



*Environmental Assessment
& Wind Power Projects in Nova Scotia*

Environmental Assessment

What? Environmental Assessment (EA) is a planning, engagement and decision-making tool to promote sustainable development.

WHY? It is required by: Part IV of the [Environment Act](#) & Environmental Assessment Regulations.

WHEN? If a project is included in Schedule “A” of the EA Regulations, it is subject to the EA process. This can include modifications and rehabilitation of an undertaking.

Class I EA - wind trigger

Schedule A – Environmental Assessment Regulations - wind projects of 2 MW or greater require Class I EA

D. Energy

1. A corridor for 1 or more electric power transmission lines that have a cumulative voltage rating equal to or greater than 345 kVA.
2. An energy generating facility, other than an emergency generator, that meets any one of the following:
 - (a) it has a production rating of at least 2 MW derived from wind, tides or waves;
 - (b) it has a production rating of at least 2 MW and no more than 25 MW derived from hydroelectricity, other than run-of-the-river facilities under 10 MW;
 - (c) it has a daily fuel input rating of at least 11 000 GJ and no more than 31 000 GJ derived from natural gas;
 - (d) it has a daily fuel input rating of at least 250 GJ and no more than 2500 GJ derived from fossil fuels other than natural gas;
 - (e) it has a daily fuel input rating of at least 4000 GJ and no more than 10 000 GJ derived from fuels other than fossil fuels, but excluding solar power.

Registration Document (main components)

Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia.

- Description of the Project (location, components, set-backs, all phases)
- Review of the Valued Environmental Components:
 - Biophysical (flora, fauna, wetlands, water, noise, shadow flicker, visual impact etc.)
 - Socio-Economic (economy, land use , recreation, tourism, human health, cultural)
- Effects of the Project on the Environment (benefits & drawbacks for all VECs & phases)
- Effects of the Environment on the Project (extreme storms, CC, mitigation & adaptation)
- Other permits that are required
- Mi'kmaq engagement (document)
- Public engagement (document)

Key Considerations for EA Project Development

1. Contact Business Relationship Managers (BRMs) and/or EA Branch early in the project planning phase:

- Scoping meetings are essential to project planning
- Can assist in connecting with EA reviewers

2. Keep in regular contact with BRMs and EA Branch:

- If project design changes another scoping meeting should be held
- EA Branch requires early notice of proposed registration dates

3. Complete baseline studies and information:

- Incomplete baseline information is a risk to project approval, final project design and project timeline

Preparation is Key

Baseline studies

- Baseline needs to be completed and analyzed before project registration
- Use industry standard methods and effort
- Provide important details of methodology

Environmental Baseline Studies Checklist

Noise Levels : Noise modelling that incorporates baseline noise, per EA Wind Guide, and mitigations.

Shadow Flicker : Shadow flicker modelling per EA Wind Guide and mitigations.

Visual Impact Assessment: Visual impact assessment per EA Wind Guide and mitigations.

Cultural and Heritage Resources: Archaeological Resource Impact Assessment: summary of accepted CCTH report.

Mi'kmaq Ecological Knowledge Study: (discuss if not complete)

Public Engagement: Summary of public sessions and engagement and discussion of how comments/issues were addressed.

Mi'kmaq Engagement: Summary of engagement actions and discussion of how comments/issues were addressed.

Environmental Baseline Studies Checklist

cont.

- Birds:** At least one year of complete bird surveys (four seasons) including radar and acoustic monitoring, with adequate coverage of the entire site. Discuss second year of bird monitoring if not complete.
- Bats:** At least one full year of complete bat acoustic monitoring (spring and fall) and field habitat assessment, with adequate coverage of the entire site. Discuss second year of bat monitoring if not complete.
- Wetlands:** Identification and functional assessments of wetlands that may be impacted (directly or indirectly), per Wind Guide and ECC's Wetland Policy. Discussion of how wetlands, including wetlands of special significance, will be avoided to the extent possible and mitigations.
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Environmental Baseline Studies Checklist

cont.

Flora and Fauna Species and Habitats: ACCDC data, and core and critical habitat mapping included, and supported by field survey data, including targeted field surveys for species at risk with adequate site coverage. Discussion of mitigations. Duration and seasonality per EA Wind Guide

Fish and Fish Habitat: Fish habitat assessment following DFO's advice

Surface Water: Field identification of watercourses and baseline water quality data. Discussion of impacts to water quality and mitigations.

