

Paling Yards Wind Farm

Tract



Preliminary Cumulative Impact Assessment

PREPARED IN SUPPORT OF THE SCOPING REPORT

October 2021

Prepared for Global Power Generation Australia Pty Ltd



Quality Assurance

Paling Yards Wind Farm
Cumulative Impact Assessment – Scoping
PRELIMINARY REPORT

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Scoping the Cumulative Impact Assessment

1 Introduction

Tract Consultants (Tract) has prepared this preliminary report on behalf of Global Power Generation Australia (GPGA / GPG), to provide a high-level review to scope the potential cumulative impacts of the proposed Paling Yards Wind Farm (PYWF) within the locality. This report investigates and discusses the potential cumulative impacts of PYWF development and any other wind farm or significant developments within the area as part of the Scoping Report process.

1.1 Introduction to Cumulative Impact Assessment

The Department of Planning Industry and Environment's (DPIE) 'Cumulative Impact Assessment Guidelines' (July 2021) states the purpose for assessing a project's cumulative impact is as follows:

"The purpose of these guidelines is to set clear expectations and requirements for assessing project-level cumulative impacts related to State significant projects. As many cumulative impact matters are addressed through strategic planning, assessment and management, project-level CIA can be tailored to focus on the impacts that may arise due to the interactions between the project and relevant future projects in the same area and over similar timeframes."

This high-level cumulative impact assessment (CIA) report, as part of the Scoping Report process for the Paling Yards Wind Farm, aims to inform the potential cumulative impacts as part of the combined incremental and combined CIA approaches. During the detailed Environmental Impact Assessment process, it is expected that a more detailed issue-specific CIA and combined CIA will be prepared as part of the Environmental Impact Statement (EIS) and environmental impact assessment (EIA) process.

- The following documents guide this CIA as part of the DPIE's 'Rapid Assessment Framework' (DPIE, 2021):
 - State Significant Development Guidelines (SSD Guide) and Appendix A - Preparing a Scoping Report
 - Cumulative Impact Assessment Guidelines (DPIE, 2021)
 - 'Wind Energy Guideline' (Wind Guideline) (DPE, 2016)
 - 'Wind Energy: Visual Assessment Bulletin' (Visual Bulletin) (DPE, 2016)
 - 'Wind Energy: Noise Assessment Bulletin' (Noise Bulletin) (DPE, 2016)
 - 'Wind Energy Framework Standard Secretary's Environmental Assessment Requirements' (SEARs)

The more detailed CIA will, later on, be guided by the requirements outlined under the DPIE Planning Secretary's environmental assessment requirements (SEARs) provided to the GPGA following an initial review of the PYWF project by DPIE.

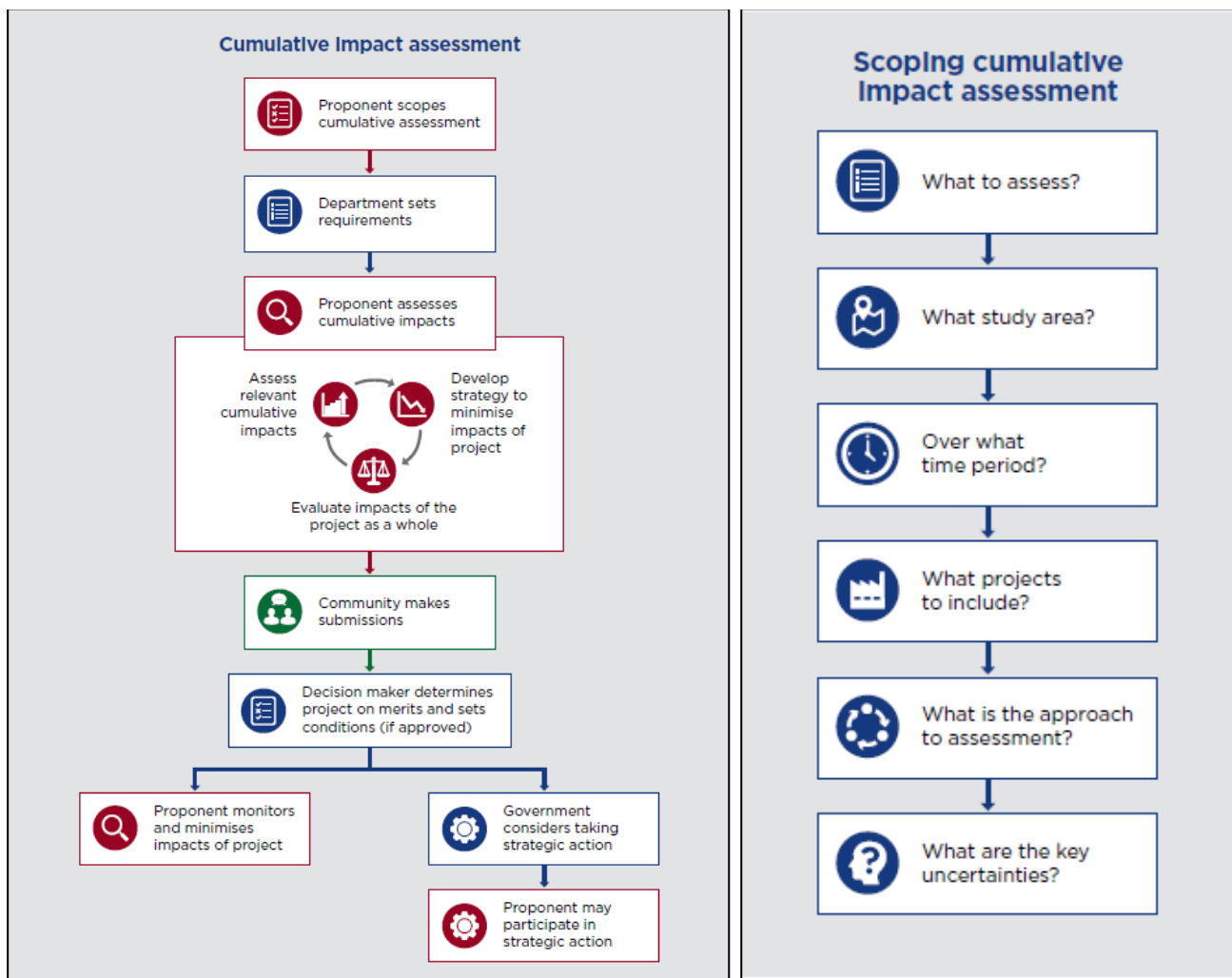


Figure 1. Key Steps and Questions in Cumulative Impact Assessment (Source: DPIE, 2021)

