Stantec

DIGBY WIND POWER PROJECT ENVIRONMENTAL ASSESSMENT

Appendices

APPENDIX A

PUBLIC CONSULTATION MATERIALS



DIGBY WIND PROJECT



Project Overview

Project developer Scotian Windfieds Partners Corp. (SWPC), which is a partnership between Nova Scotia-based community economic development organization Scotia Windfields Inc., and Toronto-based renewable energy developers SkyPower Corp., is proposing to construct and operate a 30-megawatt wind power facility. The wind power facility will consist of twenty 1.5MW wind turbine generators with a 34.5 kV subsurface collection system connected to a new substation, on land located in Gulliver's Cove, Digby County, Nova Scotia. The proposed Project is referred to as the Digby Wind Project, ("the Project").

One of the main purposes of this Project is to supply the Nova Scotia electrical system with an additional source of renewable energy. The proponents were successful respondents to Nova Scotia Power's August 31, 2007 request for proposals for renewable energy. They have formally executed a 20 year power purchase agreement with the utility.

The proponents for the proposed Project will use the GE 1.5sle turbines for this Project. The Project will consist of 20, 1.5 MW wind turbine generators. The following ancillary facilities are also considered part of the Project:

- 34.5 kV collection lines (to link the wind turbines to the substation);
- 1667 MW Pad transformers located beside each turbine
- Substation (to step up the electric output from 34.5 kV to 69 kV);
- Maintenance and control building(s);
- Access roads; and
- Crane pads and construction roads for assembly of wind turbines.

Wind energy is associated with few environmental impacts compared with other sources of energy. The following have been identified as potential issues of concern for the Project and will be addressed in the environmental assessment: wildlife habitat with a particular focus on birds; historical resources; noise; and socio-economic issues.

Anticipated Regulatory Process

Scotian Windfield Inc. and Skypower are undertaking an environmental assessment of the Project that will satisfy the requirements for a joint federal-provincial screening level environmental assessment pursuant to the *Canadian Environmental Assessment Act* (CEAA) and the Nova Scotia *Environment Act*. Field work to support the environmental assessment process is ongoing. A full year of bird surveying is ongoing at the proposed site (November 2007 to October 2008) in accordance with a protocol developed in consultation with the Canadian Wildlife Service. In addition, terrestrial wetland and aquatic surveys have been undertaken.

Schedule

Anticipated key schedule milestones include:

- Preliminary conceptual planning for the project began in 2007;
- Public open houses and stakeholder consultation in the fall 2008;
- Submission of environmental assessment Fall 2008;
- Target construction completion near the end of 2009.



Patricia Bishop, president of the Kings County Federation of Agriculture, surveys her organic vegetable farm near Port Williams. Some farmers want a land trust established to protect valuable farmland. (GORDON DELA-

Food for thought

Some farmers look to establish trust to protect valuable farmland

By **GORDON DELANEY** Valley Bureau

STARRS POINT — Some farmers are eyeing a unique way to protect valuable farm land from being gobbled up by development, while helping themselves at the same time.

"This has been a challenge for a long time," said Patricia Bishop, president of the Kings County Federation of Agriculture, in an interview at Taproot Farms near Port Williams, one of the farms she owns and operates with husband Josh Oulton.

"What tools do we have to preserve agricultural land if we want to? We don't really have

Ms. Bishop grew up on a large farm and is passionate about preserving agricultural land for future generations. She said it's time for farmers, citizens and government to get together to talk about the issue.

"We have a really good strong municipal planning strategy, but that's being challenged quite regularly," said Ms. Bishop, who has run for municipal council on the issue. She was defeated by the incumbent by a slim eight votes.

The issue of disappearing farm land is a pressing one in Kings County, the mostly heavily farmed region in the province. Once the backbone of the economy, farming is giving way to industry, housing and commercial development.

While farming is still the most important industry in the area, increasing costs and low returns have forced some farmers to sell valuable agricultural land because they can get more money for it from developers than they can by farming it.

