



Land Use Operational Policy Wind Power Projects

NAME OF POLICY: Wind Power Projects

APPLICATION: Applies to all Wind Power Projects on upland, foreshore and aquatic Crown land.

ISSUANCE: Assistant Deputy Minister, Tenures, Competitiveness and Innovation

IMPLEMENTATION: Ministry of Forests, Lands and natural Resource Operations

REFERENCES: *Land Act* (Ch. 245, R.S.B.C., 1996)

RELATIONSHIP TO PREVIOUS LAND POLICY: This policy replaces the previous Wind Power policy dated October 2005.

POLICY AMENDMENT: Any formal request for an amendment to this policy is to be directed in writing to the Director, Land Tenures Branch, Ministry of Forests, Lands and Natural Resource Operations.

Per Dave Peterson, ADM
Tenures, Competitiveness and Innovation
Ministry of Forests, Lands and Natural
Resource Operations

Date: August 17, 2011

APPROVED AMENDMENTS:		
Effective date	Briefing Note /Approval	Summary of Changes:
December 01, 2011		Updated language with respect to investigative licence and multi tenure instrument
May 15, 2012	BN 186748	Clarification that roads associated with Clean Energy Projects may be authorized under the <i>Land Act</i> or by Special Use Permit under the <i>Forest Practices Code Act</i> .
April 2, 2013	BN 196442	Amendments related to reversion back to GST made to: <ul style="list-style-type: none"> • tenure conversion provision, and • administration fees provision so as to refer to “applicable taxes” only.
July 10, 2013	BN196443	Delete program specific guidance on advertising; instead rely on general guidance provided in the Allocation Application Procedure.
July 12, 2013	BN 198134	Amendments made to address enhanced information on acoustic assessments and reference to the Land Procedure on Acoustic Compliance
December 16, 2013	BN 203110	Updated language with respect to investigative use permit and variance request
September 22, 2015	BN 217947	Land Act reform phase 1 changes
April 13, 2016	BN220120	Change to diligent use, remove requirement for investigative tenures over 5 years

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1. POLICY APPLICATION

This Wind Power policy outlines the type, term and pricing of tenures that will be issued for the Crown land project components.

The Ministry of Forests, Lands and Natural Resource Operations is the lead agency for the regulatory review of wind power project proposals on Crown land. However, projects that exceed the Environmental Assessment Office (EAO) Energy Project threshold will require EAO review.

Land-use and operational policies of other agencies, such as BC Hydro, are also applicable where their legislation provides for jurisdictional responsibility.

The italicized text in this document represents information summarized from standard Crown land operational policies and procedures. This material has been inserted where it provides necessary direction or context. As well, website links offer access to the full text of the relevant operational Crown land policies and procedures. Text in standard script is applicable to this operational policy only.

2. PRINCIPLES AND GOALS

Provincial employees act in accordance with applicable legal requirements when making decisions. The Guiding Principles are a summary of key administrative and contract law principles which guide provincial employees.

This policy is part of a series of policies that have been developed to help provincial staff use business and legal principles to achieve the government's goals with respect to the management of Crown land in a manner that is provincially consistent, fair and transparent. To that end, this policy also serves as a communication tool to help the public understand how the Province of BC makes decisions respecting Crown land.

The "BC Energy Plan: A Vision for Clean Energy Leadership" ([The BC Energy Plan: A Vision for Clean Energy Leadership](#)) was released on February 27, 2007. More information on the energy plan can be found on the Ministry of Energy and Mines website and this operational Crown land use policy supports the goals of that plan.

Further information on the regulatory process for Clean Energy Production (CEP) or Clean Energy project proposals can be found in the proponent guidebook [Clean Energy Production in BC: An Inter-agency Guidebook](#).

3. DEFINITIONS

Annual Production Factor means the actual energy produced on the site and delivered to a purchaser during the previous 12 months, divided by the total Nameplate Capacity of the site multiplied by the number of hours in a year, and is expressed as a percentage.

$$\text{Annual Production Factor (\%)} = \frac{\text{Energy Produced in previous year (MWh)}}{\text{Total Nameplate Capacity (MW) x hours in year}} \times 100$$

Authorizing Agency means the Provincial ministry responsible for the specific land use authorization.

Buffer Area means a separation between wind farm developments to prevent upwind removal of wind energy due to Wake Effect from wind turbines. As a general guide, this separation is defined as one kilometre in the prevailing wind direction, or 500 metres in the direction perpendicular to the prevailing winds, of any existing wind development tenure or wind investigative tenure boundary. The buffer may be varied by the Authorizing Agency dependent upon terrain, geography and other environmental considerations. See Appendix 3.

In issuing Crown land tenures the Province strives to make decisions that do not result in the alienation of private land activities. In cases where projects are being developed on Crown land lying adjacent to private land, proponents should recognize that future potential development on private land may affect their project and make business decisions accordingly.

For Crown lands that do not have potential for wind power development, an adjacent tenure holder may apply for a variance to reduce their buffer distances. It will be considered on a case-by-case basis, and would require discussion with all parties.

Development Plan means the report submitted by the applicant containing technical information associated with the project.

Extensive Use Area means a non-exclusive tenured area, outside of the Intensive Use Areas, which is required for management and control of landscape features, public access, safety and other defined rights and obligations required to protect the general public and the wind resource.

First Come First Served means an option is granted to the holder of the wind investigation phase of tenures to be the first applicant for the long-term wind project tenures over the same Crown land area.

First Nation is a term that refers to the Indian peoples in Canada, both Status and non-Status. Although the term First Nation is widely used, no legal definition of it exists. Some Indian peoples in British Columbia have adopted the term "First Nation" to replace the word "band" in the name of their community.

Gross Vehicle Weight means the number of kilograms derived by adding the weights on all the axles of a commercial vehicle.

Gross Revenue means the gross value accruing from the sale of electricity created by wind turbine generators within the tenured area.

Improvements means anything made, constructed, erected, built, altered, repaired, added to, on, or under the land, and attached to it or intended to become a part of it, and also includes any clearing, excavating, digging, drilling, tunneling, filling, grading or ditching or, in on or under the land.

Intensive Use Area means the part of a wind farm development including wind turbine footings, turbine structures including air space for the propellers, transformers, electrical conditioning equipment, auxiliary buildings, transmission poles, transmission lines, buried cables, access roads and other improvements as defined in the project's Development Plan. .

Investigative Plan means the information submitted at the Investigative Phase.

Megawatt(s) means 1,000 kilowatts or 1,000,000 watts.

Meteorological/Anemometer Tower means vertical steel tubular or lattice tower of 10 metres or more in height and equipped with wind sensors, data logger, meteorological instruments, support cables and anchors

Nameplate Capacity means the manufacturer's rated (maximum) output of the electrical generators installed in the nacelle of each turbine.