1.2 Scoping Report Cumulative Impact Assessment Considerations

As a summary, this preliminary CIA report reviews and considers the following items to assess in relation to cumulative impacts arising from the PYWF project:

- The areas of assessment include the government's strategic planning framework.
- The key potential material impacts of the PYWF (National Parks and other protected areas, environmentally sensitive areas, threatened species and ecological communities, important natural resources, culturally significant resources, key infrastructure and industries, sensitive land use zones, population centres, settlements and residential areas).
- The likely scale of impact of the as a result of cumulative impacts with existing wind farms in the Oberon Region (Crookwell 1 and Crookwell 2 Wind Farms) and any expected other wind farm developments within the area.
- The impact of any other development, including development ancillary to, or otherwise associated with, the proposed wind farm e.g., transmission line and supporting wind farm infrastructure.

2 Project Overview

This section outlines an overview of the PYWF project, and the study area selected for the cumulative impact assessment.

2.1 PYWF Project Site and Study Area

2.1.1 Project Site

The PYWF site is located on the western extent of the Great Dividing Range in NSW, 60km south of Oberon, 60km north of Goulburn in NSW and approximately 140km west of Sydney. The surrounding area is predominantly National Park with the eastern edge of the site bordered by Kanangra Boyd National Park and Abercrombie National Park to the west and south.

The site is situated in the Oberon Local Government Area (LGA).

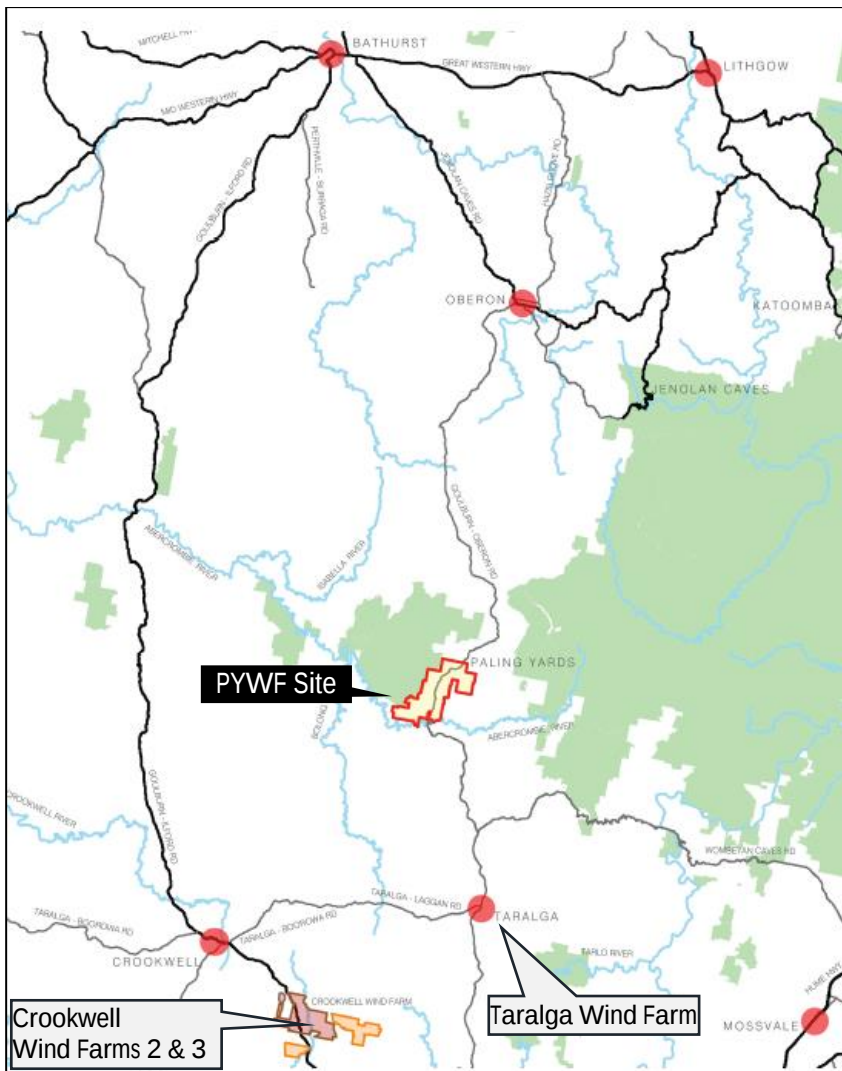


Figure 2. Regional and Local Site Context (Source: Tract, 2021)

2.1.2 Project Study Area

The study area selected for this scoping of cumulative impact assessment has been guided by the Preliminary Visual Impact Assessment – Paling Yards Wind Farm report (Revision C) completed by Moir Landscape Architecture (Moir) in September 2021 as part of the PYWF Scoping Report package.

The Study Area identified by Moir refers to the land associated with and surrounding the PYWF as defined by an 8 km radius around the PYWF site. National Parks and land border the Study Area to the southeast, all of which are heavily vegetated.

As a result of the initial Scoping Report and cumulative impact assessment, a detailed assessment of all potential impacts on other lands outside of the 8km radius will be undertaken by Moir, Tract and any other relevant specialists as directed by the SEARs during the Environmental Impact Assessment (EIA) stage.

