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20 June 2025

Dear Origin Energy,

RE: Comment on the draft Public Environment Report – Gas Supply Security Project – EPBC 2020/8856

Thank you for the opportunity to make this submission in response to the Public Environment Report (**PER**)[1] for the proposed Gas Supply Security Project (**the Project**) by Australia Pacific LNG Pty Limited **(the Proponent)** under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**).

Environmental Advocacy in Central Queensland

Environmental Advocacy in Central Queensland (**EnvA**) is a Central Queensland association concerned about the risks associated with coal mining, coal seam gas and climate change.

EnvA believes that opening new and expanding coal and gas projects:

- is contrary to meeting Australia's emission targets and Queensland's emission targets,
- is likely to result in irreparable damage to our local landscape and result in stranded assets,
- will put our local community at further risk of extreme weather such as increasing the intensity and frequency of storms, floods, droughts and bushfires,
- will damage our significant coastal resources including our beaches and the Great Barrier Reef through storm surge and increased coral bleaching events, and
- will further degrade wildlife habitats of state and national significance through both habitat loss and climate change.

The proposed action

The Proponent proposes to construct, operate, decommission and rehabilitate gas field infrastructure, within the Surat and Bowen basins located in central and south-west Queensland to help meet supply demands both across the east coast domestic gas market and the liquified natural gas **(LNG**) export market.

The Project will involve developing gas field infrastructure over 211,472 ha in existing petroleum tenures (Petroleum Leases (**PL**) 101, 219, 220, 419 and 1106 & Authority to Prospect 592) adjacent to existing Australia Pacific LNG project infrastructure. The disturbance footprint will be approximately 16,670ha.

[1] April 2025. Public Environment Report – Gas Supply Security Project (2020/8778)

The Project will be progressively developed out to 2061 and involve up to 4435 gas wells, 3623 km of gas and water pipelines and associated infrastructure. It is estimated that the Project will produce approximately 2033 petajoules (PJ).

The proposed action has been determined to be a controlled action under the EPBC Act. The controlling provisions are:

- Listed threatened species and communities (sections 18 & 18A),
- Listed migratory Species (sections 20 and 20A), and
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E).

ENVA'S SUBMISSION

Summary of concerns and recommendations

The PER is critically deficient in both content and rigour. It relies heavily on broad-scale modelling and unverified assumptions, while failing to provide sufficient baseline data or respond adequately to expert and regulatory guidance. In multiple instances, information presented in the PER is inconsistent with more detailed technical appendices.

Given the number and significance of environmental matters likely to be impacted by this large-scale development, the complexity of those impacts, and the lack of robust supporting evidence, the PER should be rejected. The Proponent has not appropriately assessed the Project's impact on matters protected under the EPBC Act.

Specifically, the PER lacks:

- Comprehensive biodiversity surveys across areas proposed for clearing, particularly within the Spring Gully blocks C and D, which contain high terrestrial and aquatic conservation values and remain largely unsurveyed;
- A detailed Project layout, preventing meaningful assessment of potential impacts on threatened species and ecological communities;
- A bioassessment of groundwater-dependent ecosystems, as required under the IESC's groundwater assessment guidelines[2];
- Responses to the Independent Expert Scientific Committee's (IESC) recommendations[3], including site-specific groundwater assessments using local hydraulic data for all six development areas;
- Full Scope 3 emissions accounting for the extension area and cumulative emissions from the existing approved action;
- An analysis of alignment with Safeguard Mechanism baselines and Australia's current legislated emission targets;
- A greenhouse gas abatement plan consistent with the Queensland Greenhouse Gas Guideline[4]; and
- Justification for operating the Project until 2061, including how such a timeframe aligns with Australia's net zero commitments and the Paris Agreement.

[2] IESC (2022). Bioassessment of groundwater ecosystems I. Sampling methods and analysis of eDNA for microbes and stygofauna in shallow alluvial aquifers

[3] IESC (2022). IESC 2021-129: Gas Supply Security Project (EPBC 2020/8856) – Expansion

[4] Department of Environment, Science and Innovation (2024). Guideline – Greenhouse Gas Emissions.

