



**HUNTER VALLEY  
OPERATIONS**



## **HVO NORTH MODIFICATION 8**

**SUBMISSIONS REPORT**  
JANUARY 2025





# **HVO North Modification 8**

## **Submissions Report**

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Prepared for HV Operations Pty Ltd

January 2025

# HVO North Modification 8

## Submissions Report

HV Operations Pty Ltd

H190408 RP#1

January 2025

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Approved by



Nicole Armit

Director

24 January 2025

Level 3 175 Scott Street

Newcastle NSW 2300

ABN: 28 141 736 558

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# Executive Summary

Hunter Valley Operations (HVO) North is an existing multi-pit open cut coal mining operation approximately 24 kilometres north-west of Singleton in the Hunter Valley of New South Wales and within the Singleton and Muswellbrook local government areas. HVO North operates under Development Consent DA 450-10-2003 (HVO North consent), which was granted on 12 June 2004 by the then NSW Minister for Infrastructure, Planning and Natural Resources under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

DA 450-10-2003 has since been modified on seven occasions, the most recent being modification 7 which was granted on 28 July 2017.

In November 2022, HV Operations Pty Ltd submitted two new State significant development (SSD) applications and a supporting Environmental Impact Statement for the HVO North Open Cut Coal Continuation Project (SSD-11826681) and the HVO South Open Cut Coal Continuation Project (SSD-11826621) (the Project). The Project broadly seeks approval for the continuation of mining operations at both HVO North and HVO South beyond the dates currently approved under the HVO North Consent and the existing Project Approval for HVO South.

The Project is currently progressing through the assessment process; however, due to the timeframes associated with the assessment, determination may not be received prior to the date on which mining operations are required to cease under the existing HVO North Consent i.e. by 12 June 2025. Therefore, HVO is seeking to modify DA 450-10-2003 under section 4.55(2) of the EP&A Act to extend the life of mining operations at HVO North under the development consent by a period of approximately 18 months, from 12 June 2025 to 31 December 2026 (the Modification).

Apart from an extension of time for mining operations to be carried out, all activities that are currently approved under the HVO North consent are intended to continue and will remain the same under the Modification, including mining methods, approved annual coal extraction rates, coal processing and handling activities, surface infrastructure, workforce numbers and hours of operation. The proposed Modification does not require any additional surface disturbance beyond the areas that have already been assessed and approved to be disturbed.

A Modification Report (EMM 2024) was prepared and submitted to the Department of Planning, Housing and Infrastructure (DPHI) in November 2024 in support of the Modification application. As described in the Modification Report, the proposed Modification has been assessed to have no or negligible change to the nature of previously assessed and approved impacts associated with both HVO North and HVO South. The operations at HVO North will continue to be carried out in accordance with the existing and approved management plans and monitoring programs in place. The Modification Report was placed on public exhibition from 27 November 2024 through to 10 December 2024.

Following the public exhibition of the Modification Report, a total of 99 submissions were received by DPHI from individuals and organisations. In addition, two local council and four government agency submissions were received providing comment on the proposed Modification. The majority of the submissions received (78%) were in support of the Modification. Impacts of greenhouse gas emissions and the alignment of the Modification with international, national and state climate change targets were the most frequently raised matters in objections from organisations and individuals – collectively raised in 14 submissions.

Supplementary information has been presented in this Submissions Report in response to submissions received during the public exhibition of the Modification Report. The supplementary information does not change the assessed outcomes presented in the Modification Report and it is considered that the Modification would be in the public interest. The issues raised in the submissions are not considered to warrant any amendment to the modification application. The Modification, if approved, will secure employment for the existing workforce of approximately 1,500 full time equivalents across the HVO Complex for a further 18 months while the assessment of the HVO Continuation Project is progressed. The continuation of mining operations at HVO North will further result in continued positive impacts to the local, regional and State economies through taxes, royalties and community contributions.



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# 1 Introduction

## 1.1 Background

Hunter Valley Operations (HVO) North is an existing multi-pit open cut coal mining operation approximately 24 kilometres (km) north-west of Singleton in the Hunter Valley of New South Wales (NSW) and within the Singleton and Muswellbrook local government areas (LGAs) (refer to Figure 1.1). HVO North operates under Development Consent DA 450-10-2003 (HVO North consent), which was granted on 12 June 2004 by the then NSW Minister for Infrastructure, Planning and Natural Resources under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). DA 450-10-2003 has since been modified on seven occasions, the most recent being modification (Mod) 7 which was granted on 28 July 2017.

HVO North comprises the approved mining areas of West Pit, Mitchell Pit, Carrington Pit and North Pit, as well as the Hunter Valley and Howick Coal Preparation Plants (CPP) and the Howick and HVO North Mine Infrastructure Areas (MIA). The development consent allows extraction of up to 22 million tonnes per annum (Mtpa) of run of mine (ROM) coal until 12 June 2025, comprised of:

- 12 Mtpa from West Pit/Mitchell Pit
- 10 Mtpa from Carrington Pit.

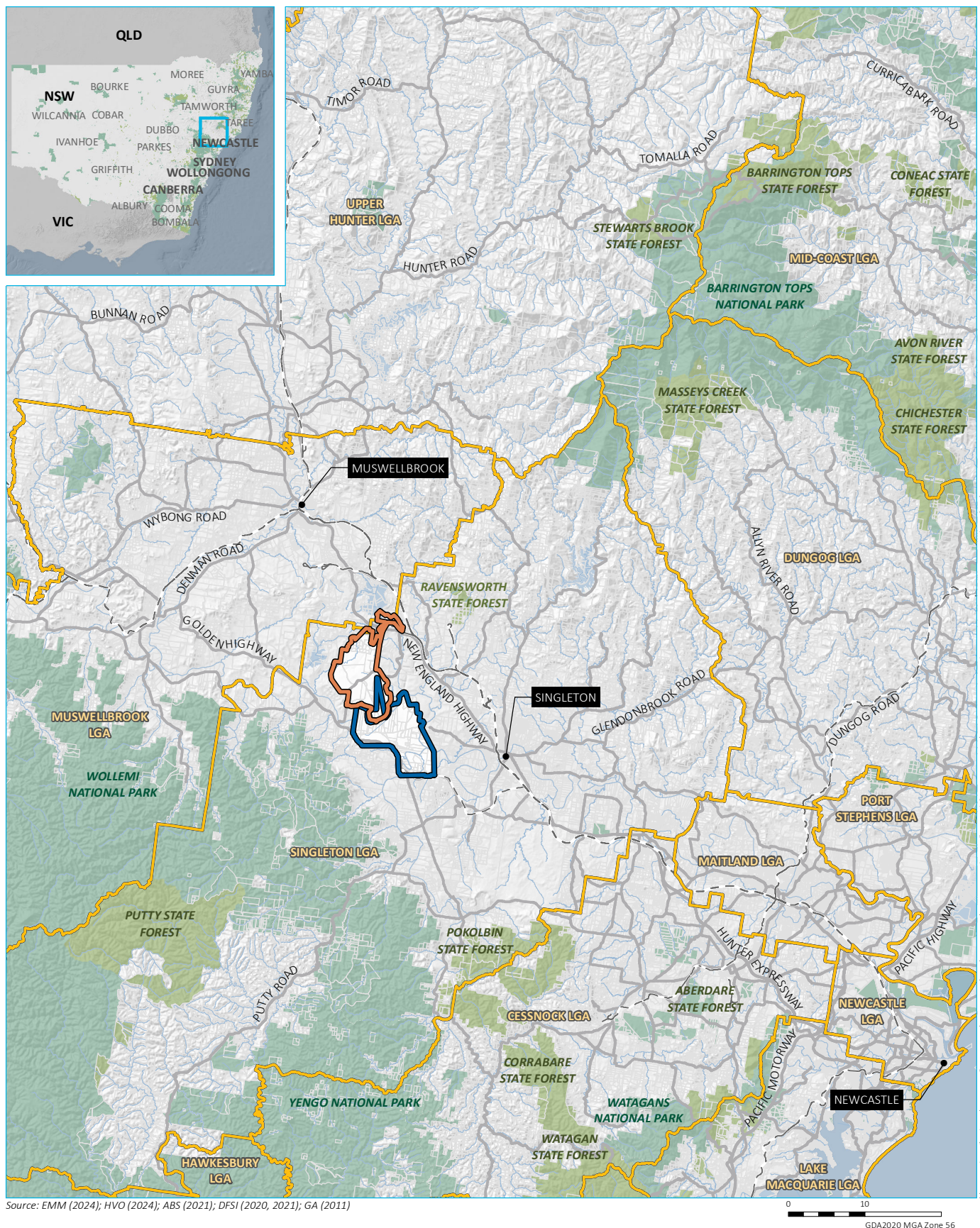
In November 2022, HV Operations Pty Ltd submitted two new State significant development (SSD) applications and a supporting Environmental Impact Statement (EIS) for the HVO North Open Cut Coal Continuation Project (SSD-11826681) and the HVO South Open Cut Coal Continuation Project (SSD-11826621) (collectively referred to as the Project). The Project broadly seeks approval for the continuation of mining operations at both HVO North and HVO South beyond the dates currently approved under the HVO North Consent and the existing Project Approval for HVO South.

The Project is currently progressing through the assessment process; however, due to the timeframes associated with the assessment, determination may not be received prior to the date on which mining operations are required to cease under the existing HVO North Consent i.e. by 12 June 2025. Therefore, HVO is seeking to modify DA 450-10-2003 under section 4.55(2) of the EP&A Act to extend the life of mining operations at HVO North under the development consent by a period of approximately 18 months, from 12 June 2025 to 31 December 2026 (the Modification).

Apart from an extension of time for mining operations to be carried out, all activities that are currently approved under the HVO North consent are intended to continue and will remain the same under the Modification, including mining methods, approved annual coal extraction rates, coal processing and handling activities, surface infrastructure, workforce numbers and hours of operation. The proposed Modification does not require any additional surface disturbance beyond the areas that have already been assessed and approved to be disturbed.

A Modification Report (EMM 2024) was prepared and submitted to the Department of Planning, Housing and Infrastructure (DPHI) in November 2024 in support of the Modification application. The Modification Report was placed on public exhibition from 27 November 2024 through to 10 December 2024.





## KEY

  Existing HVO North development consent boundary (DA 450-10-2003)

  Existing HVO South project approval boundary (PA 06-0261)

Existing environment

— Rail line

— Major road

— Named watercourse

Named waterbody

NPWS reserve

State forest

Local government area

Regional context

HVO North Modification 8  
Submissions Report  
Figure 1.1

## 1.2 Purpose of this report

During public exhibition of the Modification Report, submissions were received from government agencies, councils, organisations and individuals. On 12 December 2024, DPHI requested that HVO prepare a written response to the issues raised in the submissions received. Accordingly, this Submissions Report has been prepared to respond to the matters raised in these submissions in accordance with section 59(2) of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). This Submissions Report has been prepared by EMM Consulting Pty Ltd (EMM) in accordance with the *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2024) (Submissions Report Guidelines).

## 2 Analysis of submissions

### 2.1 Summary of submissions

Following the public exhibition of the Modification Report, a total of 99 submissions were received by DPHI from individuals and organisations. In addition, two local council submissions providing comment and four government agency submissions providing advice on the proposed Modification were received.

The majority of the submissions received (78%) were in support of the Modification.

A summary of the submissions relating to the Modification, including the total number of submissions that supported, objected, commented, or provided advice on the Project, is provided in Table 2.1.

**Table 2.1** Submissions summary

| Submission source   | Support   | Comment  | Advice   | Object    | Total      |
|---------------------|-----------|----------|----------|-----------|------------|
| Organisations       | 3         | 0        | 0        | 6         | 9          |
| Individuals         | 79        | 0        | 0        | 11        | 90         |
| <b>Sub-total</b>    | <b>82</b> | <b>0</b> | <b>0</b> | <b>17</b> | <b>99</b>  |
| Government agencies | 0         | 0        | 4        | 0         | 4          |
| Councils            | 0         | 2        | 0        | 0         | 2          |
| <b>Sub-total</b>    | <b>0</b>  | <b>2</b> | <b>4</b> | <b>0</b>  | <b>6</b>   |
| <b>Total</b>        | <b>82</b> | <b>2</b> | <b>4</b> | <b>17</b> | <b>105</b> |

Submissions are available to view on the NSW Government's Major Projects website at:

<https://www.planningportal.nsw.gov.au/major-projects/projects/mod-8-extension-time>.