Participation Rent means a percentage of the gross value proceeding or accruing from the sale of electricity created by wind turbine generators located within the project development.

Receptor means the outside of an existing permanently-occupied residence (not owned by the proponent) or the nearest property line of existing, undeveloped parcels zoned residential (not owned by the proponent) in existence at the time of application for a *Land Act* tenure to construct a wind farm.

Remote Community Project means a project which would supply power to a community without access to the provincial electricity grid.

Staging Area means that Crown land used for construction, spoil and/or laydown-uses during the construction phase of project development.

Wake Effect means each wind turbine will slow down the wind behind it as it pulls energy out of the wind and converts it to electricity.

Wind Power Turbines/Wind Turbine Generators means electricity generating machines which consist of a generator housing (nacelle) and wind bladed rotor situated on top of a freestanding tubular steel, lattice or concrete tower.

Wind Power Project means all required components for the Wind Power Project including wind turbines, maintenance buildings, other plant facilities, road(s), transmission line(s) and surrounding Crown land.

Zone Land Value means a method of land valuation which establishes a common value

(usually on a per hectare basis) for all land within a defined geographical area.

4. ABBREVIATIONS

BCA - BC Assessment

EAO - Environmental Assessment Office

EPA – Electricity Purchase Agreement

GVW – Gross Vehicle Weight

ha - Hectare

MFLNRO – Ministry of Forests, Lands and Natural Resource Operations

MEM – Ministry of Energy and Mines

5. APPLICANT ELIGIBILITY

Applicants for new tenures, tenure assignment, or tenure replacement must be:

- *Canadian citizens or permanent residents 19 years of age or older; or,*
- *Corporations which are incorporated or registered in British Columbia; or,*
- *Registered partnerships, cooperatives, and non-profit societies which are formed under the relevant provincial statutes; or,*
- *First Nations can apply through band corporations or Indian Band and Tribal Councils. Band or Tribal Councils require a Band Council Resolution a) authorizing the council to enter into the tenure arrangement, and b) giving the signatories of the tenure document the ability to sign on behalf of the Band. For tenures which are to be registered in the Land Title Office, First Nations must apply through either a band corporation or trustees. Band members can elect one or more trustees to hold tenure on behalf of the Band. Verification of election must be by way of a letter signed by the Chief and councilors of the Band giving the full names of the trustees and stating that they were elected at a properly convened meeting of the Band. A Band Council Resolution is not required.*
- *In the case of aquatic land, non-Canadians can apply if they own the adjacent upland (companies must still be incorporated or registered in British Columbia).*

For more detailed standard policy information see General Policy: Eligibility and Restrictions.

6. FORM OF LAND ALLOCATION

For Improvements associated with a Wind Power Project such as transmission lines, roads, quarries, communication sites etc., reference is made to other appropriate pre-existing land use policies.

Refer to Appendix 1 for a summary of the forms and terms of Crown land allocation available for wind power operations.

Note: All forms of tenure are subject to diligent use requirements, see Section 9.6.2. *For more detailed standard policy information see Form of Crown Land Allocation.*

6.1 Project Monitoring and Investigation Phase

This phase involves monitoring tower installation, data collection, site planning, facility design as well as receipt of permit approvals and power agreements. Listed below are the required project land-use and the associated tenure types that are available for each land use. See Section 9.6.2 for diligent use requirements associated with this phase.

6.1.1 Allocation Process

The Province reserves the right to allocate land for wind power sites through a range of processes.

- **First Come First Served:** under this approach the Authorizing Agency accepts and processes applications on a first come first served basis. The Authorizing Agency will not accept competing applications for wind power while an application is in the adjudication process. This approach will be applied during the initial phases of wind power development.
- **Planned disposition:** as knowledge of the wind resource increases, the Province may identify areas where wind energy will be marketed using a planned disposition approach. This usually involves allocating the opportunity through a competitive process.
- **Bonus bid:** The Authorizing Agency may allocate known sites (e.g. investigative licences that default to the Province through non-diligent use) and sites where there is known demand (e.g. may be adjacent to two existing wind farms) through a bonus bid process.

6.1.2 Investigative Licence

A *Land Act* Section 11 investigative licence of occupation is the form of tenure provided to authorize initial investigation to determine site placement of wind energy device(s). **Investigative licences will be issued for areas not exceeding 5000 ha.** Requests for larger areas are at the discretion of the Authorizing Agency. The term for an investigative licence is up to five (5) years at the discretion of the Decision Maker with the possibility of a one-time replacement.

The Investigative Plan that must accompany application(s) for testing equipment should specify the locations and construction schedules for equipment as well as timing for the collection of monitoring data, and other information reasonably required by the Authorizing Agency. If the equipment is not used diligently, (see Diligent Use requirements in Section 9.6.2) a subsequent tenure may not be granted.

6.2 Project Development and Operation Phase

This phase involves the construction, testing and operation of turbine towers and all associated structures and improvements, such as transmission lines and roads. Listed below are the required project land-uses and the associated tenure types that are available for each land use. See Section 9.6.2 for diligent use requirements associated with this phase.

It is important to note that the Authorizing Agency will review on the ground progress on a regular basis to ensure that the land is being used in the manner consistent with the timelines and schedules outlined in the Development Plan for the site.

Electricity Purchase Agreement (EPA)

Proponents who have an existing EPA at this stage of development may apply for Crown land tenures that contain a tenure term with a coincident end date as that of their EPA. For proponents who do not have an existing EPA, Crown land tenure terms are available for terms up to 10 years. If a proponent obtains an EPA within the non EPA 10-year term period, the proponent at any time within this 10-year period may replace their Crown land tenures with the coincident end date of their EPA. Standard tenure replacement charges will apply.

For projects **without** an existing EPA and during the term of the tenure, the tenure-holder will be required to annually demonstrate due diligence in the pursuit of an EPA, participation in any standing offer program, or similar opportunity. The Development Plan must detail these actions and will remain in full force and effect in subsequent tenures.

For projects **with** an existing EPA, the licence will require that the Improvements be constructed by the commercial operation date within the EPA. The Development Plan must detail these dates and actions, which will remain in full force and effect in subsequent tenures.

6.2.1 Type and Term of Tenure(s) For Projects

Once the proponent has made the decision to proceed to the development phase of the project (based on the data obtained from the investigative phase work) an application should be made for a wind power project. The form of tenure issued at this stage is the multi tenure instrument (MTI). It initially offers Crown land rights associated with construction and development activities. At such time as the project is built and becomes operational, the MTI can be modified to provide the necessary longer term rights as required by the tenure holder.

