

# 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, Rural Development, Lands

and Innovation

**IMPLEMENTATION:** Ministry of Forests, Lands, Natural Resource Operations

and Rural Development

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

**RELATIONSHIP TO** 

**PREVIOUS LAND POLICY:** This policy replaces the previous Wind Power policy

dated December 1, 2011.

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Rural Development, Lands and Innovation Ministry of Forests, Lands, Natural Resource

Operations and Rural Development

Date: January 21, 2019

**EFFECTIVE DATE**: January 21, 2019 FILE: 12705-01/WIND

APPROVED AMENDMENTS:				
Effective date	Briefing Note /Approval	Summary of Changes:		
May 3, 2019		Transmission Line SRW header replaced		
December 10, 2019	252069	Continue the reduction of due diligence requirements beyond 2020.  Allow additional five-year terms for IULs.  Allow proponents who hold a GAL to convert it to an IUL		
June 17 <sup>th</sup> , 2022	BN 270324	Moved general information regarding insurance and financial securities to the Insurance and Financial Securities Procedure.		

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#### 1. POLICY APPLICATION

This Wind Power policy applies to the disposition of Crown land for the various components of a wind power project including: wind turbines, maintenance buildings, other plant facilities, road(s), transmission line(s) and surrounding Crown land. The Ministry of Forests, Lands, Natural Resource Operations and Rural Development 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.

#### 2. PRINCIPLES AND GOALS

For information on Crown land allocation principles see <u>Crown Land Allocation</u> <u>Principles.</u>

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

#### 3. DEFINITIONS AND ABBREVIATIONS

For a glossary of definitions and abbreviations see Glossary and Abbreviations.

#### 4. APPLICANT ELIGIBILITY

For standard policy information on eligibility see **Eligibility and Restrictions**.

#### 5. FORM OF LAND ALLOCATION

For standard policy information on forms of allocation see <u>Form of Crown Land Allocation</u>.

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 8.2.2.

# 5.1 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 8.2.2 for diligent use requirements associated with this phase.

#### 5.1.1 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.

#### 5.1.2 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 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 8.2.2) a subsequent tenure may not be granted.

# 5.2 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 8.2.2 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.

<u>UPDATE December 10, 2019</u>: BC Hydro is undergoing an internal comprehensive review, to be completed in 2023, and is not currently awarding or accepting applications for new EPAs. As a result, proponents with a General Area Licence of Occupation will be afforded the opportunity to replace their existing General Area Licence of Occupation

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with an Investigative Licence of Occupation maintaining their first in time, first in right priority of occupancy on the Crown land base. At the time the proponent wishes to reinstate the General Area Licence of Occupation they will be required to provide a new Development Plan and meet the requirements for the General Area Licence of Occupation at that time.

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.

#### 5.2.1 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.

#### 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 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 portraved 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.

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<sup>&</sup>lt;sup>1</sup> 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 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.

Proponents should conduct a risk assessment to determine the potential impact on project viability of unacceptable sound levels from questionable turbines.

See 8.2.3 Monitoring and Enforcement - Management of Sound

#### 5.2.2 Individual tenures or Multi Tenure Instrument schedules

#### **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.

## General Area – Licence of Occupation

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.

For the purposes of this policy 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, and safety and other defined rights and obligations required to protect the general public and the ocean resource.

Intensive Use area refers to the area of land containing all project components including any Improvements as set out in the Development Plan

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.

#### **Extensive Use - Licence of Occupation**

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

#### 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.

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#### Intensive Use - Lease

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.

#### **Transmission Line – Licences of Occupation**

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

## Transmission Line - Statutory Right of Way

A statutory right of way may be provided for linear components such as the transmission line.

#### See Utilities Policy.

## **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

#### 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.

#### 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*.

#### **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 <u>will be</u> 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.

#### **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 Communication Sites Policy.

#### 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.

#### 6. PRICING POLICY

For information on pricing see the Pricing Policy.

For information on application and service fees see the <a href="Crown Land Fees Procedure">Crown Land Fees Procedure</a>.

