

**SCHEDULE III**

**(Subsection 6(1) of the Northwest Territories Water Regulations)**

**APPLICATION FOR WATER LICENCE, AMENDMENT OF LICENCE OR RENEWAL OF LICENCE**

APPLICATION/LICENCE NO: \_\_\_\_\_

(Amendment or Renewal only)

**1. NAME AND MAILING ADDRESS OF APPLICANT**

Applicant's Name            NWT Energy Corporation (03) Ltd. \_\_\_\_\_  
Mailing Address            #4 Capital Drive, \_\_\_\_\_  
Community                 Hay River, \_\_\_\_\_  
Prov/Terr                    NWT \_\_\_\_\_            Postal Code XOE 1G2 \_\_\_\_\_  
Telephone                 867-874-4480 \_\_\_ Fax 867-874-5251 \_\_\_\_\_  
Email                        ggazankas@ntpc.com \_\_\_ Other \_\_\_\_\_

**2. ADDRESS OF HEAD OFFICE IN CANADA IF INCORPORATED**

Mailing Address            \_\_\_ N/A (same as above) \_\_\_\_\_  
Community                 \_\_\_\_\_  
Prov/Terr                    \_\_\_\_\_            Postal Code            \_\_\_\_\_  
Telephone                 \_\_\_\_\_            Fax                        \_\_\_\_\_

**3. LOCATION OF UNDERTAKING**

(Describe and attach a map, indicating watercourses and location of any proposed waste deposits)

The proposed project (the Inuvik Wind Project or "the Project") consists of one wind turbine constructed 12 km east of the town of Inuvik, and 6.5 km north of the Inuvik airport, at the site known locally as High Point. The site will be accessed via a 4.5 km all-season road connected to the Dempster Highway at roughly km 254.68, to be constructed as part of the Project. **Figure 1** in the Supporting Information document shows the below Project components and nearby landmarks.

- Wind turbine generator: 68°21'23.60N and 133°24'29.60W
- Access road: 68°21'23.60N and 133°24'29.60W to 68°18'55.11"N and 133°23'54.83"W
- Electrical line from turbine to substation: 68°21'23.60N and 133°24'29.60W to 68°21'19.19N and 133°43'37.34W
- Upgrades to existing substation: 68°18'21.19N, 133°30'06.94W
- Upgrades to existing cables between airport substation and power plant in Inuvik: 68°18'21.19N, 133°30'06.94W to 68°21'19.19N, 133°43'37.34W
- Upgrades to power plant in Inuvik: 68°21'19.19N, 33°43'37.34W

#### **4. DESCRIPTION OF UNDERTAKING**

*(Describe and attach plans)*

The proposed project, known as the Inuvik Wind Project (the "Project"), will involve installing one 2 to 4 MW wind turbine<sup>1</sup> with a 75 to 100 m hub height, plus the construction of the associated road and electricity infrastructure, including an energy storage system.

The components associated with the Project are: an all-season access road, installation of an electrical line from the turbine to the substation at the Inuvik Airport, upgrades to the existing airport substation, upgrades to the existing cables connecting the substation to Inuvik, and installation of new components for electricity regulation and storage at the power plant in Inuvik. Each of these components are described in detail in Section 2.3 of the Supporting Information document.

#### **5. TYPES OF UNDERTAKING**

Project components are described in detail in section 2.3 of the Supporting Information document, but a brief summary of construction activities that may require the use of small quantities of water are:

- Wind Turbine Generator(s): foundation pier drilling, crane pad preparation, material placement (e.g. concrete for the foundation, aggregate for preparation of construction areas), vegetation clearing for heavy equipment laydowns and staging areas
- Access Road construction: Removal of vegetation and placement of road bed material/compaction of the material (no excavation or ground cutting); vehicle traffic and transportation of turbine components will take place on the road for the rest of the construction phase
- Installation of Electrical Line from Turbine to Airport Substation: Drilling for wooden poles and grounding and stringing of conductor lines on poles (transportation of materials via the Dempster Hwy)
- Battery and Feeder Breaker Installation at Power Plant: Drilling for foundation piers, Placement of aggregate and other construction material.