Groundwater: Identification of groundwater users and baseline or general description of groundwater quality, any interactions with groundwater and impacts, and mitigations.

Weather Conditions: Description of ecoregion and climate norms

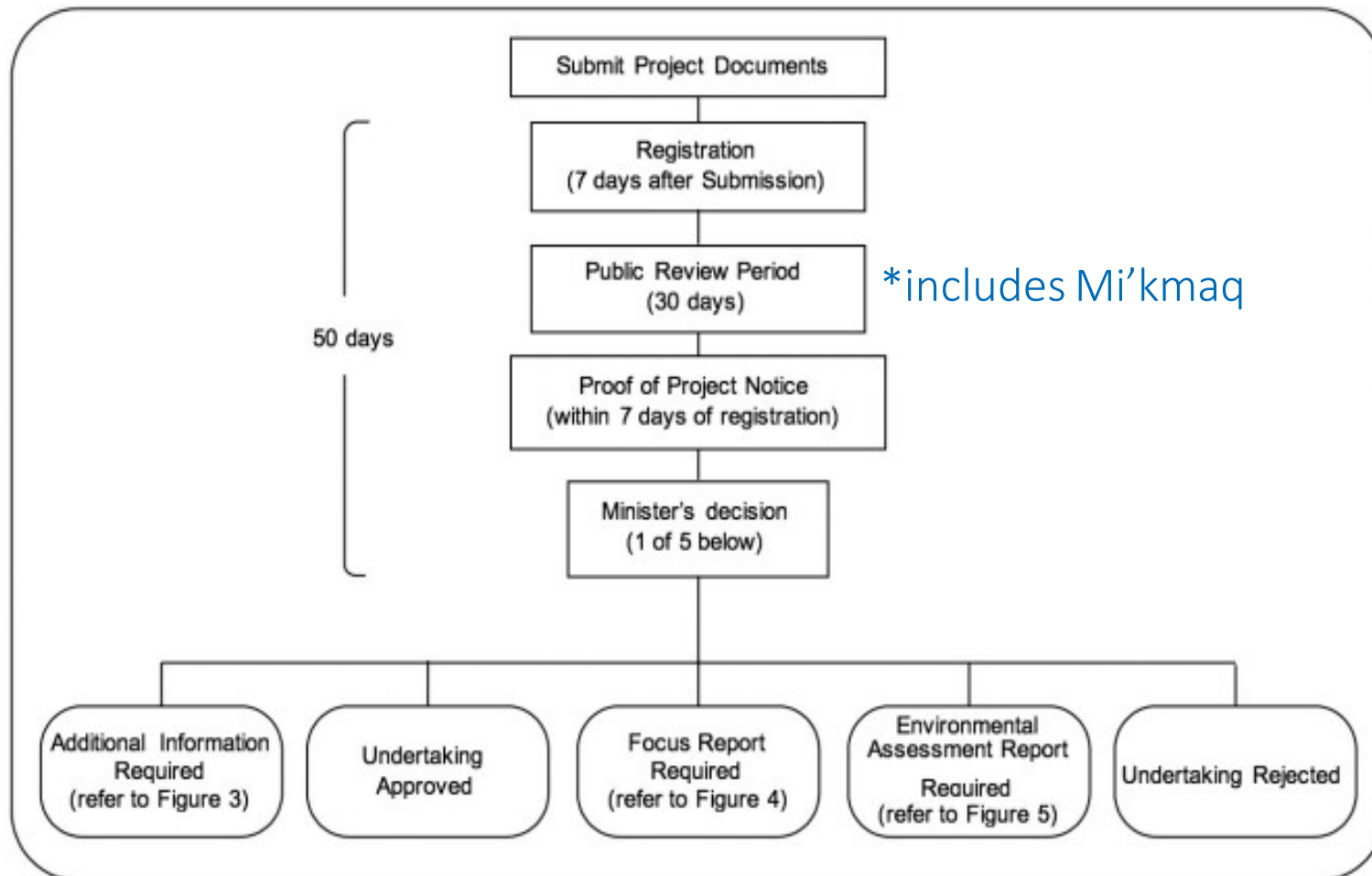
Wind Environment Baseline Studies Checklist cont.

