

## Response to the EPA's Request for Information – K2 Project

### Contextual information

This contextual information is critical and will form part of the supporting documents. The 6 matters raised by the EPA in the Request for Information (RFI), dated 23 June 2025 are addressed individually in the below Table and includes a cross reference to where the response includes an update to supporting documentation. In addition to addressing the individual matters, this response, includes additional context on the K2 Project. It also includes updates following consultation with EPA representatives.

### K2 Project peaking power station: Strategic Context and Cumulative Impact Assessment

The K2 Project peaking power station, proposed by Perth Energy (a subsidiary of AGL), is a 250 MW open-cycle gas turbine (OCGT) project designed to provide critical firming and system stability services to the Southwest Interconnected System (SWIS) in Western Australia. It is being developed in direct response to the State's energy transition strategy and the anticipated retirement of significant coal and gas-fired generation capacity by 2030.

### System Context and Urgency

The State of Western Australia has committed to retiring all State-owned coal-fired power stations by 2030, including Collie, Muja C, and Muja D. These facilities currently contribute a substantial share of the SWIS's MWh generation, system inertia, and peak capacity. The June 2025 AEMO WEM Electricity Statement of Opportunities (ESOO) flags further uncertainty around the privately owned Bluewaters Power Station and the retirement of Synergy's gas-fired units at Pinjar.

This confluence of retirements represents a significant loss of long-duration, fast-response firming capacity and essential system services. While a wave of four-hour battery projects has been announced, these assets are limited in both energy duration and system strength capabilities.

### K2 Project's Role in Grid Stability and Decarbonisation

The K2 Project is being fast-tracked to align with the expected retirement of Collie and Bluewaters Power Stations from peak capacity provision. The project is designed to:

- Provide firming support during extended periods of low renewable output.
- Deliver fast-response flexible capacity to address renewable intermittency (e.g., cloud cover, wind volatility).

- Support the SWIS during “dunkelflaute” events or major unplanned outages of coal or gas generators.

K2 will participate in the Reserve Capacity Mechanism (RCM), which will require it to be available when called upon by AEMO. K2 can only bid into the market at its short-run marginal cost (SRMC), ensuring it is operational when cheaper sources (including coal and/or renewables) are unavailable. This market structure ensures that K2’s utilisation will inherently reduce the grid’s carbon intensity, as it displaces higher-emission or unavailable generation only when necessary. Perth Energy will not decide when to increase or decrease K2’s dispatch rather it will be dictated by the demand set by AEMO.

In this context, if K2 is dispatched, it reflects a shortage of lower-SRMC generation. Based on modelling in the 2025 WEM ESOO, AEMO highlights that:

“In 2027-28, following the closure of more coal-fired generation, more capacity will need to be procured under the RCM to avert energy shortfalls that are otherwise forecast to become more prevalent. While there is substantial continued interest in battery storage to help maintain reliable supply, investment in storage alone will not suffice. At least 110 MW of new generation sources such as gas, wind and solar generation will be required. Consequently, new energy-producing investment will be prioritised in this year’s Network Access Quantity process as part of the Capacity Cycle.”

Further, in section 7 of the WEM ESOO, AEMO confirms that “As ageing coal-fired and gas-fired generation exits the SWIS, material investment in new energy-producing generating capacity and storage is required, along with investments in system strength services and the transmission network.”

Relevantly for the K2 Project, AEMO states in section 7.2.2 that “To address energy shortfalls identified in Chapter 5, additional capacity brought online should feature generation capacity, *including firm non-energy limited capacity (such as gas-fired Facilities meeting the 14-hour fuel requirement)* and renewable generation such as wind or solar Facilities.”

The AEMO statements reflect the need for sufficient thermal firming capacity to complement storage and renewable energy capacity, and that the inclusion of K2 in the SWIS generation mix (gas, coal, wind, battery) results in a lower cumulative carbon intensity. For example, in years with insufficient wind, K2’s dispatch displaces coal rather than renewables, helping avoid system stability risks or load shedding. Without K2, coal would need to remain online longer to fill these gaps.