#### 7. ALLOCATION PROCESSES

For detailed standard information on allocation processes see <u>Allocation Procedures</u> - Applications.

Additional and special requirements for wind power allocations are:

# 7.1 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 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).

#### 7.1.1 Buffer Area Requirements

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.

A buffer area provides 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 (refer to Appendix 3 for more information). However, the buffer may be varied by the Authorizing Agency dependent upon terrain, geography and other environmental considerations.

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.

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

## 7.2 Application Package

A complete application package will include all the material defined in the Application Checklist.

#### 7.2.1 Application Acceptance

#### **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 - <a href="https://www2.gov.bc.ca/gov/content/industry/crown-land-water/crown-land/crown-land-water/crown-land/crown-land-water-crown-land-wate

## **Development Plan (including Siting Guidelines) (DPIR)**

A completed Development Plan as per Section 8.2.1 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 Wind Power web pages:

https://www2.gov.bc.ca/gov/content/industry/crown-land-water/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 Tantalis 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 <u>Clean Energy Production in B.C.: An Inter-agency Guidebook for Proponents</u> provides guidance for the application process.

#### 7.2.2 Referrals

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.

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.

## 7.3 Issuing Documents

#### 7.3.1 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. For more details see the <u>Tenure Administration</u> <u>Procedure</u>.

## 7.4 Competitive Process

As per Section 5.1.1, 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.

#### 7.4.1 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.

#### 7.5 Direct Sale

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

#### 8. TENURE ADMINISTRATION

For standard tenure administration information see the <u>Tenure Administration</u> <u>Procedure.</u>

For information on insurance and financial securities, see the <u>Insurance and Financial</u> <u>Securities Procedure</u>.

Additional and special requirements for wind power allocations are:

# 8.1 Assignment and Sub-Tenuring

#### 8.1.1 Project Monitoring and Investigative Phase

Assignment is allowed with an investigative licence.

#### 8.1.2 Development and Operation Phase

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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.

## 8.2 Monitoring and Enforcement

#### 8.2.1 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 <u>Clean Energy Production in B.C.: An Inter-agency Guidebook for Proponents</u> and the DPIR – the Development Plan Information Requirements, also located on the How to Apply page. <u>Development Plan Information Requirements</u>

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.

#### 8.2.2 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 8.4.1 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 this practice will be reviewed in 2025.

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.

#### **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.

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#### **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.

#### 8.2.3 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 wind power 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.

#### 8.3 Other Land Use

The Authorizing Agency may issue tenure to other applicants for non-wind power landuse 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.

#### 9. VARIANCE

Variances to this policy must be completed in accordance with the <u>Policy Variance</u> <u>Procedure</u>.

Note: For the purposes of managing the sound emitted by wind turbines, any variance from Section 5.2.1.1 or 5.2.2.1 -Siting of Wind Turbines and Section 8.4.3 -Management of Sound must be approved by both the Assistant Deputy Minister, Electricity and Alternative Energy Division and the Assistant Deputy Minister, Rural Development, Lands and Innovation Division.

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# **Appendix 1. Summary Table of Wind Power Tenure Types and Terms**

Tenure Type		Term of Tenure				
	Without EPA	With EPA				
Project Monitoring and Investigation Phase						
Investigative Licence	5 year term	5 year term				
Project Development and Operation Phase						
Multi Tenure Instrument	10 years	Expiry coincident with EPA expiry				
General Area - Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by Commercial Operation Date (COD)				
Wind Power Project – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Extensive Use Areas						
Wind Power Project – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Intensive Use Areas						
Wind Power Project – Lease	10 years	Expiry coincident with EPA expiry,				
Intensive Use Areas		construction completed by COD				
Wind Power Participation Rent						
Transmission Line – Licence of Occupation	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Transmission Line – Statutory Right of Way	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Roads	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Quarries	10 years	Expiry coincident with EPA expiry, construction completed by COD				
Communication Sites	10 years	Expiry coincident with EPA expiry, construction completed by COD				

## 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 futher 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.

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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**

