



14 November 2017

Mr Wes Ford  
Director  
Environmental Protection Authority

Our ref: 321855801-79910  
Your ref:

Dear Wes

## **Robbins Island Renewable Energy Park Notice of Intent**

### ***1. The name and contact details of the person lodging the application***

**Contact:** Mr David Pollington

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### ***2. The name of the proposed project and its location***

**Project Title:** Robbins Island Renewable Energy Park

**Project Location:** Robbins Island, north-west Tasmania

### ***3. Background of the project proponent, including details of the proponent's experience and financial capacity to undertake the project and his, her or its contact details***

**Proponent:** UPC Robbins Island Pty Ltd

**ABN:** 35 618 734 277

**Address:** Suite 2, Level 2 13-17 Castray Esplanade, Salamanca, Hobart, Tasmania 7004

UPC Robbins Island Pty is a wholly owned subsidiary of UPC Renewables Australia. UPC Renewables Australia is developing a number of large-scale renewable energy projects in Australia, including the nearby Jim's Plain Renewable Energy Park project. UPC Renewables Australia focusses on projects with high quality renewable energy resources and proximity to existing transmission infrastructure, including wind, solar and hydro (including pumped storage).

UPC Renewables, the parent of UPC Renewables Australia, has a proven history of being an early entrant in new markets with advanced technology and creative local business strategies, helping countries accelerate their renewable energy development. UPC-formed companies have developed more than 3,500 MW of operating wind and solar projects with an investment value of over \$5 billion USD, and have a development pipeline of more than 5,000 MW.

UPC Renewables uses the newest world-class wind turbine technology and is committed to supplying renewable energy in a socially responsible way. UPC Renewables independently develops, builds, owns and operates its wind and solar farms as an Independent Power Producer (IPP), operated at the highest international standards.

UPC Renewables Australia has an experienced management team that cover a variety of skill sets necessary to develop, build and operate wind and solar farms within Australia: including development, construction, project management, financing, and operations and maintenance.

#### **4. A description of the proposed project, including its key physical components.**

##### ***General Description***

The proposed Robbins Island Renewable Energy Park (the Project) is predominantly a wind energy project, with the potential for some supplemental solar photovoltaic (PV) generation also. The proposed Project is located on Robbins Island in far north-west Tasmania. The Project is proposed to have a power generating capacity of 400 – 1000 MW, dependant on final design parameters. Wind monitoring undertaken on Robbins Island between 2002 and 2009 demonstrated the presence of a world-class wind resource.

There have been two prior proposals to develop a wind farm on Robbins Island, with Pacific Hydro in 2003 proposing the *White Rock Ridge Wind Farm*, and Eureka Funds Management proposing the *White Rock Wind Farm* in 2009. These proposals were of a smaller scale than the current Project, focused on harnessing the wind energy across White Rock Ridge, a ridgeline running along the western side of Robbins Island in an approximate north-south direction. Neither project proceeded past the issuing of Project Specific Guidelines from the Tasmanian EPA. A significant volume of work was completed for these proposals, which will be utilised where appropriate for the current Project.

The power generated from the Project is proposed to be sold on the National Electricity Market (NEM). The method of power transmission from Robbins Island to the NEM has not been finalised at this stage, with potential transmission pathways including a second interconnector cable between Tasmania and Victoria. The Project includes the construction of a substation on Robbins Island, a switching station at West Montagu on mainland Tasmania, a transmission line from the Robbins Island substation to the network switching station, and a transmission line from the West Montagu network switching station to either the existing Smithton substation or a new substation associated with a new Bass Strait interconnector which is proposed to be located east of Smithton. Any additional transmission infrastructure will be assessed under a separate application.

The Project will involve the installation of an array of up to 200 wind turbine generators (WTG) over the western two-thirds of the island, directionally sited to capture the dominant south-westerly winds in the region.

The final number of WTGs will vary depending on the generating capacity of WTG that is ultimately selected. Each wind turbine tower could potentially have a power generating capacity between 5 and 14 MW, utilising the latest available technology. Each turbine will require clearance of a construction footprint in the order of 1 ha, inclusive of a foundation, which will likely comprise a concrete gravity pad. As the MW output per WTG and the WTG rotor diameter increases, then it is expected that the total number of WTGs installed will be reduced.

Each cluster of 5-10 turbines will be connected to a small collector substation via an underground transmission grid network, which will subsequently be directed via either overhead or underground cable to a high voltage substation on Robbins Island. In addition to the wind turbines, there is also the potential to install up to 20 MW of solar PV and associated batteries on the site, which would require an area of approximately 60 ha. Solar infrastructure would be preferentially installed on land that has been cleared and/or disturbed during the construction of the wind turbines.

Aside from the turbine towers and solar PV, the Project involves a number of major ancillary infrastructure components, dependant on final Project design.

A network of roads will need to be established across Robbins Island for construction and operational use. This will involve both the upgrade of existing tracks on the island and the clearing of new roads. Roads will need to be of a width and grade suitable for accommodating large semi-trailers and oversized construction machinery.

To enable suitable access between Robbins Island and mainland Tasmania by the construction and operational teams, a crossing will likely be required across Robbins Passage, a shallow intertidal stretch of water. This will take the form of a causeway and bridge structure over the intertidal channel, with final design dependant on environmental, hydrological and geotechnical constraints associated with the passage. A preliminary route over the passage, some 1.4 km, has been identified. The crossing will also serve as potential conduit for transmission lines from the island.

