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24 July 2023

Dr Coral Rowston
EnvA-CQ

Sent via email: EnvA.CQ@outlook.com and epbc.referrals@dcceew.gov.au

Re: QPM Energy Response to EnvA-CQ Submission on Queensland Pacific Metals (QPM) Energy Project - EPBC no: 2022/09329

Dear Dr Rowston,

On behalf of Queensland Pacific Metals (QPM) Energy, we thank you for EnvA–CQ's submission on the QPM Energy Project (EPBC 2022/09329) dated 17 July 2023.

Appendix A includes a response to those points listed in your submission.

We thank you for taking the time to review the Preliminary Documentation and for making a submission on the Project.

Yours sincerely

Susan Lodge
Associate Director
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Appendix A

QPM Energy Response to EnvA-CQ Submission

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A.1 QPM Energy Response to EnvA-CQ Submission

Table A.1 QPM Energy Response to EnvA-CQ Submission

#	Submitter comment	QPM Energy response
Contributions to climate change through GHG emissions		
1	The Project will negatively contribute to climate change and global warming through greenhouse gas (GHG) emissions resulting from the proposed activities.	The Project involves capturing and converting methane in waste coal mine gas (a greenhouse gas) that would otherwise be released into the atmosphere. The Project will provide a beneficial use for coal mine waste gas beyond flaring and venting that is currently used to dispose of extracted methane. Beneficial use of the gas avoids additional greenhouse gas emissions when used to generate energy or chemicals which would otherwise use coal or natural gas. It significantly reduces global greenhouse gas emissions when compared to vented methane which has a GHG intensity of 80 over the first 20 years compared to carbon dioxide. The GHG intensity is 27 times more potent than carbon dioxide over 100 years. The extremely high early years intensity makes methane reduction a high priority target. Methane is responsible for around 30% of the rise in global temperatures since the Industrial Revolution, and rapid and sustained reductions in methane emissions are key to limiting near-term global warming and improving air quality. Reducing fugitive coal mine methane will be essential for Queensland to meet its targets for GHG reduction of 30% emissions reduction below 2005 levels by 2030 and zero net emissions by 2050. Tackling methane emissions from the energy sector represents one of the best near-term opportunities for limiting global warming because the pathways for reducing them are well known and often cost-effective. The resources sector has the know-how and resources to take quick action. The Project is an example of a facility which captures gas, creates a beneficial use which avoids methane venting and flaring which also loses methane to atmosphere. The facility will provide an important step for miners to meet targets and to reduce greenhouse gas emissions in the Northern Bowen Basin which is an area noted for its regionally important high quality metallurgical coals and very high gas content mines. It will position metallurgical coal miners to produce cleaner coal and continue to enhance Australia's importance and role in producing higher quality premium coal products for export. Based on the above QPM Energy believes the Project will present a net reduction in GHG warming potential through the conversion of fugitive methane gas emissions to carbon dioxide.

Table A.1 QPM Energy Response to EnvA-CQ Submission

#	Submitter comment	QPM Energy response
2	Requests further detail is provided on:	-
2a	• The proposed sources of the coal mine methane.	QPM Energy has identified the following as potential supply locations for waste coal mine gas: • Wards Well Coal Mine (Stanmore SMC) • North Goonyella/Eaglefield Mine (Peabody (Bowen)) • Arrow – Potential Commercial Area (PCA) 258 Exploration Wells overlying Wards Well Southeast Mine (Stanmore SMC) • Arrow – Northern end of Petroleum Lease (PL) 486 (overlying Red Hill Coal Mine, held by BHP Coal). Additional pre-mine drainage opportunities exist in locations further afield; however, the above are being investigated owing to co-location opportunities, existing approvals, established operations, and potential for commercial agreements. Infrastructure that will supply waste coal seam gas to the GCF, from any of the above sites, will be the responsibility of the supplier and does not form part of the Project.
2b	• The longevity of the mines and the volumes of the coal mine methane to be extracted from each of the coal mines.	Potential supply locations for waste coal mine gas are listed in QPM Energy's response to Item 2a. The final supply location is yet to be confirmed. The GCF will be designed to receive waste coal mine gas at a normal pressure of 138 kilopascals gauge to the specification outlined in Table 4.3 of the Preliminary Documentation.
2c	• An assessment of the environmental impacts of the additional infrastructure required that are not covered in the current assessments.	It is noted that the Project has two connections to infrastructure owned by third parties, being: • North Queensland Pipeline (NQGP) - existing infrastructure with approved tenure and related environmental authority in place. • Waste gathering lines operated by the waste coal seam gas supplier – will be subject to approvals at the relevant waste coal mine gas supplier location. The assessment contained within the Preliminary Documentation is limited to the impacts from Project activities described in Section 4 of the Preliminary Documentation as it relates to Project area and defined battery limits (detailed in Section 4.2). Any activities and/or development beyond those defined within the Preliminary Documentation may be subject to additional approvals where existing approvals are not in place.