Conducting upgrades to the existing electrical distribution infrastructure between the airport substation and power plant is not expected to incorporate activities that would require water use.

#### **6. WATER USE**

It is not expected that the 100m<sup>3</sup>/day threshold of water use will be exceeded during Project construction, however this application for a Water Licence is being submitted to manage risks to the construction schedule in the event that more than 100m<sup>3</sup> is needed on any one day during construction. Water will be sourced from either Dolomite Lake or Campbell Creek. Water will be used during construction for concrete mixing, drilling, dust management, road bed compaction and rinsing construction equipment to prevent transfer of invasive plant species, and possibly other construction-related activities.

#### **7. QUANTITY OF WATER INVOLVED**

*(Litres per second, litres per day or cubic metres per year, including both quantity to be used and quality to be returned to source)*

100m<sup>3</sup>/day to 110m<sup>3</sup>/day. No water will be returned to the source or will be allowed to re-enter natural water bodies unless unused. Water will either be applied to areas or equipment in such a way as to enable evaporation or infiltration into the ground or will be managed using standard erosion and sediment control measure to prevent it from impacting nearby surface water. If contaminated, water will be collected and disposed of at appropriate waste treatment facilities.

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<sup>1</sup> [Project design is ongoing; turbine manufacturer and model have not been selected.](#)

## **8. WASTE DEPOSITED**

*(Quantity, quality, treatment and disposal)*

A Waste Management Plan has been developed for the Project and is provided in Appendix F of the Supporting Information document. The Waste Management Plan describes the potential sources of waste, and measures to minimize and dispose of Project waste.

## **9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING**

*(Give name, mailing address and location; attach list if necessary)*

The Department of Infrastructure (INF) holds Land Reserve 107B07-172 for the Inuvik Wind Project area, as shown on Figure 1 of the Supplemental Information document. If additional land is needed for the project area, INF will apply for an amendment to the existing land reserve. The access road will be developed by the GNWT and will be considered a public access road; however, direct access to the wind turbine site will be restricted for safety and security reasons and to comply with NWT electrical regulations. When developing this Project a Traditional Knowledge/Traditional Land Use Study was completed for the Project Area (Appendix C of the Supplementary Information) supporting our conclusion that other persons or properties are not expected to be affected by use of water or land for this undertaking.

## **10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION**

The Proponent will follow mitigation measures defined in DFO's Freshwater Intake End-of-Pipe Fish Screen Guidelines (1995) to protect fish during water withdrawal.

A summary of the potential environmental and resource impacts of the Project is provided in Section 3.0 and 6.0 of the Supporting Information document. The following components were considered: vegetation and wetlands, birds and bats, land mammals, archaeological resources, navigation, communication systems, visuals, noise, fish, and permafrost. With mitigation measures, minimal/no adverse effects are expected to these components. Mitigation measures are summarized in Section 13.0 of the Supporting Information document.

## **11. CONTRACTOR AND SUB-CONTRACTORS**

*(Names, addresses and functions)*

The NTEC Energy Corporation (03) Director is Gary Gazankas. Contract(s) for the work have yet to be awarded, but section 9.0 of the Supporting Information document lists the total number of persons expected on site during construction. Total number of persons onsite will be dependent on the activity.

## **12. STUDIES UNDERTAKEN TO DATE**

*(Attach list if necessary)*

Studies undertaken in the course of feasibility evaluations and preparing the Land Use Permit application for the Project are discussed in sections 3.0 and 6.0 of the Supporting Information document, and detailed reports attached as Appendices A to E. Studies undertaken are, in summary:

Traditional knowledge and land use study in 2018, heritage resource overview assessment and heritage resource impact assessment, vegetation baseline assessment (2018), geotechnical studies for both the access road footprint and the turbine pad, and wildlife baseline studies including migratory bird surveys, grizzly bear denning surveys and acoustic bat surveys. Feasibility studies for wind data and other factors that might influence the project viability from an economic or engineering standpoint have also been undertaken at various stages of Project development.

## **13. PROPOSED TIME SCHEDULE**