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<p><b>1. Cumulative impacts</b></p>	<p>Section <b>11</b> of the <b>referral</b> supporting information provides an overview of the cumulative impact assessment.</p> <p>However, it remains unclear whether the proponent has adequately considered the cumulative impacts of the proposed plant's GHG emissions when combined with emissions from existing proposals. Cumulative environmental impacts are the successive, incremental and interactive impacts on the environment of a proposal with one or more past, present and reasonably foreseeable future activities. Please refer to the EPA's Procedures Manual for further information on reasonably foreseeable future activities.</p> <p>While the referral identified GHG emissions as the preliminary key environmental factor requiring assessment, the proponent has only provided cumulative impact details for air quality, and Section 11 does not adequately address the cumulative impacts on Social Surroundings (Noise) and GHG emissions.</p> <p>The EPA expects the proponent to assess the cumulative impacts of greenhouse gas (GHG) emissions from the proposal in combination with existing proposals. This assessment should provide a comprehensive understanding of the total contribution of the proposal to the State's GHG profile.</p> <p>Further information is required to adequately demonstrate the potential cumulative impacts from proposal emissions and discharges meet the</p>	<p><b>Air Quality</b></p> <p>The modelling framework presented in the Ramboll air quality assessment report (Appendix 4 of Supporting Documentation – dated February 2025) included the emissions and background concentrations from the existing airshed at Kwinana as Scenario 1. Scenario 2 involved the addition of future approved (yet to operate) and expected operational sources in Kwinana.</p> <p>This included the addition of the following sources:</p> <ul style="list-style-type: none"> <li>• CSBP's ammonia plant expansion.</li> <li>• The Kwinana waste to energy facility.</li> <li>• The East Rockingham waste to energy facility.</li> <li>• The Covalent lithium plant.</li> <li>• The Tianqui lithium plant.</li> <li>• The BP renewable energy project.</li> </ul> <p>The modelling results for Scenario 2 show that emissions were well below the applicable threshold limits. Therefore, cumulative impacts have been an integral part of the air quality emission assessment.</p> <p>No changes have been made to the Air Quality report to support this response</p>

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	<p>EPA's environmental factor objectives, in particular for greenhouse gas (GHG) emissions, air quality and Social Surroundings (Noise). This additional information should include, but is not limited to:</p> <ul style="list-style-type: none"> <li>a) identification of the receiving environment that is likely to be subject to cumulative impacts for these factors</li> <li>b) the extent of the individual and combined impacts of the proposals</li> <li>c) justification and evidence that management measures are sufficient to mitigate cumulative impacts so that the environmental outcomes are consistent with the EPA's environmental factor objectives.</li> </ul>	<p><b>Social Surroundings (Noise)</b></p> <p>The Herring Storer (HS) reports have taken the "significantly contributing" or the cumulative impact, as the criteria for compliance.</p> <p>Under the Environmental Protection (Noise) Regulations 1997, noise received from a premises is deemed to be NOT significantly contributing when it is at least 5 dB(A) below the assigned noise level. HS have used this as the basis of the noise assessment. This is why the power station (as a whole) criteria for noise compliance is 5 dB(A) below the assigned noise level.</p> <p>Noise received at the residences would be deemed to comply with the requirements of the Environmental Protection (Noise) Regulations 1997, including the provision relating to "significantly contributing", which is the criteria for the cumulative impact in relation to noise. Thus, being 5 dB(A) below the assigned noise level, noise is deemed to comply and there is no requirement to determine or state the overall noise level.</p> <p>The "significantly contributing" requirements are stated in the HS report.</p> <p><b>GHG emissions</b></p> <p>The Proposal will participate in the Reserve Capacity Mechanism (RCM), meaning it must be available when called upon by AEMO. It can only bid into the market at its short-run marginal cost (SRMC), ensuring it operates only when cheaper sources (coal (while still operational) or renewables)) are unavailable. This market structure ensures</p>