Table A.1 QPM Energy Response to EnvA-CQ Submission

#	Submitter comment	QPM Energy response
2d	• Confirmation that the facility is only for the collection of coal mine methane and not part of a staged expansion of the coal seam gas development in the Bowen Basin.	The Project proposes to collect waste coal mine gas at the proposed GCF via waste gathering lines located at adjacent coal mines. At the GCF, waste coal mine gas will be dehydrated and filtered, with the remaining clean gas then compressed and transported via high-pressure pipeline to the existing and operational NQGP. The NQGP will then transport the compressed gas north to Townsville, where in turn it will be depressurised and distributed, by a third party, to industrial users, including QPM's Townsville Energy Chemicals Hub (TECH) Project. The Project will be limited to the activities described in Chapter 4 of the Preliminary Documentation as it relates to Project area and battery limits (detailed in Section 4.2 of the Preliminary Documentation). Any activities and/or development beyond those defined within the Preliminary Documentation will be subject to additional approvals.
2e	• Decarbonisation plans for the QPM TECH Project which will be the recipient of the gas from this Project.	The NQGP will transport compressed gas north to Townsville, where it will be depressurised and distributed, by a third party, to industrial users, including QPM's Townsville Energy Chemicals Hub (TECH) Project. The QPM TECH Project does not form part of this Project and is subject to independent assessment and approvals. Further information related to the QPM TECH Project is available at https://epbcpublicportal.awe.gov.au/all-referrals/project-referral-summary/?id=2bd764e0-ef06-ec11-80c8-00505684c137
Impacts on listed threatened species and communities and listed migratory species		
3	It is recognised that the initial footprint of the Proposed Action will reduce by nearly half after construction is completed and that land will be rehabilitated. However, the Proponent recognises that the vegetation re-established over the pipeline cannot be deep-rooted and thus, limits the rehabilitation of that area to grasslands. This does not restore the original vegetative profile of the area and therefore, will impact on the biodiversity of the Project Area.	During construction, the right of way (ROW) for the high-pressure pipeline will be 30 m wide and will shrink to 15 m wide during operations. As the high-pressure pipeline will be located underground, previous land use activities will be able to be resumed; however, deep rooted vegetation will not be able to be established given the risk of potential damage to the high-pressure pipeline (refer Section 4.5.3 of the Preliminary Documentation). Progressive rehabilitation activities are detailed in Section 4.13 of the Preliminary Documentation. The impact assessment addresses direct and irreversible impacts related to vegetation and habitat clearance (refer Section 8.4.1 of the Preliminary Documentation) and has quantified the areas that will be cleared as a result of the Project (refer Table 8.2 of the Preliminary Documentation). Additionally, in defining the Project footprint, a desktop route selection process was undertaken that considered the highly constrained nature of the landscape and the performance needs of the infrastructure. The Project footprint was selected as the most suitable for the following reasons: • extensive site selection and investigations, including consideration of numerous alternative alignments in the vicinity of the current proposed alignment • proposed alignment presents optimal location reflecting MNES/MSES values, surrounding land uses, and third party stakeholders • alignment avoids highest value ecological communities • alignment avoids underground mine developments and crosses established infrastructure at existing nominated locations • alignment largely follows existing cleared areas, disturbed and cleared fence lines and existing fire breaks

