Section 3
Strategic Context

Narrabri Underground Mine Stage 3 Extension Project

Environmental Impact Statement

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3 STRATEGIC CONTEXT

This section outlines the strategic context for the Project, having regard to relevant plans and policies, community views, economic and social trends, and the natural and built environments. The strategic need and potential benefits of the Project are also described in this section.

3.1 REGIONAL STRATEGIC CONTEXT

The Project is located in the New England North West region of NSW, which comprises the LGAs of Armidale Regional, Glen Innes Severn, Gunnedah, Gwydir, Inverell, Liverpool Plains, Moree Plains, Narrabri, Tamworth Regional, Tenterfield, Uralla and Walcha (DP&E, 2017).

The region includes river valleys dominated by agricultural land uses and elevated vegetated country typically managed as State Forests and National Parks.

The region includes strong broadacre cropping and grazing sectors, and emerging intensive agriculture and food processing sectors. The key agricultural commodities produced in the region (by value) include beef cattle, cereal grains, cotton, poultry and wool (DP&E, 2017).

The region is also rich in a variety of other resources such as coal, coal seam gas (CSG) and other minerals (DP&E, 2017). The Gunnedah Coalfield is host to a number of major coal mine developments in the region (Section 3.3).

The key population centres of the region include the two major regional centres of Armidale and Tamworth, and the five major towns of Narrabri, Gunnedah, Glen Innes, Inverell and Moree. These key population centres contain a number of industries and services ranging from professional services to manufacturing (DP&E, 2017).

The region is located between Sydney/Newcastle and Brisbane, which provide access to domestic and international markets and services. The existing road (e.g. Kamilaroi, Newell and New England Highways) and rail (e.g. Werris Creek Mungindi Railway) networks provide access from the region to these markets and services.

3.2 PROJECT STRATEGIC CONTEXT

3.2.1 Project Area

The Project is located approximately 25 km south-east of Narrabri and approximately 60 km north-west of Gunnedah (Figure 1-1). Baan Baa is located approximately 10 km to the south-east of the Pit Top Area and is the closest community to the Project (Figure 1-2a).

Existing land uses in the vicinity of the Narrabri Mine are characterised by a combination of coal mining, agricultural enterprises, rural dwellings and forestry operations (Pilliga East and Jacks Creek State Forests).

The Narrabri Mine is located to the immediate west of the Kamilaroi Highway and the Werris Creek Mungindi Railway (Figure 2-1). The Kamilaroi Highway provides road access to the Narrabri Mine, and product coal from the Narrabri Mine is transported via the Werris Creek Mungindi Railway to the Port of Newcastle for export.

Relevant land ownership information for land parcels and the location of rural dwellings within the immediate vicinity of the Project is provided on Figures 1-2a and 1-2b.

3.2.2 Mining Tenements

The NSW *Mining Act 1992* facilitates the development of mineral resources in NSW (including coal), having regard to the need to encourage ESD. This includes processes for the allocation of exploration tenements for coal, and the need for regular review and renewal of these tenements.

Coal is extracted at the Narrabri Mine from the Hoskissons Coal Seam within ML 1609 using underground longwall mining methods.

The Project would involve the extension of the underground mining areas at the Narrabri Mine to gain access to additional areas of ROM coal reserves within MLAs 1 and 2, which are located within EL 6243. This extension would also include additional mine life, development of additional supporting infrastructure and continued use of existing infrastructure.

3.2.3 Existing/Approved Narrabri Mine Infrastructure

Key existing/approved infrastructure at the Narrabri Mine that would continue to be used for the Project include:

- box cut;
- CHPP (Section 2.1.3);
- ROM coal stockpile and product coal stockpile and associated coal handling infrastructure (Section 2.1.3);
- rail loop and product coal load-out infrastructure (Section 2.1.3);
- reject emplacement area (Section 2.1.4);
- site water management infrastructure (e.g. water storages, water treatment facilities, brine storage area, sediment dams, water supply infrastructure and associated pumps, pipelines and drainage infrastructure) (Section 2.1.9);
- administration, workshop, store and bathhouse buildings;
- range of service facilities (e.g. potable water, sewerage treatment facilities, electricity distribution, waste management facilities) (Section 2.1.10);
- longwall unit assembly area;
- access roads;
- car parking; and
- amenity bunds.