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		<p>that the Proposal's utilisation will inherently reduce the SWIS GHG emission intensity, as it displaces higher-emission facilities as they are taken offline and can never displace lower cost renewable generation. It will be AEMO, not Perth Energy who will decide when to increase or decrease the Proposal's dispatch.</p> <p>The EPA, in its Statement of environmental principles, factors, objectives and aims of EIA, indicates that the EPA assesses the cumulative impacts of the Proposal against the successive, incremental and interactive impacts on the environment of a proposal with one or more past, present and reasonably foreseeable future activities (EPA, 2023).</p> <p>Given the fluctuations in power sources in the SWIS, it is impossible to accurately quantify the Proposal's contribution to the total cumulative GHG emissions of the SWIS. To provide some context however, Perth Energy has assessed the potential range of cumulative GHG impacts from the Proposal. The lower limit (best-case) is to assess the Proposal's emissions in the context of the equivalent emissions from coal power generation. There would be no change to the upper cumulative limit, which would occur if the Proposal simply replaces another equivalent gas-fired facility.</p> <p>The Proposal is likely to provide peaking power to support retirement of the Collie and Muja power stations and potentially Bluewater and Pinjar in the future. Apart from Pinjar which is gas powered, these are the coal-based power production facilities relevant to the Proposal. Perth Energy has compared the emissions intensity of the Proposal against the equivalent aggregate emissions intensity of</p>

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		<p>facilities it could replace. In 2023-24 those relevant facilities had the following Emissions Intensity (EI)'s:</p> <ul style="list-style-type: none"><li>• Collie: 0.951 t CO<sub>2</sub>-e / t MWh</li><li>• Bluewater 1: 0.891 t CO<sub>2</sub>-e / t MWh</li><li>• Bluewater 2:0.903 t CO<sub>2</sub>-e / t MWh</li><li>• Muja: 0.966 t CO<sub>2</sub>-e / t MWh</li><li>• Pinjar: 1.03 t CO<sub>2</sub>-e / t MWh</li></ul> <p>The average emissions intensity of the above facilities is 0.9482 t CO<sub>2</sub>-e / t MWh.</p> <p>The Proposal is predicted to produce a maximum of 423,230 MWh in 2036 with an EI of 0.507 t CO<sub>2</sub>-e / MWh. On this basis, the Proposal represents a maximum predicted emissions reduction of 186,729 t CO<sub>2</sub>-e / a.</p> <p>Australia's emissions and the proposal's maximum cumulative impact (reduction) are summarised below in Table 1.</p> <p><b>Table 1: Cumulative impact assessment in the context of state and national emissions.</b></p> <table><tr><th>Emissions</th><th>2023 emissions (Mt CO<sub>2</sub>-e)</th><th>With Proposal (Mt CO<sub>2</sub>-e)</th><th>Change* (%)</th></tr><tr><td>State Public Energy Sector</td><td>22.54</td><td>22.35</td><td>-0.83</td></tr></table>	Emissions	2023 emissions (Mt CO <sub>2</sub> -e)	With Proposal (Mt CO <sub>2</sub> -e)	Change* (%)	State Public Energy Sector	22.54	22.35	-0.83
Emissions	2023 emissions (Mt CO <sub>2</sub> -e)	With Proposal (Mt CO <sub>2</sub> -e)	Change* (%)							
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		State Total	89.37	89.18	-0.21
		National Energy Supply Sector	140.57	140.38	-0.13
		National Total	453.45	453.26	-0.04
		<p>*Direct impacts from energy produced by the Proposal instead of coal-based power generation (maximum reduction). Values presented in this table include rounding, the resulting % Change value may appear erroneous.</p> <p>The Proposal provides necessary and timely peaking power capacity that enables safe and stable transition to renewable energy. Without the Proposal, the Collie power station would need to remain operational for longer to support the renewables transition. The Proposal's impact on the emissions intensity of power generation for the SWIS therefore goes beyond the direct impact resulting from displacement. The Proposal will have a beneficial indirect impact on the SWIS EI (reduction) by providing reliable peaking power capacity which will enable a quicker and greater penetration of renewable capacity to the grid. Given the proportional use of each generation type (and the rate of development) this indirect impact is difficult to quantify but should not be understated.</p>			
<b>2. Rationale for Estimating Scope 1</b>	The proponent has estimated the Scope 1 emission baseline at 1,110,330 tonnes carbon dioxide equivalent (t CO <sub>2</sub> -e). This figure is based on a scenario where the plant operates at full installed	The Proposal emissions will be covered under the Safeguard Mechanism sectoral baseline (discussed in section 2.6.1 of the GHGMP) therefore a facility-specific Safeguard Mechanism Baseline is not provided. Aligning with the EPA's			