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		• access roads are incorporated into the high-pressure pipeline alignment to reduce additional disturbance footprint • uses an existing 290 km NQGP to transfer natural gas to consumers • project beneficially uses coal mine waste gas emissions from existing coal mine operations to displace fossil fuels and avoid methane flaring and venting. The site selection process is detailed in Section 4.3 of the Preliminary Documentation.
4	The Project is located in the Isaac River Catchment in a region with many coal mines and a growing number of gas facilities. QPM notes that cumulative impacts are unknown and unpredictable, and that most of the impacts caused by the Project are permanent. EnvA appreciates that it is challenging to determine how many small impacts to wildlife habitat can be tolerated before the conservation status of any species is impacted. We do note that the in this region, there have been many species placed on the endangered species list due to cumulative impacts. The Australian government has committed to protecting wildlife from extinction – being listed as endangered is the next step closer to extinction and hence all habitat becomes critical to protect.	Potential impacts from the Project are listed in Section 8.4 of the Preliminary Documentation. They include: • loss of habitat as a result of vegetation clearing • habitat fragmentation • fauna injury or mortality during vegetation clearing • fauna injury or mortality as a result of vehicle strike • disturbance to wildlife during construction as a result of noise, light and vibration • erosion and sedimentation which may impact on water quality • potential spills of hazardous materials • increase in numbers of pest animals and weeds due to increased vehicle movements and opening up areas of remnant vegetation from clearing for infrastructure • elevated bushfire risk due to increase in activities on site that may cause a fire to start • alteration of hydrology and water quality. Direct impacts are detailed in Section 8.4.1 of the Preliminary Documentation and indirect impacts are detailed in Section 8.4.2 of the Preliminary Documentation. These sections identify the Project phases where the impact may occur. QPM Energy agrees that some impacts from the Project will be unavoidable. In assessing Project impacts and identifying mitigation measures, QPM Energy has proposed measures that are proven to be successful or are considered standard practice. Mitigation measures which have not been proven, or are not known to be successful, have not been identified in management actions. Without evidence of the effectiveness of mitigation, the precautionary principle has been applied. Management principles are discussed in Section 9.1 of the Preliminary Documentation. Where a significant residual impact has been identified offsets have been proposed. Refer to Chapter 11 of the Preliminary Documentation.

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5	QPM is required to offset, at a minimum, 227 ha of ornamental snake habitat under the EPBC Act, and 12.16 ha of endangered regional ecosystem 11.4.9 under the *Environmental Protection Act 1994* (Qld). Offsets are typically of minimal success, short duration, and certainly do not address the cumulative impacts from the loss and disturbance of habitat in areas such as the Bowen Basin. Ena is concerned that the proposed offset areas have not yet been confirmed.	Chapter 11 of the Preliminary Documentation identifies that QPM Energy is proposing to deliver environmental offsets through a staged approach with direct land-based offsets preferred for both Ornamental snake and Endangered RE 11.4.9. A Draft Environmental Offset Strategy has been prepared and attached to the Preliminary Documentation as Appendix M. This document outlines how offsets will be delivered in accordance with Commonwealth and State requirements. Based on completed significant residual impact assessments it has been concluded that the Project may require the following offsets: • Ornamental Snake (MNES) – a preliminary offset estimate of 227 ha as a result of an area of impact involving 36.05 ha of preferred habitat and 19.62 ha of connectivity/dispersal habitat. • Endangered RE 11.4.9 (MSES) – a preliminary offset estimate of 12.16 as a result of an area of impact of 3.04 ha. While the offset areas are yet to be secured, the process of site/s selection is underway with preliminary sites identified and landholder consultation commenced. Following feedback from landholders the list of preliminary sites will be shortlisted and field assessment will occur to confirm site suitability. An Offset Area Management Plan will be prepared, for approval by the Commonwealth, prior to construction and will be: • legally secured • managed by QPM Energy in accordance with OAMP and landholder agreements.
6	It is recommended that the Project:	-
6a	• Identifies and secures the tenure of the proposed land-based offset habitats to provide certainty that the loss and fragmentation of threatened species and communities can be justified.	QPM Energy is currently in the process of securing an offset site. Site selection has advanced with preferred sites identified and landholder consultation underway. The Draft Environmental Offset Strategy (refer to Appendix M of the Preliminary Documentation) outlines how offsets will likely be delivered in accordance with Commonwealth and State requirements and establishes the process and criteria for site selection to allow the identification of properties that are likely to contain areas of habitat of the required offset values.