A submissions register is provided in Appendix A of this report, which summarises all submissions received and where the matters raised in those submissions have been addressed.

### 2.2 Origin of submissions

#### 2.2.1 Individual and organisation submissions

A total of 90 submissions were received from the general public with an additional nine from organisations. The organisations from which submissions were received were:

- Save our surroundings (Murrumbidgee) (support)
- Save our surroundings (Riverina) (support)
- Business Hunter (support)
- Godolphin Australia Pty Ltd (object)
- Hunter Thoroughbred Breeders Association (object)
- Newgate Operations Pty Ltd (object)



- Scone Equine Hospital (object)
- Lock the Gate Alliance (object)
- Climate Change Balmain-Rozelle (object)

Of the 99 submissions received from individuals and organisations:

- 94 submissions (or 95% of submissions) were from NSW, across 21 different LGAs.
  - 55 of these (or 55%) were local submissions from within the Singleton, Muswellbrook, Maitland and Cessnock LGAs.
  - Of the local submissions, 48 (87%) were in support of the Modification and 7 (13%) objected to the Modification.
- Five submissions were from interstate, comprising three submissions from Queensland, one submission from Victoria and one submission from Tasmania. All interstate submissions were in support of the Modification.

Responses to matters raised in submission from individuals and organisations are provided in Chapter 5 of this report.

### 2.2.2 Government agency submissions

The following State government agencies, in alphabetical order, provided a comment on the Modification:

- Department of Primary Industries and Regional Development – NSW Resources
- Environment Protection Authority (EPA)
- NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – Water Group
- Transport for NSW.

### 2.2.3 Council submissions

Council submissions providing comment were received from:

- Muswellbrook Shire Council
- Singleton Council.

## 2.3 Categorisation of issues

### 2.3.1 Overview

Matters raised in the submissions from organisations and individuals have been classified as one of the following five broad categories in accordance with the Submissions Report Guideline:

- The Project (such as the Project study area, the physical layout and design, key uses and activities, timing).
- Procedural matters (such as the level of quality of engagement and identification of relevant statutory requirements).

- The environmental, social or economic impacts of the Project (such as amenity, air, biodiversity, heritage).
- The justification and evaluation of the Project as a whole (such as consistency of the Project with Government plans, policies or guidelines).
- Issues that are beyond the scope of the Project assessment (such as broader policy issues) or not relevant to the Project.

Each of these categories have been divided into sub-categories (such as biodiversity, air quality, bushfire, cumulative impacts etc). A summary of the categorisation of matters raised in submissions from organisations and individuals objecting to and supporting the Modification is presented in Section 2.3.2.

### 2.3.2 Organisation and individuals

A summary of matters raised in submissions from individuals and organisations is provided in Table 2.2. Many submissions raised multiple matters resulting in there being more issues captured than the number of submissions received.

**Table 2.2**      **Categorisation of issues raised**

| Category  | Sub-category  | Objection                                 | Support                                   |
|---|---|---|---|
|   |   | No. of submissions in which matter raised | No. of submissions in which matter raised |
| Procedural matters  | Whether the development to which the consent as proposed to be modified relates is substantially the same development as the development authorised by the consent (as last modified under section 75W) | 1   | 0   |
| <b>Sub-total</b>  |   | <b>1</b>                                  | <b>0</b>                                  |
| The economic, environmental and social impacts of the project | Dust emissions and related health concerns  | 6   | 0   |
|   | Inadequate level of assessment  | 5   | 0   |
|   | Cumulative impacts  | 4   | 0   |
|   | Closure planning and closure considerations   | 3   | 0   |
|   | Impacts on surface water and groundwater resources  | 3   | 0   |
|   | Impacts to biodiversity values  | 1   | 0   |
|   | Impacts on agricultural lands.  | 1   | 0   |
|   | Construction of the levee bank and impacts from changes to flooding regimes in the Hunter River   | 1   | 0   |
|   | Impacts on Aboriginal and cultural heritage values  | 1   | 0   |
|   | Visual impacts  | 1   | 0   |
|   | Compatibility with the Hunter Valley equine industry and the equine critical industry cluster   | 1   | 0   |
| <b>Sub-total</b>  |   | <b>27</b>                                 | <b>0</b>                                  |

**Table 2.2**      **Categorisation of issues raised**

| Category   | Sub-category   | Objection                                 | Support                                   |
|--|--|---|---|
|  |  | No. of submissions in which matter raised | No. of submissions in which matter raised |
| Justification and evaluation of the project as a whole | Alignment with international, national and NSW State climate change targets. Ongoing coal mining and use of fossil fuels.        | 14  | 0   |
|  | Adequacy of the greenhouse gas (GHG) assessment in accordance with the draft <i>NSW EPA Guide for Large Emitters</i> (EPA 2024). | 2   | 0   |
|  | Lack of benefits to the community and negative impacts on investment and economic diversity in the region.                       | 2   | 0   |
|  | Positive economic benefit to the State, regional and local economies and communities.  | 0   | 55  |
|  | Security of employment and job opportunities.  | 0   | 33  |
|  | Good historical environmental performance and compliance.  | 0   | 6   |
| <b>Sub-total</b>                                       |  | <b>18</b>                                 | <b>94</b>                                 |
| <b>Total</b>   |  | <b>46</b>                                 | <b>94</b>                                 |

As shown in Table 2.2, impacts of greenhouse gas emissions and the Modification's alignment with international, national and State climate change targets was the most frequently raised matter in objections from organisations and individuals, collectively raised in 14 submissions. The other most commonly raised key matters in objections from individuals and organisations include:

- Impacts of the Modification on air quality.
- The adequacy of the level of assessment with a claimed deficiency in data sets and analysis provided in the Modification Report.
- A lack of consideration of ongoing cumulative impacts from the Modification.
- A lack of closure planning and closure considerations provided in the Modification Report.
- Impacts of the Modification to surface water and groundwater resources.

Reasons identified for supporting the Modification included:

- The positive economic benefits of continuing mining operations, including job retention for workers and support for local businesses. Emphasis was placed on the importance of coal mining to local economies and its role in providing stable employment.
- The need for reliable and affordable energy supply in Australia and to avoid energy shortages and maintain economic stability.

The positive impact of HVO on local communities through direct employment and contributions to local services and infrastructure.



## 3 Response to agency submissions

### 3.1 Introduction

The submissions from the following government agencies did not raise any matters which required a response:

- Department of Primary Industries and Regional Development – NSW Resources
- Transport for NSW
- DCCEEW – Water Group.

Matters requiring further consideration raised in the submission from the EPA are summarised below.

### 3.2 Environment Protection Authority

#### 3.2.1 Greenhouse gas emissions

##### i Input data and assumptions

The emissions factors used to estimate fugitive emissions from the North and South pits should be reported with a justification that the factors used are appropriate.

Fugitive emissions have been estimated using Method 2 of the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (Measurement Determination) as defined in Australia's National Greenhouse and Energy Reporting (NGER) scheme. Method 2 involves estimating fugitive emissions using site-based data that has been sampled and tested according to industry standard methodologies. Fugitive emissions estimations have been undertaken using the HVO gas assignment model, a Gas Domains/Zones methodology model, which has been built using site specific gas data as per NGERs requirements. This model assigns relevant gas content and composition data to in-situ tonnes, considering spatial and vertical location, to estimate gas-in-place for the areas mined. Results are presented in CO<sub>2</sub>-equivalent tonnages, using a methane Global Warming Potential (GWP) value of 28 (as stipulated in National Greenhouse Accounts Factors (NGA Factors), 2023). Method 2 is the highest order method available in Australia for estimating open cut emissions inventory and more accurate than state-specific default emission factors specified in the NGER scheme. It is therefore appropriate to use Method 2 for estimating fugitive emissions at HVO. The equivalent annual average fugitive emission factors (in t CO<sub>2</sub>-e/ t ROM coal) can be derived from Appendix A of the Air Quality and Greenhouse Gas Assessment (Airen 2024).

##### ii Scope 1 emissions

An explanation and justification for the use of different emission factors to those used in the Continuation projects including if the gas reservoir modelling has been changed or revised, or the area mined is different from the information supplied for other HVO planning applications.

The fugitive emissions presented for the HVO Continuation Project Submissions Report (EMM, 2023) and proposed Modification were estimated using Method 2, which utilises site-specific gas assignment models. The history of model updates is as follows:

- The HVO Continuation Project (Submissions Report, EMM 2023) utilised the HVO gas assignment model developed in July 2023 (07/23).
- The proposed Modification utilised the latest iteration of the HVO gas assignment model, updated in December 2023 to include the latest available drilling and gas sample data, improving the accuracy and spatial coverage of the model.

Both the Modification and HVO Continuation Project schedules are proposed to generally mine in similar areas over 2025 and 2026. Notwithstanding, the HVO Continuation Project schedule mines at a higher annual extraction rate so the blocks of coal, and associated gas-in-place, are not the same over the reported calendar year periods of 2025 and 2026.

iii      **Scope 2 and Scope 3 emissions**

Indirect emissions from energy consumption (Scope 2) and rail transport (Scope 3) should be revised to use the most recently available emission s factors.

The emission factors for energy consumption (Scope 2), and rail and sea transport (Scope 3) have now been updated to reflect the most recently available data. Table 3.1 shows the updated references.

**Table 3.1      Revised emission estimation methodologies**

| Activity             | Description                                 | Scope(s) | Emission estimation methodology   |
|----------------------|---|----------|---|
| Electricity          | Electricity usage                           | 2, 3     | Emission factor projections from DCCEEW (2024).   |
| Transport (rail)     | Transport of product coal by rail to port   | 3        | Emission factors from the Department for Environment, Food and Rural Affairs (DEFRA) (2024) for “Freighting goods / freight train”.                       |
| Transport (shipping) | Transport of product coal by ship to market | 3        | Emission factors from DEFRA (2024), based on “Freighting goods / cargo ship, bulk carrier”. Approximate distance of 8,000 km from port to southeast Asia. |

Table 3.2 shows the revised estimated GHG emissions from HVO North based on the updated emission factor references described above. Appendix B provides details on the updated calculations. The total Scope 2 emissions from HVO North over the life of the Modification period is 0.08 Mt CO2-e. The revised numbers have resulted in a 0.01 Mt CO2-e increase in the total estimated Scope 2 emissions to those presented in the Modification Report.

The total Scope 3 emissions from HVO North over the life of the Modification period is 33.06 Mt CO2-e representing a minor 0.02 Mt CO2-e decrease in the total estimated Scope 3 emissions to those presented in the Modification Report.

The revised Scope 2 and Scope 3 factors have resulted in an overall reduction in emissions at HVO North of 0.01 Mt CO2-e to those presented in the Modification Report.

