



# NORTHLAND POWER

**CLEAN ENERGY INVESTIGATIVE LICENCE APPLICATION**

November 4, 2020



## **Licence of Occupation Application for Investigating an Offshore Wind Project Site and Meteorological Mast In Hecate Strait, British Columbia**

### **1.0 BACKGROUND**

#### ***1.1 About Northland Power***

Northland Power Inc. (Northland) is a Canadian company that develops and operates sustainable infrastructure assets that produce electricity from renewable resources such as wind, solar, biomass and clean-burning natural gas.

Since our beginning as a small start-up company over 30 years ago, we have grown to be a publicly traded company with a current market capitalization of over \$8.7 billion and over \$11.5 billion of electricity generating assets across Canada and globally. Along with biomass, solar and onshore wind assets, Northland has over 1000 megawatts of offshore wind in operation overseas with another 1000 megawatts currently under development.

Northland has grown to be one of the world leaders in offshore wind development. We have still retained our roots in terms of having a strong Canadian pride, a strong sense of community, a deep respect for Indigenous rights and a belief in the importance of developing projects in partnership with Indigenous Communities.

Northland believes that Canada has enormous renewable energy potential and we continually seek opportunities to invest in projects “here at home”. Canada’s vast coastline presents an opportunity to capitalize on its marine renewable capacity like other countries around the world are doing.



### **1.2 Acquisition of Oceanic Wind (formerly Naikun) Offshore Wind Development in Hecate Strait, BC.**

In looking to develop offshore wind projects in Canada, on September 1, 2020, Northland acquired the Oceanic Wind (formerly Naikun) offshore wind project under development in the Hecate Strait off the north east coast of Haida Gwaii (the Project).

With the acquisition completed, Northland will be responsible for all development activity going forward. Oceanic Wind (formerly Naikun) will no longer be involved in development activity for the project. Northland believes deeply in the importance of working hand in hand with Indigenous Communities who are affected by and would have a direct interest in the outcome of a project. To this end, we will be focusing on building a strong and mutually beneficial relationship with the Haida to learn first-hand what concerns and interests they have with respect to this project located in their traditional territory (See Section 1.4 First Nations Consultations for more detail). Northland acknowledges and respects that understanding and addressing Haida interests is critical for the success of this project. In addition, we will be undertaking other activities pertinent to the project’s development as described later in this application working closely with the Haida.

### **1.3 Application Overview**

Through the acquisition process, Northland has obtained the ownership of all previously completed studies as well as unexpired permits and licences. Environmental permits obtained by Oceanic Wind (formerly Naikun) through the issuance of its EA Certificate on December 10, 2009 have since expired. Oceanic Wind (formerly Naikun) was in the process of reapplying for its Licences of Occupation for Investigative Purposes (Investigative Licences) at the time Northland acquired the project.

Northland has decided to make its own application for a Licence of Occupation for investigation related to the same Project Site and Meteorological Mast (Met Mast) as previously licenced to Oceanic Wind (formerly Naikun). We believe that doing so enables us to articulate Northland's approach to both working with the Haida and undertaking investigative activities for the project.

This application is intended to cover the Project Site and the Met Mast given that both lie within the same geographic area that would be governed by the resulting licence. This document follows the template (guideline) provided via FrontCounter BC for Investigative Plans.

The topics covered in this document including: Project Overview, First Nations Consultations, Location, Location Justification, Infrastructure Improvements and Access, refer to both the Project Site and Met Mast. In terms of the Investigative Schedule, a separate table is provided for each of the Project Site and the Met Mast. Progress on investigative work (Diligent Use) will be provided accordingly as work progresses.

