

MINING, EXPLORATION & GEOSCIENCE ADVICE RESPONSE

Jack Turner
Senior Environmental Assessment Officer
Energy, Industry & Compliance Division
Planning & Assessment Group
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2150

Jack.turner@planning.nsw.gov.au

Dear Jack

Project: Wongawilli Coal Mine – Extension of LOM to 2025 – Modification 2
Stage: Resource and Economic Assessment
Development Application: MP09-0161-MOD2

I refer to your correspondence dated 4 February 2021 inviting the Department of Regional NSW – Mining, Exploration & Geoscience (MEG) to provide comments on the Wongawilli Coal Mine – Extension of LOM to 2025 – Modification 2 (the Project) submitted by Wollongong Coal Limited (the Proponent).

The relevant units internal to MEG have been consulted in generating this advice. The Department of Planning, Industry and Environment – Energy, Resources & Compliance Division and the Proponent should be aware that matters concerning subsidence, subsidence management, mine operator, safety, rehabilitation and environmental impacts of final landform design are not assessed by MEG and advice should be sought from the Resources Regulator.

MEG has reviewed the information supplied in relation to the abovementioned Project and provides the following advice:

Advice overview

MEG assessed the Wongawilli Coal Mine - Mod-2 (MP09_0161-Mod-2) Project (the Project).

MEG considers the Project will provide an appropriate return to the NSW Government including:

- around \$3.7 million in total additional royalties (current dollars)

Parameter			A\$m (2021 dollars)
Total royalties received			3.7
Net Present Value (NPV) Royalties (7% discount rate real)			2.7
Annual	estimated	royalties (average)	0.92

In addition, the Project will:

- Generate around \$38 million additional total revenue (current dollars).
- Support up to 118 full time equivalent (FTE) jobs during operations.
- Generate \$1.6 million (lower range) in Net Present Value (NPV) terms of total net production benefits to the NSW economy.
- Provide Project capital investment of about \$37 million.

The Project is considered to be an efficient use of resources and will extend the life of the mine by five years to 31 December 2025 to enable Wollongong Coal to continue development of the approved North West Mains Development (NWMD).

Resource and Economic Assessment

Wongawilli Colliery (the Colliery) is an underground coal mine located approximately 15 kilometres southwest of Wollongong within the Wollongong and Wingecarribee local government areas (LGAs).

The Colliery is currently under care and maintenance having stopped production in 2019.

The site is owned and operated by Wollongong Coal Pty Limited (Wollongong Coal or the Proponent). Wollongong Coal is majority owned by Jindal Steel and Power Limited (JSPL).

The Colliery operates under Project Approval 09_0161 (PA 09_0161) originally approved in November 2011 and subsequently modified in December 2015 (MOD1).

The main elements for the Project include the following:

- Extend the life of the mine by five years to 31 December 2025 to enable Wollongong Coal to continue development of the approved NWMD.
- Additional driveage and underground mains heading of approximately 2.9 linear km to access the existing Wongawilli Ventilation Shaft 1.
- Provide additional access to the NWMD to that currently approved via existing Portals W10 and W9.
- Minor alignment changes to the approved NWMD as ventilation infrastructure is no longer proposed at the western end of the approved NWMD alignment.
- Relocation of coal handling infrastructure including the crusher, sizer and screen from the Wongawilli lower pit top to underground.
- Construction of a new section of coal conveyor system, approximately 60 m in length, and coal storage bin at the Wongawilli upper pit top.

In view of the constraints outlined in the Proponent's Modification Report and based on the information currently available, MEG considers that the Project is consistent with the objects of the *Mining Act 1992*. *In addition, in relation to* clause 15 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007, the Proposal represents an

efficient development and utilisation of minerals resources which will foster significant social and economic benefits.

MEG is satisfied that, should the operational outcomes be achieved, the proposed mine design and mining method submissions adequately recover resources and will provide an appropriate return to the state.

The resource utilisation, recovery and economic benefits assessment undertaken by MEG is addressed in Attachment A.