- Climate Change:** Description of greenhouse gas emissions, mitigations, and adaptation (planning and preparation for a changing climate) within relevant sections of the assessment.
- Air Quality:** Discussion of air emissions (e.g., dust) and mitigations. Description of any monitoring programs.
- Geology:** Description of geological setting, including surficial and bedrock, and known geohazards (PAG rock, karst topography)

Registration Document (Full listing: Section 9(1A) of EA Regs. minimum requirements)

- Fee
- Name and location of project
- Name, address and id of proponent (Registry Joint Stock Companies, NS)
- Contact persons and contact information
- Signature of CEO and contact information
- Nature and sensitivity of surrounding area
- Purpose and need for project
- Construction and operation schedules
- Description of project
- Environmental baseline information
- Other permits
- Sources of public funding
- Mi'kmaq engagement
- Public engagement

Review of the Class I EA process



Minister's decision factors

- Location of the undertaking/sensitivity of surroundings
- Concerns expressed by public and aboriginal people and steps taken to address those concerns
- Whether environmental baseline information is sufficient to predict environmental effects
- Potential adverse or environmental effects
- Planned/existing land use or other undertakings in the area
- Whether compliance with licenses, certificates, permits, approvals required by law will mitigate the environmental effects
- Such other information as the minister may require.

What happens after the decision?

If the Project is approved, the EA Branch and ICE meet with Approval Holder to:

- Review terms and conditions
- Approval holder is responsible for meeting conditions and acquiring any additional authorizations
- ECC's Inspection, Compliance and Enforcement Division is responsible to ensure ongoing compliance

Want more information?

EA Branch email: ea@novascotia.ca

EA Branch website: <http://www.novascotia.ca/nse/ea/>

- Legislation – Act and Regulations
- Publications:
 - Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia
 - Proponent's Guide to Environmental Assessment
 - Guide to Addressing Wildlife Species and Habitat in an EA Registration Document



Wildlife & EA's

Wind Power Projects in Nova Scotia

Wildlife Division

- Provide support to proponents and consultants through the review of proposals, data requests, surveys, mitigation approaches
- Develop standards for survey requirements and reporting
- Engage at all stages from scoping to post-submission requirements
- Provide technical review of wind energy projects in the context of provincial Acts and regulations, policy, and guidance

What We Need to Know

- Presence of wildlife, habitats, and wildlife use (migratory and breeding birds, bats, species at risk, etc.)
- Captured through data sets and baseline surveys in support of the project
- Impacts on biodiversity, wildlife, and species at risk and how to avoid/mitigate these impacts
- Project description and layout
- Important habitat features
- Details are important-the more information provided within the EARD, the better

Standards for Wind Energy EAs

- Review all available data - AC CDC, Critical Habitat, Core Habitat, SigHab, Abandoned Mine Openings, etc.
- Full year of surveys – spring and fall bird migration, breeding bird surveys, lichens, vegetation, species at risk, etc.
- Two years of consecutive radar and acoustic monitoring for avian species (birds and bats)
- At least one year of surveys prior to construction
- Two years of mortality monitoring for birds and bats during operation
- Species-specific requirements (e.g., Mainland Moose)

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How is Information Used?

- Guides infrastructure location – roads, transmission lines, turbines
- Identifies timing issues with construction and post-construction requirements
- Development of mitigations and best management practices
- Wildlife Management Plan and Adaptive Management
- Construction and post-construction monitoring requirements

Final comments

- We provide advice to manage risk. It is up to the proponent to decide how to use that advice
- Good work up front removes uncertainty, provides for better mitigations
- Early engagement allows us to work with proponents to develop protocols and guidance
- At no time does a proponent or consultant avoid their responsibility to adhere to the Acts and regulations that govern wildlife conservation and protection in Nova Scotia
- E.g., Wildlife Act, ESA, MBCA, SARA

Want more information?

Wildlife email: biodiversity@novascotia.ca

Wildlife Branch website:

<https://novascotia.ca/natr/wildlife/>

- Legislation – Act and Regulations:
<https://novascotia.ca/natr/wildlife/laws/>

Questions?