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<b>Emission Baseline</b>	<p>capacity generating 2,080,500 Mega Watts per hour (MWh) – operating at 100% load for 8,322 hours per annum, applying an emissions intensity factor of 0.507 t CO<sub>2</sub>-e/MWh. While this reflects the maximum operational capacity of the plant, the proponent acknowledges that actual demand for peaking power remains uncertain and will be influenced by market conditions and the retirement of less efficient power generators connected to the South West Interconnected System (SWIS).</p> <p>The Safeguard Mechanism – <i>Guidelines for setting international best practice benchmarks</i> (<a href="#">DCCEEW, 2023</a>) outlines that baseline be calculated using the formula:</p> <p><b>Facility baseline = <math>\Sigma</math> Production x Emissions Intensity x Decline Factor.</b></p> <p>However, the proponent’s current baseline estimate does not incorporate a decline factor. Further clarification is required on the rationale for omitting this requirement. If the proponent considers the decline factor does not apply, this position should be substantiated with adequate justification.</p>	<p>guidance which considers GHG emissions from grid connected electricity generation facilities as not covered under the Safeguard Mechanism, the information provided in the GHGMP aligns with “2. Scope 1 Information Option B”, therefore a proponent determined baseline (rather than Safeguard Mechanism Baseline) is provided.</p> <p>The baseline presented in the GHGMP has been determined by Perth Energy, an option described on Page 7 of the GHG Emissions Guidance (EPA, 2024) and Section 3 of the GHG Management Plan Template (EPA, 2023). The baseline presented in the GHGMP is based on the maximum 250MW capacity of the Proposal (further justification for this approach is provided in response to Item 3). The method for determining the baseline presented in the GHGMP is different from the approach used to calculate Safeguard Mechanism Baselines and therefore the Safeguard Mechanism decline factor does not apply.</p> <p>The baseline presented in the GHGMP is subject to the EPA’s minimum expectations of a linear reduction from 2030 to net zero in 2050. This linear reduction is used to set 5 yearly emissions reduction targets which are presented in section 2.2 of the GHGMP.</p>
<b>3. Emission reduction Trajectory and Safeguard Mechanism</b>	<p>The EPA is likely to consider that the proposed emission baseline for the commencement of the emission reduction trajectory to be unrealistic, as the facility is unlikely to operate at maximum throughput consistently. As a result, the predicted Scope 1 emissions are substantially lower than the proposed baseline, and no clear pathway for reducing emissions over time has been identified.</p>	<p>The Proposal is designed to provide critical firming and system stability services to the Southwest Interconnected System (SWIS). It is being developed in direct response to the State’s energy transition strategy and the anticipated retirement of significant coal and gas-fired generation capacity by 2030.</p> <p>The Proposal is designed to:</p>