The use of existing/approved Narrabri Mine infrastructure for the Project maximises the potential benefits of previous NCOPL investment and minimises the need for new surface development areas in comparison to a greenfield mine proposal.

In the absence of approval for the Project, this existing infrastructure would be decommissioned at the cessation of the approved Narrabri Mine and the potential benefits of its use would be forgone.

3.3 POTENTIAL CUMULATIVE INTERACTIONS WITH OTHER PROJECTS

This section describes the potential interaction between the Project and other major projects in the region that may be of potential relevance to the environmental assessment of the Project.

Key proposed or approved projects that may potentially interact with, or have potential cumulative impacts with, the Project include:

- Narrabri Gas Project;
- Queensland Hunter Gas Pipeline;
- Narrabri South Solar Farm;
- Silverleaf Solar Farm;
- Inland Rail (Narrabri to North Star Section);
- Inland Rail (Narromine to Narrabri Section); and
- other coal mining operations.

Figure 1-1 shows the locations of these other major developments relative to the Project.

Relevant cumulative impacts with the Project and these proposed and approved projects (where relevant) have been considered in this EIS (Section 6).

Narrabri Gas Project

The approved Narrabri Gas Project proposed by Santos NSW (Eastern) Pty Ltd (Santos) will be located in the Gunnedah Basin approximately 20 km south-west of Narrabri (GHD, 2017a), and is adjacent to the Project.

The Narrabri Gas Project is approved to progressively install up to 850 new gas wells on up to 425 new well pads over approximately 20 years, and the construction and operation of gas processing and water treatment facilities (GHD, 2017a). The project will target the deep Maules Creek formation coal seams as well as the shallower Hoskissons Coal Seam (the target seam for the Narrabri Mine).

The approved construction workforce is 1,300 personnel during the first two to three years, with a workforce of about 200 personnel for the ongoing operation of the Narrabri Gas Project (GHD, 2017a).

The development application for the Narrabri Gas Project (State Significant Development [SSD] 6456) was approved by the Independent Planning Commission (IPC) on 30 September 2020 and construction works had not commenced at the time of writing this document. The project was also declared a controlled action under the EPBC Act (EPBC 2014/7376).

Queensland Hunter Gas Pipeline

The approved Queensland Hunter Gas Pipeline will involve the construction and operation of an approximate 825 km long high-pressure gas transmission pipeline from the Queensland border near Boomi to Newcastle (including a short pipeline lateral to the Maitland area) (Hunter Gas Pipeline Pty Ltd, 2008).

The Queensland Hunter Gas Pipeline was approved by the NSW Minister for Planning in February 2009 and construction was yet to commence at the time of writing this document.

The approved pipeline alignment is approximately 1.3 km to the east of the Narrabri Mine.

A total construction workforce of approximately 600 personnel will be spread across two main working groups along the pipeline alignment. It is expected that it would take approximately four months for construction activities to move through an area (Hunter Gas Pipeline Pty Ltd, 2008).

An operational workforce of approximately 25 personnel would be required for the Queensland Hunter Gas Pipeline (Hunter Gas Pipeline Pty Ltd, 2008).

Narrabri South Solar Farm

The Narrabri South Solar Farm is proposed by Canadian Solar (Australia) Pty Ltd and involves the development of a 60-million-watt photovoltaic solar farm and associated infrastructure approximately 10 km south-east of Narrabri (Melotte Consulting, 2018).

The proposed construction workforce is 75 personnel for approximately six to nine months. During the approximate 35-year operational phase, a workforce of about five personnel would be required (Melotte Consulting, 2018).

The development application for the Narrabri South Solar Farm (SSD-8387) was approved by the NSW Government in December 2018 and construction works had not commenced at the time of writing this document.

