

## **SUMMARY OF TECHNICAL ADVISORY COMMITTEE COMMENTS**

**PROPONENT:** St. Joseph Wind Farm Inc.  
**PROPOSAL NAME:** St. Joseph Wind Energy Project  
**CLASS OF DEVELOPMENT:** 3  
**TYPE OF DEVELOPMENT:** Energy Production  
**CLIENT FILE NO.:** 5353.00

### **OVERVIEW:**

The Proposal was dated July 25, 2008 and was received on July 31, 2008. The advertisement of the Proposal read as follows:

“A Proposal for the St. Joseph Wind Energy Project has been filed by St. Joseph Wind Farm Inc. for the construction and operation of a 300 megawatt (MW of net electrical generation capacity) commercial wind energy facility. BowArk Energy Ltd. is acting on behalf of the St. Joseph Wind Farm Inc. as the primary developer for the Project. The Project area overlaps the Rural Municipalities of Rhineland and Montcalm in the vicinity of the town of St. Joseph approximately 85 km south of Winnipeg. Up to 200 wind turbine generators are proposed to be installed over an area of approximately 215 sq. km of land. An Environmental Impact Study Report has been filed in support of the Environment Act Proposal. Construction is tentatively targeted to begin in 2009, with operation anticipated to commence in 2011.”

The Proposal was advertised in the following newspapers:

Winkler Times – August 8, 2008  
Altona Red River Valley Echo – August 8, 2008  
Emerson Southeast Journal - Saturday, August 9, 2008

The Proposal was made available for public review at the following locations:

Main Registry/Millennium Public Library/Manitoba Eco-Network/ South  
Central Regional Library

The proposal was also distributed to the "Energy Production" Technical Advisory Committee (TAC) members for comment. All comments were requested by September 12, 2008.

The proponent submitted a report titled “St. Joseph Wind Farm Environmental Impact Study – Response to Public Comments” in response to comments on the proposal from the public on June 3, 2009. The report was forwarded to the public respondents on June 11 and 12, 2009 for their information, and placed in the public registries on June 11, 2009.

On June 9, 2009, the proponent submitted a report titled “St. Joseph Wind Energy Project Environmental Impact Study Report Volume 3 - Revised Project Description and Potential Effects”, which identifies changes to the project since the submission of the original Proposal on July 25, 2008, and an assessment of the resulting potential environmental effects. The report was

forwarded to the public respondents on June 11 and 12, 2009 and to TAC on June 16, 2009 as supplemental information. The report was also placed in the public registries on June 11, 2009.

In response to comments on the original Proposal by the federal members of TAC, the proponent submitted a report titled “St. Joseph Wind Energy Project Environmental Impact Study Report Volume 4 - Response to Agency Comments” on June 9, 2009. The report was placed in the public registries on June 11, 2009, and forwarded to the federal members of TAC on June 16, 2009.

A report in response to the provincial TAC comments titled “St. Joseph Wind Energy Project Environmental Impact Study Report Volume 5 - Response to Provincial Technical Advisory Committee Comments” was received on June 10, 2009. The report was placed in the public registries on June 11, 2009.

The proponent hosted an Open House in St. Joseph, on July 7, 2009, to inform the public of the revisions to the project outlined in Volume 3 of the “St. Joseph Wind Energy Project Environmental Impact Study Report”.

## **PUBLIC RESPONSE**

### **Following is a summary of correspondence received in response to the advertisement:**

**Tony and Judy Harms (e-mail dated September 12, 2008)**  
**Gretna, MB**

Expressed concerns regarding:

- the amount of noise the generators will produce;
- whether anything will be done if noise becomes a problem; and
- crop sprayers may refuse to fly over their crops.

*Disposition:* The comments regarding crop spraying and noise were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Frank & Tammy Isaak & family (e-mail dated September 12, 2008)**  
**Altona, MB**  
**fisaak@mts.net**

Expressed concerns that:

- the number of turbines was increased to 200;
- the availability of information about the project has been extremely poor;
- noise may affect sleep;
- non-ROW agreement holders would have no recourse if noise becomes a problem;
- the EIS states that no follow-up noise monitoring is considered necessary;
- there is not independent noise monitoring pre and post construction;
- shadow flicker;

- stray voltage is not addressed in the Environment Act Proposal;
- aerial spraying may be affected; and
- safety near turbines.