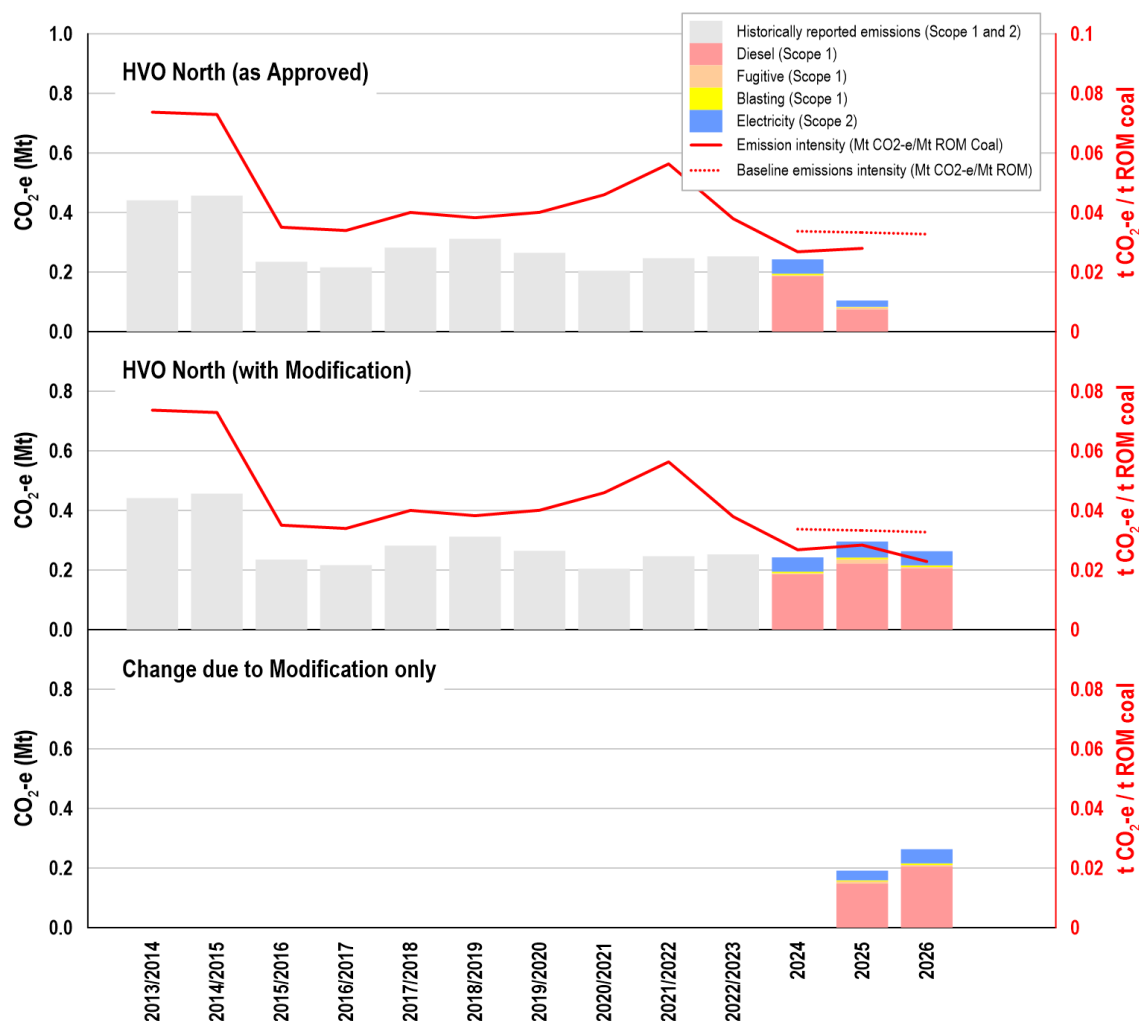
A typographical error was identified in Table 9 of Airen (2024). Specifically, the Scope 1 and Scope 3 emission estimates had not been accurately transcribed from Appendix A of Airen (2024). The corrected Scope 1 and Scope 3 data are included in Table 3.2.

**Table 3.2 Revised estimated GHG emissions from HVO North**

| Year | Annual emission (Mt CO <sub>2</sub> -e) |         |         |                         |         |         |                               |         |         |
|------|---|---------|---------|-------------------------|---------|---------|-------------------------------|---------|---------|
|      | HVO North (as Approved)*                |         |         | HVO North (with MOD 8)* |         |         | Increment of the Modification |         |         |
|      | Scope 1                                 | Scope 2 | Scope 3 | Scope 1                 | Scope 2 | Scope 3 | Scope 1                       | Scope 2 | Scope 3 |
| 2024 | 0.19                                    | 0.05    | 16.74   | 0.19                    | 0.05    | 16.74   | -                             | -       | -       |
| 2025 | 0.08                                    | 0.02    | 6.00    | 0.24                    | 0.05    | 18.50   | 0.16                          | 0.03    | 12.50   |
| 2026 | -                                       | -       | -       | 0.22                    | 0.05    | 20.56   | 0.22                          | 0.05    | 20.56   |

\* at expected extraction rates for the listed years. Note: excluding emissions associated with HVO South operations, which are discussed separately below.

Figure 3.1 shows the estimated Scope 1 and 2 GHG emissions from HVO North by source and year.



**Figure 3.1 Estimated GHG emissions from HVO North by source**

Table 3.3 shows the estimated GHG emissions from HVO South, for the timeframe of the Modification. The data include the approved HVO South emissions that would be avoided if the Modification was not approved (i.e. from June 2025 onwards) as they are dependent on coal processing and transport through HVO North.

**Table 3.3**      **Revised estimated GHG emissions from HVO South**

| Year | Approved and assessed annual emission (Mt CO2-e) |                                       |                                       |                                       |                                       |                                       |
|------|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
|      | Not dependent on the Modification                |                                       |                                       | Dependent on the Modification         |                                       |                                       |
|      | Scope 1<br>(Scope 3 for<br>HVO North)            | Scope 2<br>(Scope 3 for<br>HVO North) | Scope 3<br>(Scope 3 for<br>HVO North) | Scope 1<br>(Scope 3 for<br>HVO North) | Scope 2<br>(Scope 3 for<br>HVO North) | Scope 3<br>(Scope 3 for<br>HVO North) |
| 2024 | 0.44   | 0.01                                  | 14.96                                 | -                                     | -                                     | -                                     |
| 2025 | 0.27   | <0.005                                | 8.23                                  | 0.41                                  | <0.005                                | 11.52                                 |
| 2026 | -  | -                                     | -                                     | 0.74                                  | 0.01                                  | 17.54                                 |

Note:

1. Scope 2 emissions represent a very small change in emission factors ~4% so numbers appear the same to those presented in the Modification Report based on the same significant digits.
2. Scope 3 emission factors for rail and shipping decreased with the latest (2024) emission factors, however some numbers are presented as the same to those presented in the Modification Report due to the number of significant digits, but have in fact slightly declined.

Demonstrate how the findings and conclusions of the fugitive gas assignment model were used to avoid or reduce fugitive emissions from the modification.

The majority of coal proposed to be mined at HVO North over the proposed Modification period is located within a 'Low gas zone' meaning it has limited methane and therefore low fugitive emissions, as quantified in Appendix A of the Air Quality and Greenhouse Gas Assessment (Airen 2024). The proposed Modification mine plan has been optimised to extract coal efficiently, over the 18-month period. Whilst the fugitive gas assignment model was considered in the generation of the mine plan there were other additional factors impacting Scope 1 emissions that were also incorporated, such as impact on diesel emissions through minimising haul distances and optimising ramp gradients.



## 4 Response to council submissions

### 4.1 Introduction

Comments on the Modification were received from Singleton Council and Muswellbrook Shire Council. No matters requiring a response were raised in the submission from Singleton Council. A response to matters raised by Muswellbrook Shire Council is provided below.

### 4.2 Muswellbrook Shire Council

#### 4.2.1 Planning agreement

Section 7.8 of the Modification Report states that ‘The continuation of mining operations at HVO North will result in continued positive impacts to the local...economies through taxes, royalties and community contributions’. However, Council does not have a Planning Agreement with HVOPL, nor has one been proposed in the Modification Report. Therefore, there are no direct community contributions to the Muswellbrook Shire under Section 7.4 of the *Environmental Planning and Assessment Act 1979*.

*Council:*

*A. Seeks an annual contribution of \$40,000 per annum from the Hunter Valley Operations (HVO) Continuation Project commensurate with similar placed projects in the Shire;*

*B. Seeks a \$10,000 per annum contribution toward employment of an Environmental Officer to offset the cost to ratepayers for Council to review plans, monitor outcomes, and contribute to closure / rehabilitation planning over the 25-year life of mine (HVO North), commensurate with similar projects in the Shire; and*

*C. Seeks the following socio-economic commitments within the PA:*

*i. Target 10% of supplier expenditure being paid to companies with offices in Muswellbrook Shire.*

The Council resolution was the most recent communication to HVOPL and remains the current position of Council regarding the Continuation Project as well as the Modification to permit mining up to 31 December 2026.

As the proposed Modification will result in no or negligible change to the nature of previously assessed and approved impacts, with no change to the intensity of operations or change in nature or scale of the proposed activities, there is no trigger for the requirement of a Voluntary Planning Agreement (VPA) for the Modification. The proposed Modification will result in the local and regional economic and community benefits currently being realised by the current HVO operations continuing for a further 18-month period. In 2023, HVO contributed more than \$1.96 billion in total direct economic contributions, spent over \$1 billion on goods and services, and paid more than \$599 million in taxes and royalties. In addition, over the past three years, HVO has contributed over \$346,000 in contributions to local organisations. The direct and indirect economic contributions will continue to be realised over the additional 18-month period of mining operations proposed by the Modification.

HVO recognises the Council resolution as the most recent correspondence and will continue to engage with Muswellbrook Shire Council in relation to a VPA. The HVO Continuation Project represents a larger and distinct proposal that involves new impacts beyond those currently approved, making a VPA more appropriate for the HVO Continuation Project, should it be approved.

#### 4.2.2 Mine closure planning

Council staff have identified several aspects of the existing HVO North Consent that remain unsatisfactory, including rehabilitation and final landform design, management of buffer lands, and socio-economic impact management related to closure. However, given the nature of this modification, which seeks an 18-month timeframe extension to allow for the approval of the Continuation Project, staff do not consider it appropriate to provide detailed comments at this stage.

It is assumed that, should the Continuation Project not be approved, HVOPL would need to seek a further modification DA 405-10-2003 to allow adequate time to plan for and implement an appropriate closure. However, this remains uncertain.

The proposed Modification seeks consent to continue to undertake mining activities previously assessed and approved for a further 18-months. Should the Modification be approved, progressive rehabilitation at HVO North will continue to be carried out in accordance with the HVO Rehabilitation Management Plan (RMP) (as approved from time to time) and existing conditions of consent. The current approved post mine land uses identified for the HVO Complex include a mix of agriculture land and native vegetation habitat corridors. The proposed Modification will not change the overall land use objectives from those currently approved. Performance against completion criteria will continue to be reported annually as part of the HVO Annual Rehabilitation Report and in accordance with the Mining Regulation 2016.

In accordance with the requirements of the existing conditions of consent, HVO will continue to work with Muswellbrook Shire Council and Singleton Council to investigate opportunities to minimise the adverse socio-economic effects associated with any mine closure, should the Modification or proposed HVO Open Cut Continuation Project not be approved. A key focus of the detailed mine closure planning process will be to identify suitable alternate land uses, taking into consideration the surrounding environment, landform, infrastructure and needs of the community.

## 5 Response to organisation and individual submissions

### 5.1 Substantially the same development

Mining that was approved in 2004 is not “substantially the same development” as mining proposed in 2024 given the critical accumulation of greenhouse gases in the atmosphere. The environmental context for the previously approved mining at HVO North and South has altered to such a degree that it is no longer the same development as it was when assessed 10 and 20 years ago.

As set out in section 5.1.1 of the Modification Report:

- DA 450-10-2003 was granted under Part 4 of the EP&A Act (former State significant development) before 1 August 2005, such that it is development to which clause 8J(8) of the former *Environmental Planning and Assessment Regulation 2000* applied and pursuant to which the development consent is taken to be an approval under Part 3A (for the purposes of modification only).
- Mod 7 to DA 450-10-2003 was granted under the now repealed section 75W of the EP&A Act. As such, the development is one to which Schedule 2, section 3BA(6)(b) of the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* applies and the consent authority needs only be satisfied that the proposed Modification is substantially the same development as the development as last modified on 28 July 2017.

Therefore, the appropriate comparison, for the purposes of the 'substantially the same development' test, is between the development as last modified on 28 July 2017 (not the development approved in 2004) and the development as proposed to be modified.

The Modification seeks a relatively minor increase in the duration of the approved activities. Apart from this extension of time, there will be no other changes to the scope and nature of activities when compared to the development as last modified.