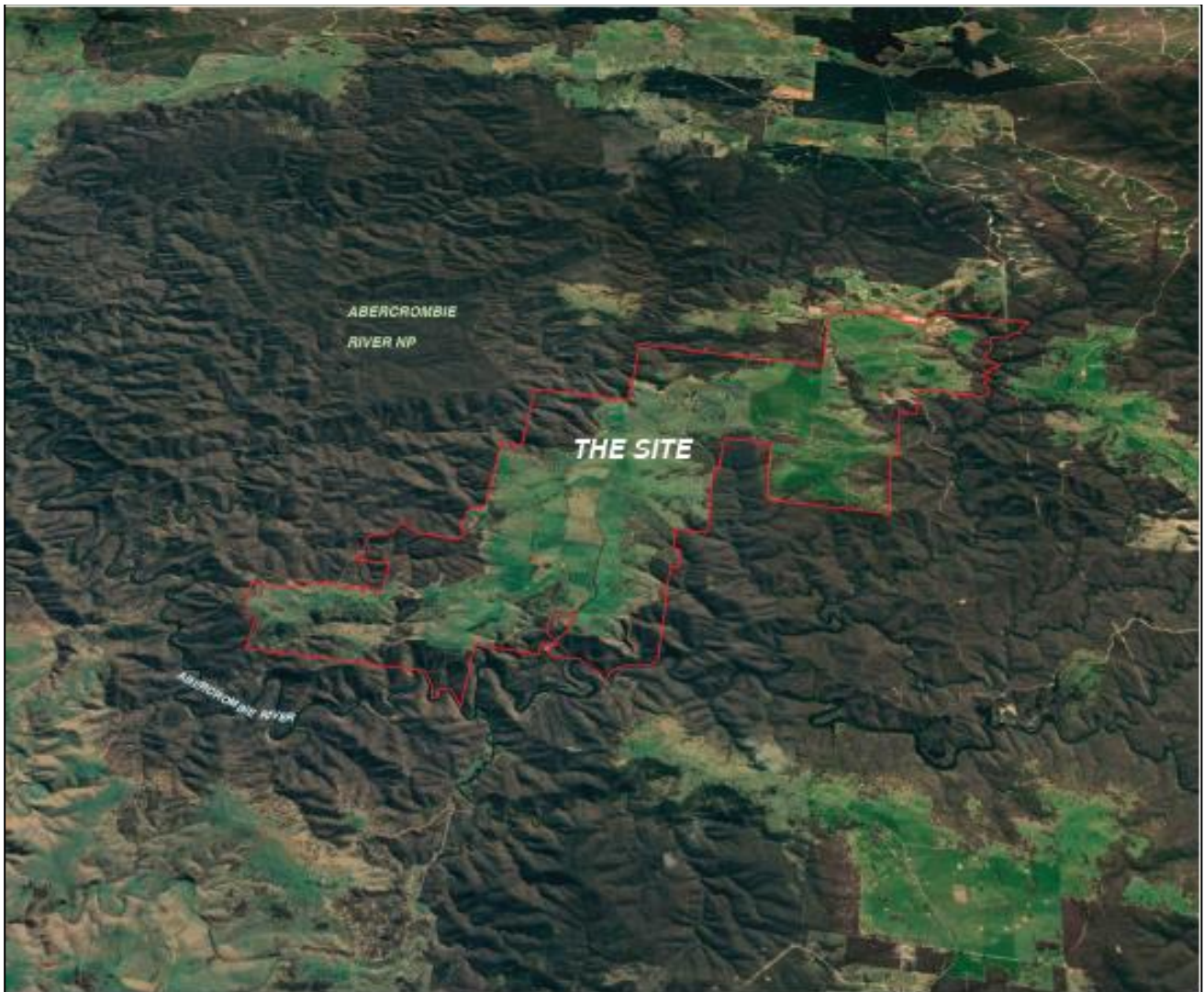


Figure 3. The PYWF Project Site Boundary (Source: Google Earth, 2021)

2.1.3 Key Locality Considerations

As identified within the Scoping Report, some of the key locality considerations for the site of the PYWF Project is as follows:

- Abercrombie National Park borders the site to the west and south. National parks and uncleared land border the site to the southeast, all of which are heavily vegetated
- To the east of the site is the Wiarborough Nature Reserve and Blue Mountains National Park.
- The Project site includes three separate land holdings over approximately 4,600 hectares referred to as 'Mingary Park', 'Paling Yards', 'Middle Station' and 'Hilltop'. Most of the site has been cleared of native vegetation, **although scattered trees are common within the area**, and thicker vegetation exists near the site's boundary.
- The site ranges from between 900m and 1,065m above sea level with significant slopes.
- The site includes several ephemeral creeks and drainage lines that cross the area, which drains into the Abercrombie River.
- The site is currently used for agricultural purposes such as sheep and cattle grazing.
- The area is heavily undulating with some steep slopes.
- The site is bisected by Taralga Road, which links the towns of Oberon and Taralga.
- The closest towns are Porters Retreat and Curraweela, which have township populations of approximately 180 and 320, respectively.
- Several watercourses traverse the area, including the Abercrombie River, which flows into the Lachlan River. The Abercrombie River forms the southern boundary of the site.
- The site is approximately 40km to the northeast of the existing Crookwell 1 wind farm and the approved Crookwell 2 and Crookwell 3 Wind Farms.

2.2 Wind Farm Developments in the Central Tablelands Region

The Central Tablelands is known for its strong wind resource and includes several other wind farms in various stages of planning and development. Recent studies have shown that the average wind speed tested across the Paling Yards region is approximately 7.0 metres per second, which is generally considered a good wind resource for turbines to operate under.

As a result of the site and region's suitability for wind turbines and the generation of renewable wind energy, several companies are active in the broader region, identifying suitable future wind farm sites. The outcome of the available wind resources within the area has seen the NSW Government positioning Crookwell (located approximately 40km southeast from the PYWF Project) as a designated renewable energy precinct.

The closest to the PYWF project is the Taralga, Crookwell 1 & 2 Wind Farms and the under-construction Crookwell 3 Wind Farm, which will essentially form an extension of the Crookwell 2 Wind Farm.

Figure 4 identifies the scale of the wind energy generated by various Wind Farm developments within the region in proximity to the PYWF site.



Figure 4. Operational NSW Wind Farm Developments - Renewable Energy Resources NSW (Source: Regional NSW - Mining, Exploration & Geoscience, 2021)

As part of this cumulative impact assessment scope, it is recognised that there are several wind farms proposed or being constructed. Therefore, there is potential for the impacts of these other wind farm projects to combine with the potential visual and environmental impacts of the PYWF, generating cumulative collective impacts more significant than if each of the single wind farm projects remained on their own.