## **2.0 PROJECT OVERVIEW**

### **2.1 Project Background**

Previously undertaken studies have identified an area off the northeast coast of Haida Gwaii in the Hecate Strait as having ample wind resources and a suitable depth for a 400 – 600 MW offshore wind farm using turbines fixed directly to the seabed. The Project was based on the premise that it could supply electricity to the mainland under some form of long-term power purchase agreement (PPA) as well as potentially supply power to the Haida communities on the island. The latter was intended to provide the Haida with a means to eliminate dependency on electricity generated using diesel fuel, should this be of interest to the Haida Nation.

Although the original Project had proceeded through the full Environment Assessment process and received approval, the project's ability to proceed was hindered by two key factors: lack of support from the Haida and difficulties securing a PPA. Northland intends to bring its



experience and resources to this project to allow it to become a mutually important project for the Haida and Northland.

Since the issuance of the original Investigative Use Permit in 2013, offshore wind technology has advanced tremendously with the availability of higher power turbines (i.e., more power per turbine so far fewer turbines will be required to reach a given power output) and many best practices have evolved to mitigate any environmental impacts during offshore wind farm installation and operation. Due to technological improvements it is likely that a redesign of the Project site would utilize approximately 50% fewer turbines today versus 2013.

Northland believes that the project has merit from a technical perspective, however, for the project to proceed, we see establishing a positive relationship built on trust, detailed consultation, mutual understanding and mutual benefit through meaningful participation with the Haida, as paramount. Further, a clear path to securing a PPA that works for all parties needs to be established so the time, effort and dollars invested by the rights holders, stakeholders and Northland, will result in a suitable long-term contract for energy sales.

Northland has the experience and financial capacity to successfully deliver the project. We have a history of developing and constructing large scale power projects in an environmentally respectful way, safely for our workers and for the communities involved, on schedule and on budget.

### **3.0 FIRST NATIONS CONSULTATIONS**

Northland Power is committed to collaborating with the Haida Nation to build a long-term trusting and mutually beneficial relationship based on the values of honesty and integrity, trust, inclusion, transparency, respect and accountability.

Northland Power first began exploring the potential of acquiring the rights to this development project from Oceanic Wind (formerly Naikun) in 2019.

Northland Power's due diligence and subsequent acquisition of the Project from Oceanic Wind (formerly Naikun) have coincided with the onset of the Covid-19 pandemic and the ongoing Haida Gwaii State of Emergency.

Northland Power have been impressed with the Council of the Haida Nation's President Alsop's commitment and prioritization of the communities and people on Haida Gwaii during the pandemic. We have remained respectful of President Alsop's time and focus on this health emergency. We acknowledge that Northland will never move forward with a project without the support and involvement of the Haida Nation. We are also committed to work in concert with the Haida Nation around renaming the Project with a suitable and appropriate name.



Northland has only owned the project since September 1<sup>st</sup>, and the realities of COVID-19 with the resulting travel restrictions and administrative priorities have meant discussing or commencing consultation was simply not yet possible. Northland believes in a comprehensive process of consultation defined and led by the Haida in which we will both take the time to understand the interests of the Haida, discuss the environmental aspects of the project, and respond to the Haida concerns. From there, we can discuss, together, a process to identify opportunities for local benefits from the project and discuss and resolve participation in this potentially important project for the Haida and Northland.

Northland is proud of our company's commitment to respecting and working with Indigenous Communities on whose traditional lands and waters our projects may be developed.

We believe in the rights of Indigenous peoples over their traditional lands and waters and we make it a priority to ensure that our activities provide positive benefits to the Indigenous communities where we operate. Many of our existing renewable facilities in Canada are located within traditional Indigenous lands and we have developed positive, mutually beneficial, long-term relationships with these communities.

Northland believes in a comprehensive process of Consultation and Accommodation led by the wishes and procedures of the Haida. We commit to consult early, often and throughout the life of the project. We also commit to an open process of communication and knowledge exchange so that Haida communities can fully understand and appreciate the potential project.

We understand that relationships, which highly value trust and respect, can only be built on the principles of openness, transparency, honesty and integrity.

We understand and respect that each Indigenous community has its own unique appreciation for, and connection with, the land and sea environments.