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	<p>This approach does not align with the EPA's minimum expectations for proposals to achieve deep, substantial and sustained emissions reductions to reach net zero emissions by 2050 along a linear trajectory from 2030 (<a href="#">EPA, 2024</a>).</p> <p>The EPA acknowledges that need for operational flexibility to support decarbonisation of the SWIS. However, a baseline based on actual expected demand-rather than theoretical maximum output-would better reflect realistic emissions and support meaningful reduction outcomes.</p> <p>EPA considers that a realistic baseline should be chosen as it can be reasonably expected that the plant will not operate at maximum throughput throughout the year.</p> <p>It is recommended that the proponent revise the baseline emissions, proposed for the emissions reduction trajectory, to reflect the highest predicted annual emissions under reasonably expected operating conditions, rather than maximum installed capacity. This revised baseline should then serve as the foundation for demonstrating progressive emissions reduction 2030 onwards. If the proponent maintains that the original baseline for the commencement of emission reduction trajectory remains appropriate, detailed justification should be provided to demonstrate how it supports credible emissions reduction outcomes over time consistent with EPA expectations.</p>	<ul style="list-style-type: none"> <li>• Provide firming support during extended periods of low renewable output, especially after batteries are depleted;</li> <li>• Deliver fast-response flexible capacity to address renewable intermittency (e.g., cloud cover, wind volatility); and</li> <li>• Support the SWIS during "dunkelflaute" events (low wind, high cloud cover) or major unplanned outages of coal or gas generators.</li> </ul> <p>To deliver on these requirements it is critical that the Proposal has the ability to react to demand, up to its maximum design capacity. The baseline has been set at nameplate capacity adjusted to account for reasonably predicted shutdowns and scheduled maintenance. This scenario represents the highest power generation scenario of the Proposal and is necessary to afford flexibility in dispatch. As described in Section 2 of the GHGMP (now updated with additional context) an estimated generation profile has been provided to enable calculation of an emissions estimate necessary for impact assessment.</p> <p>The Proposal will participate in the Reserve Capacity Mechanism (RCM), meaning it must be available when called upon by AEMO. It can only bid into the market at its short-run marginal cost (SRMC), ensuring it operates only when cheaper sources (coal or renewables) are unavailable. This market structure ensures that the Proposal's utilisation will inherently reduce the grid's carbon intensity, as it displaces higher-emission or unavailable generation only when necessary. Perth Energy will not decide when to increase or</p>

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		<p>decrease the Proposal dispatch rather it will be dictated by the demand set by AEMO.</p> <p>There is a potential for the demand of the Proposal to be greater than predicted (up to nameplate capacity). The purpose of the Proposal is to adapt and satisfy changes in demand to enable increased reliance on renewable power generation for the SWIS (and an overall reduction in emissions intensity). Therefore a baseline that aligns with nameplate capacity is necessary to enable flexibility without penalty.</p> <p>This approach has been adopted previously by other peaking power plants (Kemerton Power Station EPA Report 1772) and deemed suitable.</p>
	<p>The emissions reduction trajectory outlined in Figure 6, Figure 7, and Table 7 of Appendix 2 (GHGEMP) is applied to the Scope 1 emissions baseline, which has been derived on the assumption that the facility operates continuously at full installed capacity (100% load) across the year. This reflects a theoretical maximum operational scenario, not the expected operating conditions of a peaking facility designed to respond flexibly to market demand. As a result, the actual Scope 1 emissions are likely to remain below both the baseline and the associated reduction target throughout most of the operational life of project. This has led the proponent to conclude that no carbon offset would be required until 2048. Given the unrealistic baseline and lack of a clear commitment to reducing actual operational emissions, the EPA considers that the proposal</p>	<p>Given the purpose of the Proposal stated above, increased dispatch of the Proposal represents a reduction in the emissions intensity of power generation for the broader SWIS. Like the Kemerton Power Station (EPA Report 1772) there are few opportunities for emissions reductions however 'add-ons' and new technologies to reduce emissions intensity that become available will be considered over the life of the Proposal (such as integration of a BESS system, CCS, Synchronous Condensers, alternative fuels and fleet electrification).</p> <p>As documented in Section 2.8 of the GHGMP the Proposal compares favorably with other power generating facilities nationally and can be considered to be best practice relevant to the design and operational requirements of the Proposal. The Proposal is also expected to out perform the Kemerton Power Station which has a reported emissions intensity of 0.62 t CO<sub>2</sub>-e / t MWh compared to the Proposal which is</p>

