# Investigation Plan: Bouleau Mountain Wind Farm

SB Okanagan Holding (01) Corp. is a wholly owned subsidiary of Sea Breeze Power Corp. Sea Breeze Power Corp. and its subsidiary companies are engaged in the development of wind farms in British Columbia.

The selection of well-suited locations for the production of wind-generated electricity achieves several social, governmental and economic goals. "Green" energy is set as a production target by governments and utilities across Canada. The BC government has announced in its energy plan that all new electricity generation projects must have zero net greenhouse gas emissions, such as wind power.

The wind energy department at Sea Breeze Power Corp. was founded on the recognition that several significant social, economic and technical trends of the past three decades are rapidly converging. This convergence, consisting predominantly of field-proven wind power technology, the implementation of favourable government policies, and growing consumer demand for "green" energy, has created a commercial opportunity of significant size. Large amounts of renewable, emission-free electricity can likely be developed in many areas of British Columbia.

Sea Breeze Power Corp. is one of the largest proponents of wind farms in BC. The Sea Breeze group of companies has many Investigative Use Permits and Licenses of Occupation with MNRO offices in Nanaimo, Kamloops, Smithers, and Fort St. John. Sea Breeze is very familiar with the MNRO and the Crown Land application process and has had a voice in outlining the wind farm specific application procedure and the Operational Policy.

In addition to Permits and Licenses with MNRO, Sea Breeze has also developed a project – the Knob Hill Wind Farm - that was the first utility scale wind farm in B.C. to receive an Environmental Assessment Certificate from the BC Environmental Assessment Office (EAO). The studies for this application were very thorough. In many cases, the company contracted several professionals in their respective fields and will retain their services as needed to satisfy requirements for our other projects in order to address issues related to biology, marine habitat, geology, terrain stability, and First Nations and public consultation.

In March of 2010 Sea Breeze signed an Electricity Purchase Agreement with BC Hydro in relation to the Knob Hill Wind Farm Project (now called the Cape Scott Wind Farm Project). Sea Breeze is currently working on closing a transaction with International Power Canada, Inc. for the ownership of Cape Scott Phase I, and that project is scheduled to begin construction in the Spring of 2011 and to be in service in November of 2012.

# **Project Description**

The Bouleau Mountain Project of SB Okanagan Holding (01) Corp. will utilize the regionally prevailing winds in this area that is in close proximity to Westwold, B.C. for the development of wind generated power. The project as planned by the Company anticipates minimal environmental impact. The purpose of the Bouleau Mountain Project will be to supply electricity into the BC grid. The purpose of the investigative phase will be to establish project feasibility and to investigate factors that require consideration in the design and permitting of the Project.

The Project is located on a ridge system near the town of Westwold, BC. The Project will consist of a number of large utility scale wind turbines (exact number of turbines subject to investigative studies). Each turbine will consist of a tower made of tubular steel standing 80-100m tall, a nacelle sitting atop the tower to house the generator and other electrical equipment, and three blades 30-50m long (exact dimensions depend on specific turbine model). The finished project will also include access roads to each turbine (mostly existing, some upgrades likely required), a medium voltage (~35-kV) electrical collection network to interconnect each turbine, a substation to step up to a higher voltage (~69-230-kV), a transmission line to interconnect with the BC grid, and an operations/control center and workshop. During construction, the Project will also require some temporary use of lands for storage, rock quarrying, concrete mixing, transporting, and potentially housing a construction crew.

SB Okanagan Holding (01) Corp. (and its affiliate companies) is now examining the Okanagan region of British Columbia, as we feel there is a great untapped resource that exists in this area. This project is in the assessment and feasibility stage of investigation.

## **Project Schedule**

The phases of the project are anticipated to proceed as follow, subject to any currently unforeseen delays in development:

- → Year 1: Permitting applications for Investigative Use Permit and License of Occupation
- → Year 2: Investigation of site: literature review, fieldwork, and wind resource monitoring.
- → Year 3: Expansion of wind resource monitoring, focused field studies, and preliminary design. Marketing of electricity, ideally in a competitive call by BC Hydro.
- → Year 4: Financing, detailed design, construction permitting.
- → Year 5&6: Construction and commissioning.
- → Year 7–27: Operations.
- → Year 28: Decommissioning, or overhaul as appropriate.