We understand and appreciate the importance of taking the time to learn from and respect the cultures of the communities in whose traditional lands and waters our projects are located.

We recognize and respect the diversity of Indigenous peoples in Canada and are committed to interacting with each Indigenous community in a way that acknowledges their environmental understanding and values, and their heritage, unique culture and traditions.

Northland develops, owns and operates its projects in the long term so building and maintaining excellent long-term relationships with our partner First Nations is very important to us.



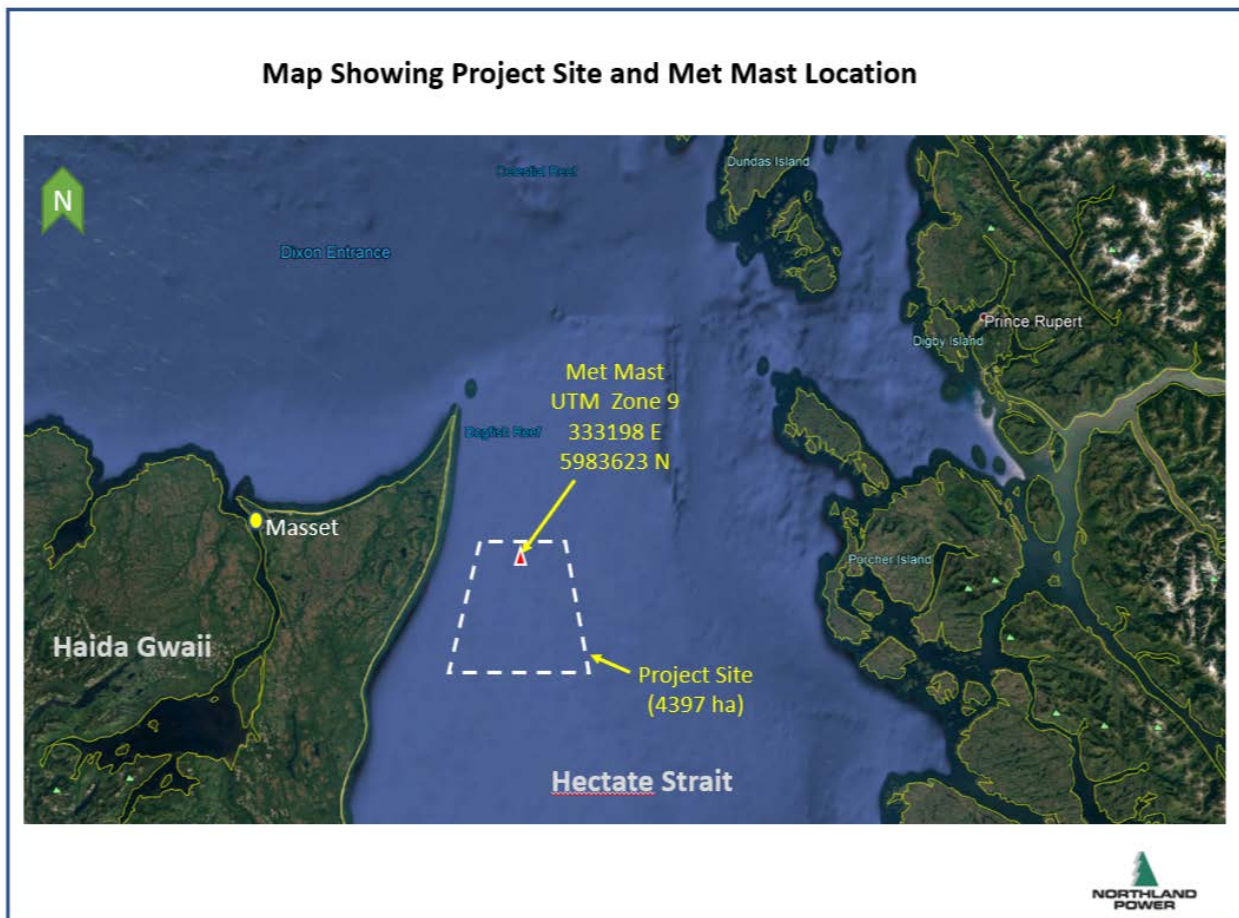
Designing and carrying out a process of meaningful and respectful Consultation and Accommodation is one of the first priorities for the project.