Owing to the large size of the wind turbine components and tower sections, coupled with the remoteness of the Project site, delivery of components to the island will be logistically challenging. With this in mind, a marine landing and wharf on Robbins Island is included in the Project scope. An area of the east coast of the island has been earmarked as potentially suitable for this facility, subject to bathymetric survey and other constraint investigations.

Also forming part of the Project are a number of other ancillary components, including:

- Construction hard stand / laydown areas throughout the Project area for vehicles and machinery;
- Construction site office and worker amenities for construction, potentially including temporary construction accommodation facilities;
- Operations site office, workshops/sheds;
- High voltage substation(s);

- Washdown and refuelling facilities for construction; and
- Quarries / borrow pits for construction materials, including processing equipment.

### **Wind Turbines**

Wind turbines will consist of three blades attached to a central hub coupled to a nacelle containing generator equipment. This turbine unit is mounted on top of a tower structure (most likely steel), which will be anchored to a suitable foundation (concrete gravity, piled, or rock anchor combination). Each tower will contain an internal elevator system to assist maintenance access.

Tower and blade dimensions are subject to the final selection of the turbine model to be used for the Project. Indicative dimensions are turbine towers with hub heights in the order of 160 m, with a 220 m rotor diameter, with combined tower and blade tip heights of over 270 m.

The wind turbines will generally operate between wind speeds of 3 - 25 m/s, cutting out when winds exceed the set maximum speed. The wind turbines will track the wind direction via an automatic yaw control to optimise efficiency under differing wind conditions.

A number of environmental and physical aspects will determine the final layout of the turbines on Robbins Island. Environmental constraints will be determined and mapped during the site assessment phase and used in conjunction with wind modelling, geotechnical and topography data to inform turbine site selection. Turbines will be oriented to capture the predominant south-westerly wind on site, with minimum tower spacing of two times rotor width between turbines perpendicular to the wind and a minimum of four times rotor width distance between turbines parallel to the wind.

Preparation for construction of each turbine tower will include the development of a suitable foundation and laydown/hardstand area. This area will be required to be large enough to provide a level working space for the required construction machinery, a permanent foundation pad, and to lay down the individual turbine and tower components during construction. The total area required for each turbine site will be dependent on the turbine size, but it is expected that an area of approximately 100 x 100 m will be required for each wind turbine location, with a number of configurations of this area possible. The laydown area will require a suitable surface fill to increase stability and be capable of being used by heavy vehicles and cranes.

The construction of the towers will be in stages, with the initial stage consisting of foundation construction. Foundation design will depend on the geology of each site, but for most sites, a concrete gravity pad will be used. This will involve excavation below ground level of a suitably sized cavity and the subsequent pouring of concrete to create the tower foundation, with approximately 600 m<sup>3</sup> of concrete required per pad. In the event underlying geology supports rock anchoring, this will also be considered.

The base tower section will be fastened to the foundation, with subsequent tower sections lifted and attached using heavy lifting cranes. The nacelle and hub will then be lifted to the top of the tower and attached. The blades will then be craned up and attached to the hub.

Each wind turbine tower will be attached to a subsurface network of trenched high voltage (HV) cables (or collector cables), which will connect a cluster of 5 to 10 turbines to a collector substation, which will then connect to the Robbins Island substation via overhead or underground cables. Each tower will also have a service road connecting to a main arterial road through the turbine network. The design will also

examine whether a limited number of kilometres of HV overhead lines can be used to transfer the power from a collector circuit back to the substation.

At the completion of construction, it is expected that a proportion of each turbine laydown area will be rehabilitated.

During the operational period of the Project, turbines will require regular maintenance and repair by operational staff and contractors.

### ***Robbins Island Substation***

This substation would be located on Robbins Island and will convert the incoming voltage to one suitable for transmission to the TasNetworks transmission network. The substation will contain a variety of electrical infrastructure, which will be stationed on concrete hardstands. The size of the substation has not been determined at this stage, but it is likely to require a hardstand area of approximately 200 x 300 m.

The substation may also contain a battery storage facility which will be housed in either a building or specifically modified shipping containers.

### ***Solar PV***

The project may contain (subject to review of the resource) a small solar PV installation of up to 20MW. If installed the solar panels would be arranged on cleared land approximately 3 ha per MW of installed capacity. It is expected that the PV will be single access tracking to maximise the yield although fixed PV will be examined as well as a more cost effective option.

The panels will be mounted on racks typically 1 to 2 metres off the ground and arranged in rows. The panels will be electrically connected via DC/AC inverters to the substation via HV underground cables.

### ***Road Network and Causeway/Bridge***

A new road network will be required as part of the Project on Robbins Island, providing access for Project construction and operation. Each wind turbine tower will require an access road, as well as a laydown area. More broadly, there will also be road connections to all ancillary Project features around the island.

The majority of roads will be gravel surfaced, with small sections of paved roads to be constructed around heavily used sections of road, such as those around service sheds and site office facilities. Road base will preferentially be sourced from quarried material from Robbins Island, with additional material brought on to the island only as required.

The Project includes the development of a causeway/bridge across Robbins Passage to provide access during construction and operation. A preliminary crossing route has been identified, which extends for approximately 1.4 km across the passage. The proposed causeway/bridge will cross the existing navigable channel and will be designed to maintain passage for recreational vessels. Robbins Passage is a popular access route for recreational boaters heading west to offshore fishing destinations at high tide.