6.2.1.1 Siting of Wind Turbines

Operating wind power turbines create sound which may be described as unwanted noise. As such, projects must be sited at locations where the wind turbine sound level will be reduced to a maximum of 40 dB (A-weighting)¹ on the outside of an existing

¹ The World Health Organization (WHO) recommends a level of 30 dB inside a bedroom to ensure sleep is not disturbed. The International Organization for Standardization (ISO) indicates that sound moving through

permanently-occupied residence (not owned by the proponent) or the closest boundary of existing, undeveloped parcels zoned residential (not owned by the proponent). The wind turbine locations will be determined through modeling, using a methodology which satisfies the ISO 9613-2 standard “Acoustics-Attenuation of sound during propagation outdoors - Part 2: General method of calculation”. The sound power level, or acoustic power radiated by the wind turbines, is to be supplied by the turbine manufacturer. Modeling will utilize the wind speed at which the sound power level has become constant, typically 8-10 metres/sec at a height of 10 metres; otherwise 11 metres/sec is to be used. Application of the sound level requirement is limited to those residences and undeveloped residential parcels in existence at the time of application for a *Land Act* tenure to construct a wind farm. Worst case scenarios are to be modeled, in which each property line or existing residence is portrayed as being directly downwind from each turbine. Site specific characteristics, such as topography, are to be incorporated into the model.

Modeling is based on assumptions that may not accurately portray the characteristics of specific sites or meteorological conditions. Questionable turbines are those for which modeling predicts a sound level that is only marginally quieter than the acceptable level. Proponents should conduct a risk assessment to determine the potential impact on project viability of unacceptable sound levels from questionable turbines.

See 9.6.3 Monitoring and Enforcement - Management of Sound

6.2.2 Individual tenures or Multi Tenure Instrument schedules

6.2.2.1 Multi Tenure Instrument

The Multi Tenure Instrument is the preferred tenure document for clean energy project development and operation. It is issued initially with rights equivalent to a general area licence of occupation. Subsequent Crown land rights may be added or dropped as required to meet the needs of the individual Development Plan. The types of Crown land rights available during the development and operational phase are detailed below.

6.2.2.2 General Area – Licence of Occupation

A licence of occupation may be issued where minimal improvements are proposed, where there are potentially multiple users of a site (e.g. communication sites), where survey is not required or when the land is located in remote areas and legal survey costs required for a lease or right of way are prohibitive, and where Government wishes to retain future options and management control over the use of the lands.. It may also be used to allow development to proceed while awaiting completion of survey requirements for a lease or right of way.

an open window is attenuated by 10 dB. Therefore, a sound level of 40 dB on the outside of a dwelling should be reduced to at least 30 dB inside after passing through a fully open window.

A licence of occupation conveys fewer rights than a lease. It conveys non-exclusive use for the purpose described, is not a registerable interest that can be mortgaged, and does not require a survey.

A licence of occupation does not allow the tenure holder to curtail public access over the licence area except where it would impact the licencees' right to use the land as per the licence document. Government may authorize overlapping and layering of tenures.

A licence of occupation may be issued over a broad polygon-shaped area to allow for the construction and operation of Improvements. The identification of required Crown land should account for both the footprint of all permanent improvements in the Intensive Use Area as well as the Extensive Use Area, as well as any land required for construction of the project. A Staging Area is generally required and should be identified and included in the licence of occupation area.

The tenure holder may also request that separate tenures be issued for various Improvements, as per the following sections. This request may be submitted at any time during the term of the general area licence. If multiple tenures are requested, the general area licence will be amended to exclude these areas. The remainder of the general area licence will provide flexibility for alterations to the locations of the Improvements during construction. Deviation from existing leases or statutory rights of way will require submission of an application for additional tenures for the new areas or for amendment to the existing tenure(s).

Upon completion of construction, the tenure area may be reduced to eliminate additional land required during construction to ultimately reflect only that land required for project operation. The final tenure may include both the intensive and extensive use areas.

The Development Plan must include any phasing in of turbines, during both construction and operation. The Development Plan must detail these dates and actions.

6.2.2.3 Extensive Use - Licence of Occupation

A licence of occupation may be provided for the broad polygon-shaped area surrounding the turbine sites.

6.2.2.4 Intensive Use - Licence of Occupation

One licence of occupation may be provided for both the broad polygon-shaped area surrounding the turbine sites as well as the separately identified intensive use turbine sites. The intensive use sites will have to be delineated from the extensive use area as the rental rate for intensive use sites is calculated separately.

6.2.2.5 Intensive Use - Lease

A lease should be issued where long term tenure is required, where substantial Improvements are proposed, and/or where definite boundaries are required in order to avoid land use and property conflicts.

The tenure holder has the right to modify the land and/or construct Improvements as

specified in the tenure document. The tenure holder is granted the right to exclusive use and enjoyment of the area. The tenure holder also has the right to exclude or charge the public for use of the land and/or improvements, when this is consistent with the terms of the lease. The lessee may, in accordance with section 65 of the Land Act, take legal action against trespassers to the lease area.

A lease will normally be issued for intensive use areas including wind turbines, maintenance buildings and other plant facilities, and may be provided for other areas as requested by the proponent.

A legal survey will generally be required at the applicant's expense to define the tenured area. A lease is a registerable interest in the land that is mortgageable.

6.2.2.6 Transmission Line - Licences of Occupation

A licence of occupation may be provided for linear components such as the transmission line.

6.2.2.7 Transmission Line - Rights of Way

A statutory right of way is normally used to authorize linear uses of Crown land for transportation, communication, energy production and utility developments.

The tenure holder is granted a legal right of passage over the land for a specific purpose. It does not generally confer the right to exclusive use and enjoyment of the area, or the right to exclude or charge the public for the use of the improvements.

A legal survey will be required at the applicant's expense to define the tenured area. A statutory right of way is a registerable interest in the land that is mortgageable.

6.2.2.8 Road - Licence of Occupation

A licence of occupation is the tenure available for road purposes within a wind power project. The licence will also require that the Improvements be constructed by the commercial operation date within the EPA

6.2.2.9 Road - Statutory Right of Way

A statutory right of way may be issued or interim licence of occupation leading to a statutory right of way.

See Roadways policy.

6.2.2.10 Road – Special Use Permit (*Forest Practices Code Act*)

Rather than apply for any of the *Land Act* instruments described above for roads located within the Provincial Forest, the applicant may choose to apply for a Special Use Permit, which is issued in accordance with the *Forest Practices Code Act*, and subject to the requirements of the *Forest and Range Practices Act*.

6.2.2.11 Quarry – Licence of Occupation

If applicable, a licence of occupation for aggregate purposes will be required in addition to a general area licence of occupation.

A quarry – licence of occupation will be issued separately from the general area-licence of occupation. Gravel use will be subject to royalty payment in the following circumstances:

- i) gravel removed from a quarry;
- ii) gravel used in the production of concrete; and
- iii) gravel moved from its original position and used in another location of the tenure area.

