benchmark assumptions used to determine capacity revenues and the technologies that investors could realistically finance, procure and deliver. A benchmark technology that could not reasonably have been pursued by investors cannot promote efficient investment and therefore cannot support the State Electricity Objective.

### **Recommendation**

EPWA should select a Benchmark Technology that could reasonably have been expected to provide Peak Capacity for the 2029 Capacity Year.

This requires selecting a technology that market participants could plausibly have developed and procured over the relevant planning horizon and which was not expected to be ineligible for Capacity Credits under the policy framework that existed during that period.

Such technologies may include aeroderivative gas turbines, high-efficiency gas turbines or reciprocating engine technologies. E-Class simple cycle gas turbines do not satisfy this criterion and should not be selected as the Benchmark Peak Technology.

Thank you for your consideration of Alinta Energy's submission. If you would like to discuss this further, please contact me at [REDACTED].

Yours sincerely,

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Regulatory Affairs Manager