*Disposition:* The comments regarding the increase in the number of turbines, shadow flicker, noise, public consultation, stray voltage, aerial spraying, and safety were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Art Wiebe (e-mail dated September 12, 2008)**  
**aweibe@wiband.ca**

- Believes wind farms have their place if designed properly.
- States the St. Leon wind farm is properly designed.
- Expressed concerns regarding:
  - the large number of turbines;
  - the installation of overhead lines as opposed to buried lines;
  - noise levels;
  - stray voltage; and
  - safety near turbines.

*Disposition:* The comments regarding the large number of turbines, noise, stray voltage, safety, and overhead lines were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Frank Paetkau (e-mail dated September 11, 2008)**  
**Rosenfeld, MB**

Expressed concerns regarding:

- noise levels;
- wildlife and bird studies should be conducted by local organizations;
- health effects from proximity from residences to wind turbines and overhead lines; and
- aesthetics.

*Disposition:* The comments regarding noise and aesthetics were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Ron (“Joe”) and Lois Braun (e-mail dated September 12, 2008)**  
**owltree@mts.net**

Expressed concerns regarding:

- availability of the Environment Act Proposal;
- lack of information;
- the increase in the number of turbines;
- installation of overhead lines rather than buried lines;

- noise levels;
- lack of follow-up noise monitoring;
- no recourse for people affected by the noise from the turbines;
- aesthetics;
- health problems resulting from stray voltage; and
- safety near turbines.

*Disposition:* The comments regarding public consultation, the number of turbines, overhead lines, noise; follow-up monitoring, complaint reporting, aesthetics, stray voltage, and safety were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Margruite Krahn (e-mail dated August 14, 2008)**  
**krahnmp@wiband.ca**

Expressed concerns that four turbines are proposed within the two mile buffer agreed upon by residents of the National Historic Site of Neuberghthal, representatives of the Manitoba Field Unit, and Bowark to reduce negative aesthetic effects on the historic site.

*Disposition:* These comments were addressed by the proponent in the June 3, 2009 Response to Public Comments and the Environmental Impact Study Report (Volume 3) reports.

**Al and Gail Braun (e-mail dated September 12, 2008)**  
**albraun@xplornet.com**

Expressed concerns regarding:

- lack of public consultation;
- health risks;
- noise issues;
- property devaluation; and
- aerial crop spraying.

*Disposition:* The comments regarding public consultation, noise and crop spraying were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring and mitigation can be included in the licence.

**Peter Friesen (e-mail dated September 12, 2008)**  
**PFriesen@aiproducts.com**

Expressed concerns regarding a lack of public consultation in relation to the project.

*Disposition:* These comments were addressed in the June 3, 2009 Response to Public Comments report by the proponent.

**Aurele and Laurette Houle (letter dated September 8, 2008)**

- Concerned that the bulk of the towers are concentrated on a few land owners, which is unfair to land owners in the community who want towers on their property for the extra income.
- Also expressed concerns that an up-to-date turbine layout was not available.

*Disposition:* A revised layout of the turbines was provided by the proponent in the June 3, 2009 Response to Public Comments, and the Environmental Impact Study Report (Volume 3) reports.

**Todd and Lisa Braun (letter dated September 12, 2008)  
Altona, Manitoba**

- Expressed concerns regarding the following:
  - lack of information and community awareness;
  - short amount of time for review of Proposal;
  - aerial crop applications;
  - number of turbines;
  - the amount of noise from the turbines;
  - what non-ROW agreement holders can do if noise exceeds guidelines;
  - there will be no independent post construction noise monitoring;
  - overhead lines;
  - health implications associated with wind projects; and
  - safety near turbines.
- Provided letters and reports with examples of people affected by noise and stray voltage from wind energy projects.
- Requests a moratorium on further development until a full public hearing for this project takes place.

*Disposition:* The comments regarding lack of consultation and information, noise, number of turbines, safety, aerial application, and overhead lines were addressed in the June 3, 2009 Response to Public Comments report by the proponent. Provisions for noise monitoring can be included in the licence.

**COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Historic Resources Branch**

Section 5.12.2.1 of the document outlines proposed mitigation measures. It is recommended that an archaeological consultant be contracted to undertake an archaeological field survey, prior to construction of wind turbine generator (WTG) structures located within 1 km from a known heritage site. It should also be pointed out that the RCMP must be contacted in the event of the identification of human remains.