Silverleaf Solar Farm

The Silverleaf Solar Farm proposed by ENGIE Renewables Australia Pty Ltd involves the development of a 120-million-watt photovoltaic solar farm and associated infrastructure approximately 4 km north of Narrabri (GHD, 2019).

The proposed construction workforce is 120 personnel for approximately 12 months. During the approximate 35-year operational phase, a workforce of about six personnel would be required (GHD, 2019).

The development application for the Silverleaf Solar Farm (SSD-9358) was submitted to the NSW Government in May 2018 and was at the assessment phase at the time of writing this document.

Inland Rail (Narrabri to North Star Section)

Inland Rail (Narrabri to North Star Section) would form part of the Inland Rail Proposal from Brisbane to Melbourne by the Australian Rail Track Corporation Ltd. In the vicinity of the Project, it would be located approximately 28 km north-west of the Narrabri Mine.

The Inland Rail (Narrabri to North Star Section) would consist of the upgrade of approximately 188 km of rail line and associated infrastructure (GHD, 2017b).

Phase 1 excludes a 15 km section of rail line in the vicinity of the Mehi-Gwydir floodplain. This 15 km section of rail line is included in Phase 2 (Australian Rail Track Corporation, 2020).

The construction workforce would average approximately 180 personnel over approximately two years (GHD, 2017b).

The development application for the Inland Rail (Narrabri to North Star Section) (Phase 1) (SSI-7474) was approved by the Minister for Planning in August 2020 and construction had not commenced at the time of writing this document. The project was also declared a controlled action under the EPBC Act (EPBC 2016/7729 and EPBC 2020/8689).

A Scoping Report for the Inland Rail (Narrabri to North Star Section) (Phase 2) (SSI-10054) was submitted to the DPIE in May 2017 and SEARs had not been issued at the time of writing this document.

Inland Rail (Narromine to Narrabri Section)

The Inland Rail (Narromine to Narrabri Section) would form part of the Inland Rail Proposal from Brisbane to Melbourne by the Australian Rail Track Corporation Ltd. In the vicinity of the Project, it would be located approximately 23 km north-west of the Narrabri Mine.

The Inland Rail (Narromine to Narrabri Section) would consist of the construction of approximately 300 km of rail line and associated infrastructure. Construction is anticipated to commence in 2020 and take approximately four years (GHD, 2018).

SEARs for the Inland Rail (Narromine to Narrabri Section) had been issued at the time of writing this document. The project was also declared a controlled action under the EPBC Act (EPBC 2018/8259).

Other Coal Mining Operations

Other proposed or approved developments that are remote from the Project, but may be of potential relevance to future cumulative rail movements and regional population and community infrastructure demand, include:

- Maules Creek Coal Mine, operated by Maules Creek Coal Pty Ltd, a subsidiary of Whitehaven;
- Boggabri Coal Mine, operated by Boggabri Coal Operations Pty Ltd, which is majority owned by Idemitsu Australia Resources Pty Ltd;
- Tarrawonga Coal Mine, operated by Tarrawonga Coal Pty Ltd, a subsidiary of Whitehaven;
- Rocglen Coal Mine (rehabilitation phase), operated by Namoi Mining Pty Limited, a subsidiary of Whitehaven;
- Sunnyside Coal Mine (rehabilitation phase), operated by Whitehaven;
- Werris Creek Coal Mine, operated by Werris Creek Coal Pty Limited, a subsidiary of Whitehaven;
- the approved Vickery Extension Project (SSD-7480), operated by Vickery Coal Pty Ltd; and
- the approved (but not commenced) Watermark Coal Project (SSD-4975), operated by Shenhua Watermark Coal Pty Ltd.

3.4 KEY ENGAGEMENT OUTCOMES

Section 5 describes the consultation undertaken prior to and during the preparation of this EIS, and the ongoing community initiatives and consultation programs that NCOPL has established in the region.

The key assessment issues identified during this consultation are outlined in Section 5.

3.5 RELEVANT STRATEGIC PLANNING DOCUMENTS

3.5.1 Development Control Plans

The NSC has a range of development control plans that provide detailed planning and design guidelines to support the planning controls in the Narrabri LEP.