Upon a review of the DPIE Major Projects website, the following wind energy projects are summarised in the table below as applicable for consideration when scoping the potential cumulative impacts. It is noted that each of the wind energy projects summarised in the table below has occurred within the region as a result of State policy (as suitable for wind energy investment as part of a Renewable Energy Precincts precinct) and due to the region's access to wind resources and major electricity transmission infrastructure.

Each wind energy project is considered to undergo a detailed review, assessment, community consultation, and determination as part of the State Significant Development (SSD) process.

Table 1. Other Wind Farms in the Region - Operational and Proposed

Wind Farm	Owner	Commissioned	Project Status	Megawatts (MW)	Number of Turbines	Wind Turbine Tip Height
Paling Yards Wind Farm (The Project)	Global Power Generation Australia (GPG)	TBC	Proposed	Up to 310.00	Up to 47	240m
Banjo Wind Farm	CWP Renewables	Underway	Under Construction	244.00	46	200 m
Biala Wind Farm	BJCE Australia	2020	Operational	110.00	31	185m
Blayney Wind Farm	Tilt Renewables	2000	Operational	9.90	15	45 m
Collector Wind Farm	RATCH-Australia Corporation Limited	2021	Operational	226.80	54	165 m
Crookwell Wind Farm	Tilt Renewables	1998	Operational	4.80	8	67 m
Crookwell 2 Wind Farm	Union Fenosa / GPG	2018	Operational	91.00	32	160 m
Crookwell 3 Wind Farm	Union Fenosa / GPG	2019	Under Construction	96.00	16	157 m
Cullerin Range Wind Farm	Origin Energy	2009	Operational	30.00	15	126 m
Gunning Wind Farm	Acciona	2011	Operational	47.00	31	121 m
Gullen Range Wind Farm	New Gullen Range Wind Farm Pty Ltd	2014	Operational	165.00	73	135 m
Hampton Wind Park	Hickory Hill Wind Energy Pty Ltd	2001	Operational	1.20	2	50 m
Rye Park Wind Farm	Tilt Renewables	Underway	Approved	Up to 396	66	200 m
Taralga Wind Farm	CBD Energy	2014	Operational	106.00	15	126 m
Woodlawn Wind Farm	Infigen Energy	2011	Operational	48.00	23	124 m

2.3 Relevant Projects for Cumulative Impact Assessment

The closest relevant projects to the PYWF Project site that could cause cumulative impact assessment are the Taralga, Crookwell 1, Crookwell 2 and Crookwell 3 (Under Construction) Wind Farms, and the Taralga Wind Farm. Each of these wind farms falls outside the 8km buffer for the PYWF Project and are more than 25km from the site.

Neither of these are expected to cause significant cumulative impacts due to the proposed operation of the PYWF within the area. It is approximately 40km to the northeast of the existing Crookwell 1, Crookwell 2 and Crookwell Wind Farms and 34km northwest from the Taralga Wind Farm.

Table 2. Relevant Projects for Cumulative Impact Assessment Summary

Projects	Definitions	Example
Crookwell 1 Wind Farm	Changes to the existing project	No changes at this stage are expected for the project.
	Approved project	The project is already approved and operating.
	Projects under assessment	No other aspects of the project are under assessment as understood at this stage.
	Related development to the project	Future development (ancillary infrastructure) may be required for the project, and this is expected to be subject to a separate assessment.
Crookwell 2 Wind Farm	Changes to the existing project	No current changes at this stage are expected for the project.
	Approved project	The project is already approved and operating.
	Projects under assessment	No other aspects of the project are under assessment as understood at this stage.
	Related development to the project	Future development (ancillary infrastructure) may be required for the project, and this is expected to be subject to a separate assessment.
Crookwell 3 Wind Farm	Changes to the existing project	No current changes at this stage are expected for the project.
	Approved project	The project is under construction.
	Projects under assessment	No other aspects of the project are under assessment as understood at this stage.
	Related development to the project	Future development (ancillary infrastructure) may be required for the project, and this is expected to be subject to a separate assessment.
Taralga Wind Farm	Changes to the existing project	No current changes at this stage are expected for the project.
	Approved project	The project is under construction.
	Projects under assessment	No other aspects of the project are under assessment as understood at this stage.

Projects	Definitions	Example
	Related development to the project	Future development (ancillary infrastructure) may be required for the project, and this is expected to be subject to a separate assessment.

It is expected that should any other projects be required to be considered as a relevant project, this can be confirmed and included as part of the SEARs and will be assessed as part of the EIA process.

2.4 Project Timeframe

It is expected that future wind farm developments will continue to be developed in the region during the PYWF Project's lifespan (30 years). The outcome could result in some cumulative impacts at various periods over the PYWF Project construction, operational, and decommissioning stages.

The table below indicates the indicative period where cumulative impacts from the PYWF Project and other renewable energy projects within the region could overlap.

Table 3. Summary of Potential Cumulative Impacts over the PYWF Project's Lifetime

Project Phase	Estimated Timeframe	Scale of Impact	Potential Cumulative Impacts	Duration
Assessment Phase	2021-2022	Minor	Community health and wellbeing	Temporary
Approval Phase	2022	Minor	Community health and wellbeing	Temporary
Construction Phase	October 2022 - March 2024	Moderate to Major	- Wind Turbine transport - Traffic and road access - Property access - Construction activities - Noise and vibration - Dust - Visual amenity - Hazards and safety - Other environmental (Biodiversity, water, soils, heritage)	Temporary
Operational Phase	2024 - 2054	Minor to Moderate	- Visual Amenity - Noise - Air quality and disturbances	Ongoing
Decommissioning Phase	Post 2054	Moderate	- Wind Turbine transport - Traffic and road access - Property access - Construction activities - Noise and vibration - Hazards and safety	Temporary

Cumulative Impact Assessment

3 Scoping Cumulative Impact Assessment

This section includes a brief assessment of the potential cumulative impacts to inform the detailed cumulative impact assessment requirements as part of the SEARs.