The **Bouleau Mountain** Project is currently in the "Year 3" phase as described above due to the investigative efforts made in previous years. Next steps include further field work, discussions and consultation with First Nations, and the installation of additional met towers at the site under a License of Occupation.

Sea Breeze is currently seeking financial partners for several of its wind power sites. The company anticipates that its recent success with the Cape Scott Wind Farm will bring added credibility to this effort. However, the flow of development dollars in BC wind sites may depend on the timing of BC Hydro's next announcement of a call for power in BC, and so development efforts before that time need to be kept very cost efficient.

The following are brief descriptions of some of the potential issues associated with this project and how SB Okanagan Holding (01) Corp. plans to address them.

## Feasibility

Further constructability and environmental studies will be undertaken in the lead up to the next call for power by BC Hydro. Ongoing discussions with overlapping tenure holders are also useful for determining site feasibility with respect to possible conflicts with other infrastructure at the site. Issues of concern at this site include possible conflicts with other infrastructure and operations activities as well as possible seasonal constraints on construction activities.

## Wildlife and Birds

For the Environmental Assessment of the Knob Hill Wind Farm, Sea Breeze Energy Inc. contracted the consulting services of wildlife specialists. SB Okanagan Holding (01) Corp. will utilize the services of similar specialists to examine the possible effects of the proposed wind farm on local birds and wildlife.

The proponent will investigate desktop sources to establish where red, blue and yellow listed species are known to exist in the vicinity. Strategies to avoid impacts to wildlife and wildlife habitats, along with strategies to minimize or reduce the impacts and disturbance, will be developed by consulting biologists and discussed with agency personnel.

### Plant Life

This project is expected to be low impact for construction and operation, based on initial desktop review. SB Okanagan Holding (01) Corp. will study potential impacts and discuss the findings with the Ministry of Environment.

#### **First Nations**

Sea Breeze Energy Inc. maintains good relations with First Nations across BC. **SB Okanagan Holding (01) Corp.** has begun consultation on this project with First Nations in the region, particularly the Upper Nicola Band, the Okanagan Indian Band, and the Okanagan Nation Alliance.

## **Mining Interests**

SB Okanagan Holding (01) Corp. will conduct a search through the BC Ministry of Energy, Mines, and Petroleum Resources of all mineral rights tenure holders in the project area. If any current claims are identified, SB Okanagan Holding (01) Corp. will contact the owners and the Gold Commissioner as per the guidelines outlined in the Mineral Right of Way Act.

## Fish

The wind farm development projects are not anticipated to have any great effect on fish or fish habitat. In addition to consultation with Fisheries and Oceans Canada, SB Okanagan Holding (01) Corp. will conduct a thorough study of the potential effects of the proposed project.

## Local Government and Recreational Use

Given the location of the proposed project, we do not anticipate any conflicts with recreational users or other interested parties. SB Okanagan Holding (01) Corp. will contact all local government to discuss potential land-use and zoning issues associated with the project area. SB Okanagan Holding (01) Corp. has taken care not to site this project within any restricted areas such as provincial parks.

# **Land Status**

The proponent will investigate cadastral data to establish the locations of any nearby private properties. Subsequent steps will include confirmation of the locations of any residences, and determination of whether any of these private properties have been zoned. This will involve searches at the Regional District and the Land Titles office.

## Forestry and Other Industries

We anticipate that activities related to the proposal will be conducted on existing industrial roads in the area. Any additional clearing, road improvements, or road extensions will be authorized with the co-operation of the Ministry of Forests, forest companies, and MNRO, as appropriate.

Wind gauge erection could require some minimal clearing and brush cutting operations at the direct base area of the wind gauges. Such operations will be approved by the Ministry of Forests as part of the overall Site Plan before any such work is carried out.