Given these deficiencies, EnvA considers the Project must be refused under the EPBC Act due to its:

- Significant impacts on listed threatened species and ecological communities (sections 18 and 18A), and
- Significant impact on a water resource in relation to a coal seam gas development (sections 24D and 24E).

In its current form, the PER is not a sound or reliable basis for decision-making. The scale (clearing of 16,670 ha), geographic footprint (211,000 ha), and potential consequences—including an estimated 435 Mt CO_2-e of emissions—are not adequately addressed, modelled or justified.

The impacts extend across nearly all matters of national environmental significance (other than nuclear actions) and would contribute substantially to the cumulative decline of ecological and hydrological systems in the region.

The justification presented in the PER relies on speculative assumptions about long-term gas demand during the energy transition, with no credible justification for operation beyond 2050, contrary to Australia's climate obligations.

Accordingly, we strongly recommend that this PER be rejected. If the Proponent believes the economic benefits of the Project outweigh its environmental and social costs, there are alternative pathways—such as seeking a declaration of State significance from the Coordinator-General—that could trigger a full and rigorous Environmental Impact Statement (EIS) process.

Further background to our concerns and recommendations are detailed below.

GROUNDS FOR SUBMISSION

Significant impact on threatened species and communities

As acknowledged by the Proponent in the PER[1], this Project may directly impact a substantial number of threatened species and communities. This includes direct disturbance to:

Threatened Ecological Communities (**TEC**)

- 327ha of Poplar box (*Eucalyptus populnea*) woodland on alluvial plains – Endangered
- 161ha of Brigalow (*Acacia harpophylla* dominant and co-dominant) - Endangered

Threatened flora

- 400ha of Austral toadflax (*Thesium australe)* habitat - Vulnerable
- 288ha of Belson's panic (*Homopholis belsonii*) habitat - Vulnerable
- 121ha of Ooline (*Cadellia pentastylis*) habitat - Vulnerable
- 463ha of Shiny-leaved ironbark (*Eucalyptus virens*) habitat- Vulnerable
- 538ha of Tara wattle (*Acacia lauta*) habitat - Vulnerable
- 469ha of *Xerothamnella herbacea* habitat - Endangered

Threatened fauna

- 1354ha of koala (*Phascolarctos cinereus)* habitat - Endangered
- 923 ha of greater glider (*Petauroides volans*) habitat – Endangered
- 920ha of large-eared pied bat (*Chalinolobus dwyeri)* habitat - Endangered
- 1863ha of south-eastern long-eared bat (*Nyctophilus corbeni*) habitat - Vulnerable
- 1157ha of squatter pigeon (*Geophaps scripta scripta*) habitat - Vulnerable

- 1967ha of red goshawk (*Erythrotriorchis radiatus*) habitat - Endangered
- 1306ha of painted honeyeater (*Grantiella picta*) habitat - Vulnerable
- 427ha of Australian painted snipe (*Rostratula australis)* habitat - Endangered
- 1537ha of collared delma (*Delma torquate)* habitat - Vulnerable
- 1441ha of Dunmall's snake (*Furina dunmalli*) habitat - Vulnerable
- 11ha of ornamental snake (*Denisonia maculata*) habitat - Vulnerable
- 1768ha of yakka skink (*Egernia rugosa*) habitat - Vulnerable
- 74ha of Fitzroy River turtle (*Rheodytes leukops*) habitat - Endangered
- 108ha of brigalow woodland snail (*Adclarkia cameroni*) habitat - Endangered

The Proponent has not provided a detailed project layout, habitat assessment, or sufficient analysis of the potential impacts on these MNES. The figures cited represent the maximum extent of predicted habitat based on modelling, not on detailed field verification. However, the scale of potential impact is vast and cannot be dismissed. These are significant areas of critical habitat - clearing them will undermine conservation outcomes for a range of species already under serious threat.