3.1 The PYWF Project Summary

The PYWF Project will consist of forty-seven (x47) wind turbines that would allow for a maximum capacity of up to 6.6MW per turbine, providing a total generation capacity of up to 310MW.

Table 4. Summary of Project Components and development aspects

Project Aspects	Description
Project Component Summary	- Construction of up to forty-seven (47) Wind Turbines Generators (WTG) with an overall maximum blade tip height of 240m and a total of three blades per turbine; - Construction of on-site electrical substations (collector substation and connection substation) with approximately 9km of overhead powerline (70m in width) to connect to the Mount Piper to Bannaby 500kV transmission line (including control room and other associated grid connection facilities); - Construction/ installation of associated infrastructure, including of up to three (x3) wind monitoring masts
Project Area	4,600 ha
Site Entry and Road Upgrades	- Constraints exist along the potential project transport route and are currently being investigated. - Site entry will be at various points off Abercrombie Road. - An internal road network will provide site access to the WTG's
Public Exhibition	Expected early 2022
Construction	Construction is scheduled to commence in late 2022

Project Aspects	Description
Operation	- It is expected that the Wind Farm will be operational between 2024-2054 - Hours of operation will be 24 / 7
Decommissioning and Rehabilitation	WSP has prepared a Decommissioning and Rehabilitation Plan (DRP) to identify an appropriate methodology for decommissioning the Paling Yard Wind Farm facility and the site's rehabilitation once the project reaches the end of its useful economic life.
Employment	400 full-time positions during construction - Four (x4) long term operations jobs
CIV	\$550 million to \$600 million
Project Area	4,600 ha

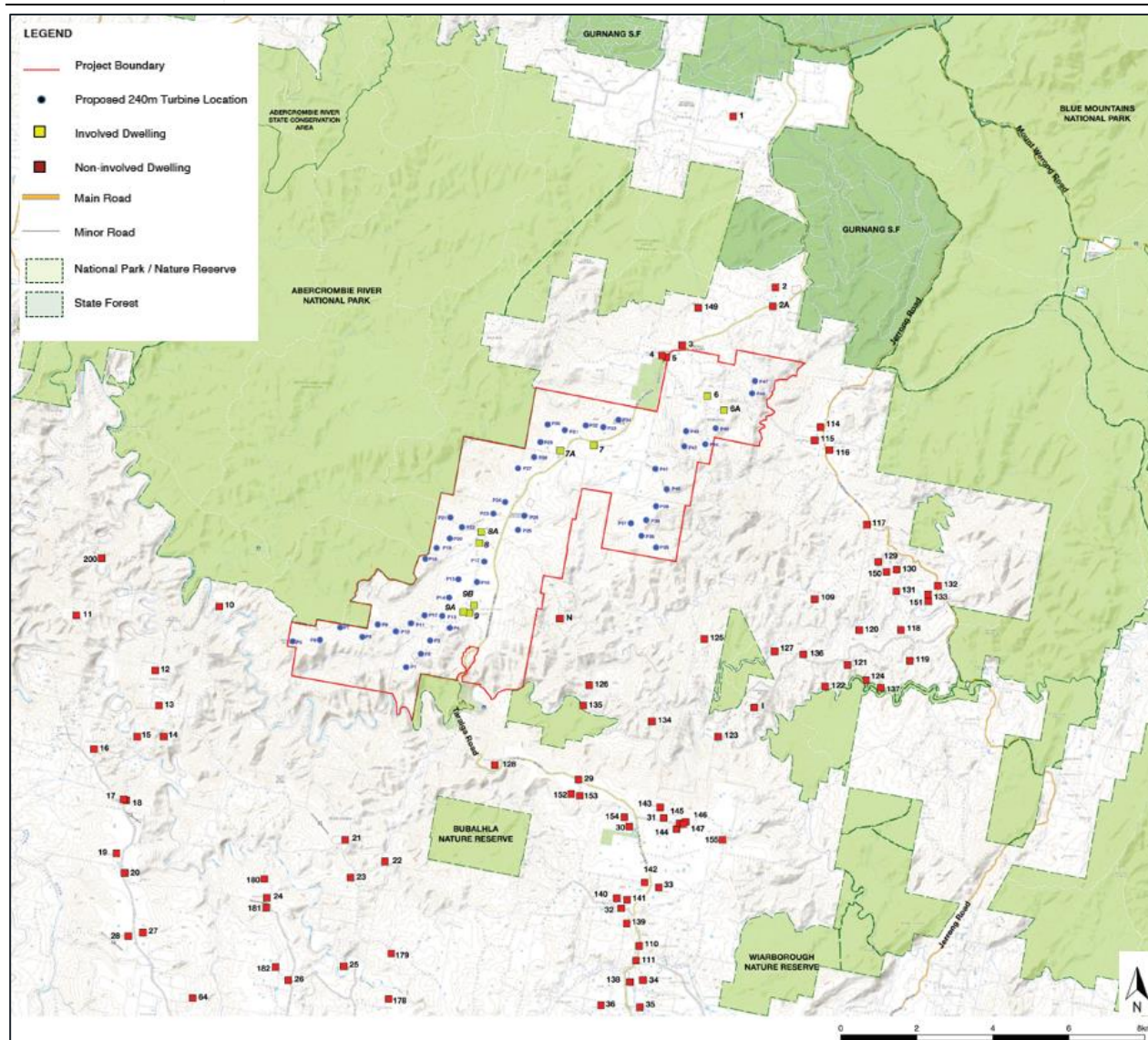


Figure 5. The PYWF Project - Preliminary Visual Impact Assessment (Source: Moir, 2021)

3.2 Cumulative Impact Assessment Scoping Summary

As per the DPIE Cumulative Impact Assessment Guidelines, the below table provides a summary of the cumulative impacts to be assessed. It also indicates detailed assessments required as part of the EIS process.