Application of section 380AA of the *Mining Act 1992* – restrictions on planning applications for coal mining and titles required to undertake mining

Coal is a prescribed mineral under the Act and the Proponent is required to hold appropriate mining titles from MEG to undertake mining.

Section 380AA states:

(1) An application for development consent, or for the modification of a development consent, to mine for coal cannot be made or determined unless (at the time it is made or determined) the applicant is the holder of an authority that is in force in respect of coal and the land where mining for coal is proposed to be carried out, or the applicant has the written consent of the holder of such an authority to make the application.

(2) For that purpose, an authority in respect of coal need not be in force in respect of the whole of the land to which the application for development consent relates but must be in force for the land where mining for coal is proposed.

Based on current title information MEG advises that the Proponent holds the appropriate titles as required for planning applications for coal as relating to the Project and satisfies the requirements of section 380AA.

The requirement for a mining authority

Based on current authority information MEG advises that the Proponent holds the appropriate authorities as required for mining operations as relating to the Project.

Biodiversity offset assessment

MEG requests that the Proponent consider potential resource sterilisation should any future biodiversity offset areas be considered. The Proponent must consult with MEG and any holders of existing mining or exploration authorities that could be potentially affected by the proposed creation of any such biodiversity offsets, prior to creation occurring. This will ensure there is no consequent reduction in access to prospective land for mineral exploration or potential for the sterilisation of mineral and extractive resources.

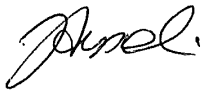
Summary of review

MEG considers that, should the Project be approved, efficient and optimised resource outcomes can be achieved.

MEG requests that it be provided with an opportunity to review the draft conditions of approval before finalisation and any granting of development consent.

For further enquiries on this matter, please contact Scott Anson, Manager Assessment Coordination, Resource Assessments on 02 4063 6972 or assessment.coordination@planning.nsw.gov.au.

Yours sincerely



Jamie Tripodi

Director Resource Assessments

Department of Regional NSW – Mining, Exploration & Geoscience

24 February 2021

Encl. Attachment A - Wongawilli Coal Mine – Extension of LOM to 2025 – Modification 2 – Resource & Economic Assessment (DOC21/1059891)



Regional
NSW

Mining, Exploration & Geoscience

DOC20/1059891

Wongawilli Coal Mine - Mod-2 Project (MP09_0161-Mod-2)

Resource & Economic Assessment

February 2021

Published by Regional NSW

nsw.gov.au/RegionalNSW

Title: Wongawilli Coal Mine - Mod-2 Project (MP09_0161-Mod-2)

Subtitle: Resource & Economic Assessment

File reference: DOC20/1059891

More information

Assessment Coordination Unit, Resource Assessments – Mining, Exploration & Geoscience

assessment.coordination@planning.nsw.gov.au or 02 4063 6534

© State of NSW through Regional NSW 2021. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute the Regional NSW as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (February 2021) and may not be accurate, current or complete. The State of NSW (including Regional NSW), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

Contents

Executive summary 2

Introduction..... 3

Project overview 3

Size and quality of the resource 4

Resource recovery..... 5

Economic benefits of the resource..... 5

Royalty calculation 6

Total royalties estimate 7

Departmental Assessment 7

Approvals 7

Executive summary

Mining, Exploration and Geoscience (MEG) assessed the Wongawilli Coal Mine - Mod-2 Project (MP09_0161-Mod-2) (Wongawilli Project or the Project).

MEG considers the Project will provide an appropriate return to the NSW Government including:

- around \$3.7 million in total additional royalties (current dollars)

Parameter	A\$m (2021 dollars)
Total royalties received	3.7
Net Present Value (NPV) Royalties (7% discount rate real)	2.7
Annual estimated royalties (average)	0.92

In addition, the Wongawilli Project will:

- Generate around \$38 million additional total revenue (current dollars).
- Support up to 118 full time equivalent (FTE) jobs during operations.
- Generate \$1.6 million (lower range) in Net Present Value (NPV) terms of total net production benefits to the NSW economy.
- Project capital investment of approximately \$37 million.