The Brigalow Belt bioregion is of national and global conservation importance, supporting more bird species than any other bioregion in Australia and hosting several endemic reptile species. Within this region, eight species are now extinct and a further 147 species and 100 ecological communities are listed as threatened. [5]

This region has experienced some of the highest rates of historical land clearing in Queensland. While land clearing for agriculture and settlement began in the 1800s, recent expansion of coal mining and gas extraction has perpetuated the loss of remaining habitats.[6]

The current proposal – a large-scale gas field development with a dense network of access roads, well pads, pipelines, and processing facilities – represents a massive escalation of habitat fragmentation. At least thirteen of the threatened species and ecological communities likely to be impacted by the Project are already recognised as being severely affected by habitat fragmentation. Conservation advice for the Poplar Box Woodland[7] and Brigalow[8] TECs explicitly cite mining and gas development as key threats

The cumulative impact of past land clearing, fragmentation, and ongoing pressures from mining, agriculture and climate change, has already pushed many of these species to the brink. Further disturbance through this Project would increase extinction risks and further degrade the resilience of this fragile bioregion.

EnvA recommends that this Project be refused due to its clearly unacceptable impacts on threatened species and communities, which include:

- The direct clearing of large tracts of essential habitat;
- Further fragmentation of remaining ecological corridors; and
- The compounding effects of these impacts in an already highly degraded landscape.

[5] CSIRO (2016) Priority threat management for imperilled species of the Queensland Brigalow Belt

[6] Queensland Government State of the Environment Report 2020

[7] Draft Conservation Advice (including listing advice) for the Poplar Box Grassy Woodland on Alluvial Plains

[8] Approved Conservation Advice for the Brigalow (*Acacia harpophylla* dominant and co-dominant) ecological community

Significant impact on migratory species

The Proponent acknowledges the potential for migratory species to occur in the project area but dismisses any risk of significant impact, based on the assertion that wetlands will be avoided and the area is not considered critical habitat.

EnvA considers this conclusion to be unsupported and premature, as it is not grounded in a detailed or robust assessment of potential migratory species usage. Not all migratory species are wetland-dependent; many utilise woodland and open forest habitats, including several species listed under international agreements.

Without adequate surveys, seasonal observations, or habitat use data, the Proponent's dismissal of potential impacts is scientifically and procedurally deficient.

Offsets

The Proponent's Offset Strategy[9] does not identify secured or committed offset areas for residual impacts. Instead, it proposes a staged approach in which offset requirements are only addressed progressively, with reliance on an existing "Offsets Bank" (Attachment A of the Offset Strategy) in a staged approach.

Our assessment suggests that there is insufficient habitat available in the Offsets Bank to meet the full offset requirements under the maximum disturbance scenario. Additionally, delaying the identification and protection of offsets until later project stages undermines the effectiveness of offsets in securing timely, like-for-like ecological compensation.

EnvA also expresses serious concerns about the effectiveness of biodiversity offsets as a policy tool. The 2020 Independent Review of the EPBC Act (Samuel Review)[10] found that Australia's offset system was resulting in net losses for biodiversity and called for urgent reform. In 2024, the former Federal Environment Minister acknowledged that "we know the current offset arrangements are broken and making nature worse." [11]

There are many published national[12] and international[13] research assessments which highlight significant failings in offsets as a mechanism to protect biodiversity values.

Given these concerns, EnvA concludes that offsets are not a credible or sufficient mechanism to mitigate the extensive and irreversible habitat loss associated with this Project.

Significant Impact on Water Resources

The Project is located across two major catchments: the Condamine-Balonne Basin of the Murray-Darling Basin, and the Fitzroy Basin. Major waterways in the project area include the Condamine, Balonne, Dawson, and Comet rivers, along with numerous ephemeral and minor watercourses. Most streams are non-perennial and flow only following rainfall events, making them particularly sensitive to hydrological change.

We note that the Independent Expert Scientific Committee (**IESC**) provided advice on the project in 2022[14]. While this advice prompted minor amendments by the Proponent, many fundamental concerns remain unaddressed.

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[9] Draft PER Offsets Strategy (Appendix E)

[10] Professor Graeme Samuel AC (2020) Independent Review of the EPBC Act – Final Report

[11] https://www.theguardian.com/australia-news/article/2024/jul/03/australia-biodiversity-offset-system-land-restoration

[12] Example only: Australian Conservation Foundation. (2024). Set and forget: How offsets under national environmental law drive habitat destruction

[13] Example only: Weissgerber, M., Roturier, S., Julliard, R., & Guillet, F. (2019). Biodiversity offsetting: Certainty of the net loss but uncertainty of the net gain. *Biological Conservation*, *237*, 200–208.