If at any time significant heritage resources are recorded in association with the lands during development, the Historic Resources Branch may require that an acceptable heritage resource

management strategy be implemented by the developer to mitigate the effects of development on the heritage resources.

*Disposition:* The comments can be accommodated as conditions of licensing. In their Environmental Impact Study Report (Volume 5), the proponent indicated that they will proceed with an archaeological field survey of WTG structures located within 1 km from a known heritage site.

**Mines Branch** No concerns.

**Sustainable Resource & Policy Management Branch** No concerns.

**Parks and Natural Areas Branch** No concerns.

### **Pollution Prevention Branch**

Comments:

- With reference to the submitted Simulated Noise Isocontour map (Map 5.1), many dwellings are within a kilometer from a WTG or a cluster WTG. Similarly, it can be noted from same map that there are potential dwellings that may fall within the 40-45 dB (A) zones (one-storey dwelling @ 1.5 M height). In the absence of a criterion for WTG in the province of Manitoba, the proponent has been referring the Ontario MOE as reference criteria.
- With reference to "Wind Turbines and Sound: Review and Best Practice Guidelines" posted on the Canadian Wind Energy Association (CanWEA) website, a technical assessment of the sound impact of the project should be undertaken since there are potentially sensitive (residences) receptors within a kilometer (the setback adopted in this project is at least 550 meters). Although not included in the submission, there was a mention of a noise impact assessment in page 104 of the Report (Volume 1) which I think resulted to the isocontour map.
- Based on the submitted wind rose (Figure 3-1), the wind speed for most days is from 1 m/s to 11 m/s. However, there are instances of wind speed exceeding 11 m/s coming from the south, south-southeast, north, north-northeast, east-northeast and east. With reference to the Ontario MOE Criteria, there may be few incident(s) of exceedances depending on the background noise. Background noise is from agricultural activities and ambient noise induced by wind (on trees, etc.). It is worthy to note that, If most (if not all) of the dwellings mentioned above (falling within a kilometer from a WTG) are also owner of land where the WTG are located, they may have an economic gain on the proposal, hence may have a higher tolerance on the effects of noise.

Link to best practices document:

[http://www.canwea.ca/images/uploads/File/CanWEA\\_Wind\\_Turbine\\_Sound\\_Study\\_-\\_Final.pdf](http://www.canwea.ca/images/uploads/File/CanWEA_Wind_Turbine_Sound_Study_-_Final.pdf)

Recommendations:

- Although seemingly the impact from noise will not be significant, it is suggested that noise measurement/management be included in the EA license conditions.
- The noise study report is suggested to be included in the submission and not only the results.

*Disposition:* The comments can be accommodated as conditions of licensing. The proponent provided a description of a revised noise impact assessment in their Environmental Impact Study Report (Volume 4).

**Environmental Operations, Central Region** No concerns.

**Environmental Services** No concerns.

**Manitoba Infrastructure and Transportation (MIT)**

The proposal is located in the Vicinity of Provincial Trunk Highway (PTH) 75 and PTH 14 and Provincial Road (PR) 412 and PR 201.

*PTH 75 and PTH 14 are Limited Access Highways under the jurisdiction of the Highway Traffic Board. Under The Highways Protection Act, any new, modified or relocated access to these highways or their service roads (including the change in use of an existing driveway) requires a permit from the Highway Traffic Board. A permit is also required from the Highway Traffic Board for any change in the use of the land or the buildings, or to place, construct or alter any structures within 76.2 m (250 ft) from the edge of the right-of-ways of the highways. Any new modified or relocated access connection onto either PR 421 or PR 201 requires a permit from Manitoba Infrastructure and Transportation (MIT). A permit is also required for any construction above or below ground level within 38.1 m (125 ft) of these provincial roads. In addition, a permit is required from Manitoba Infrastructure and Transportation for any planting placed within 15.2 m (50 ft) from the edge of the right-of-way of these highways.*

It is expected that this development will not alter the existing drainage patterns and flows along the existing provincial highway ditches. If this assumption is not correct, additional information will have to be submitted to us in order to identify alteration requirements.

*Disposition:* This information was forwarded to the proponent for direct follow up with MIT.

**Manitoba Water Stewardship**

- *The Water Rights Act* indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid licence to do so. “Water control works” are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If the proposal in question advocates any of these activities, application for a Water Rights Licence to Construct Water Control Works is required.