The Project is considered to be an efficient use of resources and will extend the life of the mine by five years to 31 December 2025 to enable Wollongong Coal to continue development of the approved North West Mains Development (NWMD).

Introduction

State significant development is regulated under the *Environmental Planning and Assessment Act 1979*, which requires a proponent to apply to the Department of Planning, Industry and Environment for development consent, supported by a Modification Report (MRT).

This Resource & Economic Assessment (REA) conducted for the Wongawilli Coal Mine - Mod-2 Project (MP09_0161-Mod-2) Project by MEG assessed:

- the social and economic benefits to NSW including royalties, capital investment, revenues and jobs.
- the resource/reserve estimates stated in the proponent's MRT.
- if the Project is an efficient development of the resource, that resource recovery is optimised and waste minimised.
- if the Project will provide an appropriate return to NSW.

The objects of the *Mining Act 1992* are to encourage and facilitate the discovery and efficient development of mineral resources in NSW.

Of particular relevance to this REA are Section 3A Objects:

- to recognise and foster the significant social and economic benefits to NSW that result from the efficient development of mineral resources.
- to ensure an appropriate return to the State from mineral resources.

The relevant section of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 is Part 3, Clause 15: Resource Recovery requires that resource recovery is efficient, optimised and minimises waste.

Project overview

Current mine history and ownership operation

Wongawilli Colliery (the Colliery) is an underground coal mine located approximately 15 kilometres southwest of Wollongong within the Wollongong and Wingecarribee local government areas (LGAs).

The Colliery is currently under care and maintenance having stopped production in 2019.

The site is owned and operated by Wollongong Coal Pty Limited (Wollongong Coal or the Proponent). Wollongong Coal is majority-owned by Jindal Steel and Power Limited.

The Colliery operates under Project Approval 09_0161 (PA 09_0161) originally approved in November 2011 and subsequently modified in December 2015 (MOD1).

The project

The Project seeks to extend the life of the Colliery by 5 years to enable Wollongong Coal to continue development of the approved North West Mains Development (NWMD). Furthermore, the modification largely seeks approval to extend the length of the approved NWMD alignment to access the existing Wongawilli Ventilation Shaft 1 and minor surface activities.

The Project, if approved, will extract an additional 385,000 tonnes of Run-of-Mine (ROM) coal from the Bulli and Wongawilli coal seams. The coal will be sold as an unwashed product.

The scope of the proposed modification is summarised as follows:

- Extend the life of the mine by five years to 31 December 2025 to enable Wollongong Coal to continue development of the approved NWMD.
- Gain additional driveage and underground mains heading of approximately 2.9 linear kilometres to access the existing Wongawilli Ventilation Shaft 1.
- Provide additional access to the NWMD to that currently approved via existing Portals W10 and W9.
- Minor alignment changes to the approved NWMD as ventilation infrastructure is no longer proposed at the western end of the approved NWMD alignment.
- Relocation of coal handling infrastructure including the crusher, sizer and screen from the Wongawilli lower pit top to underground.
- Construction of a new section of coal conveyor system, approximately 60 metres in length, and coal storage bin at the Wongawilli upper pit top.

Size and quality of the resource

The Project proposes to continue development of the North West Mains (NWMD) and to develop additional driveage to the north. The development will mainly occur in the Bulli Seam with a smaller percentage in the Wongawilli Seam.

The Bulli seam has a maximum thickness of 2.2 metres in the north and thins to the south of the title. The seam dips to the northwest. The seam has average raw ash of 15 percent and dips to the northwest at 1 to 2 degrees.

The Wongawilli Seam is generally about 9 to 11 metres thick across the Coalfield and consists of interbedded bands of kaolinitic brown mudstone and coal plies. The Wongawilli working section is at the base of the seam and this working section is 2.3 metres in thickness on average.

The development will be mining areas above where the lower Wongawilli seam has already been extracted. Even though it is assumed that these mains are above similar mains in the Wongawilli Seam it is possible that this previous extraction may cause structural issues with this project due to subsidence. No geotechnical report was received with the documentation provided.

Approval of this project will allow access to the North West and South West Domains which, if approved, would allow for future mining of up to 30 years.