[14] Advice to decision maker on Gas Supply Security Project (EPBC 2020/8856) – Expansion

Surface water

The PER provides no detailed assessment of surface water impacts. Instead, the Proponent claims that "there are no proposed new or additional release points for discharge to, or abstraction from, surface water systems." This is insufficient and misleading.

The Proponent has failed to assess:

- The impact of groundwater drawdown on connected surface water systems, including ephemeral streams and riparian zones;
- The effects of reduced alluvial recharge, which may affect streamflow and water availability during dry periods;
- Changes to surface hydrology from construction of infrastructure such as tracks, well pads, pipelines and potential land subsidence.

The IESC identified these concerns—particularly groundwater–surface water connectivity—as key risks of this Project. Yet they remain unresolved in the PER.

Groundwater

The Project proposes to extract approximately 30 billion litres of groundwater. This level of extraction is likely to have significant and potentially irreversible impacts on a range of water-dependent assets and ecosystems, including:

- Perennial and groundwater-dependent watercourses, such as the Dawson River and its ephemeral tributary Eurombah Creek;
- Terrestrial groundwater dependent ecosystems;
- Four EPBC Act-listed springs: Cockatoo, Lucky Last, Yebna 2, and Dawson River 8; and
- 4,850 third-party groundwater bores, used for stock and domestic supply, irrigation, intensive livestock production and town water supply.[15]

The Proponent asserts that there will be no significant or adverse impacts on water resources.[1] However, this claim is unsupported by robust evidence. The Proponent does acknowledge that cumulative drawdown will exceed the 0.2 m threshold for a number of springs in the Project area.[15]

It is therefore unclear how the Proponent can maintain that significant impacts will not occur. No credible explanation is provided, and the absence of site-specific hydrogeological assessment further undermines the reliability of this conclusion.

Instead, the Proponent relies heavily on Office of Groundwater Impact Assessment (OGIA) regional modelling, alongside broad references to standard industry and regulatory controls. This reliance is inappropriate given:

- The limitations of OGIA's regional-scale modelling, which is not designed for project-specific impact assessment[16];
- The absence of detailed, localised modelling to understand hydrogeological responses at the site scale; and
- The lack of baseline hydrogeological data specific to the Project area.

Without a rigorous, site-specific groundwater assessment, the risk of significant impact to groundwater resources and associated ecological values remains high and unmitigated.

[15] Draft PER Water Assessment (Appendix F)
[16] OGIA (2021), Surat Underground Water Impact Report

Greenhouse Gas (GHG) emissions

The Proponent's treatment of greenhouse gas (GHG) emissions in the PER is misleading, inaccurate, and inadequate in respect to current Australian law and climate policy. The discussion relies on outdated policy positions and omits essential emissions sources, mitigation measures, and alignment with legal obligations.

For example, the PER:

- States that the Commonwealth Government's target is 26–28% below 2005 levels by 2030, failing to acknowledge that this has been superseded by a legislated target under the *Climate Change Act 2022* (43% below 2005 levels by 2030, and net zero by 2050);
- Claims the Queensland Government's emissions reduction target is aligned with the (now outdated) national 26–28% target;
- References obsolete programs such as the Direct Action Plan and Emissions Reduction Fund, but fails to address the current regulatory framework, including the *Climate Change Act 2022* and the reformed Safeguard Mechanism; and
- Omits any explanation of how the Project will comply with its obligations under the Safeguard Mechanism, particularly given the substantial increase in CSG production.

Scope 1 emissions

The Proponent estimates Scope 1 emissions at 3.70 Mt CO_2-e over the life of the Project, primarily from land clearing[17]. However, this figure is likely a substantial underestimate, as it excludes key emissions sources, including:

- Emissions from construction of the integrated gas infrastructure;
- Emissions from vehicle use during operation;
- Venting emissions during gas production (beyond what is accounted for from pipelines and equipment); and
- Emissions from decommissioning activities.