- The proponent needs to be informed that if proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.
- Some of Buffalo Channel, Buffalo Creek, Rempel Drain, Riviere Aux Marais, and tributaries to these surface waters as well as numerous agricultural drains are located within the proposed area. The proponent indicates the potential for 39 new water crossings and upgrades to existing crossings as well as electrical cable crossings. For the road crossings, the proponent is proposing standard pipe or box culverts and the electrical crossings may be installed under surface waters using directional drilling or hung overhead.
  - The majority of crossings appear to be on the agricultural drains. While the Department does not have fish inventories for a number of the drains they are proposing to cross, many of the drains lead directly to known fish bearing waters and ultimately to the Red River. For example, crossings CKC 001, 002 and 003 will be installed on a drain that empties into Buffalo Creek. In 1999, a site was sampled on Buffalo Creek in the vicinity of the drain and walleye larva and white sucker eggs were found indicating this creek provides at minimum seasonal fish habitat (spawning, nursery, feeding). At another site much further downstream at Altberghthal, young of the year northern pike and black bullheads as well as walleye and carp were captured.
  - The proponent indicates that all crossings will be reviewed by the Department of Fisheries and Oceans Canada and Manitoba Water Stewardship's Fisheries Branch. As specific information for each water crossing has not yet been provided, the need to consult with the Department of Fisheries and Oceans Canada prior to installation should be a condition of their *Environment Act* Licence. Given the number of crossings it is important that ongoing sediment loading is minimized. Temporary and permanent erosion and sediment control measures need to be implemented before, during and after construction. Culverts need to be sized appropriately to ensure they will stay in place during major precipitation events and they need to be placed so as not to create barriers. There should also be a requirement of the proponent to monitor the watercourse crossings and provide annual reports documenting failure, corrective measures and timeframe. Unless the crossings are done in the dry, given the potential to provide or contribute to downstream spring spawning habitat the spring spawning window of April 1st to June 15th should be followed.
  - It is noted near the front of the proposal that there will be a 60 metre set back along water courses, water bodies, marshes and swamps yet further in the document it is stated that "...except crossings, construction activities will respect a 15 metre buffer from the top of the bank of drains." Please clarify which setback will be utilized.
  - Also it should be noted that any fish/mussel/invertebrate collection or fish/mussel salvage activities require a permit issued through Fisheries Branch, Manitoba Water Stewardship.

- During the construction phase, the proponent must ensure that no silt, gravel, construction material or other material resulting from site preparation and stream crossings enters surface water.
  - While proponent states in Section 5.5.2.1 that the turbines will be located away from most surface water, consideration has not be given to sedimentation to municipal drainage ditches as a result of surface water runoff during the construction phase. Municipal drainage ditches include those along roadways. Most of the turbines are planned along roadways for easy accessibility.
  - A minimal removal of vegetation along watercourses is recommended. Disturbance and removal of permanent riparian vegetation should be kept to a minimum including along roadside ditches, and larger ordered drains.
- In addition to mitigating impacts to drainage courses (seeding, replanting vegetation, etc.), as outlined in Section 5.3.2, the proponent must prevent soil / silt from entering watercourses. Manitoba is committed to reducing nutrient input to surface water as part of the Lake Winnipeg Action Plan.
- Accidental spills of hazardous materials must be removed immediately and disposed to an approved facility.
- Construction de-watering requires an authorization under *The Water Rights Act*.
- Section 6.2.4 Flooding of the proposal states “The eastern portion of the Project Area, nearest to the Red River, is located in the 1997 Red River Valley flooded area. (Manitoba Water Stewardship, 1997). Other flooding events may occur during the operation phase of the Project. If the transformers are to be located at the base of the towers instead of within the nacelle, specific measures to prevent any damage to transformers due to flooding events will be implemented.”
  - A very significant portion of the Project Layout Area, as shown on Map 2.1 (found in *The Environment Act Proposal*) lies within the boundary of the Red River Valley Designated Flood Area. As such, many of the sites indicated on Map 2.1 are subject to flooding by the Red River. The severity of flooding at any given location is site specific.
  - The Department recommends that an *Environment Act* Licence include a requirement for the proponent to obtain a Designated Flood Area Permit, which will specify appropriate flood protection measures for each site, for each tower regardless of method of construction. The proponent is required to obtain a Designated Flood Area Permit under the *Designated Flood Area Regulation of The Water Resources Administration Act*.