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	<p>has not adequately demonstrated deep, substantial, and sustained emissions reductions or a credible pathway to achieving net zero emissions by 2050, following at least a linear trajectory from 2030.</p> <p>The proponent should provide a detailed plan outlining credible pathways and measures to achieve net zero emissions by 2050, with clear and measurable milestones commencing from 2030. This plan should apply emissions reduction targets to a realistic and evidence-based baseline, rather than theoretical operation at maximum capacity, to demonstrate deep, substantial, and sustained reductions in actual Scope 1 emissions consistent with the EPA's factor guideline.</p>	<p>expected to be 0.507 t CO<sub>2</sub>-e / t MWh. This means the Proposal already presents a best practice peaking power generation option. Perth Energy is committed to reviewing options for further emissions reductions over the life of the Proposal.</p> <p>The emissions reduction milestones are presented as Cumulative 5 yearly emissions reduction targets in Figure 7 and Table 7.</p>
	<p>The EPA notes that the proponent acknowledges the need for 430,574 t CO<sub>2</sub>-e offsets between 2048 and 2050, and 176,401 t CO<sub>2</sub>-e offsets per annum beyond 2050. However, given the EPA is likely to consider that the proposed baseline for the commission of the emission reduction trajectory will require further substantiation such that is representative of the proposed implementation - given it reflects maximum installed capacity rather than reasonably anticipated operating conditions—the offset requirement is subject to change. A revised baseline that better reflects expected emissions would likely alter the volume and timing of offsets required to demonstrate progress towards net zero emissions. The plan provides limited details on the preferred offset types and how these offsets will meet offset integrity</p>	<p>Justification for a baseline at nameplate capacity and mitigation is provided in response to the items above.</p> <p>Further discussion on the type of offsets, their likelihood of being available at the time they are required and how they will meet the integrity principles is provided in Section 2.9 of the GHGMP.</p>

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	<p>principles. The GHG MP (Appendix 2) states that offsets will be relied upon post 2048, though the proponent intends to reduce reliance on offsets through technology innovation and the use of alternative fuels such as hydrogen and biodiesel.</p> <p>The proponent should outline the offset strategy and commitment mechanism, including how offsets will meet offset integrity principles. The proponent should demonstrate how operations will remain net zero and clarify whether offsets are the long-term compliance measure. Additionally, the proponent should clarify how they intend to manage structural reliance on offsets in the long term.</p> <p>The plan indicates that offsets are intended as a temporary solution while the technology or innovation required to completely decarbonize is developed. Further information is required on how the proponent intends to reach net zero via technology innovation or the use of low carbon fuels if reliance on offsets is temporary.</p> <p>Additionally provide a summary of whether offsets are likely to be reasonably available at the time they are proposed to be surrendered including summary of offsets integrity and assurance mechanism relevant to the proposed offsets and likely consistency with relevant "offset integrity principles".</p>	
<b>4. Emission Reduction Trajectory</b>	<p>It is not clear why the five-yearly predicted cumulative emissions and associated reduction targets</p>	<p>The first cumulative target interval is based on 2 years of operations (2029 to 2030) at the baseline (i.e., nameplate production). The second and subsequent intervals are based</p>

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<b>(5 – Yearly Targets)</b>	show a significant spike between 2030 and 2035 (Figure 7, Appendix 2) followed by a steep decline along a linear reduction trajectory. Further clarification is required to explain the basis for this increase during the 2030–2035 period. In addition, the Target Scope 1 Emissions for 2029 is shown as zero (Table 7, Appendix 2), while the Cumulative Target Scope 1 Emissions is estimated at 2,220,660 t CO <sub>2</sub> -e, which is approximately double the annual target emissions. It is unclear how a cumulative value of this scale has been derived if 2029 is estimated at zero. Clarification is required on the underlying assumptions and calculation method used to derive these figures.	<p>on the full 5 years along a linear trajectory from the baseline to net zero by 2050 (the Scope 1 target in Figure 6). This approach aligns with the EPA’s minimum expectation for the linear trajectory.</p> <p>The absence for a target in year 2029 was an error. Table 7 in the Greenhouse Gas Management Plan has been amended to show a target for year 2029. Figure 6 has also been updated to show the updated target.</p>
<b>5. Air quality and NOx reduction technology</b>	<p>EPA recognises that the Open cycle gas turbine technology (OCGT) is not considered to be best practice technology. In this context, the EPA requires additional information on the proponent’s intention to incorporate measures to improve the efficiency of the facility, such as a wet compression system or dry low NO<sub>x</sub> burner technology, and mitigation measures proposed for future consideration. The EPA expects a clear outline of proposed mitigation measures, details of any technologies that were considered but not adopted (including justification), and quantification of how the proposed technologies would reduce emissions intensity if implemented.</p> <p>The Kwinana Swift Power Station currently uses water injection nitrogen oxide emissions (NO<sub>x</sub>) control</p>	<p>K2 Technology Selection Criteria</p> <p>The decision pathway for the K2 Project has selected Open Cycle Gas Turbines (OCGT) as the appropriate technology given the system context and operational requirements. While Combined Cycle Gas Turbines (CCGT) offer lower carbon intensity, they do not meet the ramp rate and flexible minimum generation thresholds outlined in AEMO’s Flexible Capacity criteria. As such, CCGTs are not suitable for the rapid response needed to manage renewable intermittency in the SWIS.</p> <p>Flexible Capacity is a specific category of Capacity Credits introduced by AEMO to ensure the grid can respond to</p>