The design of the crossing structure is to be confirmed, and will be subject to an environmental and geotechnical constraints assessment, incorporating hydrodynamic modelling. The design width and

height of the crossing will be subject to final Project requirements; as a minimum, the structure will need to be of a suitable size to allow semi-trailer access. At this stage, it is the intention to exclude public access from the causeway/bridge.

### ***Transmission and Substations***

Power generated by the wind turbine array will be transferred via a network of buried HV cables (likely to be 33 kV) to one of several main collector stations, which then connect to the main substation on Robbins Island either by underground cable or overhead line, dependant on terrain.

The substation will convert the incoming voltage to one suitable for transmission to the mainland network (likely to be 220 kV). The substation will contain a variety of electrical infrastructure, which will be stationed on concrete hardstands. The exact size of the substation has not been determined at this stage, but will require a hardstand area of approximately 200 x 300 m.

Transmission of power from Robbins Island over Robbins Passage may occur either via a conduit in the causeway/bridge structure, or via dedicated underground cable. Subsequent transmission of power from the coast to the West Montagu substation would be via underground cable or overhead lines.

The exact location of the West Montagu switching station and transmission cable from the West Montagu substation to the Smithton substation will be confirmed as design investigations progress.

### ***Marine Landing and Wharf Facility***

The large scale of the individual wind turbine components associated with the Project will require specialised logistics. It is anticipated that several components will be of a size and weight that would make vessel delivery an efficient option. At this early stage, the proposed solution is to barge equipment and turbine components to Robbins Island from either the Burnie Port or Bell Bay Port.

The east coast of Robbins Island has been identified as potentially suitable for a marine landing (roll on, roll off or RO/RO) facility and wharf, with the prevailing offshore winds and protection from regular groundswell. Further studies into bathymetry, weather patterns and environmental constraints will still need to be undertaken to confirm suitability of the coastline.

The required size of the wharf structure and RO/RO platform will be determined during the concept design phase of the Project.

Ancillary infrastructure may include a machinery shed and laydown yard for incoming cargo. A road will also need to be constructed from the marine landing and wharf to the main Project area.

### ***Ancillary Infrastructure***

In support of the main components of the Project are numerous ancillary features. These have been separated into the infrastructure required for the construction and operation phases of the project.

#### ***Construction Phase***

During construction, a temporary site office will be required to provide workers with facilities such as crib rooms, toilets, and first aid. It is envisaged that grey/black water would be collected and transported for offsite disposal on a regular basis. The temporary site will also contain various laydown and hardstand

areas for equipment and machinery storage during construction. A temporary maintenance/storage shed will also be utilised during the construction phase.

A temporary refuelling facility will be installed adjacent to the construction site office to supply fuel for construction machinery and vehicles. The facility will be designed to support trailered fuel tanks, which will likely be decant into refuelling trucks for distribution around the island during construction. The facility will be built on a temporary hardstand area with sufficient drainage and bunding.

The maintenance of weed and pathogen hygiene for the Project will be a high environmental management priority for Robbins Island. To help prevent the introduction and spread of weeds and pathogens, multiple vehicle and machinery washdown facilities will form part of the Project. A washdown facility will be constructed adjacent to the island side of the causeway/bridge entrance to treat vehicles and machinery travelling to the island. Any equipment arriving on the island via vessel would be pre-washed prior to arrival

#### *Operational phase*

For the operational phase, a site office facility will be required to support the operational crew. The site office will include a crib room, toilets (Enviro-cycle style system), and administration facilities. Associated with the site office will be a warehouse/workshop, as well as a suitably sized hardstand area for the storage of operational equipment and machinery. Operational fuel requirements will be minor in volume, with a small bunded fuel tank at the operational site office/workshop area likely to be sufficient for this phase of the Project.

Operational water requirements will be minimal and would likely be serviced by rainwater collection, with supplemental water from bore locations as required

#### **Construction Material and Water Supply**

The Project will require a significant volume of construction materials, including rock base for the causeway/bridge, gravel for road surfaces, and sand/aggregate for concrete (for WTG foundations). Additionally, large volumes of fresh water will be needed for concrete batching and other construction activities, such as vehicle washdown and dust suppression.

Several potential quarry sites have been identified on Robbins Island, with quartzite and basalt outcrops identified from surface geology. Quarrying on the island therefore may be undertaken as part of the Project.

An existing quarry pit in the south-western corner of Robbins Island contains gravel material that may be suitable for road base. This material would be crushed and screened onsite before being transported around the island as required. Alternative gravel quarry locations may also be sought throughout the island, as required.

Significant volumes of aggregate will be required for the concrete requirements of the Project; this material would also be preferentially sourced from Robbins Island. Geotechnical investigations will be undertaken in the early stages of the Project to identify any suitable resources on the island.

For larger base rock for the construction of the causeway/bridge structure, there is unlikely to be a suitable resource on Robbins Island, with this material to be sourced from mainland Tasmania.

Large volumes of sand will be required to make the concrete volumes required for the Project. As part of the Project, it is proposed to mine sand from the island if a suitable resource can be identified and environmental constraints allow. The sand mining would involve several excavators and haul trucks, which would deliver sand to the concrete batching plant.

A concrete batch plant will be required for project construction to allow on-site mixing of concrete for the tower footings, substation, and other ancillary infrastructure. The batch plant will include the required mixing machinery and laydown areas for raw materials.

Water for the existing cattle farming operations on Robbins Island has historically been extracted from several groundwater bores on the island, with no reliable surface water resources available. As part of the Project, it is proposed to establish a network of groundwater extraction bores to supply the water required for the construction of the Project. A groundwater assessment will be undertaken to establish the size and suitability of the available water resource on the island. In the event that insufficient water is available on the island, freshwater may be trucked in.