*Disposition:* The comments can be accommodated as conditions of licensing. Clarification regarding the set-backs to water courses was provided by the proponent in their Environmental Impact Study Report (Volume 5). All comments have been forwarded to the proponent for information.

## **Canadian Environmental Assessment Agency (CEAA)**

### **Environment Canada (EC):**

*Orientation of the turbines:* Numerous turbine strings oriented in an east-west direction may increase mortality risk to migrating birds and bats.

*Lighting:* Proponent should be encouraged to seek alternatives to incandescent lighting. The commitment to discuss lighting with CWS is acknowledged.

*Disruption of bird nests for migratory birds:* Vegetation clearing should avoid the period between April 15 and July 31 to minimize disturbance to breeding migratory birds. EC supports the proponent recommendation to have a trained biologist on site if vegetation clearing is required during the breeding season.

*Mortality monitoring/follow-up:* Two years of monitoring for birds and bat mortality are recommended with the program developed with EC (Canadian Wildlife Service).

EC further recommends the proponent discuss mitigation approaches or strategies if mortality monitoring identifies concerns.

*Monarch Butterfly (SARA special concern):* Potential impacts of the project on monarch butterflies should be assessed, with provisions for monitoring.

### **Natural Resources Canada (NRCan):**

Federal Assessment requirements: The EIS should clarify certain aspects required in the federal assessment, specifically describing scope of project and assessment, and clarifying federal roles and responsibilities.

Further information required- The specific number, size, and location of the turbines will be required for NRCan to complete its assessment. Other information on project components and activities is requested including for: permanent dwelling locations, noise receptors, gravel pits, temporary concrete batch plants (if any), and vegetation clearing.

### **Health Canada (HC)**

Noise: HC provided a number of comments regarding noise, including recommendations for identification of sensitive noise receptors, comments on noise modelling, and recommendations for application of mitigation.

### **Parks Canada**

Visual Impact on Neuberghal National Historic Site: Notwithstanding previous efforts on the part of the proponent in relocating turbines to minimize visual impact, Parks Canada recommends relocation of turbines 139-142; 123-128; and 154 to 158 due to potential effect on the heritage value associated with the Neuberghal Street Village National Historic Site.

## **Transport Canada (TC)**

Navigable Waters Protection Act (NWP): Transport Canada requests that the navigability of the water bodies within the project area be determined. If the water bodies are deemed navigable, then applications under the NPWA will be required if crossings involve these water bodies. The proponent is advised to submit applications to the Navigable Waters Protection Program with location options. Further information can be found at the following website: <http://www.ic.gc.ca/marinesafetyreepinwpp/guide.htm>

Aeronautical Obstruction: Aeronautical Obstruction Clearance Forms should be submitted to the Transport Canada, Aerodromes & Air Navigation for the wind towers.

## **Fisheries and Oceans Canada (DFO)**

Stream Crossing information and recommendations: Design details for specific stream crossings are requested. DFO Operational Statements are noted, specifically Manitoba Operational Statement for High Pressure Directional Drilling (<http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/provinces-territoires-territoires/mb/os-eo09-eng.htm>) and Manitoba Operational Statement for Isolated or Dry Open Cut Stream Crossings (<http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/provinces-territoires-territoires/mb/os-eo22-eng.htm>).

## **Royal Canadian Mounted Police (RCMP)**

Radio Frequency issues: The RCMP raised questions regarding radio frequency studies, and whether Manitoba Telecom Services (MTS) sites were taken into account.

*Disposition:* The Environmental Impact Study Report (Volume 4) was forwarded to the federal members to TAC for review. Federal comments have been forwarded to the project proponent for consideration and follow-up, as appropriate.

## **CONCLUSION:**

A public hearing is not recommended. The comments received from the public and technical review of the Proposal were addressed by additional information provided by the proponent, or can be accommodated as conditions of licensing, as noted above. No additional public comments were received in response to the revised project description (Volume 3 of the “St. Joseph Wind Energy Project Environmental Impact Study Report”) or the Open House. It is recommended that the Development be licensed under The Environment Act subject to the limits terms and conditions as described in the attached Environment Act Licence.

## **PREPARED BY:**

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