Any change in the total concentration of greenhouse gases in the atmosphere between 28 July 2017 and now does not constitute a change to the development itself and is not relevant for the purpose of applying the 'substantially the same development' test.

The Modification will also not substantially change the development's contribution to GHG emissions. This is because the Modification will not materially alter the total GHG emissions as currently assessed and approved.

### 5.2 Adequacy of assessment

An inadequate level of assessment has been undertaken with deficient data sets and analysis provided.

Apart from an extension of time for mining operations to be carried out, all activities that are currently approved under the HVO North consent are intended to continue and will remain the same under the Modification, including mining methods, approved annual coal extraction rates, coal processing and handling activities, surface infrastructure, workforce numbers and hours of operation.

The proposed Modification does not require any additional surface disturbance beyond the areas that have already been assessed and approved to be disturbed. Therefore, no further detailed assessment of impacts related to surface disturbance was required as part of the Modification application.

All mining activities to be carried out during the proposed 18-month extension period have previously been assessed and approved through comprehensive environmental assessments prepared to support the HVO North

Consent. As the Modification will only extend the duration of already approved mining operations, the potential impacts will be consistent in nature with those already approved.

The extension of time proposed by the Modification will mean that amenity related impacts (i.e. air quality and noise) associated with HVO will continue for an additional 18-months, and an appropriate assessment of these aspects was accordingly provided in the Modification Report (EMM 2024). Notably, the EPA stated in its submission on the proposed Modification that it has no comments in relation to the assessment of air and noise impacts. A comprehensive GHG assessment was also prepared as part of the Modification Report in accordance with relevant guidelines. Further discussion on the GHG assessment is provided in Section 3.2.1 of this report.

Monitoring and management of impacts associated with the continuation of mining activities will continue to be undertaken in accordance with the approved environmental management plans implemented across the HVO Complex, with monitoring results reported in the HVO Annual Review.

### 5.3 Cumulative impacts

There is a lack of consideration to ongoing cumulative impacts from the Modification.

Consideration of cumulative impacts associated with the continuation of mining at HVO North was presented in Section 7.8 of the Modification Report (EMM 2024). As noted in the report, the cumulative impacts of the currently approved HVO North operations have previously been considered as part of the environmental assessments prepared to support the HVO North Consent, including cumulative impacts to air quality, noise, groundwater and surface water. Given that the Modification will not increase the scale or intensity of the HVO North operations beyond what has previously been assessed and approved, the contribution of continued operations at HVO North for an additional 18-month period to cumulative impacts is expected to remain consistent with what has previously been assessed and approved.

HVO will continue to monitor and manage impacts from the HVO North operations in compliance with the performance criteria outlined within the conditions of the HVO North Consent.

### 5.4 Closure planning

There is a lack of closure planning and closure considerations provided in the modification report.

The proposed Modification seeks consent to continue to undertake mining activities previously assessed and approved for a further 18 months. Should the Modification be approved, progressive rehabilitation at HVO North will continue to be carried out in accordance with the HVO RMP (as approved from time to time) and existing conditions of consent. The current approved post mine land uses identified for the HVO Complex include a mix of agriculture land and native vegetation habitat corridors. The proposed Modification will not change the overall land use objectives from those approved and documented in the RMP.

In accordance with the requirements of the existing conditions of consent, HVO will continue to work with Muswellbrook Shire Council and Singleton Council to investigate opportunities to minimise the adverse socio-economic effects associated with any mine closure, should the Modification or proposed HVO Continuation Project not be approved. A key focus of the detailed mine closure planning process will be to identify suitable alternate land uses, taking into consideration the surrounding environment, landform, infrastructure and needs of the community.

The NSW Resources Regulator is responsible for regulating rehabilitation under the *Mining Act 1992* to ensure that land disturbed by exploration and mining activities is returned to a safe, stable and sustainable land use. Notably, NSW Resources did not raise any issues relating to mine closure or closure planning in its submission on the Modification.

Performance against completion criteria will continue to be reported annually as part of the HVO Annual Rehabilitation Report and in accordance with the Mining Regulation 2016.



## 5.5 Air quality impacts

The Modification will increase dust emissions and lead to continued degradation of air quality in the region resulting in health concerns.

All approved activities relevant to dust emissions will remain consistent to those approved under the Modification, in particular mining methods, approved annual coal extraction rates, coal processing and handling activities. Therefore, the changes due to the Modification are not expected to result in any change in the currently approved air quality impacts of HVO North, other than the continuation of those impacts for a further 18-months.

HVO currently utilises a network of Tapered Element Oscillating Microbalance (TEOM) units and meteorological stations as part of a proactive and reactive air quality management system. HVO's real time air quality monitoring stations continuously log information and transmit data to a central database, generating alarms when particulate matter levels exceed internal trigger limits to guide the operational management of air quality on site. HVO proactively manages operations, including any activities that may be increasing the risk of air quality impacts, in accordance with a trigger action response plan (TARP) presented in HVO's Air Quality and Greenhouse Gas Management Plan (AQGGMP). The air quality management system implemented at HVO has led to a good history of compliance.

Air quality in the region is influenced by a range of emission sources. The Upper Hunter Air Quality Monitoring Network was created by the DPHI, in partnership with the Upper Hunter coal and power industries, to monitor regional air quality and respond to community concerns about the effect of coal mining on air quality in the region. Twelve monitoring stations were established between 2010 and 2012 in the Upper Hunter as part of this monitoring network. In the vicinity of HVO, particulate matter (PM)<sub>10</sub> is monitored at Jerrys Plains, Camberwell and Maison Dieu while PM<sub>2.5</sub> is monitored at Camberwell.

In 2013 the CSIRO investigated the factors which contributed to elevated PM<sub>2.5</sub> concentrations in the Hunter Valley as part of the Upper Hunter Fine Particle Characterisation Study (CSIRO 2013). This study identified a clear seasonal trend with higher PM<sub>2.5</sub> concentrations occurring in the cooler months, predominantly due to wood smoke from domestic heating. Specifically, in Singleton, wood smoke accounted for an average of approximately 14% of the total PM<sub>2.5</sub>, peaking at around 38% in winter.

## 5.6 Biodiversity impacts

The Modification will continue to have an unacceptable impact to biodiversity values.

All impacts associated with the proposed Modification will remain within areas previously assessed and approved for disturbance. No additional vegetation clearing beyond what is already approved is required by the proposed Modification. As the Modification does not seek to change the approved existing operations or clear additional land beyond what has previously been assessed and approved, there would be no increase in impacts on biodiversity values as a result of the Modification.

HVO will continue to implement the management and mitigation measures outlined in the approved HVO Integrated Biodiversity Management Plan.

## 5.7 Impacts to agricultural land

The Modification will have an unacceptable impact to agricultural lands.

The proposed Modification will not result in impacts to agricultural lands beyond those already assessed and approved.

HVO North is situated in a rural agricultural setting with the majority of the land owned by HVO or associated entities. All impacts associated with the proposed Modification will remain within areas previously assessed and approved for disturbance. As the Modification does not seek to change the approved existing operations or clear additional land beyond what has previously been assessed and approved, there would be no increase in impact on agricultural lands as a result of the Modification.

Progressive rehabilitation at HVO North will continue to be carried out in accordance with the HVO RMP (as approved from time to time) and existing conditions of consent. The current approved post mine land uses identified for the HVO Complex include a mix of agricultural land and native vegetation habitat corridors. The proposed Modification will not change the overall land use objectives from those approved and presented in the RMP, which will enable areas to be used for agricultural purposes at the end of the mine life.

## 5.8 Surface water and groundwater impacts

The Modification will have an unacceptable impact to surface water and groundwater resources.

Impacts of the proposed Modification on water resources were presented in Section 7.3 of the Modification Report. As described, given that the Modification is only proposing an extension of time in which mining operations are undertaken (approximately 18-months), the nature of potential impacts on water resources are consistent with that already approved.

As there will be no changes to the site's water management system, existing and approved disturbance area, and mining depth or extent, the direct and indirect surface water and groundwater take is expected to be consistent with current reported take.

HVO will continue to manage water resources in accordance with the objectives of the HVO Water Management Plan and requirements of the HVO Environment Protection Licence (EPL).

## 5.9 Flooding impacts

Construction of the levee bank will cause an unacceptable impact from changes to flooding regimes in the Hunter River.

The proposed Modification seeks only to extend the timeframe for mining activities at HVO North by an additional 18-months. All potential impacts associated with the activities, including those related to the levee bank and flooding regimes, were previously assessed and approved as part of the environmental assessments prepared to support the HVO North Consent.

These previous assessments included detailed hydrological and hydraulic studies to evaluate potential changes to flooding regimes as a result of mining operations and associated infrastructure. These studies concluded that the construction and operation of the levee banks would not result in unacceptable impacts to the Hunter River or its flooding regimes. The proposed Modification does not involve any changes to the levee bank design, its location, or associated activities that could alter the impacts previously assessed and approved.

## 5.10 Heritage impacts

The Modification will lead to an unacceptable impact to Aboriginal and cultural heritage values.

As detailed in Section 7.6 of the Modification Report, there will be no additional disturbance associated with the Modification outside of the existing and approved disturbance area. Therefore, there will be no additional impacts to Aboriginal cultural heritage items associated with the proposed Modification beyond those previously assessed and approved.

At HVO North, Aboriginal Heritage Impact Permits (AHIPs) are required to be approved by Heritage NSW prior to any impacts to Aboriginal sites as mining progresses. Any impacts to Aboriginal heritage sites will continue to be managed in accordance with AHIPs. Additionally, management of Aboriginal heritage sites at HVO North is undertaken in accordance with the HVO North Aboriginal Heritage Management Plan (AHMP) which has been developed in consultation with the Registered Aboriginal Parties (RAPs) and Heritage NSW.

The AHMP also includes a protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of sites. The mitigation measures outlined in the AHMP will continue to be implemented for HVO North.

HVO North mining operations will continue to avoid impacts to CM-CD1 (AHIMS #37-2-1877) as required by the current conditions of consent.

## 5.11 Visual impacts

The Modification will have an unacceptable visual impact.

The proposed Modification does not require any new or additional infrastructure or substantive changes to approved mine plans beyond those previously assessed and approved. As such, there will be no new or additional visual impacts beyond those previously assessed and approved. Current management measures to mitigate visual impacts associated with the HVO North operations, such as progressive rehabilitation, will continue during the extended timeframe for mining activities as currently detailed within the HVO RMP.

## 5.12 Compatibility with the equine industry

The Modification is incompatible with the Hunter Valley equine industry and does not give adequate consideration to the equine critical industry cluster.

Operations first commenced at HVO 75 years ago, in 1949. Since its inception HVO has been, and continues to be, an important contributor to the Hunter Valley and NSW economy, producing high quality thermal and semi-soft coking coal suitable for use in international and domestic markets.

A mapped equine critical industry cluster (CIC) is located approximately 2.6 km from the HVO North development consent boundary. Notably, HVO North and the activities proposed to continue as a result of the Modification are not within this CIC.

HVO implements a comprehensive air quality, noise and vibration monitoring program during mining activities to assess the compliance of the operation with performance criteria outlined within the HVO North development consent and HVO South project approval. All activities during the proposed Modification period are predicted to comply with the relevant performance criteria and all impacts will remain consistent with those previously assessed and approved. The proposed Modification is therefore unlikely to result in any impacts to the CIC beyond what has previously been experienced.

### 5.13 Greenhouse gas emissions and climate change

The Modification does not align with International, National and NSW State climate change targets. Ongoing coal mining and use of fossil fuels is not supported.

The Modification will only involve extraction of coal that has been previously assessed and approved to be extracted, however will delay the previously assessed emissions which will now occur between June 2025 and December 2026 rather than prior to June 2025, as currently approved. As presented in Section 3, the total Scope 1 emissions for the Modification period are estimated to be 0.38 Mt CO<sub>2</sub>-e. The highest incremental annual emission estimate (0.22 Mt CO<sub>2</sub>-e) represents approximately 0.05% of Australia's estimated emissions (that is 432.62 Mt CO<sub>2</sub>-e for 2022, the latest year of estimates available).