## **5. An outline of the proposed location of the project and a general site location map.**

The proposed location of the Project is Robbins Island at the north-west tip of Tasmania. The island is separated from mainland Tasmania by Robbins Passage, an intertidal sand/mud flat. The island is wholly owned by the Hammond family under a single title (110402/1); the areas required for the Project will be leased to UPC Robbins Island Pty Ltd.

The wind turbines will be confined to the western two thirds of Robbins Island, within the polygon marked on Figure 1. Additionally, on Robbins Island, there will be:

- A portion of the eastern shoreline for the proposed marine landing and wharf, and associated road access corridor to the main wind farm site; and
- Additional areas for ancillary infrastructure, including a substation.

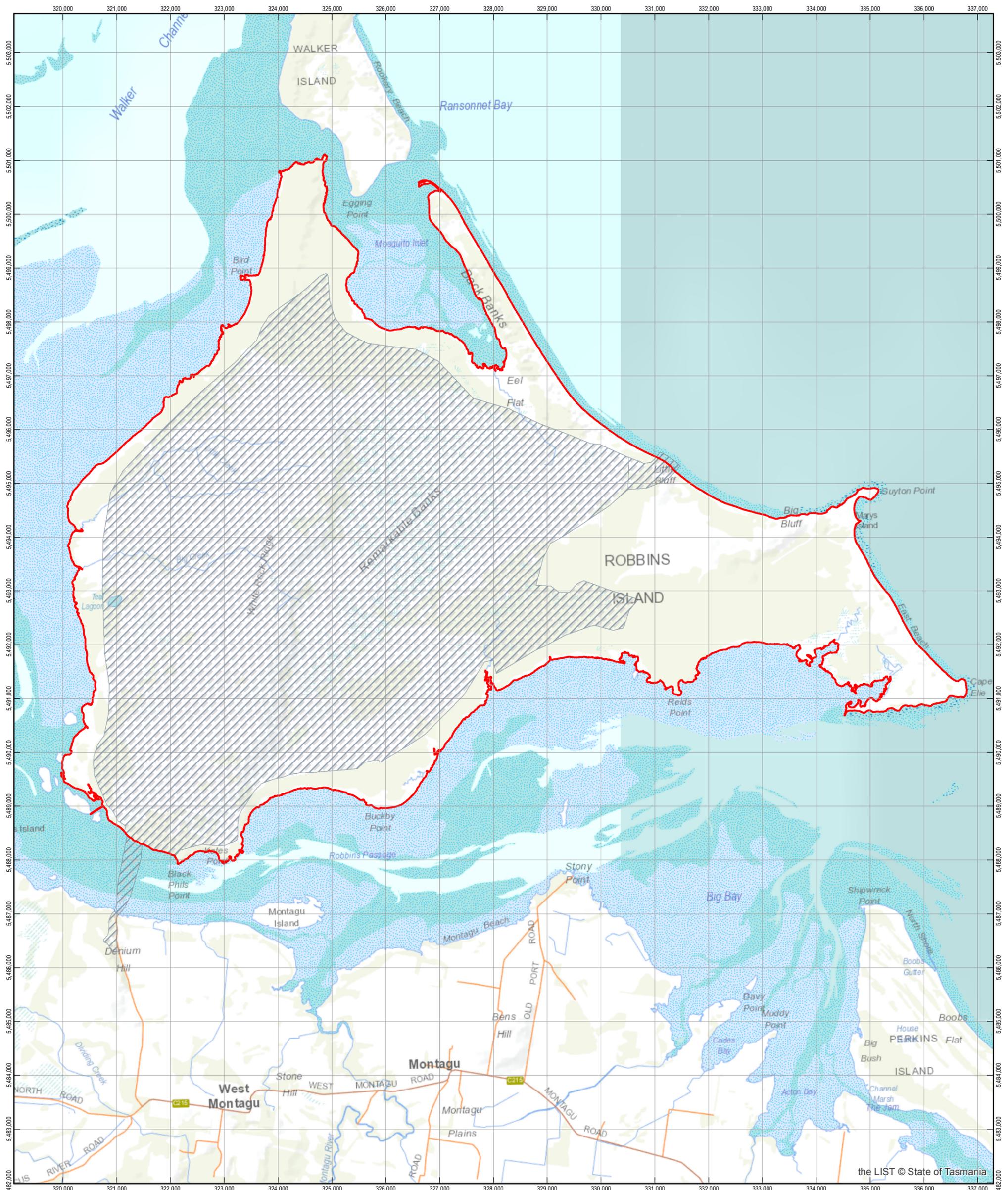
The alignment and design for the causeway/bridge linking Robbins Island to the Tasmanian mainland has not been finalised at this stage. It is likely that the land will extend onto the Tasmanian mainland, on two titles at the end of Robbins Island Road:

- 130052/21 (owned by VDL Pty Ltd), and/or
- 50468/4 (owned by Antinum Pty Ltd).

The bridge/causeway would also cross Crown Land below the high tide mark across Robbins Passage.

Transmission options for this development are still being developed, however it is likely that a portion of a property in the West Montagu area would be required for network substation, along with parts of other properties around Robbins Island Road and West Montagu for a transmission line.

In combination, these areas define “the Land” on which the Project will occur.