The following key descriptions have been assigned to each of the impacts:

Table 5. Assessment Key as per the CIA Guidelines (July 2021)

Key	
Detailed Assessment	<i>The project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment is characterised by:</i> • <i>Potential overlap in impacts between a future project and the proposed PYWF Project</i> • <i>Potential for significant cumulative impacts as a result of the overlap, requiring detailed technical studies to assess the impacts</i> • <i>Sufficient data is available on the future project to allow a detailed assessment of cumulative impacts with the proposed project for the relevant matter</i> • <i>Uncertainties exist with respect to data, mitigation, assessment methods and criteria</i>
Standard Assessment	<i>The project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by:</i> • <i>Impacts are well understood</i> • <i>Impacts are relatively easy to predict using standard methods</i> • <i>Impacts are capable of being mitigated to comply with relevant standards or performance measures</i> • <i>The assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.</i>
N / A	• <i>No potential overlap in impacts between a future project and the proposed project that would warrant any consideration in the cumulative impact assessment</i>

Other wind farm projects within a 50km radius of the PYWF are listed below.

Table 6. Summary Table of Cumulative Impacts

Projects	Approximate Distance	Project Status / Timing / Overlap	Access	Air and Noise	Amenity	Hazard & Risk
A.	39 km south west	• Project completed. • No expected construction overlap.	N / A	N / A	N / A	N / A

Projects	Approximate Distance	Project Status / Timing / Overlap	Access	Air and Noise	Amenity	Hazard & Risk
Crookwell 1 Wind Farm (Operational)		Operations overlap; peak operations are expected 10-15 years after opening.				
	Key Features	8 wind turbines - Commissioned 1998 5MW output	No potential overlap in impacts between this existing project and the proposed project	No potential overlap in impacts between this existing project and the proposed project	No potential overlap in impacts between this existing project and the proposed project	No potential overlap in impacts between this existing project and the proposed project
B. Crookwell 2 Wind Farm (Operational)	41 km south	- Project completed. - No expected construction overlap. - Operations overlap; peak operations are expected approximately 20-25 years after opening.	N / A	N / A	Standard Assessment	N / A
	Key Features	28 turbines - Commissioned 2018 91MW output	No potential overlap in impacts between this existing project and the proposed project	No potential overlap in impacts between this existing project and the proposed project	Low risk of cumulative visual impacts	No potential overlap in impacts between this existing project and the proposed project
C. Crookwell 3 Wind Farm (Approved)	42 km south	- Project under construction. - Some expected construction overlap. - Operations overlap; peak operations are expected	Standard Assessment	N / A	Standard Assessment	Standard Assessment

Projects	Approximate Distance	Project Status / Timing / Overlap	Access	Air and Noise	Amenity	Hazard & Risk
		approximately 25-30 years after opening.				
	Key Features 16 wind turbines - Approved 2020 58MW output		- Possible overlap of construction phase. - Low risk of cumulative impacts relating to access, traffic and transport. - Further assessment required.	No potential overlap in impacts between this existing project and the proposed project	- Low risk of cumulative visual impacts. - Further assessment required.	- Low risk of cumulative impacts as a result of the project. - Impacts are capable of being mitigated to comply with the relevant standards or performance measures.
D. Taralga Wind Farm (Operational)	29 km south east	- Project under construction. - Some expected construction overlap. - Operations overlap; peak operations are expected approximately 20 years after opening.	N / A	N / A	Standard Assessment	N / A
	Key Features 51 wind turbines - Commissioned 2015 106MW output		No potential overlap in impacts between this existing project and the proposed project.	No potential overlap in impacts between this existing project and the proposed project	- Low risk of cumulative visual impacts as a result of the project. - Impacts are capable of being mitigated to comply with the relevant standards or performance measures.	No potential overlap in impacts between this existing project and the proposed project

Projects	Approximate Distance	Project Status / Timing / Overlap	Access	Air and Noise	Amenity	Hazard & Risk
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Assumptions:

- The proposed Project will be a subject of the EIS and will result in air and noise emissions, generate significant traffic during construction, and have a visual impact on the surrounds.
 - Projects A,B and D are existing projects with no potential overall of impacts expected.
 - Project C is an existing approved project that are yet to commence construction, which will be of similar type, timeframe and duration than the Project.
 - No other future wind farm projects have been identified within a 50km radius of the development area as part of this assessment
-

3.3 Cumulative Effects of Wind Farms in the Region

The primary cumulative impact that arises from multiple wind farm developments within a region is usually related to the visual impact of the multiple wind turbines for each wind farm that is immediately visible. Other potential effects that could arise, though are less likely to be significant, include noise and vibration impacts, traffic and access, and environmental.

Other potential cumulative impacts such as heritage, vegetation clearing, or other items are likely to be site-specific. These are considered negligible in terms of impact upon the locality.

Detailed consideration and incorporation of mitigation measures as part of the EIA and assessment process are expected to resolve any minor potential cumulative impact from these issues.

3.3.1 Cumulative Visual Impacts of Wind Farms in the Area

The purpose of the Preliminary Assessment Tools in the Preliminary Visual Impact Assessment is to identify 'sensitive receptors' for further assessment in the EIS Phase of the Project. As indicated by Moir in the Preliminary Visual Impact Assessment – Paling Yards Wind Farm report (Revision C), for potential cumulative impacts:

- The Visual Magnitude Tool identified twelve (x12) non-involved dwellings within the black line of visual magnitude (3,200 m) and 10 non-involved dwellings within the blue line of visual magnitude (3,200 - 4,750 m).
- The Multiple Wind Turbine Tool (MWTT) was applied to all dwellings within 8,000 m of the nearest proposed turbine.
 - The MWTT identified four (4) dwellings with turbines in more than two (2) 60 degree sectors.
 - Four (x4) dwelling have the potential to view turbines in up to three (3) 60° sectors (up to 180°) (Dwellings, 3, 4, 5 and N).
 - Nineteen (x19) non-involved dwellings have the potential to view turbines in up to two (2) 60° sectors (up to 120°), which are deemed acceptable for a rural residence.
 - The remaining dwellings are likely to have views to turbines in up to one (1) 60° sector or are over 8000 m which is deemed acceptable.
- Further assessment and justification for the placement of turbines in multiple sectors will be detailed in the EIS, along with a description of the mitigation and management measures employed to reduce potential cumulative impacts.