Clause 11 of the *State Environmental Planning Policy (State and Regional Development) 2011* (State and Regional Development SEPP) provides that development control plans (whether made before or after the commencing of the State and Regional Development SEPP do not apply to SSD, and hence to do not apply to the Project.

3.5.2 Strategic Statement on Coal Exploration and Mining In NSW

The *Strategic Statement on Coal Exploration and Mining in NSW* (NSW Government, 2020) outlines the NSW Government's approach to the continued development of the State's coal resources for the benefit of the State in the context of the global transition to alternative energy sources to meet commitments under the *Paris Agreement* (Section 3.5.6).

The *Strategic Statement on Coal Exploration and Mining in NSW* recognises the value of coal production to the State, including:

- The potential for coal production to deliver significant economic benefits to regional communities.
- The public services and infrastructure that are funded by the significant royalty payments generated from coal production.
- The significant contribution that coal production provides to export earnings as the State's largest export commodity.

The *Strategic Statement on Coal Exploration and Mining in NSW* outlines that coal production for the export market will continue to have an important role to play in NSW:

- Thermal coal is a critical global energy source (currently supplying over one-third of all electricity produced).
- Demand for thermal coal is likely to remain stable in the medium term, notwithstanding the transition to alternative energy sources, as demand from developing countries (particularly in south-east Asia) is expected to increase as they seek to expand access to electricity for their citizens.
- Ending or reducing NSW thermal coal exports while there is still strong, long-term global demand for thermal coal would likely have little to no impact on global greenhouse gas emissions as thermal coal users would likely source thermal coal from alternative lower quality suppliers relative to NSW thermal coal.
- Demand for coal used in steel making is expected to be sustained over the longer term as there are currently limited available practical substitutes.

The *Strategic Statement on Coal Exploration and Mining in NSW* provides the following relevant actions to provide a consistent policy framework for the NSW coal industry:

- Improving Certainty – identifying areas where coal exploration and mining cannot occur.
- Supporting Responsible Coal Production – recognise existing industry investment by considering applications to extend the life of current coal mines so that existing economic benefits to the State can continue to be delivered.
- Managing Potential Impacts of Coal Production – reduce or mitigate potential environmental, social and economic impacts, including:
  - potential air quality and water resource impacts;
  - greenhouse gas emissions directly associated with coal mining (e.g. fugitive emissions);
  - potential impacts on mine-affected communities; and
  - consideration of rehabilitation and closure planning (including the beneficial use of rehabilitated mine sites).
- Diversification of Regional Economies – assist regional communities transition from coal mining.

The Project would be consistent with the *Strategic Statement on Coal Exploration and Mining in NSW*, because:

- The Project would not be located in an area where coal exploration and mining cannot occur.
- The Project would involve the extension of the underground mining areas at the Narrabri Mine to gain access to additional areas of ROM coal reserves within MLAs 1 and 2, which are located within EL 6243. The use of existing/approved Narrabri Mine infrastructure for the Project maximises the potential benefits of previous NCOPL investment and minimises the need for new surface development areas in comparison to a greenfield mine proposal.
- This EIS considers the potential benefits and consequences to the residents of NSW, including a cost-benefit analysis. Significant returns for the NSW community would principally be generated through contributions to State royalties, Commonwealth tax revenue and Council rates (Sections 6.15 and 7 and Appendix L).
- Consideration of the potential air quality impacts have been assessed for the Project and it was concluded that there would be no significant incremental impacts on rural dwellings in the vicinity of the Project (Appendix I and Section 6.9).

- The potential impacts of the Project on groundwater and surface water resources are discussed in Sections 6.4 and 6.5 and Appendices B and C, including measures to minimise potential impacts.
- The Project greenhouse gas emissions assessment, greenhouse gas abatement measures and relevant state and national policies, programs and guidelines are described in Sections 3.5.6, 6.17 and 7. This EIS demonstrates that Scopes 1 and 2 greenhouse gas emissions of the Project have been minimised to the greatest extent practicable (based on the existing knowledge of gas quantity and content) (Section 6.17).
- Attachment 5 outlines how the Project site would be rehabilitated to include post-mining land uses that would be consistent with surrounding existing land uses.
- The Project would facilitate continued and additional local and regional employment and economic development opportunities (Section 6.16 and Appendix L).
- NCOPL is committed to ongoing financial support for regional community groups (Section 5.3.4).