**LEGEND**

- Robbins Island - title boundary
- Approximate project extent (Nov 2017)

Paper Size A3  
 0 325 650 1,300 1,950 2,600  
 Metres

Map Projection: Transverse Mercator  
 Horizontal Datum: GDA 1994  
 Grid: GDA 1994 MGA Zone 55



UPC Robbins Island Pty Ltd  
 Robbins Island Renewable Energy Park

Job Number | 321855801  
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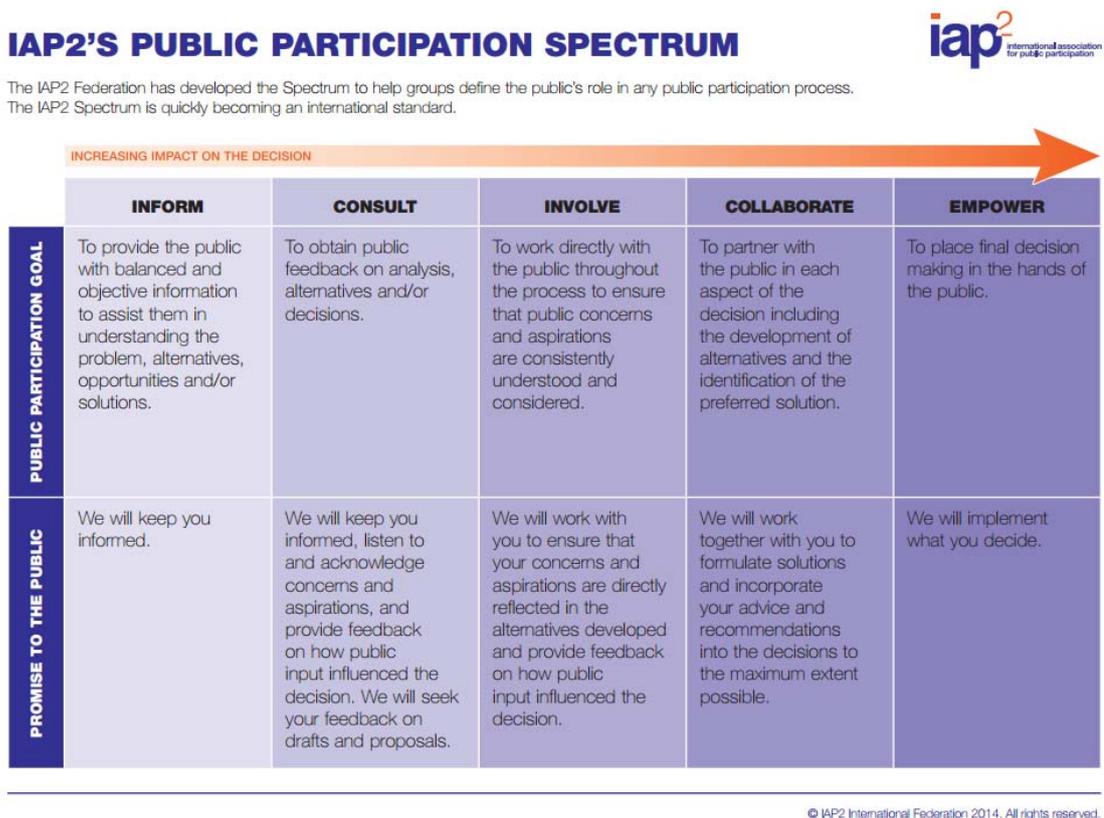
**Location map  
 Notice of Intent**

**Figure 1**

**6. An outline of the stakeholder consultation process undertaken or proposed to be undertaken, including the consultation method, stakeholders consulted or to be consulted and the issues raised or to be raised.**

UPC Renewables Australia has a dedicated stakeholder engagement team, which will actively engage with the local community. A Stakeholder Engagement Plan has been prepared for this project, which will design and deliver a communication and engagement program based on industry leading practice (including the Clean Energy Council’s community engagement guidelines).

The plan identifies the range and types of stakeholders, and how and when it is intended to engage with them throughout the Project. The plan was developed in accordance with the guiding principles for the International Association of Public Participation (IAP2), as shown in Figure 1. The engagement methods likely to be used on this project include Inform, Consult, Involve and Collaborate.



**Figure 1 IAP2’s Public Participation Spectrum**

The Stakeholder Engagement Plan will be used by the project team to manage communication and engagement activities. The key objectives of engagement activities are to:

- Ensure that relevant stakeholders are informed about the Project and are given the opportunity to provide feedback.
- Provide stakeholders with an opportunity to ask questions and to identify areas of concern with respect to the Project.
- Demonstrate that all concerns and issues raised by the stakeholders are considered.
- Implement an approach to stakeholder communications that is transparent and timely.
- Effectively and proactively identify and manage issues.
- Keep accurate records of interactions with stakeholders.

The plan will capture stakeholder engagement activities in the four project phases:

1. Planning
2. Approvals
3. Construction
4. Operation

All stakeholder engagement activities will be captured and managed in a dedicated Consultation Manager database.

The proposed stakeholder engagement activities for the Project are shown in Table 1.