The county's municipal planning strategy sometimes protects the best farm land from development. But council is under increasing pressure to amend or change by-laws to allow more development, especially near urban areas like Wolfville and Port Williams.

A case in point is a proposed new Marriott Hotel on farm land in Greenwich, where farmers have been fighting for years to get their land rezoned so they can sell it for more money.

There is also pressure in Weston, north of Berwick, where a golf course and another proposed housing development have caused bitter rivalries between those who want economic growth and those who are trying to preserve the rural way of life.

In Port Williams, there is a battle over 120 hectares of farm land that the village wants rezoned for development, despite opposition from those who want it to remain farm land.

The frustration was summed up recently by Kings Councillor Wayne Atwater, who said he was reluctant to support any new developments involving farm land.

"Most of us are tired of getting beaten up over agricultural land," he said at a recent council meeting.

The federation has planned an all-day meeting later this month to discuss the idea of establishing a land trust, where farmers would be paid from a fund that would allow them to reinvest in their businesses and to continue farming while saving the land for future generations.

"It won't fit everybody's needs ... but it gives us something to work towards," said Ms. Bishop. "I'm not an expert on land banking, but the people we've invited to the meeting are."

Peter Elderkin, a longtime Greenwich farmer who has battled to have his land rezoned, said he supports a land trust, as long as larmers don t pay for it.

"It's the right approach, as long as farmers get fair market value for their land," he said, adding that a trust won't preserve all the farm land, but may work in some cases and certain areas.

Mr. Elderkin said farmers wouldn't be in the position of having to sell their land for development if they had a decent in-

"If the farmers were getting an income, the amount of farmland on the market would be dramatically reduced."

Workplace safety law doesn't cover volunteers

By MONICA GRAHAM

Volunteers may work as hard as any paid employee, but they aren't in a workplace as far as the provincial government is concerned.

That means the October fall from a Tatamagouche church roof that fatally injured a Prince Edward Island man is not governed by Nova Scotia occupational health and safety law, said Jacqueline May, a spokesperson for the Labour Department.

Patrick Joseph Gaudet died at the Queen Elizabeth II Health Sciences Centre in Halifax after sustaining head injuries in a five-metre fall from scaffolding to a concrete surface.

Ms. May said recently that if a person doesn't receive money for services, then there are no employees at the site and it is not a workplace as defined by the law.

The provincial Volunteer Services Act and Volunteer Protection Act, both administered by the Justice Department, aim to protect volunteers from lawsuits arising from the free services they offer, but do not protect their physical safety, she

In its last budget, the province announced plans for an insurance program for volunteers and not-for-profit organizations, Nova Scotia Health Promotion and Protection spokesperson Sue Mckeage said Friday.

The department, which is responsible for volunteerism, is working with the insurance industry to provide sustainable, affordable, and accessible coverage for volunteers and the organizations they serve, said Ms. Mckeage. By April, 2009, a single contact point within government will provide support and clear insurance information to volunteers, she said.

B3

Habitat for Humanity, which relies on volunteers to build homes for those who need them, requires that volunteers have their own insurance, which is available through the organization's plan and costs \$5 per person, said Halifax build co-ordinator Anna Connolly.

The organization also has a committee to deal with the safety, health, and environment of the volunteers who offer their services and a policy that ensures they receive safety training and appropriate equipment.

(mgraham@herald.ca)









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Saturday: 9am-8pm • Sunday: 11-6pm



Monday, November 17, 2008 Gullivers Cove Community Centre, RR#4, Digby BOV 1A0 5:00pm to 7:00pm

At this community information session, we will provide an overview of our plans including the proposed location of the wind farm, visual simulations of the turbine layouts and information on our environmental assessment. We are interested in hearing any comments or concerns that you may have about this project.