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	<p>technology to reduce NOx emissions. The EPA requests clarification on whether similar or enhanced NOx mitigation systems will be implemented in this proposal. If so, further detail on proposed mitigation measures including relevant design consideration to reduce NOx emissions should be provided.</p>	<p>increasing renewable penetration and variability. K2's OCGT configuration is designed to meet these criteria, whereas CCGT technology would not qualify due to slower ramping and less operational flexibility.</p> <p>Baseload CCGT capacity continues to be served by Synergy's existing fleet. For K2, AGL has selected Siemens SGT-800 turbines equipped with Dry Low Emissions (DLE) technology. This configuration minimizes water usage while keeping NOx emissions within allowable environmental limits, aligning with both operational and sustainability objectives.</p> <p>Reasoning for choosing OCGT was presented in the GHG MP as follows:</p> <p><i>Although gas-fired power generation in combined cycle configuration (CCGT) is the most efficient from an emissions intensity perspective, it is not necessarily considered best practice design for this application. The primary objective of the Proposal is to provide intermittent firming power to support the increased penetration of renewable generation in WA. In this context, the Proposal must be able to be deployed rapidly and provide reliable, flexible power supply to the SWIS. Gas turbines in an open-cycle (OCGT) configuration are better suited to this purpose as they have a quicker start-up procedure and are able to ramp their power output up and down. OCGT are less complex meaning a smaller footprint, greater reliability and reduced maintenance. Furthermore, the OCGTs can be deployed</i></p>

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		<p><i>rapidly, which is particularly urgent due to the announced retirement of the majority of baseload coal-fired power stations in the State by 2030.</i></p>
<p><b>6. Proposal life</b></p>	<p>The proposal content document lists the maximum project life as 45 years, while the supporting document (Table 1-1) refers to a 47-year project life. The construction phase is expected to take 24 to 36 months, followed by 45 years of operations. If the total duration is intended to be 47 years, the proposed timeframe would be exceeded. The proponent is requested to clarify the intended project duration. If the timeframe differs from what is currently referred to in the proposal content document, a Section 43A application under the <i>Environmental Protection Act 1986</i> may be required to amend the proposal.</p>	<p>It is acknowledged that there is an inconsistency in the project documents.</p> <p>This is due to the specification of a construction period between 24 months and 36 months.</p> <p>For the purposes of the current documentation we are seeking to retain this range of construction period. In doing this, we have corrected the overall project life to 48 years. This combines the maximum construction period of 36 months and the operational period of 45 years.</p> <p>GHG emission estimates provided with the original referral were based on dispatch forecasts available to Perth Energy at the time of referral and represent an operational life of 2029 to 2058. Since referral, the dispatch demand has been recalculated and the GHG emissions estimates have been updated to reflect the full 45 years of operations. Perth Energy is taking this opportunity to present the additional information in the updated Proposal Content Document (PCD) and supporting documentation to ensure it aligns with the proposed operational life.</p> <p>As a result of this additional information, the annual average Scope 1 emissions have decreased and total Scope 2 and 3 emissions have increased. This is a result of the longer time scale over which emissions have been estimated. These changes to emissions estimates reflect the provision of</p>

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		<p>additional information and not a change to the Proposal itself.</p> <p>Gross (GHG emissions with no mitigation) and Nett (Gross GHG emissions minus offsets) Scope 1 GHG emissions over the life of the Proposal have now been provided to give clarity on the data presented. Changes have been made to the PCD, GHGMP and Supporting Document where necessary to reflect the additional information relating to Scope 1, 2 and 3 GHG emissions estimates.</p>