3.5.3 New England North West Regional Plan 2036

The *New England North West Regional Plan 2036* (DP&E, 2017) (the Regional Plan) applies to the LGAs of Armidale Regional, Glen Innes Severn, Gunnedah, Gwydir, Inverell, Liverpool Plains, Moree Plains, Narrabri, Tamworth Regional, Tenterfield, Uralla and Walcha. The Project is located within the Narrabri LGA and is, therefore, in the area covered by the Regional Plan.

The Regional Plan replaced the *New England North West Strategic Regional Land Use Plan* (Department of Planning and Infrastructure [DP&I], 2012) and outlines the land use planning priorities for the region over 20 years to 2036.

The Regional Plan recognises the significance of mineral resource development and includes the growth of mineral resource development in the overall vision for the region. The Project would provide continued growth of mineral resource development in the region.

The Regional Plan has four goals for the region:

- *A strong and dynamic regional economy*
- *A healthy environment with pristine waterways*
- *Strong infrastructure and transport networks for a connected future*
- *Attractive and thriving communities*

The Project is generally consistent with the goals of the Regional Plan as:

- The Project would benefit the economy through the creation of employment opportunities and regional expenditure (Section 6.16 and Appendix L).
- The Project incorporates a range of strategies to manage and minimise impacts on the surrounding waterways (Sections 2.10, 6.4 and 6.5 and Appendices B and C).
- The Project includes consideration of potential social and economic impacts, including access to services, facilities and transport networks (Sections 6.15 and 6.16 and Appendices K and L).
- The Project would continue to make community contributions supporting positive social outcomes, social infrastructure investments and/or community resilience improvements (Section 6.16 and Appendix K).

The Regional Plan acknowledges that mineral resource extraction has the potential to affect economic, social and environmental values in the region. In this regard, the Regional Plan concludes:

> *Mining activities need to be undertaken sensitively to minimise negative impacts on the environment, important agricultural land, neighbouring businesses and the community.*

The potential impacts on agricultural resource and enterprises, and potential social impacts of the Project have been assessed and are presented in Sections 6.6 and 6.16 and Appendices G and K.

3.5.4 Narrabri Shire Community Strategic Plan 2017–2027

The *Narrabri Shire Community Strategic Plan 2017 – 2027* (NSC, 2016) is the NSC's strategic plan for the Narrabri LGA to 2027.

The *Narrabri Shire Community Strategic Plan 2017 – 2027* (NSC, 2016) includes four key strategic directions:

- Strategic Direction 1: Safe, Inclusive and Connected Community – *A safe, supportive community where everyone feels welcomed, valued and connected*.
- Strategic Direction 2: Environmentally Sustainable and Productive Shire – *Maintaining a healthy balance between our natural and built environment*.
- Strategic Direction 3: Progressive and Diverse Economy – *A strong, diverse economy that attracts, retains and inspires business, industry and tourism growth*.
- Strategic Direction 4: Collaborative and Proactive Leadership – *Working proactively together to achieve our shared vision with strong, strategic direction*.

The Project is generally consistent with the strategic directions included in the *Narrabri Shire Community Strategic Plan 2017 – 2027* (NSC, 2016) as the Project:

- would continue to coexist with the community, and has been developed in a manner that has both considered the potential economic and social impacts to the region and would promote community growth and development (Section 6.16 and Appendix K);
- would continue to make community contributions supporting positive social outcomes, social infrastructure investments and/or community resilience improvements (Section 6.16 and Appendix K);
- incorporates a range of strategies to manage and minimise potential impacts on the surrounding environment (Section 6);
- incorporates relevant ESD considerations (Section 7.4.3);
- would benefit the economy through the continuation of employment opportunities and regional expenditure (Section 6.15 and Appendix L); and
- would be developed in a manner that incorporates community engagement through the Project EIS consultation program (Section 5) as well as the public exhibition of the EIS document.