With the exception of personal information, all comments will become part of the public record for the Environ Impact Statement Report. Please contact one of the following project team members if you have any questions or comments or wish to obtain more information on the project or notification of the Community Information Session:

Barry Zwicker President and CEO Scotian WindFiel (902) 488-7125

David Patterson
Associate, Project Development
SkyPower Corp.
(902) 529-0377

Grace Pasceri Community Relations Manager SkyPower Corp. (416) 979-4625



ABOUT SKYPOWER





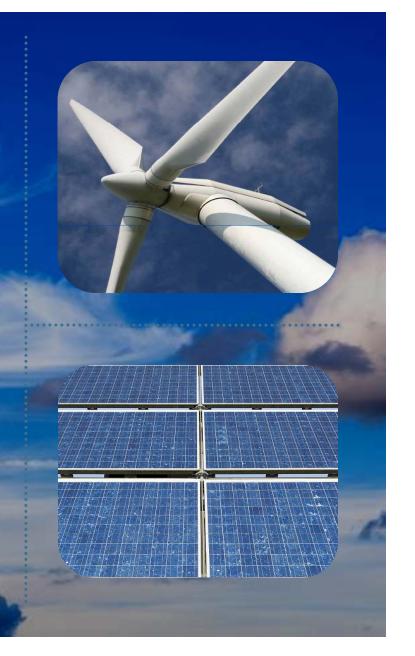
Established in 2003

Over **100** employees, advisors & consultants

Over **200** wind and solar projects under development in Canada, U.S., India and Panama.

+ 11,000 MW of nameplate capacity under development.

Development rights for over 6 million acres under development across Canada



SKYPOWER ADVANTAGE





- Canada's largest renewable energy developer with proven expertise in wind and solar projects
- Secured over 500 MW of wind turbines and 25
 MW of solar panels ready for project placement
- Levels of government, utilities, First Nations and communities
- SkyPower focuses on development partnerships involving local corporations, landowners, communities and First Nations as value added development partners
- Lastern Canada Experience: Wind project under construction for 27 MW in progress, completion by end of 2008



SKYPOWER DEVELOPMENT EXPERIENCE





SkyPower has secured over 400 MW of Power Purchase Agreements for Renewable Energy projects in Canada.

Wind Power

- 8 Contracts with Ontario Power Authority (OPA) totaling 72 MW
- → 201 MW PPA with Hydro Quebec
- → 30 MW PPA with Nova Scotia Power
- → 27 MW PPA with Newfoundland and Labrador Hydro
- International projects under development in India and the U.S.

Solar Power

- 9 Contracts signed with OPA totaling 88.12 MW
- → First Solar Farm under construction in Ontario (19MW)
- ▲ Additional 190 MW under development in Ontario
- Projects under development internationally

Hydro Power

83.5 MW project under development in Panama



SCOTIAN WINDFIELDS





Scotian WindFields Inc. was formed in January 2007 as a result of an agreement between eight Nova Scotian community-owned renewable energy companies formed under the CEDIF initiative

- ∆ 10 Power purchase agreements for inside the fence projects in Nova Scotia
- Over 1000 panels of solar hot water systems under development
- Partner in recent Ontario announcement for ten 15MW biomass to energy projects



PROJECT TEAM





Scotia WindFields Partners Corp. ("SWPC")

SWPC is a partnership between SkyPower Corp.

Leading independent renewable energy developer in Canada



SKYPOWER

Scotian WindFields Inc., a Nova Scotia based, owned and operated company that develops renewable energy projects through wind, solar and biomass applications





BENEFITS OF WIND





- Wind energy is clean. It does not produce any air pollution
- Wind energy is completely renewable, highly reliable and very efficient
- Wind energy reduces our contribution to global climate change
- 1 turbine offsets the equivalent of removing 600 passenger vehicles off the road
- It would take 100,000 trees, approximately 25
 years to offset the same amount of carbon
 dioxide that 1 wind turbine would displace in its
 lifetime







PROPOSED PROJECT





Digby Project Overview

- ∆ 30 MW Power Purchase
 Agreement with Nova Scotia
 Power
- ∆ 20 GE turbines
- ★ Expected construction in 2009
- → Project planned to be in service at the end of 2009
- Approximately 2800 acres of privately owned land