## 4.0 LOCATION

### 4.1 Description/Rationale

This application is intended to facilitate Northland undertaking its own investigative activity for:

- the Project Site previously licenced by Oceanic Wind (previously Naikun) in the Hecate Strait; and,
- the existing Met Mast located within the Project Site (i.e., in the vicinity of Dogfish Banks). The map below illustrates the Project Site and Met Mast location.

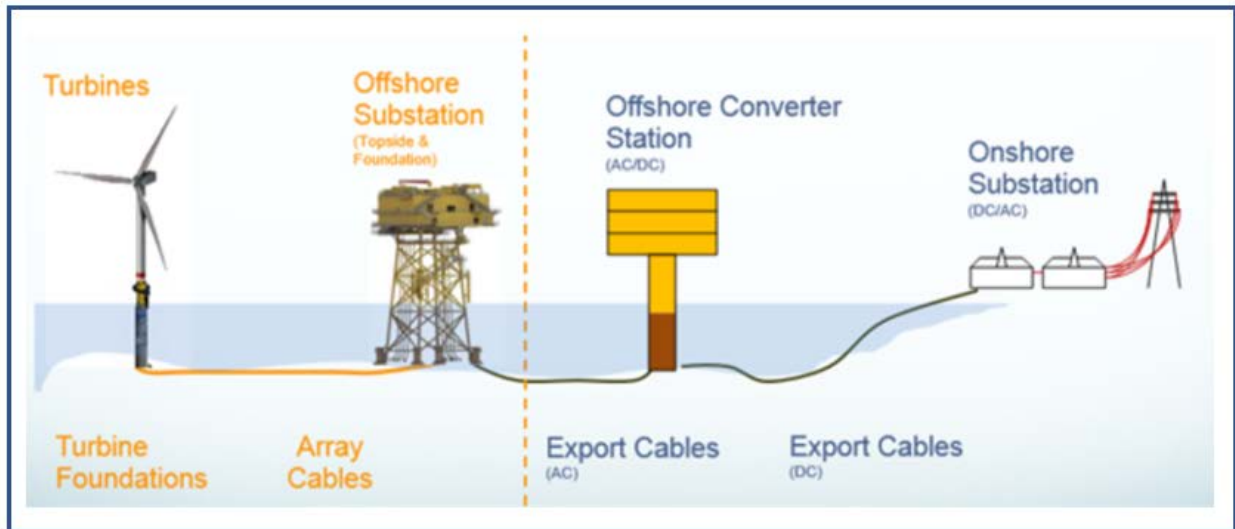


## 5.0 INFRASTRUCTURE

### 5.1 Improvements

During the Investigative phase, Northland would be relying on existing infrastructure, including the Met Mast for undertaking the necessary activities. Should the offshore wind project proceed, significant infrastructure would be installed including 40 – 60 turbines with foundations on the seabed with turbine array cabling, offshore substation(s), seabed transmission interconnections and onshore substations. The final project design will be based on the outcome of Haida consultation, partnership development, updated studies and use of the most current proven technologies.

#### Illustration of Typical Offshore Wind Infrastructure



### 5.2 Access

Historically the proposed Project site has been accessed by either helicopter or boat from Haida Gwaii. With the reduction in the number of operating helicopters in the region the preferred method of access has become a large inflatable or fishing boat chartered out of the Skidegate area. Equipment and personnel have been staged and accommodated in the Skidegate area. The trip to the met mast takes approximately 1-2 hours each way depending on weather and sea conditions.