Figure 6 below illustrates the Multiple Wind Turbine Tool Assessment as part of the PVIA undertaken by Moir in September 2021.

Figure 7 below illustrates the preliminary dwelling and public viewpoint assessments as part of the PVIA by Moir.

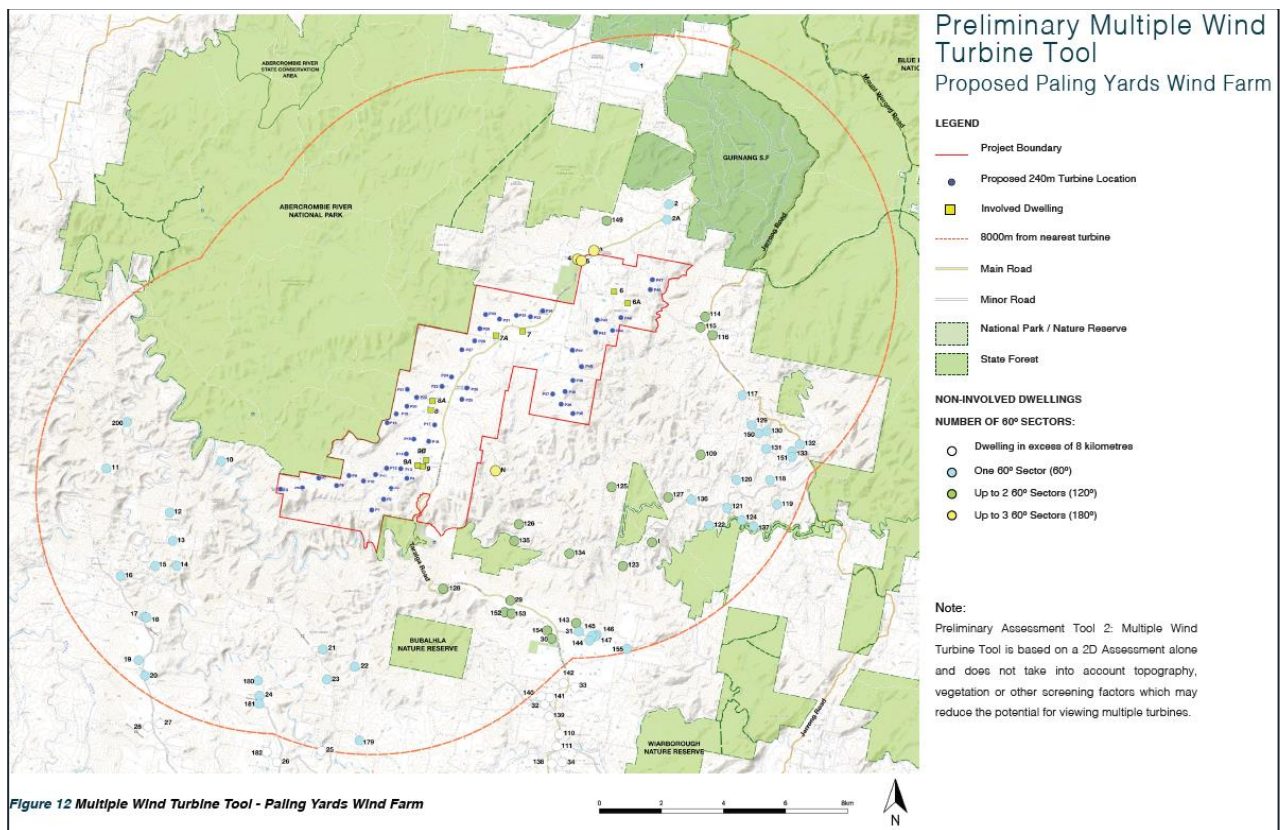


Figure 6. Multiple Wind Turbine Tool Assessment - Preliminary Visual Impact Assessment (Source: Moir, 2021)