HVO will continue to report emissions under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) and will be required to manage emissions in accordance with its baseline under the Safeguard Mechanism during the period of the proposed Modification.

The GHG assessment has not been prepared in accordance with the draft *NSW EPA Guide for Large Emitters* (2024).

An Air Quality and Greenhouse Gas Assessment was prepared (Airen 2024) to support the Modification application and is provided as Appendix C to the Modification Report. The greenhouse gas assessment was prepared in accordance with the draft *NSW EPA Guide for Large Emitters* (EPA 2024).

As detailed in the Air Quality and Greenhouse Gas Assessment, the Modification would not represent a proposed modification that significantly increases emissions or emission intensity beyond what has already been assessed and approved.

The Modification Report and associated Air Quality and Greenhouse Gas Assessment was reviewed by the EPA during the exhibition period. Comments from the EPA and supplementary information in relation to the greenhouse gas assessment are presented in Section 3.2.

### 5.14 Socio/economic justification

There is a lack of benefit to the community as a result of the Modification and negative impacts on investment and economic diversity in the region.

The proposed Modification will support continued employment for approximately 1,500 full time equivalent (FTE) workers across the HVO Complex for a period of approximately 18-months. The proposed Modification involves a mining operation that is consistent with the objects of the *Mining Act 1992* and will extract a State-owned resource for the benefit of the State of NSW.

The continuation of mining operations at HVO North will result in continued positive impacts to the local, regional and State economies through taxes, royalties and community contributions. In 2023, HVO contributed more than \$1.96 billion in total direct economic contributions, spent over \$1 billion on goods and services, and paid more than \$599 million in taxes and royalties. In addition, over the past three years, HVO has contributed over \$346,000 in contributions to local organisations. The direct and indirect economic contributions will continue to be realised over the additional 18-month period of mining operations proposed by the Modification.

As outlined in the submission from NSW Resources<sup>1</sup>, the Modification, if approved, will result in the State receiving \$277 million in royalties or \$256 million in Net Present Value (NPV) terms. Further, the total export revenue that would be generated over the life of the Modification is of the order of \$2.4 billion in NPV terms<sup>2</sup>.

<sup>1</sup> NSW Resources Advice Response: Hunter Valley Operations (HVO) North – West Pit Consent 2003 Modification 8 – Extension of Time (RDOC24/222059), 9 December 2024

<sup>2</sup> Using a real discount rate of 5%



## 6 Updated project justification

The proposed Modification has been assessed to have no or negligible change to the nature of previously assessed and approved impacts associated with HVO North. The operations at HVO North will continue to be carried out in accordance with the existing and approved management plans and monitoring programs in place.

Supplementary information has been presented in this Submissions Report in response to submissions received during the public exhibition of the Modification Report. The supplementary information does not change the assessed outcomes presented in the Modification Report and it is considered that the Modification would be in the public interest. The Modification, if approved, will secure employment for the existing workforce of approximately 1,500 full time equivalents across the HVO Complex for a further 18-months while the assessment of the HVO Continuation Project is progressed. The continuation of mining operations at HVO North will further result in continued positive impacts to the local, regional and State economies through taxes, royalties and community contributions.

## Abbreviations

|   |                 |
|---|-----------------|
| Aboriginal Heritage Management Plan                             | AHMP            |
| Air Quality and Greenhouse Gas Management Plan                  | AQGHGMP         |
| Coal preparation plant  | CPP             |
| Department of Climate Change, Energy, the Environment and Water | DCCEW           |
| Department of Planning, Housing and Infrastructure              | DPHI            |
| EMM Consulting Pty Ltd  | EMM             |
| Environment Protection Authority                                | EPA             |
| Environmental Impact Statement                                  | EIS             |
| <i>Environmental Planning and Assessment Act 1979</i>           | EP& Act         |
| Environmental Planning and Assessment Regulation 2021           | EP&A Regulation |
| Full time equivalent  | FTE             |
| Hunter Valley Operations  | HVO             |
| Kilometres  | km              |
| Local government area   | LGA             |
| Million tonnes per annum  | Mtpa            |
| Mine infrastructure area  | MIA             |
| New South Wales   | NSW             |
| Registered Aboriginal Parties                                   | RAPs            |
| Rehabilitation Management Plan                                  | RMP             |
| Run-of-mine   | ROM             |
| Secretary's Environmental Assessment Requirements               | SEARs           |
| State significant development                                   | SSD             |
| Tapered Element Oscillating Microbalance                        | TEOM            |
| Voluntary Planning Agreement                                    | VPA             |

## References

Airen Consulting 2024, *HVO North Modification 8: Air Quality and Greenhouse Gas Assessment*

CSIRO 2013, *Upper Hunter Particle Characterisation Study*

DCCEEW 2024, *Australia's emissions projections 2024*, Department of Climate Change, Energy, the Environment and Water. November 2024

DEFRA 2024, *UK Government GHG Conversion Factors for Company Reporting*

DPIE (NSW Department of Planning, Industry and Environment) 2024, *State significant development guidelines – preparing a submissions report Appendix C to the state significant development guidelines*

EMM (EMM Consulting Pty Ltd) 2023, *Hunter Valley Operations Continuation Project Submissions Report*

EMM (EMM Consulting Pty Ltd) 2024, *Hunter Valley Operations North DA 450-10-2003 Modification 8*

EPA (Environment Protection Authority) 2024, *NSW EPA Guide for Large Emitters* (draft)

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# Appendix A

## Submissions register

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Table A.1 Individual and organisation submission register

| Submission   | First name | Last name | Organisation name                  | Suburb         | State | Submission type | The economic, environmental and social impacts of the project |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   | Justification and evaluation of the project as a whole |  |                        |  |   | Where addressed |               |
|--------------|------------|-----------|------------------------------------|----------------|-------|-----------------|---|-----------------------|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--------------------------------------|--------------------------------------|---|--|--|------------------------|--|---|-----------------|---------------|
|              |            |           |                                    |                |       |                 | Substantially the same development                            | Inadequate assessment | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit                 | Positive economic and community benefits | Security of employment | Environmental performance and compliance |   |                 |               |
| Individual   | Name       | Withheld  |                                    | COONABARABRAN  | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | COONABARABRAN  | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | MENDOORAN      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | LANCEFIELD     | VIC   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | LAKE ALBERT    | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | HAY            | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | REDBANK PLAINS | QLD   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | SPRINGFIELD    | QLD   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | GRIFFITH       | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | SPRINGFIELD    | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Organisation |            |           | Save Our Surroundings Murrumbidgee | GRIFFITH       | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | KEPNOCK        | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | HAREFIELD      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | KOORINGAL      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Organisation |            |           | Save Our Surroundings Riverina     | LAKE ALBERT    | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X |                 | Section 2.3.2 |
| Individual   | Clinton    | North     |                                    | SINGLETON      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | X               | Section 2.3.2 |
| Individual   | Craig      | Eardley   |                                    | MEREWETHER     | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  | X | X               | Section 2.3.2 |
| Individual   | Jess       | Dugan     |                                    | MUSWELLBROOK   | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  | X |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | MENDOORAN      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | MOLLYAN        | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   |                 | Section 2.3.2 |
| Individual   | Name       | Withheld  |                                    | BALGOWLAH      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   |                 | Section 2.3.2 |

| Submission   | First name | Last name | Organisation name                        | Suburb             | State | Submission type | Procedural matters                 | The economic, environmental and social impacts of the project |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   | Justification and evaluation of the project as a whole |  |                        |  |   |   | Where addressed |
|--------------|------------|-----------|--|--------------------|-------|-----------------|------------------------------------|---|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--------------------------------------|--------------------------------------|---|--|--|------------------------|--|---|---|-----------------|
|              |            |           |  |                    |       |                 | Substantially the same development | Inadequate assessment   | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit                 | Positive economic and community benefits | Security of employment | Environmental performance and compliance |   |   |                 |
| Individual   | Name       | Withheld  |  | MOLLYAN            | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 2.3.2   |                 |
| Individual   | Michael    | White     |  | MANOBALAI          | NSW   | Object          |                                    | X   |                                  |                                 |                     |                      |                              |  |                  |                  |                | X                                    | X                                    |   |  |  |                        |  |   | Section 5.1<br>Section 5.13   |                 |
| Individual   | Gary       | Dorn      |  | BOLWARRA HEIGHTS   | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2   |                 |
| Individual   | Scott      | Bailey    |  | MUSWELLBROOK       | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2   |                 |
| Individual   | Name       | Withheld  |  | ABERGLASSLYN       | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2   |                 |
| Organisation |            |           | Godolphin Australia Pty Ltd              | ABERDEEN           | NSW   | Object          |                                    | X   | X                                |                                 | X                   |                      |                              | X  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |   | Section 5.1<br>Section 5.3<br>Section 5.13  |                 |
| Organisation |            |           | Hunter Thoroughbred Breeders Association | SCONE              | NSW   | Object          |                                    | X   | X                                |                                 | X                   |                      |                              | X  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |   | Section 5.1<br>Section 5.3<br>Section 5.13  |                 |
| Individual   | Name       | Withheld  |  | ALEXANDRIA         | NSW   | Object          |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                | X                                    | X                                    |   |  |  |                        |  |   | Section 5.13  |                 |
| Organisation |            |           | Newgate Operations Pty Ltd               | ABERDEEN           | NSW   | Object          |                                    | X   | X                                |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 5.1<br>Section 5.3  |                 |
| Individual   | James      | Murray    |  | RUTHERFORD         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2   |                 |
| Individual   | David      | Morley    |  | GILLIESTON HEIGHTS | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X | Section 2.3.2   |                 |
| Individual   | Caitlin    | Armstrong |  | TORRYBURN          | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  | X | Section 2.3.2   |                 |
| Organisation |            |           | Scone Equine Hospital                    | SCONE              | NSW   | Object          |                                    | X   | X                                |                                 | X                   |                      |                              | X  |                  |                  |                | X                                    | X                                    |   | X  |  |                        |  |   | Section 5.1<br>Section 5.3<br>Section 5.8<br>Section 5.12<br>Section 5.13<br>Section 5.14 |                 |
| Individual   | Name       | Withheld  |  | JILLIBY            | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 2.3.2   |                 |
| Individual   | Jomin      | Jose      |  | FLETCHER           | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2   |                 |
| Individual   | Gene       | Molloy    |  | WOONGARRAH         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2   |                 |



| Submission   | First name | Last name | Organisation name              | Suburb             | State | Submission type | Procedural matters                 | The economic, environmental and social impacts of the project |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   | Justification and evaluation of the project as a whole |  |                        |  |  | Where addressed   |
|--------------|------------|-----------|--------------------------------|--------------------|-------|-----------------|------------------------------------|---|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--------------------------------------|--------------------------------------|---|--|--|------------------------|--|--|---|
|              |            |           |                                |                    |       |                 | Substantially the same development | Inadequate assessment   | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit                 | Positive economic and community benefits | Security of employment | Environmental performance and compliance |  |   |
| Individual   | David      | Lazare    |                                | BROKE              | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |  | Section 2.3.2   |
| Individual   | Jason      | Martin    |                                | MUSWELLBROOK       | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |  | Section 2.3.2   |
| Organisation |            |           | Lock the Gate Alliance         | NECASTLE           | NSW   | Object          | X                                  |   |                                  |                                 |                     |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.1<br>Section 5.13                               |
| Organisation |            |           | Business Hunter                | BROADMEADOW        | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |  | Section 2.3.2   |
| Individual   | Heather    | Mclean    |                                | SINGLETON          | NSW   | Object          |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.13  |
| Individual   | Geoff      | Stevenson |                                | SINGLETON HEIGHTS  | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |  | Section 2.3.2   |
| Individual   | Name       | Withheld  |                                | CAMBERWELL         | NSW   | Object          |                                    |   |                                  |                                 | X                   |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.4<br>Section 5.13                               |
| Individual   | Ian        | Moore     |                                | JERRYS PLAINS      | NSW   | Object          |                                    |   |                                  |                                 | X                   |                      | X                            |  | X                |                  | X              |                                      |                                      |   |  |  |                        |  |  | Section 5.5<br>Section 5.7<br>Section 5.9<br>Section 5.11 |
| Individual   | Carol-Ann  | Fletcher  |                                | SOMERSET           | TAS   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |  | Section 2.3.2   |
| Organisation |            |           | Climate Change Balmain-Rozelle | BALMAIN EAST       | NSW   | Object          |                                    |   |                                  |                                 | X                   |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.4<br>Section 5.13                               |
| Individual   | Name       | Withheld  |                                | HUNTERVIEW         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |  | Section 2.3.2   |
| Individual   | James      | O'Donohue |                                | BRANXTON           | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |  | Section 2.3.2   |
| Individual   | Andrew     | Norton    |                                | LOFTUS             | NSW   | Object          |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.13  |
| Individual   | Jake       | Kowalski  |                                | EAST BRANXTON      | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |  | Section 2.3.2   |
| Individual   | Name       | Withheld  |                                | NORTH ROTHBURY     | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |  | Section 2.3.2   |
| Individual   | Samir      | Hussein   |                                | HIGHFIELDS         | NSW   | Object          |                                    |   |                                  |                                 | X                   |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |  | Section 5.5<br>Section 5.13                               |
| Individual   | Name       | Withheld  |                                | GILLIESTON HEIGHTS | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |  | Section 2.3.2   |