### **5.3. Water Use**

There are no special freshwater requirements related to investigative activities identified under this licence application.

## **6.0 SCHEDULE**

### **6.1 Investigative Schedule for Project Site and Met Mast**

#### ***A Phased Approach***

The purpose of this application is for Northland to have tenure for the Project Site and Met Mast while investigating the prospects of working with the Haida in a way that addresses their concerns and interests. If an ongoing process of successful consultation can be achieved, Haida concerns can be addressed, Haida participation in the project can be established and if that results in Haida consent to proceed, then Northland and the Haida can collaborate to investigate the prospects of obtaining a PPA with a credit worthy party. Based on positive progress on these two fronts and achieving agreed upon milestones, work on detailed studies required to complete a new Environmental Assessment and obtain all required permits will commence in earnest. It is anticipated that once the necessary precursors are in place, permitting will take 2 -3 years followed by 2 – 3 years of construction and commissioning.

Annex 1 provides an overview of the key investigative activities planned to for the Project Site and for the Met Mast, respectively.

## **7.0 DILIGENT USE**

### **7.1 Evidence of On-going Diligent Use**

The licence resulting from this application will be Northland's first.

At Northland we take pride in our culture of keeping our rights holders and stakeholders informed regarding progress being made on the projects we develop. With respect to this application, we will endeavor to keep rights holders and stakeholders informed regarding progress on the activities identified in the Section 4.0.

**ANNEX 1**

**Project Site - Investigative Activity**

<b>Activity</b>	<b>Brief Description of Activity</b>	<b>Season</b>	<b>Potential Impact</b>	<b>Mitigation/Management of Potential Impact</b>
Engagement with Haida	See Section 3 of this application	All	Partnership is essential to successful development	See Section 3 of this application
Establish Path to PPA	The project requires a long-term PPA with a credit worthy offtaker. A clear avenue to securing a PPA be in place as a precursor to advancing investment in other development activities.	All	Critical to proceed with significant development activity investment.  Project can only proceed to renewed EA, and construction once a PPA is executed.	All avenues to a PPA to be rigorously examined and pursued be it with a public or private offtaker (or combination thereof).
Assess all Studies completed to the original EA	Review various studies to assess relevance and role in new EA, such as:  Local and migratory seabirds;  Local and migratory marine animals;  Marine plants and reefs;  Ocean floor bathymetry, geology and	All	Important for determining scope and cost for updated EA and other permitting.	Validate findings with stakeholders to ensure current issues and concerns will be addressed in subsequent EA and other permitting.

	<p>geophysical characteristics (e.g., reefs and other natural formations);</p> <p>Seismic surveys;</p> <p>Archeological studies</p> <p>Interface with existing uses (shipping, fishing, recreation, etc.);</p> <p>Existing underwater infrastructure.</p>			
Update Supply Chain and Logistics	Update approach to equipment supply, staging and construction.	All	Has implications for updated project costs and construction scheduling.	Maintain communication with prospective suppliers and port authorities.
Prepare Detailed <b>Development Plan</b> as per Ministry Requirements	Based on progress achieved on the above listed activities, work will commence on a Detail Development Plan (completed in consultation with Haida)	All	Dependent on outcome of above noted activities.	Dependent on outcome of above noted activities.

**Met Mast – Investigative Activity**

Activity	Brief Description of Activity	Season	Potential Impact	Mitigation/Management of Potential Impact
Meteorological Data Review	<p>Ongoing review of wind resource and other Met data as project feasibility and design input.</p> <p>Inventory and assess weather anomalies for project design.</p>	All	Met data is key to design and project output forecasting.	<p>Regular review of data gathered.</p> <p>Regular updating of output forecasts.</p>
Met Mast Maintenance if/as Required	Ensure Met Mast continues to provide reliable data	As required	Reliable data over time is necessary to validate capacity.	Regular review of equipment performance. Maintain preventative maintenance program as recommended by equipment supplier.