Gravel use will not be subject to royalty payment in the following circumstances:

- i) gravel used to build and maintain public roads; and
- ii) gravel located immediately beneath the tenured area of the turbine, , not used in concrete production and ultimately used in the same position (i.e. turbine bedding).

See Aggregate and Quarry Materials policy.

6.2.2.12 Communications Site – Licence of Occupation

If applicable, a licence of occupation for communication site purposes will be required in addition to a general area licence of occupation. The maximum term of the tenure will be 10 years and have the same expiry date as the general area licence.

See Communications Sites policy.

6.2.2.13 Site Decommissioning

The site must be decommissioned by the tenure holder as per the terms and conditions of the tenure document. The length of time required to complete the decommissioning will be project specific.

7. PRICING POLICY

7.1 Administrative Fees

Application fees for tenures, other administrative fees, and applicable taxes are payable to the Province of BC. These fees are set out in the [fee schedules](#) contained in the Land Act, Ministry of Lands, Parks and Housing Act Crown Land Fees Regulation.

7.2 Land Valuation

Valuation of project components for Wind Power Projects are based on zone rates for linear features as described in the Utilities policy and shown in the map of Zone Land Values in the Crown Land Operational Policy – Utilities.

These zone rates represent 50 percent of the land value as they have been established for linear utility licences and rights of way (which are a “partial taking” and do not confer

the same level of interest in the land). Zone rates are to be applied to the general area licence and to subsequent tenures for extensive use areas.

Where there is market evidence to suggest land values are significantly (25%) higher or lower than the zone rate the Authorizing Agency may, at its discretion, call for a market value appraisal of all or portions of the subject area. All appraisals (internal and external fee appraisals) should be conducted using the Appraisal Terms of Reference for linear dispositions template provided in Appendix 3 - Utilities policy and with reference to the Appraisals Procedure, particularly with respect to the Accredited Appraiser Canadian Institute minimum requirements for reports as described in that procedure.

Where a Wind Power Project crosses more than one zone, or involves one or more appraisals, each segment is valued independently and the total land value for the project is determined as the sum of the values of individual segments.

Note: In the event of a dispute over appraised values, refer to [Land Procedure - Disposition Price Resolution](#).

Refer to Appendix 1 for a summary of the types, terms and pricing of Crown tenures available for Wind Power Projects.

7.3 Project Monitoring and Investigation Phase Rent

7.3.1 Investigative Licence of Occupation

The annual rent is \$500 which normally includes up to five towers.

7.4 Project Development and Operation Phase Rent

7.4.1 Individual tenures or Multi Tenure Instrument schedules

Rent for each tenure or equivalent schedule attached to a Multi Tenure Instrument is calculated in the identical way. For example, an individual licence of occupation and a licence of occupation schedule are both priced at 7.5% of the Zone Land Value (zone land value described in the Utilities Policy). Rental rates are described below.

7.4.2 General Area - Licence of Occupation

Annual rental is 7.5 percent of the zone land value (zone rate/ha x land area [ha]) from the Utilities policy.

7.4.3 Extensive Use - Licence of Occupation

Annual rental for the extensive use areas is 7.5 percent of the zone land value established in the Utilities policy.

7.4.4 Intensive Use - Licence of Occupation

Annual rental for the intensive use areas is 7.5 percent of two times (2x) the zone land value established in the Utilities policy, or 7.5 percent of revised land value if appraised.

7.4.5 Intensive Use - Lease

Annual rental for intensive use areas is 8 percent of two times (2x) the zone land value;

or 8 percent of the revised land value if appraised.

The minimum annual rent for licences and leases is \$500.

7.4.6 Road - Licence of Occupation or Statutory Right of Way

See Roadways policy.

7.4.7 Transmission Lines - Licence of Occupation

Prepaid – Prepaid rental is based on 7.5 percent of zone land value times the appropriate discount factor as per Appendix 1, Pricing Policy.

Annual - Annual rental is 7.5 percent of the zone land value as outlined in the Utilities policy.

7.4.8 Transmission Lines - Statutory Right of Way

Prepaid - Statutory right of way consideration is prepaid for the full term of tenure based on 100 percent of zone land value, or revised land value as above, and subject to adjustment upon completion of a legal survey.

Replacement rights of way are issued for a nominal \$1.00 fee, plus application fees, where the original tenure was prepaid as a consideration.

Annual - Annual rental is 7.5 percent of the zone land value, or revised land value as above, as outlined in the Utilities policy.

The minimum prepaid consideration is \$500 for the entire term. The minimum annual rent is \$500.

7.4.9 Quarry

See Aggregate and Quarry Materials policy

7.4.10 Communication Sites

See Communications Sites policy

7.4.11 Wind Power Participation Rent

In addition to the land rents noted above, an annual Participation Rent based on gross revenue derived from energy produced by the wind turbines will be payable. The Participation Rent will be subject to a review in five years from the date of the signing of this operational policy. The review will ensure that the rent model is consistent with government objectives and that it is warranted for future tenure holders given the state of maturity of the wind energy sector at that time.

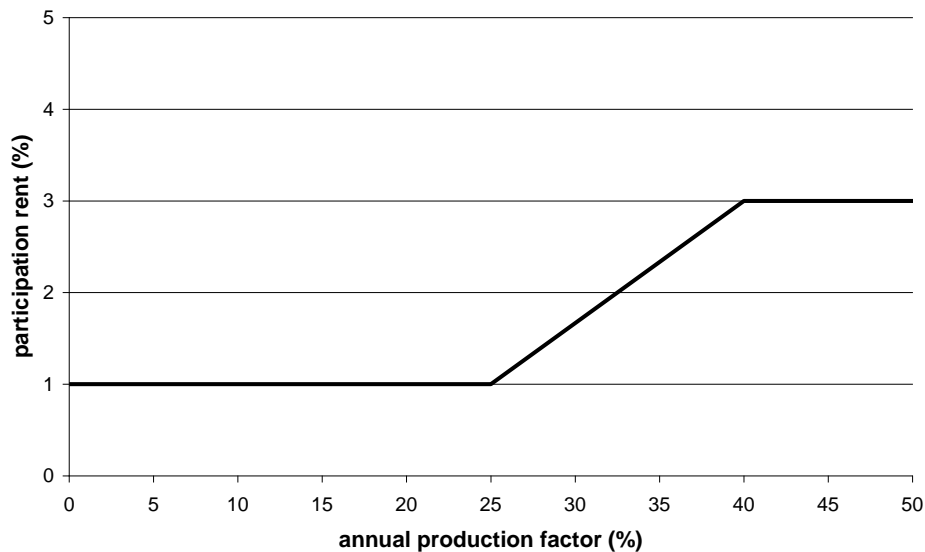
The annual Participation Rent, as set out in this operational policy, will be payable as follows:

- Participation Rent will not be payable during a 10-year grace period which will allow industry to develop and mature. The grace period will extend 10 years from the date the project operation phase begins.