**Table 1 Proposed stakeholder engagement activities**

Activity	Details
Stakeholder Engagement Plan	<p>Develop a Stakeholder Engagement Plan in order to identify project stakeholders and consultation methodology. The plan will include:</p> <ul style="list-style-type: none"> <li>• The consultation approach, tools and program of activities.</li> <li>• Identification of relevant project stakeholders and level of engagement required based on project involvement.</li> <li>• Project key messages.</li> <li>• Consultation risks and mitigation measures.</li> <li>• Consultation activity delivery timeframes.</li> </ul>
Stakeholder database (Consultation Manager)	<p>Set up and operate a Consultation Manager account for the duration of the project.</p> <p>Consultation Manager is an online consultation database platform, which provides an effective system for tracking project stakeholders and their 'issues' on an ongoing basis.</p> <p>Consultation Manager records and maintains the names, addresses and contacts details for all stakeholders, organisations and people</p>

Activity	Details
	that express interest in the project, thereby simplifying data entry, communication and reporting processes.
1800 line and email	<p>Establish a community information line and contact email (6432 7999 and participate@ghd.com).</p> <p>These communication channels are managed during business hours, Monday to Friday. Both of these contact mechanisms will be promoted on communication materials distributed to the community.</p> <p>Consultation Manager will be utilised to record all correspondence.</p>
Website	<p>A project website will be set up and utilised to convey information about the project, providing the community and key stakeholders with information on the project background, project location, project timeline and environmental and social impacts and benefits.</p> <p>The website will include an impeded perception survey, additional feedback mechanisms and a series of project FAQs.</p>
Community letter	A letter will be drafted to all adjoining residents and landowners living within a defined boundary of the Project. The letter will seek feedback on initial project design and provide them with information on the upcoming community information days.
Advertisement (media)	Advertisements to be placed in the local paper to promote upcoming information sessions and request feedback on the proposed layout. Advertisements will be placed in a variety of papers.
Community Information sessions	Various community information sessions will be held throughout the duration of the Project.
Stakeholder Engagement Plan	<p>Develop a Stakeholder Engagement Plan in order to identify project stakeholders and consultation methodology. The plan will include:</p> <ul style="list-style-type: none"> <li>• The consultation approach, tools and program of activities.</li> <li>• Identification of relevant project stakeholders and level of engagement required based on project involvement.</li> <li>• Project key messages.</li> <li>• Consultation risks and mitigation measures.</li> </ul> <p>Consultation activity delivery timeframes.</p>

Stakeholders (individuals and organisations) from the following categories will be engaged during the development of the Project.

- Federal Government
- State Government
- Local Government

- Traditional Land Owners
- Neighbouring residents
- Community/Interest Groups
- Media
- Emergency services

Circular Head Council staff have already been briefed on the Project and have visited Robbins Island. A further briefing to Council elected members took place on 21<sup>st</sup> September 2017.

A community information session for the Project was held on 21<sup>st</sup> September 2017. Initial consultation with a range of stakeholder groups has been undertaken, including BirdLife Tasmania, Circular Head Aboriginal Corporation, Cradle Coast Authority, Cradle Coast Natural Resource Management and recreational fishing groups.

Similarly, the project team has been in early communication with various State Government bodies, including Aboriginal Heritage Tasmania, Policy Conservation Advice Branch (DPIPWE) and the Tasmanian EPA, regarding this project.

## 7. A general description of the physical environment that may be affected by the project.

The majority of the Project will be confined to Robbins Island, with some ancillary components occurring on adjacent coastal areas or mainland Tasmania.

Robbins Island is a 9,860 ha land mass separated from mainland Tasmania by an intertidal passage. The island is relatively low relief with the exception of White Rock Ridge, an elevated ridgeline running north south across the western third of the island, extending to approximately 50-70 m above sea level.

The island has been significantly cleared for agricultural use on the eastern side of the ridgeline, whereas the western side remains for the most part undisturbed, with the exception of a cleared agricultural area to the south-west. The eastern half of the island is yet to be surveyed in detail for flora and vegetation, but contains a large area of wetland.

The western half is dominated by a low-lying wet/dry coastal heath, interspersed with occasional quartzite outcrops associated with changes in vegetation composition. Dominant heath species include banksia (*Banksia marginata*), soft-fruited tea tree (*Leptospermum glaucescens*) and she-oak (*Allocasuarina monillifera*). The wet heath, which dominates the lesser drained areas, is dominated by a dense scrub component including manuka (*Leptospermum scoparium*), scented paperbark (*Melaleuca squarrosa*), purple honey myrtle (*Melaleuca squamea*), banksia (*B. marginata*), pink swamp-heath (*Sprengelia incarnata*), smooth parrot pea (*Dillwynia glaberrima*) and woolly-style heath (*Epacris lanuginosa*). Buttongrass (*Gymnoschoenus sphaerocephalus*) also occurs across the wet heath areas. There are also occasional areas of woodland and scrub

Associated with the quartzite outcrops are rich heathy vegetation communities, not seen elsewhere on the island. Collectively this vegetation type has been classed as *Eucalyptus nitida* forest/woodland during a previous flora and vegetation assessment. Other less common communities identified during previous assessments on the western side of the island included dry scrub (TASVEG code SDU), *Eucalyptus obliqua* dry forest and woodland (DOB), *Melaleuca squarrosa* scrub (SMR), coastal scrub (SSC) and *Eucalyptus brookeriana* wet forest (WBR).

The ridgeline dominantly drains to the west of the island, with a series of drainage lines and small tributaries draining into several creek lines discharging to the western coast. A small permanent water body is present on the central western coastline of the island, known as Teal Lagoon. The western side of the island contains a large number of small depressions in the landscape where ephemeral pooling of water occurs. These pools create temporary wetland microhabitats throughout the island. There is a groundwater resource on the island that is currently extracted for agricultural purposes.

The geology of the eastern and western plains of the island are dominated by Pleistocene coastal sand deposits and later Holocene sands and muds. The ridgeline comprises a quartzite sequence with intermediate slate of the Proterozoic Rocky Cape Group.