| Submission | First name | Last name  | Organisation name | Suburb             | State | Submission type | Procedural matters                 | The economic, environmental and social impacts of the project |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  | Justification and evaluation of the project as a whole |                        |  |   |  | Where addressed |
|------------|------------|------------|-------------------|--------------------|-------|-----------------|------------------------------------|---|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--------------------------------------|--------------------------------------|---|--|--|------------------------|--|---|--|-----------------|
|            |            |            |                   |                    |       |                 | Substantially the same development | Inadequate assessment   | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit | Positive economic and community benefits               | Security of employment | Environmental performance and compliance |   |  |                 |
| Individual | Jack       | Scott      |                   | GILLIESTON HEIGHTS | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | ABERMAIN           | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Grant      | Hartmann   |                   | EASTE SEAHAM       | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2  |                 |
| Individual | Jess       | Cefai      |                   | COORANBONG         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | SINGLETON HEIGHTS  | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | RUTHERFORD         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2  |                 |
| Individual | Grant      | Harrison   |                   | LAMBTON            | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | JERRYS PLAINS      | NSW   | Object          |                                    |   |                                  |                                 | X                   | X                    |                              |  |                  | X                |                |                                      | X                                    |   |  |  |                        |  |   | Section 5.5<br>Section 5.6<br>Section 5.10<br>Section 5.13 |                 |
| Individual | Mitchell   | Norsworthy |                   | EDGEWORTH          | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | SINGLETON          | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | HUNTERVIEW         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | FARLEY             | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 2.3.2  |                 |
| Individual | Daniele    | Lai        |                   | NORTH ROTHBURY     | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Anthony    | Lonergan   |                   | KAYUGA             | NSW   | Object          |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      | X                                    |   |  |  |                        |  |   | Section 5.13   |                 |
| Individual | Name       | Withheld   |                   | KURRI KURRI        | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2  |                 |
| Individual | Stacey     | Brown      |                   | BULGA              | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2  |                 |
| Individual | Howard     | Learmouth  |                   | SINGLETON HEIGHTS  | NSW   | Object          |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 5.14   |                 |
| Individual | Name       | Withheld   |                   | MUSWELLBROOK       | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2  |                 |
| Individual | Aaron      | Fox        |                   | EAST BRANXTON      | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2  |                 |
| Individual | Name       | Withheld   |                   | NULKABA            | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  | X | Section 2.3.2  |                 |
| Individual | Paul       | Bajzath    |                   | SEDGEFIELD         | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2  |                 |

| Submission | First name  | Last name | Organisation name | Suburb            | State | Submission type | The economic, environmental and social impacts of the project |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   | Justification and evaluation of the project as a whole |  |                        |  |   | Where addressed             |
|------------|-------------|-----------|-------------------|-------------------|-------|-----------------|---|-----------------------|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--------------------------------------|--------------------------------------|---|--|--|------------------------|--|---|-----------------------------|
|            |             |           |                   |                   |       |                 | Substantially the same development                            | Inadequate assessment | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit                 | Positive economic and community benefits | Security of employment | Environmental performance and compliance |   |                             |
| Individual | Name        | Withheld  |                   | SINGLETON         | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2               |
| Individual | Scott       | Barnes    |                   | BAAN BAA          | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2               |
| Individual | Peter       | Shumack   |                   | LORN              | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2               |
| Individual | Elie Nouhad | Bassil    |                   | CAREY BAY         | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  | X | Section 2.3.2               |
| Individual | Brennden    | Dewson    |                   | JERRYS PLAINS     | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2               |
| Individual | Fiona       | Lee       |                   | ELANDS            | NSW   | Object          |   |                       |                                  | X                               |                     |                      |                              |  |                  |                  |                | X                                    |                                      |   |  |  |                        |  |   | Section 5.4<br>Section 5.13 |
| Individual | Carley      | Mclean    |                   | MERRIWA           | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2               |
| Individual | Jeremiah    | Dugan     |                   | MUSWELLBROOK      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Nick        | O'Brien   |                   | FARLEY            | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2               |
| Individual | Scott       | Dunn      |                   | MUSWELLBROOK      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Name        | Withheld  |                   | RUTHERFORD        | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Blake       | Morgan    |                   | NORTH ROTHBURY    | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      | X  |   | Section 2.3.2               |
| Individual | David       | Morgan    |                   | SINGLETON HEIGHTS | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        | X  |   | Section 2.3.2               |
| Individual | Dean        | Benham    |                   | MUSWELLBROOK      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Leedham     | Jeffers   |                   | KEINBAH           | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Narendra    | Kodate    |                   | SINGLETON HEIGHTS | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Ernie       | Martin    |                   | SEDGEFIELD        | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Name        | Withheld  |                   | ABERGLASSLYN      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Glenn       | Hooper    |                   | ABERGLASSLYN      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Logan       | Devine    |                   | KURRI KURRI       | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Name        | Withheld  |                   | MUSWELLBROOK      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Lee         | Gould     |                   | NORTH ROTHBURY    | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  | X                      |  |   | Section 2.3.2               |
| Individual | Phillip     | Enderby   |                   | SPEERS POINT      | NSW   | Support         |   |                       |                                  |                                 |                     |                      |                              |  |                  |                  |                |                                      |                                      |   |  |  |                        |  |   | Section 2.3.2               |

| Submission | First name | Last name | Organisation name | Suburb   | State | Submission type | Procedural matters                 | The economic, environmental and social impacts of the project |                                  |                                 |                     |                      |                              |  |                  |                  |                | Justification and evaluation of the project as a whole |                                      |   |  |  | Where addressed |                        |  |               |
|------------|------------|-----------|-------------------|----------|-------|-----------------|------------------------------------|---|----------------------------------|---------------------------------|---------------------|----------------------|------------------------------|--|------------------|------------------|----------------|--|--------------------------------------|---|--|--|-----------------|------------------------|--|---------------|
|            |            |           |                   |          |       |                 | Substantially the same development | Inadequate assessment   | Cumulative impact considerations | Closure planning considerations | Air quality impacts | Biodiversity impacts | Impacts to agricultural land | Impacts to surface water and groundwater | Flooding impacts | Heritage impacts | Visual impacts | Incompatibility with equine industry                   | Alignment with climate change policy | Consideration of NSW EPA Guide for Large Emitters | Lack of community and economic benefit | Positive economic and community benefits |                 | Security of employment | Environmental performance and compliance |               |
| Individual | Peter      | Walsh     |                   | POKOLBIN | NSW   | Support         |                                    |   |                                  |                                 |                     |                      |                              |  |                  |                  |                |  |                                      |   |  |  | X               | X                      |  | Section 2.3.2 |

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# Appendix B

Revised greenhouse gas calculations

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## B.1 HVO North (as Approved)

| Diesel usage |              |            |  |         |         |                                       |         |         |         |  |
|--------------|--------------|------------|--|---------|---------|---------------------------------------|---------|---------|---------|--|
|              |              |            |  |         |         |                                       |         |         |         |  |
|              |              |            |  |         |         |                                       |         |         |         |  |
|              |              |            |  |         |         |                                       |         |         |         |  |
| Year         | ROM coal (t) | Usage (kL) | Emission factor (kg CO <sub>2</sub> -e/kL) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total   |  |
|              |              |            | Scope 1                                    | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |         |  |
| 2023         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |  |
| 2024         | 9,053,107    | 69,026     | 2709.72                                    | 0       | 667.78  | 187,042                               | -       | 46,094  | 233,136 |  |
| 2025         | 3,741,298    | 27,608     | 2709.72                                    | 0       | 667.78  | 74,809                                | -       | 18,436  | 93,245  |  |
| 2026         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |  |
| 2027         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |  |

| Fugitive emissions |              |   |  |         |         |                                       |         |         |       |  |
|--------------------|--------------|---|--|---------|---------|---------------------------------------|---------|---------|-------|--|
|                    |              |   |  |         |         |                                       |         |         |       |  |
|                    |              |   |  |         |         |                                       |         |         |       |  |
|                    |              |   |  |         |         |                                       |         |         |       |  |
| Year               | ROM coal (t) | - | Emission factor (t CO <sub>2</sub> -e/t ROM) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total |  |
|                    |              |   | Scope 1                                      | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |       |  |
| 2023               | -            | - | -  | -       | -       | -                                     | -       | -       | -     |  |
| 2024               | 9,053,107    | - | -  | -       | -       | 2,010                                 | -       | -       | 2,010 |  |
| 2025               | 3,741,298    | - | -  | -       | -       | 6,477                                 | -       | -       | 6,477 |  |
| 2026               | -            | - | -  | -       | -       | -                                     | -       | -       | -     |  |
| 2027               | -            | - | -  | -       | -       | -                                     | -       | -       | -     |  |

| Blasting emissions |              |                |   |         |         |                                       |         |         |       |  |
|--------------------|--------------|----------------|---|---------|---------|---------------------------------------|---------|---------|-------|--|
|                    |              |                |   |         |         |                                       |         |         |       |  |
|                    |              |                |   |         |         |                                       |         |         |       |  |
|                    |              |                |   |         |         |                                       |         |         |       |  |
| Year               | ROM coal (t) | Explosives (t) | Emission factor (t CO <sub>2</sub> -e/t Explosives) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total |  |
|                    |              |                | Scope 1   | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |       |  |
| 2023               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |  |
| 2024               | 9,053,107    | 31,391         | 0.17  | 0       | 0       | 5,337                                 | -       | -       | 5,337 |  |
| 2025               | 3,741,298    | 12,501         | 0.17  | 0       | 0       | 2,125                                 | -       | -       | 2,125 |  |
| 2026               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |  |
| 2027               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |  |

| Electricity usage |              |             |   |         |         |                                       |         |         |        |  |
|-------------------|--------------|-------------|---|---------|---------|---------------------------------------|---------|---------|--------|--|
|                   |              |             |   |         |         |                                       |         |         |        |  |
|                   |              |             |   |         |         |                                       |         |         |        |  |
|                   |              |             |   |         |         |                                       |         |         |        |  |
| Year              | ROM coal (t) | Usage (kWh) | Emission factor (kg CO <sub>2</sub> -e/kWh) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total  |  |
|                   |              |             | Scope 1                                     | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |        |  |
| 2023              | -            | -           | 0   | 0.68    | 0.05    | -                                     | -       | -       | -      |  |
| 2024              | 9,053,107    | 81,925,474  | 0   | 0.59    | 0.04    | -                                     | 48,336  | 3,277   | 51,613 |  |
| 2025              | 3,741,298    | 41,613,106  | 0   | 0.51    | 0.04    | -                                     | 21,223  | 1,665   | 22,887 |  |
| 2026              | -            | -           | 0   | 0.47    | 0.03    | -                                     | -       | -       | -      |  |
| 2027              | -            | -           | 0   | 0.4     | 0.03    | -                                     | -       | -       | -      |  |