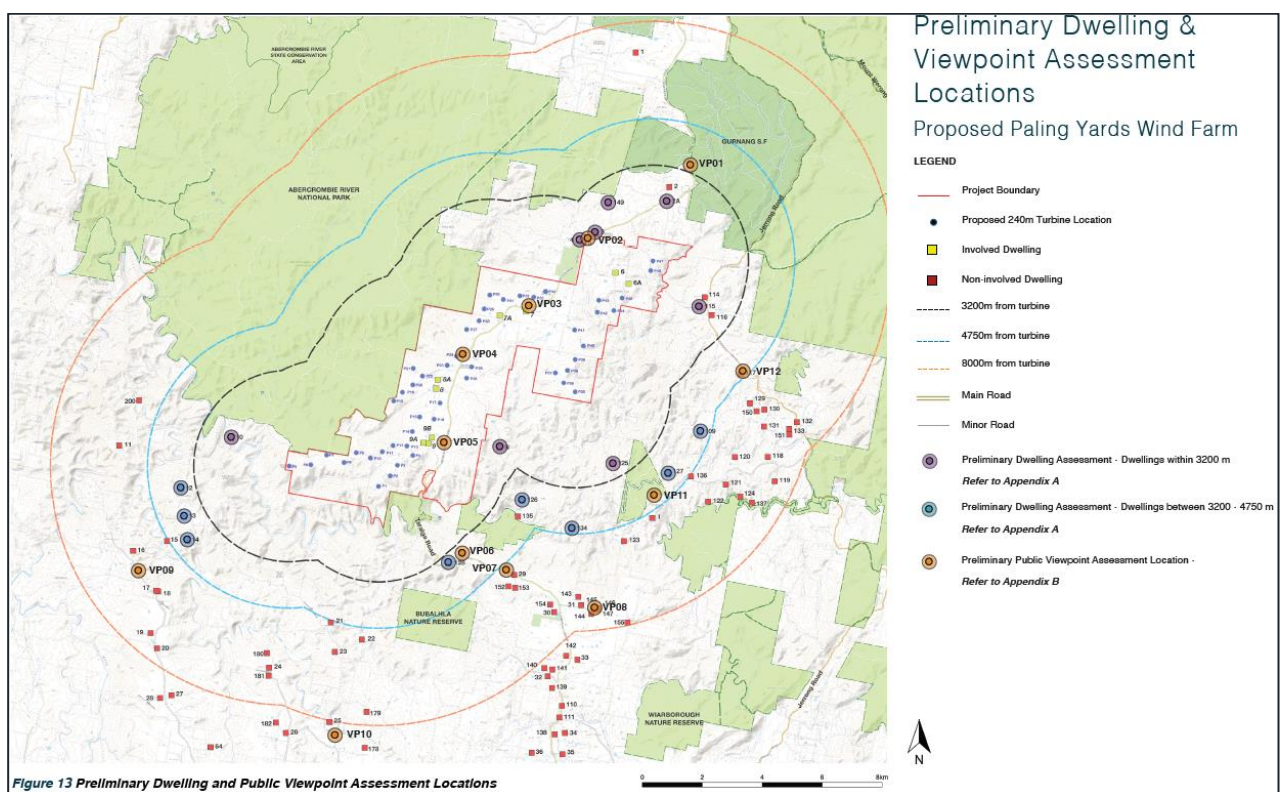


Figure 7. Preliminary Dwelling and Public Viewpoint Assessment Locations Assessment - Preliminary Visual Impact Assessment (Source: Moir, 2021)

It is not considered that the PYWF Project will significantly increase the magnitude of visual impact for most residential view locations 8km viewshed. The potential for any cumulative visual impacts is expected to also be by the screening or partial filtering of views due to the topography, vegetation or other screening factors, which may reduce the potential for viewing multiple turbines.

3.3.2 Cumulative Impacts on Existing Landscape Character

The following key landscape features, dwelling locations and key public viewpoints have been identified as part of the Preliminary Visual Impact Assessment. Each of these have been considered when assessing potential cumulative impacts from the PYWF Project and other current and future development within the region.

A summary of these core landscape character items as assessed by Moir include:

- Rivers and creeks
 - The Abercrombie River.
 - Burra Burra Creek, Mount Werong Creek, Wiaborough Creek and Manus Creek.
- National Parks
 - Abercrombie River National Park (north-eastern boundary of the project area).
 - Nature reserves - the Razorback Nature Reserve and Copperhannia Nature Reserve.
 - Blue Mountains National Park (eastern boundary).
 - Nature reserves - Mount Werong area
- State Forest
 - Gurnang State Forest (north-eastern boundary).
- Topography
 - Raised tableland (ranges from 800m-1000m AHD in elevation – undulating in the north and steep with densely vegetated slopes towards the south).
- Scenic lookouts / Points of interest
 - Wombeyan Caves precinct (camping, fishing, swimming, 4-Wheel Driving , and bush walking).
 - Broughton's Lookout.
- Walking tracks and Campgrounds
 - Boommaroo Ford Campground, Silent Creek Campground, The Sink Campground, The Beach Campground, Mount Werong Campground and Licking Hole Campground.
- Access Roads
 - Abercrombie Road (main road).
 - Littlebourne Street and O'Connell Road.
 - PYWF service roads (future).

It is expected that cumulative impacts on these landscape character items will need to be assessed in greater detail. As part of the next steps for Moir as part of the EIA process, Moir will prepare a detailed Visual Baseline Study that identifies any additional key features, key viewpoints valued by the community through consultation. Moir will also seek to Determine the Visual Influence Zone of key viewpoints and assess potential impacts (including cumulative) against the objectives outlined in the Visual Assessment Bulletin as directed by the SEARs and community consultation.

3.3.3 Cumulative Impacts on Other Industries and the Visitor Economy

Other land uses in the broader locality primarily include uses related to the visitor economy (visiting national parklands and scenic areas), rural, and agricultural activities (farming, cattle and sheep grazing, commercial forestry, and hunting) low-density residential uses. The cumulative impact of the PYWF Project with these activities is considered to vary from minor to moderate.

Further investigation of cumulative impacts for industry and the visitor economy and any proposed mitigation measures can be considered part of the EIA stage.

3.3.4 Longer-term Cumulative Impacts

Many longer-term environmental impacts have already occurred at the site due to clearing the land for agricultural activity and farming settlements. This consideration excludes areas designated as National Parklands. The Gurnang State Forest (north-eastern boundary) also has had human impacts occur in the area due to commercial forestry practices.

Most of the site area within the 8km buffer has been cleared of native vegetation. However, scattered trees are common within the site, and thicker vegetation exists near the Project site's boundary towards the Abercrombie River National Park and south. It is noted that there may be some longer-term cumulative impacts on the visitor economy in areas of high scenic value. These impacts are expected to be mitigated as part of the detailed EIA process, which will explore mitigation measures and detailed design and placement of Wind Turbine Generators to diminish cumulative impacts.

The placement and visual impact that arises from transmission line infrastructure may also be considered to be causing a longer-term cumulative impact. Ancillary infrastructure that exists on the site may also require consideration for cumulative impacts; however, the scale of these as part of any wind turbine development is generally considered minor.

It can also be considered that the PYWF Project as a development can be reversed following the end of the Project's useful life (approximately 30 years). Following this, the PYWF Project site can be restored to a near-identical condition before its construction, meaning that the longer-term cumulative impact is less than other SSD developments.

3.3.5 Short-term Cumulative Impacts

The primary short-term cumulative impacts expected for the PYWF Project are related to the transport of wind turbine equipment, traffic impacts to local roads, and construction activities. These are expected to be assessed and responded to in detail as part of the EIA and assessment process for the PYWF Project in consultation with the local government, community and DPIE.

3.4 Final Comment

The *Environmental Planning and Assessment Act 1979* plays a crucial role in managing cumulative impacts of SSD projects in NSW. As such, a vital component of the strategic assessment of the EIS will be the consideration of the cumulative impacts caused by the development.

A detailed cumulative impact assessment will be undertaken as part of the EIS. The assessment will be prepared in relation to the impacts of the Project and any cumulative material impacts that may result in the broader area from the Project operating in conjunction with other relevant and similar future projects.

The CIA will be prepared according to the DPIE Cumulative Impact Assessment Guidelines for State Significant projects (2021). Provisions to be included as part of the SEAR's will ensure the effective assessment and management of cumulative impacts for the SSD project.