- After the 10-year grace period has concluded, a wind power tenure holder will be charged an annual Participation Rent ranging from one to three percent of gross annual revenues, based on their Annual Production Factor (see Figure 1 below).
- The annual production factor is defined as the actual energy produced on the site and delivered to a purchaser during the previous 12 months, divided by the total nameplate capacity of the site multiplied by the number of hours in a year, expressed as a percentage.

$$\text{Annual Production Factor (\%)} = \frac{\text{Energy Produced in previous year (MWh)}}{\text{Total Nameplate Capacity (MW) x hours in year}} \times 100$$

Figure 1: Wind Participation Rent



As Figure 1 illustrates:

- Rent will be one percent of gross annual revenue when the Annual Production Factor is 25 percent or less;
- Rent for an Annual Production Factor greater than 25 percent and less than 40 percent will range from one to three percent of gross revenue as per the following formula

$$1 + [(\text{Annual Production Factor} - 25) \times 2/15]; \text{ and}$$

- Rent will be three percent of gross revenue when the Annual Production Factor is at or above 40 percent.

Under this approach, rent will be two percent of gross revenue at an Annual Production Factor of 32.5 percent, which may be considered to be the average output for Wind Power Projects.

The Participation Rent model will be supported by tenure agreements which require the tenure holder to supply a statutory declaration to the Authorizing Agency annually. The Authorizing Agency has the right to audit information, including Annual Production Factor data, provided by the wind power tenure holder.

8. ALLOCATION PROCESSES

8.1 Applications

The Authorizing Agency will not accept wind power investigative tenure applications which overlap any portion of another Wind Power Project application or wind tenure.

The Authorizing Agency will generally maintain a buffer area between the area of any new wind application and the area of any pre-existing Wind Power Project application or tenure. The buffer area will apply equally to two immediately adjacent investigative tenure areas *resulting from applications received on the same date* to provide equal opportunity to the wind resource. The Authorizing Agency may adjust the size and location of buffer areas based on site characteristics.

The number of investigative tenure applications held by any one individual or company at any one time may be limited (e.g. to prevent speculation, ability to meet diligent use requirements).

The above procedures also apply to allocation decisions made pursuant to a planned disposition or other competitive process.

8.2 Application Package

Applications must be complete before they can be accepted for processing. A complete application package will include all the material defined in the [application checklist](#).

Note: Applications including a transmission line greater than 25 km will have the *Land Act Fees Regulation* Utilities application fee, \$50/hr, applied to the line and will not be included as part of the \$3300 Alternative Energy Project application fee package.

8.2.1 Application Acceptance

New applications will be reviewed for acceptance based on application package completeness, compliance with policy and program criteria, preliminary status, and other information which may be available to provincial staff. The acceptance review is to be completed within seven calendar days. Applications that are not accepted will be returned to the applicant.

Investigative Plan

A completed Investigative Plan is required as part of the application process for the investigative phase. The Investigative Plan can form the framework of the more complete Development Plan which is to be submitted at the time of project application. The requirements of the Investigative Plan are located on the website - <http://www2.gov.bc.ca/gov/content/industry/natural-resource-use/land-use/crown-land/crown-land-uses/clean-energy/related-publications-guidebooks>

Development Plan (including Siting Guidelines) (DPIR)

A completed Development Plan as per Section 9.6.1 of this policy will be required as part of the application process.

A Clean Energy Development Plan includes information on project construction, operation, monitoring, and decommissioning. It describes the environmental and socio-economic details of the project and ways that impacts will be avoided or mitigated. The Development Plan provides critical information to assess the proposed project and determine whether authorizations will be issued under the relevant legislations.

The DPIR is available for download from the Windpower web pages:

<http://www2.gov.bc.ca/gov/content/industry/natural-resource-use/land-use/crown-land/crown-land-uses/clean-energy/wind-power>

Turbine placement should reflect the buffer area requirements (see definitions), unless it can be demonstrated that site conditions, such as topography, natural features or other conditions warrant a lesser distance, to the satisfaction of the Authorizing Agency. In cases where the proponent holds tenure on adjacent lands for wind power development, this setback may be reduced to 1.5 times the total height of the wind turbine. No turbine shall be positioned closer than 1.5 times the total height of the wind turbine to any tenure boundary in any direction for reasons of safety. Specific zoning may also be required by local government and must be a consideration in preparing the Development Plan.

Wind Power Projects when accepted will be entered into Tantalus as a single application using the Wind Power Project "Purpose" and "Sub-purpose" codes (as opposed to an individual application for each project component). The various components will be provided separate file numbers at a later date, when required, i.e. upon completion of construction and prior to survey. The [Clean Energy Production in B.C.: An Inter-agency Guidebook for Proponents](#) provides guidance for the application process.

8.2.2 Clearance/Statusing

After acceptance, provincial staff undertakes a detailed land status of the specific area under application to ensure all areas are available for disposition under the Land Act and to identify potential issues.

8.2.3 Referrals

Referrals are a formal mechanism to solicit written comments on an application from recognized agencies and groups. Referrals are initiated as per legislated responsibilities and formal agreements developed with other provincial and federal government agencies. Referrals may also be used to address the interests of local governments and First Nations. Referral agencies, organizations and identified special interest groups provide their responses to the Authorizing Agency within 30 days (45 days for First Nations).

Applications for investigative tenures are not normally referred however notice of the application will be provided to the EAO and BC Hydro to enable a coordinated approach to wind power management, including information, if available, respecting suitability of the site for wind power purposes. Applications for investigative tenures are to be advertised as per section 8.1.5.

All other applications for tenure will be referred to key agencies and groups as deemed appropriate

Additionally, notice will be sent to existing independent waterpower producers and wind tenure holders within one kilometre of the new area under application.

8.2.4 Advertising/Notification

At the time of application acceptance, provincial staff will notify applicants if advertising is required and provide the necessary instructions.

8.2.5 Upland Owner Consent

Owners of waterfront property have certain “riparian rights”, which include the right of access to and from the upland. Provincial staff will advise applicants if there is a need to obtain a letter indicating the upland owner’s consent to their application.

8.2.6 Adjacent Owner Notification

New applications to tenure foreshore adjacent to privately owned property, including Indian Reserves, are brought to the adjacent property owner's attention through referrals or direct contact. In certain circumstances, provincial staff may advise applicants that there is a need to obtain a letter indicating adjacent owner’s consent to their application.

8.2.7 Aboriginal Interests Consideration

The Authorizing Agency is responsible for ensuring the Province’s obligations to First Nations are met in the disposition of Crown land. Provincial staff carries out consultations in accordance with the consultation guidelines of the Province to identify the potential for aboriginal rights or title over the subject property and to determine whether infringement of either might occur.