The island contains a number of sites of geoconservation significance, as listed on the Tasmanian Geoconservation Database. The Remarkable Banks on the eastern side of the ridge is comprised of a sequence of marine sand swales retreating from the ridgeline of former sea cliffs, which now make up White Rock Ridge. The swales are clearly visible on aerial photos. The site has been disturbed since listing, with a parallel network of tracks and agricultural clearing. This geoconservation site is the most likely to be affected by the Project. Other geoconservation sites on or around Robbins Island include the

Guyton Point Aquagene Lavas, Back Banks – Walker Island Dunes, and Robbins Passage Tidal Channel System.

Robbins Passage is a complex mix of tidal channels and mud/sand flats, containing a large area of intertidal foraging habitat for marine birds. The channel is navigable at high tide by smaller recreational vessels and can also be traversed by four wheel drive at low tide.

#### **8. The environmental, health, economic and social issues identified for the project to date.**

As there has been two previous iterations of the Project, albeit not at the current scale, there has been a number of issues already considered in depth for the environmental, health, economic and social aspects of the proposal.

##### ***Environmental***

Potential issues identified for environmental aspects include:

- Impact of the wind turbines on birds and other avifauna, especially with respect to collision;
- Clearing of native vegetation for the Project and potential impact on listed orchid species and wetlands;
- Effects on Tasmanian devil population on Robbins Island
- Environmental effects of building a bridge/causeway over Robbins Passage in relation to alteration to hydrodynamic process, and any impacts to recreational users;
- Effects on marine habitat associated with construction of marine landing and wharf;
- Impacts to visual amenity, including potential effects of shadow flicker;
- Impacts arising from increased noise levels; and
- Impacts to air transport and communications

##### ***Health***

As with any wind farm, shadow flicker has been identified as a potential issue for the Project, although given the relatively large distance from the site to the nearest residence, this is not expected to be a significant issue.

There are no other additional health issues identified for the Project, other than standard safety issues associated with construction of a project of this size.

##### ***Economic***

The Project is privately funded, and is being developed by a proponent with extensive experience in the development and operation of wind farms. The immediate economic effects of the Project will be positive, with approximately 200 jobs expected to be created in the construction phase, and around 50 full-time positions during the operational phase. Aside from direct employment, there is also a significant benefit expected for the regional economy.

Longer-term potential issues may arise in the event that the proponent runs out of funding during the construction or operation of the Project, or at the completion of operation during the rehabilitation phase.

***Social***

Impact to social aspects have identified as follows:

- Impacts to visual amenity of the surrounding area.
- Impacts to traffic during construction and operation
- Effects on economy
- Land values and potential acquisition

## 9. The surveys and studies proposed or underway in relation to the key issues for the project.

### Existing Surveys

There have been a number of surveys and studies already undertaken for the previous iterations of the Project. A summary of these surveys is outlined below; results will be utilised for the Project where suitable.

**Table 2 Surveys already undertaken for the Project**

Survey / Study	Details
Flora, vegetation and fauna survey <i>North Barker (2009), White Rock Ridge Wind Farm-Robbins Island, Vegetation Survey and Fauna Habitat Assessment</i>	Assessments were undertaken on the western side of Robbins Island, incorporating White Rock Ridge; over an area of approximately 3300 ha. The assessments also included a 3.5 km stretch of Robbins Island Road.
Summer 2003; Spring 2008	
Bird Utilisation Surveys <i>Avifauna - Brett Lane &amp; Associates Pty Ltd (2010) White Rock Wind Farm Targeted Fauna Survey</i> Dec 2002-Oct 2003; Jan 2009	Seasonal surveys to quantify bird species, activity levels and flight heights
Targeted shorebird surveys <i>Avifauna - Brett Lane &amp; Associates Pty Ltd (2010) White Rock Wind Farm Targeted Fauna Survey</i> Dec 2002 – May 2003; Jan 2009	Observational shorebird studies involving all Robbins Passage shorebird habitats on and near Robbins Island at both high and low tide.
Targeted Orange-bellied Parrot surveys <i>Avifauna - Brett Lane &amp; Associates Pty Ltd (2010) White Rock Wind Farm Targeted Fauna Survey</i> 2003, 2004, 2009	Migration season (spring and autumn) searches of all potential saltmarsh habitats on Robbins Island and the adjacent mainland.
Targeted Wedge-tailed and White-bellied Sea-eagle surveys <i>Avifauna - Brett Lane &amp; Associates Pty Ltd (2010) White Rock Wind Farm Targeted Fauna Survey</i> 2002 – 2004; 2008 – 2009	All eagle sightings, including the flight paths (beginning and end) and heights flown were recorded during most fieldwork undertaken on the island over 102 days.
Bat Utilisation Surveys <i>Avifauna - Brett Lane &amp; Associates Pty Ltd (2010) White Rock Wind Farm Targeted Fauna Survey</i> Mar – Apr 2004; Jan 2009	Ultrasonic bat call recorders were deployed at three sites across the wind farm site for a total of 528 hours of night-time recording