COMMUNITY ENGAGEMENT

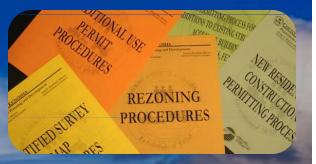




- Consultation with the local community is an important part of the development process
- ★ The Partners are committed to ongoing communication with council, community and all stakeholders:

 - November 17, 2008, community information session at Gullivers Cove Community Centre







ENVIRONMENTAL PERMITTING





Jacques Whitford has been hired to complete the environnemental impact assessment.

- → Jacques Whitford is recognized as a leader in providing environmental services to the wind energy industry in Canada.
- Unparalleled multi-sector experience allows Jacques
 Whitford to focus on impact assessments on the
 issues that truly matter and employ the most
 effective methodologies.
- ★ Expertise and experience has been applied to hundreds of environmental assessments, biophysical surveys and geotechnical assessments across Canada.







ENVIRONMENTAL ASSESSMENT PROCESS





A number of studies are presently underway to satisfy Natural Resources Canada and Nova Scotia Environment's requirements for wind power project environmental impact assessment.



- Noise models
- Visual simulations
- Shadow flicker models
- Vegetation surveys
- Bird and wildlife surveys



ENVIRONMENTAL ASSESSMENT PROCESS





Key components of the environmental impact assessment include:

- Physical environment
 - Groundwater and hydrogeology
 - Surface water resources
 - Archaeological resources
- → Biological environment
 - Wildlife and habitats (including birds and bats)
 - Wetlands and aquatic environments
 - Vegetation
 - Sensitive species and habitats
- Socio-economic assessment
 - Noise model
 - Visual simulation
 - Shadow flicker analysis







ENVIRONMENTAL ASSESSMENT PROCESS





- A full year of bird surveys has been completed (November, 2008), based on a protocol developed in consultation with the Canadian Wildlife Service.
 - The results are presently being compiled.
- ✓ Work on other components of the environmental impact assessment is underway.
- The environmental assessment report will be submitted to regulators in December 2008.
- Any comments or concerns regarding the environmental impact assessment should be directed to the Proponent or Jacques Whitford (contact information provided at sign in desk). Your input is greatly appreciated.







SOUND





- The evolution of wind farm technology over the past decade has rendered mechanical sound from turbines almost undetectable with the main sound being the swoosh of the blades passing the tower.
- Compared to everyday sound sources, turbines are quiet.
- ★ Sound modeling is being used proactively to determine tower locations that avoid sound impacts on nearby residences.