8.2.8 Field Inspections

Field inspection means the on-site evaluation of a parcel of Crown land by provincial staff. The need to conduct a field inspection will vary and the decision to make an inspection ultimately lies with the Authorizing Agency.

8.2.9 Decision/Report

The applicant will be notified in writing of the government’s decision. [Reasons for Decision](#) are posted on the Applications and Reasons for Decision website.

8.3 Issuing Documents

If the application is approved, tenure documents are offered to the applicant. All preconditions must be satisfied prior to the Authorizing Agency signing the documents. It is the applicant's responsibility to obtain all necessary approvals before placing improvements or commencing operations on the tenure.

8.3.1 Environmental Tenure Provisions and Schedules

Tenure terms and conditions may be selected from standard tenure document template provisions or in some cases they may be drafted to address specific issues identified through the processing of an application.

In some cases the standard environmental provisions in the tenure document may not adequately reduce potential liabilities and risks to the Province relating to contamination or degradation of Crown land. In these situations a specific set of environmental terms and conditions (referred to as an environmental schedule), as well as additional insurance requirements, will be considered for inclusion into the tenure document.

The need for an environmental schedule or additional insurance requirements will be considered on a case by case basis when processing new or replacement tenures, or tenure assignments. Circumstances that may warrant an environmental schedule or additional insurance requirements may include sites where there is a known or high risk of contamination or environmental impacts due to current or past activities; or a high risk of contamination or environmental impacts occurring in the future as a result of the tenure holders activities.

For circumstances where additional requirements are being considered regional staff are to contact Land Tenures Branch (Ministry of Forests, Lands and Natural Resource Operations), who will work with Ministry of Justice to prepare a customized environmental schedule if warranted.

8.4 Competitive Process

The Authorizing Agency may initiate one of a number of different competitive processes (e.g.. public auction, request for proposals) where permitted by program policy and when deemed appropriate by provincial staff.

As per Section 6.1.1, the Province reserves the right to allocate Crown land for wind power purposes through competitive processes. Examples of the situations where a competitive process would be applied include:

- identified areas where allocation for wind energy development will be marketed using a planned disposition approach and a competitive process.
- The Authorizing Agency may also employ a competitive process to allocate an individual site, where investigative tenures and other tenures are not replaced or which default to the Province as a result of non-diligent use; and sites where there is known demand, i.e. sites that may be adjacent to two existing wind farms, or sites where two applications for the same area are received on the same day.

8.4.1 Remote Community or Small Scale Project

Applications which would provide power to a community without access to the provincial electricity grid and small scale projects are not normally subject to competitive processes. Please see the Community and Institutional Land Use Policy for further information.

8.5 Direct Sale

Crown land sales may occur through an application process if the proposed site meets specific criteria and the use is considered suitable by government agencies and other affected interests.

Sale of a wind power site may be considered at a later date on a case by case basis.

9. TENURE ADMINISTRATION

9.1 Insurance

A tenure holder is generally required to purchase, maintain during the term of the tenure, and provide evidence to the Province of, a minimum limit of general liability insurance specified in the tenure document. The Province may make changes to the insurance requirements and request copies of insurance policies at any time during the term of the tenure.

A minimum of \$2 million in liability insurance is required for all phases of a Wind Power Project, including the initial investigative phase.

9.2 Security/Performance Guarantee

A security deposit or bond may be required to be posted by the tenure holder where any improvements on, or changes to, the land are proposed. The security deposit is collected to insure compliance and completion by the tenure holder of all the obligations and requirements specified in the tenure. Some examples where such security may be used are for any type of clean-up or reclamation of an area, and/or to ensure compliance with development requirements.

All Wind Power Project tenure holders are required to provide an appropriate form of security to the Province in the event the Crown is forced to assume the cost of site clean-up in the case of de-commissioning or abandonment.

9.3 Tenure Conversion

For deletion and addition of tenure schedules under a Multi Tenure Instrument, in support of moving from a development to operational stage of the project, addition of new schedules will require a conversion fee equivalent to 50% of the program area application fee (minimum of \$200) plus GST of the individual program for that use. For example – to delete the transmission line area from the initial general area, a fee of \$500 will be charged to add the transmission line schedule to the MTI. \$500 is 50% of the Utilities (transmission line program) application fee of \$1000.

For conversion of the single General Area – Licence of Occupation to individual project operation phase tenures (i.e. powerhouse, transmission lines etc) each project component will require an individual conversion fee, by land program, as per the Crown Land Fees Regulation (50% of the Application Fee for that program) as below:

Component	Program	Conversion Fee
Extensive Use site	Utilities policy	application fee x 50%
Extensive and Intensive Use site	Utilities policy	application fee x 50%
Transmission Line	Utilities policy	application fee x 50%
Road	Roadways policy	application fee x 50%

The tenure conversion will result in a separate *Land Act* file number for each project component required for the operation phase.

9.4 Assignment and Sub-Tenuring

Assignment is the transfer of the tenure holder's interest in the land to a third party by sale, conveyance or otherwise. Sub-tenuring means an interest in the Crown land granted by a tenant of that Crown land rather than the owner (the Province).

Assignment or sub-tenuring requires the prior written consent of the Authorizing Agency. The assignee or sub-tenure holder must meet eligibility requirements. The Authorizing Agency may refuse the assignment of existing tenures if the details of the assignment or sub-tenure are not acceptable to the Province.

9.4.1 Assignment

9.4.1.1 Project Monitoring and Investigative Phase

Assignment is allowed with an investigative licence.

9.4.1.2 Development and Operation Phase

Assignment may occur at the development and operation phase subject to the following considerations.

- that the Authorizing Agency must have written support from power purchasers (BC Hydro and others) that they support the assignment and are prepared to deal with the new owner;
- written proof that Environmental Assessment Certificate or other required government approvals be transferred or otherwise provided to the assignee;
- the assignee must agree to be bound by all terms and conditions, covenants and obligations agreed to by the assignor and any new ones that may be reasonably required by the Province.

9.5 Tenure Replacement

Replacement tenure means a subsequent tenure document issued to the tenure holder for the same purpose and area.

In most cases, tenure holders may apply for a tenure replacement at any time following the mid-term of the tenure. Replacement of tenures is at the Authorizing Agency's discretion. The Province may decline to replace tenure, or may alter the terms and conditions of a tenure replacement. For tenure terms and conditions see Section 6.

9.6 Monitoring and Enforcement

Tenure terms and conditions, including requirements contained in approved management/Development Plans, act as the basis for monitoring and enforcing specific performance requirements over the life of the tenure.