The exclusion of these sources is unjustified. Comprehensive accounting of all Scope 1 sources is necessary to evaluate the Project's true climate impact.

Scope 2 emissions

The Proponent estimates Scope 2 emissions at 3.26 Mt CO_2-e but fails to include electricity use for site construction and powering facilities such as offices[17]. This further undermines the credibility of the emissions inventory and suggests that the Project's operational emissions are systematically underestimated.

EnvA considers that all Scope 1 and 2 emissions must be transparently reported and justified. Any assumptions that emissions are "negligible" or uncertain due to unknown diesel volumes are inadequate and inconsistent with best practice environmental assessment.

Lack of mitigation or abatement planning

The Proponent has not provided any credible GHG mitigation strategy or abatement plan to demonstrate how the Project's emissions will be reduced over time. There is no:

- Lifecycle emissions trajectory;
- Strategy for emissions avoidance or reduction; or
- Commitment to carbon offsets or abatement technologies.

[17] PER Greenhouse Gas Emissions Inventory (Appendix J)

This omission is a serious deficiency, particularly given the project's scale and long operational lifespan (extending well beyond 2050).

This information is essential to allow assessment under both the EPBC Act and *Climate Change Act 2022*. Section 15A of the *Climate Change Act* requires that the Environment Minister consider Australia's climate targets and mitigation commitments. Without a clear emissions profile and mitigation strategy, this statutory duty cannot be fulfilled.

Given the Project's scale and potential to become one of Australia's largest fossil fuel emitters, this failure is not only negligent—it is grounds for refusal of the application.

Scope 3 emissions

There is no reference at all to Scope 3 emissions in the greenhouse gas inventory[17] appendix to the PER. The only information provided is with the PER[1] which identifies 111 Mt CO_2-e over the life of the Project, and that up to 2,688 Mt CO_2-e were considered in the assessment supporting EPBC 2009/4977. The Proponent further claims that the Project will not result in Scope 3 emissions beyond those previously considered and therefore does not contribute to additional Scope 3 emissions.

This position is fundamentally flawed:

- EPBC 2009/4977 was approved 16 years ago, and Australia's policy, legislation, and scientific understanding of climate risk have since changed dramatically;
- The current proposal represents a significant expansion and will operate for an additional 35 years. These additional Scope 3 emissions must be newly assessed;
- Citing a dated approval from 2009 to justify excluding current Scope 3 emissions from consideration is both technically incorrect and legally unsound.

Furthermore, the Proponent's claim that LNG exported to China and Japan will displace coal and deliver emissions benefits is unsupported and should not be accepted as a valid GHG mitigation strategy. This argument ignores current scientific findings and policy updates, and relies on the discredited Technology Investment Roadmap, which has since been superseded by Australia's updated climate strategy. [18]

Greenhouse gas emission assessment overview

This is a major fossil fuel supply project with significant and long-term GHG impacts. It is unacceptable for the Proponent to seek approval for such a project without:

- A full and transparent GHG inventory (Scope 1, 2, and 3);
- A credible abatement plan;
- Demonstration of alignment with the *Climate Change Act 2022*, the Safeguard Mechanism, and Australia's climate obligations.

The Proponent's reliance on outdated policy, omission of major emissions sources, and absence of mitigation planning are serious deficiencies. This approach reflects an arrogant disregard for the climate risks posed to the environment and Australians by rising emissions and the related extreme weather events being experienced across the nation.

EnvA considers that these deficiencies are sufficient grounds to refuse the Project.

[18] DCCEEW Australia's climate change strategies

Concluding remarks

EnvA strongly recommends that the Project be refused**.** The current Public Environment Report (PER) is inadequate and fails to provide a detailed and evidence-based account of the proposed Project and its likely environmental impacts.

If the Proponent wishes to pursue this development, they should be required to submit a comprehensive and transparent Project proposal for public consultation, supported by robust scientific evidence and detailed assessment in accordance with legislative and policy requirements.

Thank you again for the opportunity to submit comments on the Gas Supply Security Project PER.

Kind regards

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