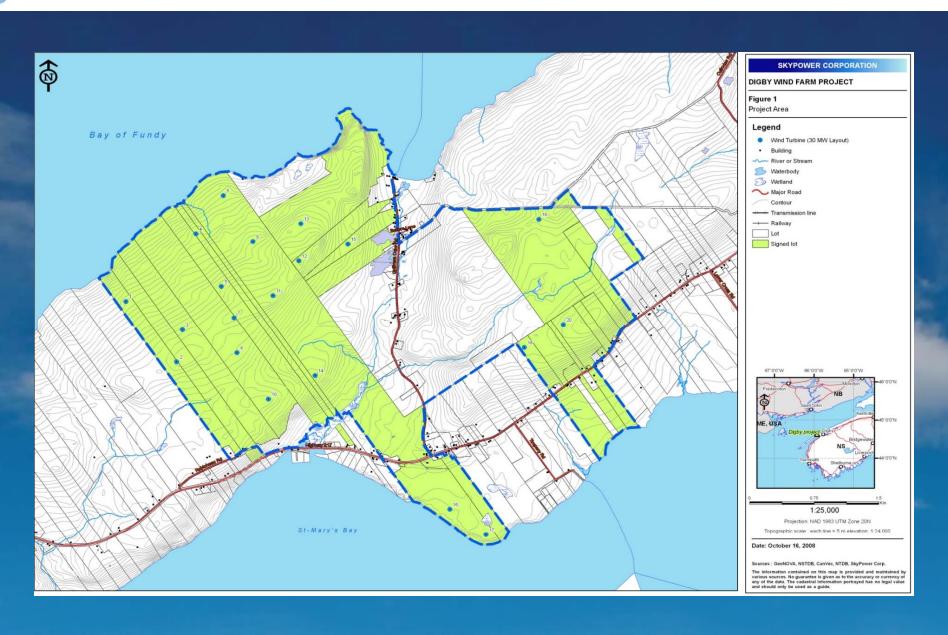


Decibel levels are not added linearly but logo logarithmically. (60 dBA does not add up to 120. 60 dBA = 63 dBA)

PROPOSED DIGBY TURBINE LAYOUT







CONCLUSION





Leading A Digby 30 MW wind project Digby 30 MW wind project

- Will assist in meeting the Renewable Energy Standards set by Nova Scotia's Department of Energy
- ★ Strong winds
- Completed wind studies
- System Impact Study currently underway
- Strong local landowner support
- Committed to local content where possible
- Let be completed by Q4 2008







ORIGINAL PHOTO



Date: November 17, 2008

TECHNICAL DATA

PHOTOGRAPH-VIEW POINT:

Photograph Number: 1

Date Photograph was taken: Spring 2008 Coordinate system: NAD 1983

UTM Zone 20N

Easting: 267888
Northing: 4940301
Elevation: 25m ASL
View Direction: West

WIND TURBINES USED:

Model: GE 1.5sle
Height of nacelle-mid point: 61.4m
Rotor Diameter: 77m

SIMULATION:

Total Number of Wind Turbines: 20 Total Number of Visible Turbines: 4

Closest Visible Turbine: Approx. 1.5km Furthest Visible Turbine: Approx. 2.7km









ORIGINAL PHOTO



Date: November 17, 2008

TECHNICAL DATA

PHOTOGRAPH-VIEW POINT:

Photograph Number: 2

Date Photograph was taken: Spring 2008

Coordinate System: NAD 1983

UTM Zone 20N

Easting: 267805
Northing: 4940346
Elevation: 22m ASL
View Direction: Northwest

WIND TURBINES USED:

Model: GE 1.5sle
Height of nacelle-mid point: 77m
Rotor Diameter: 61.4m

SIMULATION:

Total Number of Wind Turbines: 20
Total Number of Visible Turbines: 4

Closest Visible Turbine: Approx. 1.2km Furthest Visible Turbine: Approx. 2.3km









TECHNICAL DATA

PHOTOGRAPH-VIEW POINT:

Photograph Number:

Date Photograph was taken: Spring 2008

Coordinate System: NAD 1983

UTM Zone 20N

Easting: 268054
Northing: 4941977
Elevation: 33m ASL
View Direction: Northwest

WIND TURBINES USED:

Model: GE 1.5sle
Height of nacelle-mid point: 77m
Rotor Diameter: 61.4m

SIMULATION:

Total Number of Wind Turbines: 20
Total Number of Visible Turbines: 2

Closest Visible Turbine: Approx. 1.1km Furthest Visible Turbine: Approx. 1.4km





Date: November 17, 2008







Digby Wind Farm: View from View point 4 - Looking North

ORIGINAL PHOTO Bay of



Date: November 17, 2008

TECHNICAL DATA

PHOTOGRAPH-VIEW POINT:

Photograph Number:

Date Photograph was taken: Spring 2008 Coordinate system: NAD 1983

. UTM Zone 20N

Easting: 268054
Northing: 4941977
Elevation: 33m ASL
View Direction: North

WIND TURBINES USED:

Model: GE 1.5sle
Height of nacelle-mid point: 77m
Rotor Diameter: 61.4m

SIMULATION:

Total Number of Wind Turbines: 20 Total Number of Visible Turbines: 1

Closest Visible Turbine: Approx. 1.1km Furthest Visible Turbine: Approx. 1.1km