Survey / Study	Details
<p>Detailed radio-tracking study of shorebird movements</p> <p><i>Results pending</i></p> <p>2010-2011</p>	<p>The Victorian Arthur Rylah Institute was contracted to implement a detailed radio-tracking study of Red-necked Stints and Ruddy Turnstones (the two most abundant shorebirds in the region) in Robbins Island/Robbins Passage over seven weeks in December 2010 –January 2011</p>
<p>Hydrodynamic modelling of Robbins Passage</p> <p><i>Results pending</i></p> <p>Ongoing</p>	<p>Macquarie University is studying sea levels and wave climate across Australia, including north-west Tasmania and offshore islands. As part of this project, a hydrodynamic model of the Robbins Passage area has been developed.</p> <p>Results of this modelling have not yet been published, but it is intended to use the model to assist assessment of hydrodynamic changes in the Robbins Passage area, should the bridge/causeway across the passage form part of the project.</p>
<p>Aboriginal Heritage Survey</p> <p><i>A Survey for Aboriginal Heritage at Robbins Island, Rocky Sainty – Aboriginal Heritage Consultant, 2002</i></p> <p>Oct 2002</p>	<p>Survey undertaken for Aboriginal heritage sites along White Rock Ridge, limited survey area.</p>

### **Proposed Surveys**

Table 3 lists the surveys or studies already proposed for the Project.

**Table 3 Surveys proposed for the Project**

<b>Survey / Study</b>	<b>Details</b>
Avifauna Surveys	Bird utilisation survey – Spring/Summer 2017 Shorebird survey – Summer 2017 Bat survey using Anabat – Summer 2017 These surveys will build on and complement existing data.
Flora and Fauna survey update	Combined flora and fauna survey including orchid survey and camera trap survey. Area of entire wind farm footprint, including unsurveyed area east of White Rock Ridge – Spring/Summer 2017
Marine Environmental Survey	Threatened species search and habitat characterisation for both intertidal and sub-tidal environments associated with proposed marine landing and wharf facility and/or Robbins Passage crossing Timing/Requirements to be confirmed
Visual Impact Assessment	Including photomontages
Noise Impact Assessment	Including noise modelling
Geotechnical investigations	Investigations as required
Stakeholder engagement	Throughout project development
Heritage Impact Assessment	Aboriginal heritage survey and potential European survey - Timing/Requirements are currently being discussed with Aboriginal Heritage Tasmania
Traffic Impact Assessment	Following preliminary design
Shadow Flicker assessment	Following final micro siting of turbines
Electromagnetic Interference Assessment	Following final micro siting of turbines

**10. The proposed timetable for the project.**

The proposed timetable for the Project is presented in Table 4.

**Table 4 Proposed timetable for the Project**

<b>Phase</b>	<b>Approximate Timing</b>
Submit Notice of Intent	November 2017
Receive Project Specific Guidelines	January 2018
Studies and DPEMP	Throughout 2018
Submission of draft DPEMP	December 2018
Submission of final DPEMP and DA	April 2019
Project Approval	Mid to late 2019
Detailed Design	2021
Construction Phase	2021
Project Completion and Commencement of Operation	2023

**11. For the purposes of section 27B(2)(k) of the EMPC Act, the board has determined that a Nol is to contain the following additional details.**

- (a) Whether the project requires or is likely to require approval under the *Environment Protection and Biodiversity Conservation Act 1999* (which will be determined by the projects potential to impact on matter of national environmental significance or upon Commonwealth land).**

The Project is likely to require approval under the EPBC Act owing to the presence of a number of Matters of National Environmental Significance within the Project area that may be affected. A previous referral to the Commonwealth for a similar project was declared as a Controlled Action under the EPBC Act in 2003.

- (b) Whether the proponent has or intends to refer the project to the Commonwealth Government for a determination on whether approval under the *Environment Protection and Biodiversity Conservation Act 1999* is required.**

The proponent referred the Project to the Commonwealth Government on 3 November 2017. The reference number for this project is EPBC 2017/8096.

**12. For the purposes of section 27B(2)(k) of the EMPC Act the board has determined that a Nol is to contain the following additional details.**

- 1. The status of the proposal under the Land Use Planning and Approvals Act 1993 (LUPAA). This must include:**

- a. Whether or not the relevant council will require a LUPAA permit application;**

A permit is required pursuant to the provisions of the Circular Head Interim Planning Scheme 2013. The Utilities Use Class is discretionary in the Rural Resource Zone. Aspects of the proposed development relies on assessment against the performance criteria, providing Circular Head Council with a discretion to approve or refuse the development when assessed against the Scheme standards.

- b. Whether a single permit application or multiple applications will be required;**

It is anticipated that a single permit application will be made to the Circular Head Council.

- c. The division of LUPAA under which the application will be made;**

The Development Application will be submitted pursuant to S.57 of the Land Use Planning and Approvals Act 1993.

- d. Zoning of the proposed site(s), and whether or not rezoning will be required;**

The subject land to be developed, both for the wind farm and the transmission line route are zoned Rural Resource. No change in zoning is required.

- e. If the proposal is for intensification or alteration of an existing activity, the status of the existing activity under LUPAA; and**

No.

- f. **If the proposal is for intensification or alteration of an existing activity, whether or not the council regards the proposal as a substantial intensification for the purposes of subsection 20(6) of LUPAA.**

No.

2. **In the event that the proposal has a reasonable likelihood of requiring approval from the Commonwealth Government under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*, a statement is to be provided as to whether or not the proponent elects for the proposal to be assessed pursuant to the Bilateral Agreement made under section 45 of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* between Tasmania and the Australian Government (dated 22 October 2014).**

The proponent elects for the proposal to be assessed pursuant to the Bilateral Agreement made under section 45 of the EPBC Act between Tasmania and the Australian Government.

Sincerely  
GHD Pty Ltd



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