3.5.5 North West Local Land Services – Local Strategic Plan 2016–2021

The *North West Local Land Services – Local Strategic Plan 2016-2021* (North West Local Land Services, 2016) outlines four key goals to be achieved:

- *Resilient, self-reliant and prepared local communities.*
- *Biosecure, profitable, productive and sustainable primary industries.*
- *Healthy, diverse and connected natural environments.*
- *Board members and staff who are collaborative, innovative and commercially focused.*

The Project is generally consistent with the goals described in the *North West Local Land Services – Local Strategic Plan 2016-2021* (North West Local Land Services, 2016) as the Project:

- would benefit current and future generations through the continuation of employment and regional expenditure associated with the Project (Section 7 and Appendix L); and
- considers potential biodiversity, water resources, road transport, waste management, Aboriginal and historic heritage, noise and air quality impacts and measures to manage and mitigate impacts have been developed (as discussed in Section 6).

3.5.6 Climate Change

Paris Agreement

At the 21st meeting of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, the *Paris Agreement* was adopted by the COP. The goal of the *Paris Agreement* is to limit global temperature increases to well below 2 degrees Celsius (°C) above pre-industrial levels (Article 2[1][a]).

This is to be achieved by nationally determined contributions (NDCs) (Article 3), with parties aiming to reach peak global emissions as soon as possible, so as to achieve a "*balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century*" (Article 4[1]).

The *Paris Agreement* does not specify the ways in which global emission reductions are to be achieved. It requires parties to prepare, communicate and maintain NDCs and to pursue domestic measures to achieve the objectives of the NDCs (Article 4[2]). The NDCs are to be communicated every five years, with each successive NDC to represent a progression beyond the previous NDC (Article 4[3], [9]).

To date, 189 parties have ratified the *Paris Agreement* and 186 parties have submitted their first NDCs. Parties' second or updated NDCs were due to be submitted by 2020.

It is important to note that under the *Paris Agreement* each NDC reflects the country's ambition for reducing emissions, taking into account its domestic circumstances and capabilities (UNFCCC, 2019). Economic, geopolitical and environmental differences mean that each country will have its own unique set of opportunities and priorities to consider when preparing its NDCs and evaluating the suitability of various alternative emission reduction and mitigation options.

Australia's first NDC submitted to the UNFCCC in August 2015 sets an economy-wide greenhouse gas emission reduction target of 26 to 28% on 2005 levels by 2030 (Commonwealth of Australia, 2015).

A range of policies, including the Emissions Reduction Fund, the Safeguard Mechanism, the Renewable Energy Target and the National Energy Productivity Plan, have been implemented by the Commonwealth Government to help Australia meet the target in its NDC.

Table 3-1 provides a summary of the current NDCs under the *Paris Agreement* of the expected customer countries for Project product coal.

Table 3-1
Potential Customer Country Current Nationally Determined Contributions

Destination Country/State	Summary of NDC
Japan	26% reduction in greenhouse gas emissions compared to 2013 emissions by 2030.
India	A 33 to 35% reduction in greenhouse gas emissions per unit of Gross Domestic Product (GDP) from the 2005 level by 2030.
South Korea	37% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 536 million tonnes of carbon dioxide equivalent (Mt CO_2-e) in 2030.
Taiwan	While not a party to the UNFCCC or the *Paris Agreement*, Taiwan has committed to a 50% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 214 Mt CO_2-e in 2030.
China	Achieve peak greenhouse gas emissions in 2030, with a 60% to 65% reduction in greenhouse gas emissions per unit of GDP from the 2005 level in 2030.
Malaysia	A 35% reduction in greenhouse gas emissions per unit of GDP from the 2005 level in 2030 (unconditional with domestic resources). A 45% reduction in greenhouse gas emissions per unit of GDP from the 2005 level in 2030 (conditional with international support).
Indonesia	29% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 2,037 Mt CO_2-e in 2030 (unconditional with domestic resources). 41% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 1,693 Mt CO_2-e in 2030 (conditional with international support).
Vietnam	8% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 724 Mt CO_2-e in 2030 (unconditional with domestic resources). 25% reduction in greenhouse gas emissions compared to the business-as-usual projection for 2030 by 2030, or a total of approximately 591 Mt CO_2-e in 2030 (conditional with international support).