| Transport (Rail) |                  |  |         |         |         |                          |         |         |        |        |
|------------------|------------------|--|---------|---------|---------|--------------------------|---------|---------|--------|--------|
| Factor           | kg CO2-e/t.km    | 0.02779 DEFRA 2024 - Freightng goods - Freight train |         |         |         |                          |         |         |        |        |
| Distance         | km               | 150 Assumed distance to port                         |         |         |         |                          |         |         |        |        |
|                  |                  | Emission factor (kg CO2-e/t)                         |         |         |         | Emissions (t CO2-e/year) |         |         |        |        |
| Year             | Product coal (t) | -  | Scope 1 | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3 | Total  |        |
| 2023             | -                | -  |         | 0       | 0       | 4.17                     | -       | -       | -      | -      |
| 2024             | 6,606,965        | -  |         | 0       | 0       | 4.17                     | -       | -       | 27,541 | 27,541 |
| 2025             | 2,369,952        | -  |         | 0       | 0       | 4.17                     | -       | -       | 9,879  | 9,879  |
| 2026             | -                | -  |         | 0       | 0       | 4.17                     | -       | -       | -      | -      |
| 2027             | -                | -  |         | 0       | 0       | 4.17                     | -       | -       | -      | -      |

| Transport (Shipping) |                  |  |         |         |         |                          |         |         |         |         |
|----------------------|------------------|--|---------|---------|---------|--------------------------|---------|---------|---------|---------|
| Factor               | kg CO2-e/t.km    | 0.00353 DEFRA 2024 - Freightng goods - Cargo ship, bulk carrier, average |         |         |         |                          |         |         |         |         |
| Distance             | km               | 8000 Assumed distance to market  |         |         |         |                          |         |         |         |         |
|                      |                  | Emission factor (kg CO2-e/t)   |         |         |         | Emissions (t CO2-e/year) |         |         |         |         |
| Year                 | Product coal (t) | -  | Scope 1 | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3 | Total   |         |
| 2023                 | -                | -  | 0       | 0       | 28.24   | -                        | -       | -       | -       | -       |
| 2024                 | 6,606,965        | -  | 0       | 0       | 28.24   | -                        | -       | 186,581 | 186,581 | 186,581 |
| 2025                 | 2,369,952        | -  | 0       | 0       | 28.24   | -                        | -       | 66,927  | 66,927  | 66,927  |
| 2026                 | -                | -  | 0       | 0       | 28.24   | -                        | -       | -       | -       | -       |
| 2027                 | -                | -  | 0       | 0       | 28.24   | -                        | -       | -       | -       | -       |



| Energy Production |              |                  |                              |         |         |                          |         |            |            |   |
|-------------------|--------------|------------------|------------------------------|---------|---------|--------------------------|---------|------------|------------|---|
|                   |              |                  |                              |         |         |                          |         |            |            |   |
|                   |              |                  |                              |         |         |                          |         |            |            |   |
|                   |              |                  |                              |         |         |                          |         |            |            |   |
| Year              | ROM coal (t) | Thermal coal (t) | Emission factor (kg CO2-e/t) |         |         | Emissions (t CO2-e/year) |         |            | Total      |   |
|                   |              |                  | Scope 1                      | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3    |            |   |
| 2023              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          | - |
| 2024              | 9,053,107    | 5,444,139        | 0                            | 0       | 2436.48 | -                        | -       | 13,264,535 | 13,264,535 |   |
| 2025              | 3,741,298    | 1,978,910        | 0                            | 0       | 2436.48 | -                        | -       | 4,821,575  | 4,821,575  |   |
| 2026              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          |   |
| 2027              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          |   |

| Coking coal use |              |                 |                              |         |         |                          |         |           |           |   |
|-----------------|--------------|-----------------|------------------------------|---------|---------|--------------------------|---------|-----------|-----------|---|
|                 |              |                 |                              |         |         |                          |         |           |           |   |
|                 |              |                 |                              |         |         |                          |         |           |           |   |
|                 |              |                 |                              |         |         |                          |         |           |           |   |
| Year            | ROM coal (t) | Coking coal (t) | Emission factor (kg CO2-e/t) |         |         | Emissions (t CO2-e/year) |         |           | Total     |   |
|                 |              |                 | Scope 1                      | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3   |           |   |
| 2023            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         | - |
| 2024            | 9,053,107    | 1,162,826       | 0                            | 0       | 2760.9  | -                        | -       | 3,210,446 | 3,210,446 |   |
| 2025            | 3,741,298    | 391,042         | 0                            | 0       | 2760.9  | -                        | -       | 1,079,628 | 1,079,628 |   |
| 2026            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         |   |
| 2027            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         |   |

## B.2 HVO North (with the Modification)

| Diesel usage |              |            |  |         |         |                                       |         |         |         |
|--------------|--------------|------------|--|---------|---------|---------------------------------------|---------|---------|---------|
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
| Year         | ROM coal (t) | Usage (kL) | Emission factor (kg CO <sub>2</sub> -e/kL) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total   |
|              |              |            | Scope 1                                    | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |         |
| 2023         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |
| 2024         | 9,053,107    | 69,026     | 2709.72                                    | 0       | 667.78  | 187,042                               | -       | 46,094  | 233,136 |
| 2025         | 10,414,173   | 81,931     | 2709.72                                    | 0       | 667.78  | 222,011                               | -       | 54,712  | 276,724 |
| 2026         | 11,503,623   | 75,863     | 2709.72                                    | 0       | 667.78  | 205,568                               | -       | 50,660  | 256,228 |
| 2027         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |

| Fugitive emissions |              |   |  |         |         |                                       |         |         |        |
|--------------------|--------------|---|--|---------|---------|---------------------------------------|---------|---------|--------|
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
|                    |              |   |  |         |         |                                       |         |         |        |
| Year               | ROM coal (t) | - | Emission factor (t CO <sub>2</sub> -e/t ROM) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total  |
|                    |              |   | Scope 1                                      | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |        |
| 2023               | -            | - | -  | -       | -       | -                                     | -       | -       | -      |
| 2024               | 9,053,107    | - | -  | -       | -       | 2,010                                 | -       | -       | 2,010  |
| 2025               | 10,414,173   | - | -  | -       | -       | 14,005                                | -       | -       | 14,005 |
| 2026               | 11,503,623   | - | -  | -       | -       | 4,345                                 | -       | -       | 4,345  |
| 2027               | -            | - | -  | -       | -       | -                                     | -       | -       | -      |

| Blasting emissions |              |                |   |         |         |                                       |         |         |       |
|--------------------|--------------|----------------|---|---------|---------|---------------------------------------|---------|---------|-------|
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
| Year               | ROM coal (t) | Explosives (t) | Emission factor (t CO <sub>2</sub> -e/t Explosives) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total |
|                    |              |                | Scope 1   | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |       |
| 2023               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |
| 2024               | 9,053,107    | 31,391         | 0.17  | 0       | 0       | 5,337                                 | -       | -       | 5,337 |
| 2025               | 10,414,173   | 36,058         | 0.17  | 0       | 0       | 6,130                                 | -       | -       | 6,130 |
| 2026               | 11,503,623   | 33,801         | 0.17  | 0       | 0       | 5,746                                 | -       | -       | 5,746 |
| 2027               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |

| Electricity usage |              |             |   |         |         |                                       |         |         |        |
|-------------------|--------------|-------------|---|---------|---------|---------------------------------------|---------|---------|--------|
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
|                   |              |             |   |         |         |                                       |         |         |        |
| Year              | ROM coal (t) | Usage (kWh) | Emission factor (kg CO <sub>2</sub> -e/kWh) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total  |
|                   |              |             | Scope 1                                     | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3 |        |
| 2023              | -            | -           | 0   | 0.68    | 0.05    | -                                     | -       | -       | -      |
| 2024              | 9,053,107    | 81,925,474  | 0   | 0.59    | 0.04    | -                                     | 48,336  | 3,277   | 51,613 |
| 2025              | 10,414,173   | 104,839,691 | 0   | 0.51    | 0.04    | -                                     | 53,468  | 4,194   | 57,662 |
| 2026              | 11,503,623   | 101,155,292 | 0   | 0.47    | 0.03    | -                                     | 47,543  | 3,035   | 50,578 |
| 2027              | -            | -           | 0   | 0.4     | 0.03    | -                                     | -       | -       | -      |

| Transport (Rail) |                  |   |         |         |                          |         |         |         |        |
|------------------|------------------|---|---------|---------|--------------------------|---------|---------|---------|--------|
| Factor           | kg CO2-e/t.km    | 0.02779 DEFRA 2024 - Freightage goods - Freight train |         |         |                          |         |         |         |        |
| Distance         | km               | 150 Assumed distance to port                          |         |         |                          |         |         |         |        |
|                  |                  | Emission factor (kg CO2-e/t)                          |         |         | Emissions (t CO2-e/year) |         |         |         |        |
| Year             | Product coal (t) | -   | Scope 1 | Scope 2 | Scope 3                  | Scope 1 | Scope 2 | Scope 3 | Total  |
| 2023             | -                | -   | 0       | 0       | 4.17                     | -       | -       | -       | -      |
| 2024             | 6,606,965        | -   | 0       | 0       | 4.17                     | -       | -       | 27,541  | 27,541 |
| 2025             | 7,309,584        | -   | 0       | 0       | 4.17                     | -       | -       | 30,470  | 30,470 |
| 2026             | 8,140,846        | -   | 0       | 0       | 4.17                     | -       | -       | 33,935  | 33,935 |
| 2027             | -                | -   | 0       | 0       | 4.17                     | -       | -       | -       | -      |

| Transport (Shipping) |                  |         |  |         |         |                          |         |         |         |
|----------------------|------------------|---------|--|---------|---------|--------------------------|---------|---------|---------|
| Factor               | kg CO2-e/t.km    | 0.00353 | DEFRA 2024 - Freightng goods - Cargo ship, bulk carrier, average |         |         |                          |         |         |         |
| Distance             | km               | 8000    | Assumed distance to market                                       |         |         |                          |         |         |         |
|                      |                  |         | Emission factor (kg CO2-e/t)                                     |         |         | Emissions (t CO2-e/year) |         |         |         |
| Year                 | Product coal (t) | -       | Scope 1  | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3 | Total   |
| 2023                 | -                | -       | 0  | 0       | 28.24   | -                        | -       | -       | -       |
| 2024                 | 6,606,965        | -       | 0  | 0       | 28.24   | -                        | -       | 186,581 | 186,581 |
| 2025                 | 7,309,584        | -       | 0  | 0       | 28.24   | -                        | -       | 206,423 | 206,423 |
| 2026                 | 8,140,846        | -       | 0  | 0       | 28.24   | -                        | -       | 229,897 | 229,897 |
| 2027                 | -                | -       | 0  | 0       | 28.24   | -                        | -       | -       | -       |

| Energy Production |              |                  |   |         |         |                                       |         |            |            |
|-------------------|--------------|------------------|---|---------|---------|---------------------------------------|---------|------------|------------|
|                   |              |                  |   |         |         |                                       |         |            |            |
|                   |              |                  |   |         |         |                                       |         |            |            |
|                   |              |                  |   |         |         |                                       |         |            |            |
| Year              | ROM coal (t) | Thermal coal (t) | Emission factor (kg CO <sub>2</sub> -e/t) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |            | Total      |
|                   |              |                  | Scope 1                                   | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3    |            |
| 2023              | -            | -                | 0   | 0       | 2436.48 | -                                     | -       | -          | -          |
| 2024              | 9,053,107    | 5,444,139        | 0   | 0       | 2436.48 | -                                     | -       | 13,264,535 | 13,264,535 |
| 2025              | 10,414,173   | 6,103,502        | 0   | 0       | 2436.48 | -                                     | -       | 14,871,061 | 14,871,061 |
| 2026              | 11,503,623   | 6,887,156        | 0   | 0       | 2436.48 | -                                     | -       | 16,780,417 | 16,780,417 |
| 2027              | -            | -                | 0   | 0       | 2436.48 | -                                     | -       | -          | -          |

| Coking coal use |              |                 |   |         |         |                                       |         |           |           |
|-----------------|--------------|-----------------|---|---------|---------|---------------------------------------|---------|-----------|-----------|
|                 |              |                 |   |         |         |                                       |         |           |           |
|                 |              |                 |   |         |         |                                       |         |           |           |
|                 |              |                 |   |         |         |                                       |         |           |           |
| Year            | ROM coal (t) | Coking coal (t) | Emission factor (kg CO <sub>2</sub> -e/t) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |           | Total     |
|                 |              |                 | Scope 1                                   | Scope 2 | Scope 3 | Scope 1                               | Scope 2 | Scope 3   |           |
| 2023            | -            | -               | 0   | 0       | 2760.9  | -                                     | -       | -         | -         |
| 2024            | 9,053,107    | 1,162,826       | 0   | 0       | 2760.9  | -                                     | -       | 3,210,446 | 3,210,446 |
| 2025            | 10,414,173   | 1,206,081       | 0   | 0       | 2760.9  | -                                     | -       | 3,329,870 | 3,329,870 |
| 2026            | 11,503,623   | 1,253,690       | 0   | 0       | 2760.9  | -                                     | -       | 3,461,313 | 3,461,313 |
| 2027            | -            | -               | 0   | 0       | 2760.9  | -                                     | -       | -         | -         |