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6b	• Prepares a Rehabilitation Management Plan before project commencement and not leave this until 12 months prior to decommissioning.	The Rehabilitation Strategy for the Project is included in Appendix K of the Preliminary Documentation. The purpose of this Rehabilitation Strategy is to describe the rehabilitation activities proposed for the Project, seeking to achieve a safe, non-polluting stable landform for areas used in construction not required in operation. The strategy describes rehabilitation objectives of areas within the Project area not required for operation which will be managed to restore current land uses, including restoration of habitat for threatened fauna species. The Rehabilitation Strategy applies to construction, operational and decommissioning activities. The Rehabilitation Strategy includes the following requirement (as referenced in the submission): *A final Rehabilitation and Decommissioning Management Plan required as part of the State approvals will be developed and submitted to the relevant authority 12 months prior to decommissioning occurring.* This requirement is specifically related to the decommissioning of the Project. During construction progressive rehabilitation and reinstatement activities will occur, this process is detailed in Section 4.13 of the Preliminary Documentation and Chapter 4 of Appendix K – Rehabilitation Strategy. Additionally, the Project may also be subject to a form of financial assurance in accordance with Queensland Government requirements. This is known as an Estimated Rehabilitation Cost (ERC) and based on the likely costs and expenses that the Queensland Government may incur when taking action to rehabilitate or restore and protect the environment because of environmental harm that an activity may cause.
6c	• Commits to the progressive restoration of existing vegetation communities in all areas of the pipeline easement that can be rehabilitated as soon as possible after construction is completed.	During construction progressive rehabilitation and reinstatement activities will occur, this process is detailed in Section 4.13 of the Preliminary Documentation and Section 4 of Appendix K – Rehabilitation Strategy.

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Stranded assets		
7	QPM anticipates the lifespan of these facilities to be 25 years. However, the referral fails to take into consideration the further expansion of cleaner and cheaper renewable energy resources. Climate-related asset stranding due to changes to energy demand from the implementation of new technology and the enforcement of stricter climate policies should be taken into consideration by the proponent and for the approval. As climate legislation and policies tighten around the use of fossil fuels there is substantial possibility that the requirement for the Project will decline and even potentially disappear before the end of its project lifetime. The risk of these assets becoming stranded is considerable as Australia strives for net-zero-emissions in-line with international agreements. The Project justification relies on the assumption that fossil fuel industries will continue to be a prominent supply of energy for the next 25 years, not taking into consideration the impromptu uptake of cheaper, cleaner energy sources such as renewables. This could therefore, result in the assets becoming stranded and the disruption of habitat for no social or environmental benefit.	Section 4.12 of the Preliminary Documentation highlights that the Project will have an average design life of more than 25 years. Design life refers to the life expectancy of the infrastructure. The Project does not assume that fossil fuel industries will continue to be a prominent supply of energy. Regardless, when, and if, the Project is no longer required, it would be decommissioned in accordance with the regulatory requirements and accepted environmental best practices at that time. Currently, decommissioning procedures require the removal of all above ground infrastructure (including all scraper station plant and all pipeline valves and metering stations) and the restoration of associated disturbed areas. A Rehabilitation Strategy for the Project is included in Appendix K of the Preliminary Documentation and requires that a final Rehabilitation and Decommissioning Management Plan be developed and submitted to the relevant authority 12 months prior to decommissioning occurring.