9.6.1 Investigative Plan, Development Plan and Plan Amendments

All proponents will be required to prepare an Investigative Plan and a more comprehensive Development Plan that is approved by the Authorizing Agency. An investigative and subsequent Development Plan is part of the tenure agreement and as such becomes part of the legal contract between the tenure holder and the Province. Failure to comply with an approved Investigative or Development Plan is an event of default which if not addressed, may lead to termination of the tenure agreement. An Investigative and subsequent Development Plan is one of the principle ways in which the Authorizing Agency assesses diligent use.

The Investigative Plan will be prepared by the applicant and contain two parts: Project Overview, and Project Description which will include the purpose; location, size and main features of project; and construction schedule for the term of the licence. It will also include a general outline of the investigations that will be conducted.

More information about the Development Plan is contained in the [Clean Energy Production in B.C.: An Inter-agency Guidebook for Proponents](#) and the DPIR – the Development Plan Information Requirements, also located on the How to Apply page. [Development Plan Information Requirements](#)

For wind power, the Development Plan will must include details such as the location of Improvements, particulars of construction, schedule of construction, production phase-in, installed turbine capacity; targeted long term production levels, environmental management strategies, site security, public access and safety, reclamation and decommissioning strategies and any other matters as reasonably requested by the Authorizing Agency.

Once each stage of the Development Plan is approved by the Authorizing Agency, the tenure holder must comply with the Plan. The tenure holder must advise the Authorizing Agency of any extraordinary events that may affect their ability to comply with the Development Plan. A tenure holder may request an amendment to the Development Plan that the Authorizing Agency must consider, but not necessarily approve. Examples of amendments that are anticipated include but are not limited to: changes to tenure boundaries, expansion or reduction in area, change in timing of construction and development, tenure term or tenure purpose, a significant alteration of site improvements and or layout of structure on the tenure area are proposed, for example, adding structures to the site not approved in the current plan.

The Authorizing Agency may request, from time to time, amendments to the Development Plan where in the reasonable opinion of the Authorizing Agency, such amendments are required for environmental, safety, land-use or other similar reasons in the public interest.

The Authorizing Agency, from time to time, may request a consolidation of the amendments to the Development Plan.

9.6.2 Diligent Use

All proponents who have acquired a wind power tenure must demonstrate diligent use of the tenured area. The Authorizing Agency may assess diligent use at any time. The onus is on the proponent to produce verifiable evidence, satisfactory to the Authorizing Agency, that diligent use is being maintained. Diligent use is measured against the obligations set out in the Investigative Plan and each of the stages of the Development Plan as described in section 9.6.1 including but not necessarily limited to meeting construction schedules or energy production targets.

The Authorizing Agency is under no obligation to extend or replace a tenure where the proponent has not demonstrated, to the satisfaction of the Authorizing Agency, that they have met the diligent use requirements set out in this policy and may, in longer term tenures, require adjustments to Development Plans, including tenure area, or in extremely serious breaches of performance, initiate procedures to terminate the tenure agreement.

NOTE: Diligent use requirements will be waived for investigative tenure holders who have held an investigative tenure for 5 or more years and provide a written statement that further diligent use activity is not required to move to a project application. Continuation of practice will be reviewed in 2021.

It is the investigative tenure holders' responsibility to demonstrate that the investigative tenure area has been held for 5 or more years and diligent use applied in each of the 5 years.

9.6.2.1 Project Monitoring and Investigation Phase

Construction of meteorological towers proposed in the application must be substantially completed and initial data collection must have begun within 12 months of being in receipt of all required licences and permits. Diligent use at this stage may also include, for example, the finalization of approvals from the EAO, expenditures for field work, and obtaining financing and reaching agreement with a purchaser for energy produced by the project. Examples of field work that may meet diligent use requirements include expenditures for wind speed measuring devices equivalent to anemometer tower technology expenditures; reconnaissance level biophysical and archaeological surveys; road access and land use surveys; geological and terrain surveys; First Nations considerations; and public consultation. On a case by case basis information would have to be presented to demonstrate that expenditures have been incurred and that these expenditures are within a reasonable margin (usually 50%) of meteorological tower construction costs. The intent of diligent use requirements at this stage is to ensure that project proceeds to development in a timely fashion. Some examples of field work types and expenditure levels are attached as Appendix 2 to this policy.

A subsequent investigative licence may be offered, at the discretion of the Authorizing Agency, to proponents holding sites where diligent use has not been achieved because of factors outside of the proponent's control or where further investigative work is required. The Investigative plan will be updated by the proponent to reflect the changes

and diligent use will be required going forward otherwise the term will expire with no replacement.

9.6.2.2 Project Development and Operation Phase

This phase occurs during the term of a 10-year licence of occupation for a project without an existing EPA or similar, and prior to the commercial operation date of a project with an EPA. During this period construction schedules for roads, wind turbines, power lines and other infrastructure, completion of legal surveys, expected power production levels and other requirements articulated in the Development Plan must be substantially on target. The Regional Executive Director may adjust targets on a case by case basis based on extenuating circumstances. Should diligent use not be substantially achieved, the Regional Executive Director may refuse to issue long term tenures over the wind farm site.

Following construction of the improvements or a particular phase of the development, the site must continue to be used as per the Development Plan. If the characteristics of the site preclude achievement of production levels specified in the Development Plan after the project development phase, the Authorizing Agency should consider whether or not the matter can be best dealt with by an amendment to the Development Plan. Rent, based on land area under tenure will in all cases be payable. In cases involving serious breaches of performance the Province may need to consider initiating termination procedures for the wind farm tenure.

9.6.3 Management of Sound

The sound emitted from wind turbines is not to exceed a maximum of 40 dBA on the outside of an existing permanently-occupied residence (not owned by the proponent) or the nearest property line of existing, undeveloped parcels zoned residential (not owned by the proponent) in existence at the time of application for a *Land Act* tenure to construct a wind farm.

If monitoring has confirmed that the maximum acceptable sound level of 40 dBA is being exceeded at the receptor, the Authorizing Agency may direct the tenure holder, at his/her own expense, to identify, discontinue use of, and decommission those turbines and associated improvements whose emitted sound contributes to the unacceptable sound level.

Further information is provided by the Best Management Practice for Wind Power Project Acoustic Assessment (Best Practice) and the Land Procedure – Acoustic Assessments for Wind Power Projects (Land Procedure).

http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/acoustic_assessment.pdf

Applicants for windpower projects are encouraged to review the Best Practice and the Land Procedure to be familiar with British Columbia's requirements in the event of a complaint being registered by the owner of a residence or residential parcel.

Note: As with all uses of Crown land, the Crown reserves the right to direct the removal of improvements from the Crown land base. These provisions are contained within the tenure documents. Further information on this or any issue can be obtained by contacting the Authorizing Agency.

9.7 Other Land Use

The Authorizing Agency may issue tenure to other applicants for non-wind power land-use within the investigative tenure area. Upon receipt of the non-wind power application, the Authorizing Agency would normally notify and request comments from the wind power tenure holder to determine compatibility. Acceptance of the non-wind power application will be at the discretion of the Regional Executive Director.