### B.3 HVO South (for the period of the HVO North Modification)

These emissions represent upstream and downstream Scope 3 emissions, from the perspective of the HVO North proposed modification.

| Diesel usage |              |            |  |         |         |                                       |         |         |         |
|--------------|--------------|------------|--|---------|---------|---------------------------------------|---------|---------|---------|
|              |              |            |  |         |         |                                       |         |         |         |
|              |              |            |  |         |         |                                       |         |         |         |
| Year         | ROM coal (t) | Usage (kL) | Emission factor (kg CO <sub>2</sub> -e/kL) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total   |
|              |              |            | Scope 3                                    | Scope 2 | Scope 3 | Scope 3                               | Scope 2 | Scope 3 |         |
| 2023         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |
| 2024         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |
| 2025         | 6,606,273    | 46,990     | 2709.72                                    | 0       | 667.78  | 127,329                               | -       | 31,379  | 158,708 |
| 2026         | 9,841,948    | 87,940     | 2709.72                                    | 0       | 667.78  | 238,293                               | -       | 58,725  | 297,017 |
| 2027         | -            | -          | 2709.72                                    | 0       | 667.78  | -                                     | -       | -       | -       |

| Fugitive emissions |              |   |  |         |         |                                       |         |         |         |
|--------------------|--------------|---|--|---------|---------|---------------------------------------|---------|---------|---------|
|                    |              |   |  |         |         |                                       |         |         |         |
|                    |              |   |  |         |         |                                       |         |         |         |
| Year               | ROM coal (t) |   | Emission factor (t CO <sub>2</sub> -e/t ROM) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total   |
|                    |              |   | Scope 3                                      | Scope 2 | Scope 3 | Scope 3                               | Scope 2 | Scope 3 |         |
| 2023               | -            | - | -  | -       | -       | -                                     | -       | -       | -       |
| 2024               | -            | - | -  | -       | -       | -                                     | -       | -       | -       |
| 2025               | 6,606,273    | - | -  | -       | -       | 279,665                               | -       | -       | 279,665 |
| 2026               | 9,841,948    | - | -  | -       | -       | 492,961                               | -       | -       | 492,961 |
| 2027               | -            | - | -  | -       | -       | -                                     | -       | -       | -       |

| Blasting emissions |              |                |   |         |         |                                       |         |         |       |
|--------------------|--------------|----------------|---|---------|---------|---------------------------------------|---------|---------|-------|
|                    |              |                |   |         |         |                                       |         |         |       |
|                    |              |                |   |         |         |                                       |         |         |       |
| Year               | ROM coal (t) | Explosives (t) | Emission factor (t CO <sub>2</sub> -e/t Explosives) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total |
|                    |              |                | Scope 3   | Scope 2 | Scope 3 | Scope 3                               | Scope 2 | Scope 3 |       |
| 2023               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |
| 2024               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |
| 2025               | 6,606,273    | 16,546         | 0.17  | 0       | 0       | 2,813                                 | -       | -       | 2,813 |
| 2026               | 9,841,948    | 31,853         | 0.17  | 0       | 0       | 5,415                                 | -       | -       | 5,415 |
| 2027               | -            | -              | 0.17  | 0       | 0       | -                                     | -       | -       | -     |

| Electricity usage |              |             |   |         |         |                                       |         |         |       |
|-------------------|--------------|-------------|---|---------|---------|---------------------------------------|---------|---------|-------|
|                   |              |             |   |         |         |                                       |         |         |       |
|                   |              |             |   |         |         |                                       |         |         |       |
| Year              | ROM coal (t) | Usage (kWh) | Emission factor (kg CO <sub>2</sub> -e/kWh) |         |         | Emissions (t CO <sub>2</sub> -e/year) |         |         | Total |
|                   |              |             | Scope 1                                     | Scope 3 | Scope 3 | Scope 1                               | Scope 3 | Scope 3 |       |
| 2023              | -            | -           | 0   | 0.68    | 0.05    | -                                     | -       | -       | -     |
| 2024              | -            | -           | 0   | 0.59    | 0.04    | -                                     | -       | -       | -     |
| 2025              | 6,606,273    | 8,176,450   | 0   | 0.51    | 0.04    | -                                     | 4,170   | 327     | 4,497 |
| 2026              | 9,841,948    | 14,312,550  | 0   | 0.47    | 0.03    | -                                     | 6,727   | 429     | 7,156 |
| 2027              | -            | -           | 0   | 0.4     | 0.03    | -                                     | -       | -       | -     |

| Transport (Rail) |                  |   |         |   |         |         |                          |         |         |        |
|------------------|------------------|---|---------|---|---------|---------|--------------------------|---------|---------|--------|
| Factor           | kg CO2-e/t.km    |   | 0.02779 | DEFRA 2024 - Freightage goods - Freight train |         |         |                          |         |         |        |
| Distance         | km               |   | 150     | Assumed distance to port                      |         |         |                          |         |         |        |
|                  |                  |   |         |   |         |         |                          |         |         |        |
|                  |                  |   |         | Emission factor (kg CO2-e/t)                  |         |         | Emissions (t CO2-e/year) |         |         |        |
| Year             | Product coal (t) | - |         | Scope 1                                       | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3 | Total  |
| 2023             | -                | - |         |   | 0       | 0       | 4.17                     | -       | -       | -      |
| 2024             | -                | - |         |   | 0       | 0       | 4.17                     | -       | -       | -      |
| 2025             | 4,571,271        | - |         |   | 0       | 0       | 4.17                     | -       | -       | 19,055 |
| 2026             | 6,964,917        | - |         |   | 0       | 0       | 4.17                     | -       | -       | 29,033 |
| 2027             | -                | - |         |   | 0       | 0       | 4.17                     | -       | -       | -      |

| Transport (Shipping) |                  |         |  |         |         |                          |         |         |         |
|----------------------|------------------|---------|--|---------|---------|--------------------------|---------|---------|---------|
| Factor               | kg CO2-e/t.km    | 0.00353 | DEFRA 2024 - Freightng goods - Cargo ship, bulk carrier, average |         |         |                          |         |         |         |
| Distance             | km               | 8000    | Assumed distance to market                                       |         |         |                          |         |         |         |
| Year                 | Product coal (t) | -       | Emission factor (kg CO2-e/t)                                     |         |         | Emissions (t CO2-e/year) |         |         | Total   |
|                      |                  |         | Scope 1  | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3 |         |
| 2023                 | -                | -       | 0  | 0       | 28.24   | -                        | -       | -       | -       |
| 2024                 | -                | -       | 0  | 0       | 28.24   | -                        | -       | -       | -       |
| 2025                 | 4,571,271        | -       | 0  | 0       | 28.24   | -                        | -       | 129,093 | 129,093 |
| 2026                 | 6,964,917        | -       | 0  | 0       | 28.24   | -                        | -       | 196,689 | 196,689 |
| 2027                 | -                | -       | 0  | 0       | 28.24   | -                        | -       | -       | -       |

| Energy Production |              |                  |                              |         |         |                          |         |            |            |            |
|-------------------|--------------|------------------|------------------------------|---------|---------|--------------------------|---------|------------|------------|------------|
|                   |              |                  |                              |         |         |                          |         |            |            |            |
|                   |              |                  |                              |         |         |                          |         |            |            |            |
|                   |              |                  |                              |         |         |                          |         |            |            |            |
| Year              | ROM coal (t) | Thermal coal (t) | Emission factor (kg CO2-e/t) |         |         | Emissions (t CO2-e/year) |         |            | Total      |            |
|                   |              |                  | Scope 1                      | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3    |            |            |
| 2023              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          | -          |
| 2024              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          | -          |
| 2025              | 6,606,273    | 3,954,149        | 0                            | 0       | 2436.48 | -                        | -       | 9,634,206  | 9,634,206  | 9,634,206  |
| 2026              | 9,841,948    | 6,087,337        | 0                            | 0       | 2436.48 | -                        | -       | 14,831,676 | 14,831,676 | 14,831,676 |
| 2027              | -            | -                | 0                            | 0       | 2436.48 | -                        | -       | -          | -          | -          |

| Coking coal use |              |                 |                              |         |         |                          |         |           |           |           |
|-----------------|--------------|-----------------|------------------------------|---------|---------|--------------------------|---------|-----------|-----------|-----------|
|                 |              |                 |                              |         |         |                          |         |           |           |           |
|                 |              |                 |                              |         |         |                          |         |           |           |           |
|                 |              |                 |                              |         |         |                          |         |           |           |           |
| Year            | ROM coal (t) | Coking coal (t) | Emission factor (kg CO2-e/t) |         |         | Emissions (t CO2-e/year) |         |           | Total     |           |
|                 |              |                 | Scope 1                      | Scope 2 | Scope 3 | Scope 1                  | Scope 2 | Scope 3   |           |           |
| 2023            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         | -         |
| 2024            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         | -         |
| 2025            | 6,606,273    | 617,122         | 0                            | 0       | 2760.9  | -                        | -       | 1,703,811 | 1,703,811 | 1,703,811 |
| 2026            | 9,841,948    | 877,580         | 0                            | 0       | 2760.9  | -                        | -       | 2,422,909 | 2,422,909 | 2,422,909 |
| 2027            | -            | -               | 0                            | 0       | 2760.9  | -                        | -       | -         | -         | -         |

## **Australia**

### **SYDNEY**

Ground floor 20 Chandos Street  
St Leonards NSW 2065  
T 02 9493 9500

### **NEWCASTLE**

Level 3 175 Scott Street  
Newcastle NSW 2300  
T 02 4907 4800

### **BRISBANE**

Level 1 87 Wickham Terrace  
Spring Hill QLD 4000  
T 07 3648 1200

### **CANBERRA**

Suite 2.04 Level 2  
15 London Circuit  
Canberra City ACT 2601

### **ADELAIDE**

Level 4 74 Pirie Street  
Adelaide SA 5000  
T 08 8232 2253

### **MELBOURNE**

Suite 9.01 Level 9  
454 Collins Street  
Melbourne VIC 3000  
T 03 9993 1900

### **PERTH**

Suite 3.03  
111 St Georges Terrace  
Perth WA 6000  
T 08 6430 4800

## **Canada**

### **TORONTO**

2345 Yonge Street Suite 300  
Toronto ON M4P 2E5  
T 647 467 1605

### **VANCOUVER**

422 Richards Street Unit 170  
Vancouver BC V6B 2Z4  
T 604 999 8297

### **CALGARY**

700 2nd Street SW Floor 19  
Calgary AB T2P 2W2



[linkedin.com/company/emm-consulting-pty-limited](https://www.linkedin.com/company/emm-consulting-pty-limited)



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