After: Government of Japan (2020), Government of India (2016), Government of South Korea (2015), Department of Climate Change, National Development & Reform Commission of China (2015), Government of Taiwan (2015), Government of Vietnam (2015), Government of Indonesia (2016) and Government of Malaysia (2015).

A quantitative assessment of potential direct and indirect greenhouse gas emissions of the Project is provided in Section 6.17.

NSW Government Policies

The main climate change policy implemented by the NSW Government is the *NSW Climate Change Policy Framework* (NSW Office of Environment and Heritage [OEH], 2016).

The *NSW Climate Change Policy Framework* seeks to provide aspirational goals and broad policy directions to achieve NSW's objective of achieving net-zero emissions by 2050, and to allow NSW to be more resilient and responsive to climate change (OEH, 2016).

Its other aspirational objectives include the implementation of policies consistent with the Commonwealth's plan for long-term emissions savings, to reduce emissions in government operations, and to advocate for action by the Commonwealth, Council of Australian Governments and internationally consistent with the *Paris Agreement* (OEH, 2016).

Under the *NSW Climate Change Policy Framework*, NSW has committed to work to complement national action taken in respect to Australia's commitments under the *Paris Agreement*. The policy framework is being delivered through (OEH, 2016):

- the Climate Change Fund;
- the development of a value for emissions savings that will be applied consistently in government economic appraisals;
- embedding climate change mitigation and adaptation across government operations including service delivery, infrastructure, purchasing decisions and regulatory frameworks;
- building on NSW's expansion of renewable energy; and
- developing action plans and strategies, including for advanced energy, energy efficiency, climate change adaptation, energy productivity, fugitive emissions, primary industry emissions and adaptation, and health and wellbeing.

The NSW Government's *Net Zero Plan Stage 1: 2020-2030* (DPIE, 2020a) sets out how the NSW Government will deliver on the objectives of the *NSW Climate Change Policy Framework* (OEH, 2016), including the following priority areas of action:

- Drive uptake of proven emissions reduction technologies that grow the economy, create new jobs or reduce the cost of living.
- Empower consumers and businesses to make sustainable choices.
- Invest in the next wave of emissions reduction innovation to ensure economic prosperity from decarbonisation beyond 2030.
- Ensure the NSW Government leads by example.

The plan references the economic contribution of the coal mining sector to NSW and identifies the minimisation of fugitive emissions from the coal mining sector as being important to minimising NSW's greenhouse gas emissions:

> *New South Wales' $36 billion mining sector is one of our biggest economic contributors, supplying both domestic and export markets with high quality, competitive resources. Mining will continue to be an important part of the economy into the future and it is important that the State's action on climate change does not undermine those businesses and the jobs and communities they support.*
>
> *Limiting the fugitive emissions that come from coal mining is important to reduce the State's emissions. Capturing and combusting these emissions will also provide new revenue streams to the mining sector and ensure that NSW mining companies can take advantage of global action on climate change.*
>
> *The NSW Government will invest in a Coal Innovation Program to reduce emissions from the mining and use of coal. The program is identified as a priority program for Bilateral funding.*
>
> *The Coal Innovation Program will focus on providing:*
>
> - *coal operators with direct, strategic incentives to capture and reuse methane released during mining*
> - *research and industry partnerships with funding to commercialise emerging technologies to reduce emissions at hard to mitigate mine sites.*

In addition, the *Strategic Statement on Coal Exploration and Mining in NSW* (Section 3.5.2) confirms that the NSW Government is "putting in place a range of initiatives to reduce greenhouse gas emissions in the mining and electricity sectors, as well as other sectors". This policy statement also makes it clear that:

> *Ending or reducing NSW thermal coal exports while there is still strong long-term global demand would likely have little or no impact on global carbon emissions. Most coal consumers would be likely to source their coal from elsewhere, and much of this coal would be lower quality compared to NSW coal. Reducing demand for thermal coal in line with the Paris Agreement by progressively replacing coal-fired electricity with cleaner energy sources, as has been seen in Europe, will be more effective in reducing global emissions than reducing NSW coal supplies.*
>
> *…*
>
> *The NSW Government is taking a responsible approach to the global transition to a low carbon future, consistent with Australia's ambition under the Paris Agreement. Our goal is to set a clear and consistent policy framework that supports investment certainty in NSW as the coal sector responds to global demand, while assisting communities to manage a decline in thermal coal mining in the state over the longer term.*

A quantitative assessment of potential direct and indirect greenhouse gas emissions of the Project is provided in Section 6.17.

Project-specific greenhouse gas mitigation measures (including measures to minimise fugitive emissions) are described in Section 6.17.

The Project would comply with all applicable national measures in place to help Australia meet the target in its NDC, such as the National Greenhouse and Energy Reporting Scheme (NGERS). Additionally, the Project would be consistent with the first priority area of action in the *Net Zero Plan Stage 1: 2020-2030* (DPIE, 2020a) in that it would continue to investigate developments in flaring technology (Section 6.17.4) while continuing to support jobs and communities.

Further consideration of direct and indirect greenhouse gas emissions from the Project in the context of ESD is provided in Section 7.4.3.

3.5.7 Other Relevant NSW Assessment Policies

A range of NSW environmental assessment policies for various potential environmental aspects are documented in the Project SEARs (Attachment 1).

These include policies that pertain to assessment (e.g. NSW *Aquifer Interference Policy* [AIP] [DPI – Office of Water, 2012]) and to the application of Project assessment findings (e.g. the *Voluntary Land Acquisition and Mitigation Policy* [NSW Government, 2018]).

Where relevant to the Project, the requirements of these policies and the assessed outcomes relative to these policies are presented in Section 6 of the EIS and/or the associated specialist Appendices A to P.

3.6 STRATEGIC NEED AND POTENTIAL BENEFITS OF THE PROJECT

The Project would allow the extension of approved longwall operations and facilitate the continuation of benefits derived from the existing approved Narrabri Mine.

The Project would continue to use the significant existing Narrabri Mine surface facilities with some additional upgrades over the life of the Project. The use of these existing surface facilities by the Project maximises the potential benefits of previous NCOPL infrastructure investment, and minimises the need for new surface disturbance areas in comparison to a greenfield mine proposal.

The Project would facilitate the additional extraction of approximately 110 Mt of ROM coal. Up to 11 Mtpa of ROM coal would be processed to produce thermal and PCI coal for delivery to export markets using existing rail and port infrastructure.

The primary customers for the Project's thermal and PCI coal products are expected to continue to be advanced and developing economies across north and south-east Asia.

Based on the information contained in the *World Energy Outlook 2019* (International Energy Agency, 2019), there will continue to be a global demand for thermal coal for electricity generation that will need to be serviced by brownfield expansions of existing coal mines (e.g. the Project) or the development of new coal mines.

The annual global seaborne trade of coking (including PCI) coals is expected to increase between 2018 and 2040 (Wood Mackenzie, 2019).

Project coal production would contribute to NSW export income, State royalties and Commonwealth tax revenue (Section 6.15 and Appendix L).

The Project would provide continued employment of up to approximately 520 direct, additional short-term increases in employment (for construction and potential additional development requirements), and many more indirect jobs.

These potential economic benefits would be particularly valuable while NSW is recovering from the significant economic impacts associated with the coronavirus disease (COVID-19) pandemic.

NCOPL would also continue to support local businesses over the Project life.

The Project would include the implementation of environmental mitigation measures (including performance monitoring and adaptive management) to minimise potential impacts on the environment and community (Section 6).

The Project would be consistent with the *Strategic Statement on Coal Exploration and Mining in NSW* (Section 3.5.2).

A detailed evaluation of the Project is provided in Section 7.