The Proponent has estimated that this development will recover 385,000 tonnes of ROM coal. Of this, approximately 25,000 tonnes will be recovered from the Wongawilli Seam and 360,000 tonnes from the Bulli Seam. It is planned to sell the coal unwashed at a discounted rate. A review of data confirms the proposed product split is achievable.

In 2017 the Proponent completed a coal resource and reserve estimation for the Project in accordance with the Australasian Code for Reporting Exploration results, Mineral Resources and Ore Reserves (the JORC Code). The JORC Code is an industry-standard professional code of practice that sets minimum standards for public reporting of mineral exploration results, mineral resources and ore reserves.

Resource recovery

The Proponent assessed several mine designs and determined the mine design in the Project is the most appropriate. Many factors constrain a mine plan and extraction methodology and therefore the resource recovery at the Project. These include geological features, environmental constraints, and commercial viability.

Coal resources will be extracted by continuous miner and brought to the pit top via conveyor.

After examination of the proponent's Modification Report, MEG considers the Project an efficient development of coal resources that provides an appropriate return to the State, within the mine footprint, giving due consideration to the constraints of the location.

Economic benefits of the resource

MEG estimates that the Project, if approved, would provide total additional revenues from the existing Wongawilli mine of approximately A\$52 million. The net present value (using a 7% discount rate) of this revenue stream would be around A\$38 million. All of these revenues would be export revenue.

The proponent states that the project would require a workforce of up to 150 full-time equivalent personnel and entail a capital cost of A\$37 million (including sustaining capital expenditure).

MEG notes that the Economic Assessment of the project conducted by Gillespie Economics estimates net production benefits to the NSW economy of between A\$1.6 million and A\$2.9 million in NPV terms. The lower end of the range assumes the realisation of a company tax deduction.

MEG also notes the Gillespie Economics report estimates average annual direct and indirect effects to the local economy as follows:

- A\$43 million in output.
- A\$19 million in value added.
- A\$11 million in gross wages.
- 118 jobs.

Royalty calculation

As operations at the project would be underground, a royalty rate of 7.2 percent would apply. This rate would be applied to the value of production minus allowable deductions. The proponent is proposing not to wash the ROM coal produced, but to crush and screen it, for which a deduction of A\$0.50 per tonne is allowable. A further deduction for levies also applies which would amount to no more than A\$1.00 per tonne.

Assumptions

The following assumptions are used to calculate future royalty.

1 Forecast price of coal

The Economic Assessment conducted by Gillespie Economics used an average price for hard coking coal of around US\$147 per tonne for 2021–2024. This is based on the average of a number of individual contributor forecasts to a KPMG bulletin in mid-2020. Based on more recent forecasts MEG has used a more conservative average price of around US\$130 per tonne for the life of the project. These price forecasts have then been adjusted lower to account for the fact that coal from the project would not be washed and converted into Australian dollars.

2 Forecast annual production

The proponent has estimated that 385,000 tonnes of ROM coal would be produced over the life of the project.

Total royalties estimate



Using the above assumptions and parameters, MEG has calculated that the State will receive:

Parameter	A\$m (2021 dollars)
Total royalties received	3.7
Net Present Value (NPV) Royalties (7% discount rate real)	2.7
Annual estimated royalties (average)	0.92

Departmental Assessment

Assessed by	Unit	Branch
Assessing Officer: Gwen Stefani Senior Geologist	Coal Geoscience Assessment & Advice (GAA)	Geological Survey of NSW
Assessing Officer: Ann Louise Hagger Senior Resources Economist	Resource Economics	Resources Policy, Planning & Programs
Assessing Officer: Adam W. Banister Senior Advisor	Assessment Coordination Unit – Resource Assessments	Resource Operations

Approvals

Approved by	Signature	Date
Approving Officer: Erin Holmes Manager Coal Resource Assessment - GSNSW		23/02/2021
Approving Officer: Dr Minh Ho Manager Resource Economics	Approved CM9	23/02/2021
Endorsing Officer: Jamie Tripodi Director Resource Assessments		23/02/2021