The Authorizing Agency may issue tenures to other applicants for non-wind power uses within the extensive use area of the tenure or any intensive use areas under licence or right of way, subject to the specific language in tenure documents.

10. VARIANCE

Variances to this policy must be completed in accordance with the [Policy Variance Procedure](#).

Note: For the purposes of managing the sound emitted by wind turbines, any variance from Section 6.2.1.1 or 6.2.2.1 -Siting of Wind Turbines and Section 9.6.3 -Management of Sound must be approved by both the Assistant Deputy Minister, *Electricity and Alternative Energy Division* and the Assistant Deputy Minister, *Tenures, Competitiveness and Innovation Division*.

APPENDIX 1. Summary Table of Wind Power Tenure Types, Terms and Pricing

Tenure Type	Term of Tenure		Pricing
	Without EPA	With EPA	
Project Monitoring and Investigation Phase			
Investigative Licence	5 year term	5 year term	Annual rental of \$500 per year
Project Development and Operation Phase			
Multi Tenure Instrument	10 years	Expiry coincident with EPA expiry	Based on tenures included
General Area - Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by Commercial Operation Date (COD)	Utilities policy – Annual rental rate of 7.5% of zone land value (zone rate/ha x land area [ha])
Wind Power Project – Licence of Occupation Extensive Use Areas	10 years	Expiry coincident with EPA expiry, construction completed by COD	Utilities policy: Annual rental will be 7.5% of zone land value (Zone rate/ha x land area [ha]).
Wind Power Project – Licence of Occupation Intensive Use Areas	10 years	Expiry coincident with EPA expiry, construction completed by COD	Utilities policy: Annual rental will be for intensive use areas is 7.5% of 2x zone land value (2x zone rate/ha x land area [ha] or revised land value if appraisal)
Wind Power Project – Lease Intensive Use Areas	10 years	Expiry coincident with EPA expiry, construction completed by COD	Utilities policy: Annual rental will be for intensive use areas is 8% of 2x zone land value (2x zone rate/ha x land area [ha] or revised land value if appraisal)
Wind Power Participation Rent			10-year grace period. Then 1% to 3% of gross revenue based on an Annual Production Factor.
Transmission Line – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD	Utilities policy: Prepaid rental rate 7.5% of zone land value times discount factor – Pricing policy Appendix 1. Annual rental rate of 7.5% of zone land value (zone rate/ha x land area [ha]).
Transmission Line – Statutory Right of Way	10 years	Expiry coincident with EPA expiry, construction completed by COD	Utilities policy: The entire term is priced at an amount equal to 50% of a new appraised land value based on utilities markets, or 100% of the zone land value.
Roads	10 years	Expiry coincident with	See Roadways policy

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		EPA expiry, construction completed by COD	
Quarries	10 years	Expiry coincident with EPA expiry, construction completed by COD	See Aggregates and Quarry Materials policy
Communication Sites	10 years	Expiry coincident with EPA expiry, construction completed by COD	See Communication Sites policy

APPENDIX 2. Diligent Use Examples

NOTE: Diligent use requirements will be waived for investigative tenure holders who have held an investigative tenure for 5 or more years and provide a written statement that further diligent use activity is not required to move to a project application. Continuation of practice will be reviewed in 2021.

It is the investigative tenure holders' responsibility to demonstrate that the investigative tenure area has been held for 5 or more years and diligent use applied in each of the 5 years.

Meteorological Tower or Equivalent Wind Speed Technology

The industry standard for a meteorological tower to measure wind speed, direction, shear, and temperature is a 50 m tower with measurements at 30 m, 40 m, and 50 m. Wind speeds are extrapolated to hub height by computer simulation. A smaller meteorological tower or equivalent wind speed technology could be substituted (a 30 m tower as a minimum height at sites with low-lying vegetation) which would provide results sufficient to evaluate the feasibility of wind sites as part of a phased approach, to attract further financing for the project.

Costs for installation and monitoring for a two-year period would be \$54,000 (50 m) or \$40,000 (30 m) at a site with access by a short helicopter trip.

A minimum benchmark for expenditures at a site for one year would be half of the two-year 30 m tower cost, or \$20,000 per IL site.

Reconnaissance-level Biophysical and Archaeological Surveys

Surveys would be conducted within the investigative licence boundary and additionally adjacent to the site. These investigations would be designed to gain a better understanding of the local biophysical/cultural setting, including habitat and species presence. Investigations may focus on determining the presence of a "key feature" at the site – such as a rare or listed species, sensitive habitat, or an archaeological resource. The intention would be to evaluate the potential for significant environmental effects to this key feature in order to determine whether the key feature represents a fatal flaw for the project.

Costs for a one-week survey to investigate biophysical/archaeological issues could range from \$10,000 to \$20,000 depending on ease of access to the site and complexity.

Road Access and Land Use Survey

Road surveys could be conducted by a professional road design engineer or specialist that would involve a compilation of road access information and land use, particularly relating to resource roads and the limiting factors for wind farm development (such as load limitations on bridges, present or existing forestry activities, etc). This survey would be appropriate for sites where a good wind resource was strongly suspected, but where road access constraints (and access constraints for installation of transmission lines)

may affect the feasibility of the project. The intention would be to determine whether site access is sufficient for the project.

Costs for a one-week road access and land use survey, as noted above, could range from \$10,000 to \$15,000.

Geology and Terrain Assessment

Assessments could be conducted that would include a transect being walked within the IP boundary in order to assess terrain suitability within the site by investigating factors such as existing and potential landslides, karst potential, depth to bedrock, and geotechnical suitability for roads and turbine foundations. The intention would be to determine whether these factors represent a critical flaw in the project.

Costs for a one-week geology and terrain assessment, as noted above, could be from \$10,000 to \$15,000.

First Nations Considerations

Building relationships with First Nations, as below with Public Consultation, as well as negotiations and consultations with First Nations chiefs, council, community members, and other bodies, can require significant resources. In most cases the intention would be to develop a Protocol Agreement between a Proponent and the First Nation(s) in question.

Estimates vary greatly, but costs for this task can be approximately \$10,000 to \$30,000.

Public Consultation

Public consultation and community relationship-building are necessary to determine acceptance of a project in a region and to identify ways community members would like to be involved in future project planning and development. Distributing accurate and adequate information is an essential step in ensuring that residents and stakeholders have the resources they need in order to provide input on a proposed wind farm project in their community. Consultation could be conducted via public meetings or open houses, printed material, smaller visits or stakeholder meetings, or other media.

Costs for this task vary greatly and could range from \$10,000 to \$30,000, depending on the level of effort expended.

APPENDIX 3. Buffer Area Diagram

