

Date: October 15, 2012

Fax: 1-416-440-7656

To: Ontario Energy Board  
Attn: Board Secretary Kirsten Walli

Re: Written Submissions for Applications for Feed-In Tariff Licences  
EB-2012-0311 NextEra Energy Canadian Operating Services,  
Inc  
EB-2012-0312 Conestogo Wind LP

From: Preserve Mapleton Incorporated  
c/o Elissa Krul

[REDACTED]

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PAGES INCLUDING COVER LETTER 102

October 15, 2012

Ontario Energy Board  
2300 Yonge St,  
Box 2319,  
Suite 2700,  
Toronto, Ontario  
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Attention: Ms. Kirsten Walli,  
Board Secretary

Dear Ms. Walli, Members of the Board:

Re: NextEra Energy Canadian Operating Services, Inc., Conestogo Wind LP.  
Application for Feed-In-Tariff Program Licences  
Board File Nos. EB-2012-0311 and EB-2012-0312

We are Preserve Mapleton Incorporated (PMI). We "are the people who will be affected by the wind turbines" of the Conestogo Wind Energy Centre in Mapleton Township.

According to the letter addressed to Ms. Kirsten Walli on August 31, 2012 from George Vegh, Counsel for the applicants, page 2

"The Board uses three main criteria to assess an electricity generator licence applicant:

1) The applicant's ability to be a financially viable entity with respect to owning and operating a generation facility in Ontario's energy market;  
2) The applicant's technical capability to reliably and safely operate a generator; and  
3) The applicant and its key individuals' past business history and conduct such that they afford reasonable grounds for belief that the applicant will carry on business in accordance with law, integrity and honesty."

Mr. Vegh indicated that "the Proposed Intervenor have not identified any reason why these issues could not be addressed in a written hearing and indeed have not even identified any interest or evidence that they can bring to bear on any of these issues." Perhaps the reason for the latter part of the above statement is that the OEB never indicated to PMI the three main criteria for assessing a licence applicants. PMI should not be surprised by this though. During the past 3 years of suffering through this sorry fiasco involving NextEra, the Ontario government and the Conestogo Wind Energy Centre, PMI has been continually stonewalled by agencies and ministries of the Ontario government who, in our opinion, sided with the wind energy company involved, against us. This is the reason we wanted an oral hearing - we wanted to sit face to face with the applicants, seek information, ask questions and argue against the granting of the licences. PMI wonders why the applicants would be afraid to do this.

Nevertheless, PMI is filing a written submission to the OEB. In this submission PMI will give reasons why the applicants not be granted licences based on (a) the three main criteria mentioned above and (b) the applications themselves.

#### Financial Viability of the Applicant

PMI is unsure of the financial viability of the applicant because PMI is unsure of really who the applicant is. The application indicates the owner is Conestogo Wind LP. But who is it really? Is it Conestogo Wind LP, NextEra Energy ULC, NextEra Canada, Florida Power and Light (FPL), NextEra Energy Resources, FPL Group Inc.,....? These company names have been on letterhead,

posterboards at public meetings, or the return address on an envelope. Who is the current parent company? Who gives the OEB a guarantee that the named owner applicant is financially viable? For purposes of this appeal opposing the granting of these licences, PMI will consider the applicants to be NextEra Energy Resources LLC (NextEra) who we now believe to be the parent company - these names have a habit of changing from time to time - a fact which should give the OEB cause for concern.

Normally what takes place in the USA affects what takes place in Canada. According to an article by Julie Johnsson and Mark Chediak in Bloomberg News dated January 19, 2012, "the largest US wind energy producer NextEra Energy Inc. has shelved plans for new US wind projects next year." According to an article published by the American Wind Energy Association entitled "Federal Production Tax Credit for Wind Energy" ([www.awea.org](http://www.awea.org)), "With the threat of the PTC's expiration, wind project developers are not making plans in the US and American manufacturers are not receiving orders. Job layoffs have started already. The wind industry is facing the recurrence of the boom-bust cycle it has seen in previous years when the PTC was allowed to expire. In the years following expiration, installations dropped between 73% and 93% with corresponding job losses." So what? What has this to do with NextEra's financial viability?

The wind industry is surviving on tax credits and subsidies (PTC - USA Federal Production Tax Credit, which has been in place since 1992). From an article "Why the Production Tax Credit Should be Extended" (<http://businessenergyresources.com/energy-efficiency/why-federal-wind-energy-tax-credit-...>) the statement is made "Currently, a program called the Production Tax Credit is in place, which provides 2.2 cents per kilowatt-hour for wind-generated electricity. However, this credit is scheduled to expire December 31, 2012, which could cause massive declines in the wind energy industry due to severely cut project quantities. In fact, the fallout in the job sector has already begun."

So, the point is - if NextEra in the US is depending on tax credits to survive and these tax credits are cancelled, will NextEra in the US survive financially, and consequently will NextEra in Ontario survive financially. The OEB should realize by now that "too big to fail" no longer applies. Benjamin Cole, a spokesman for Energy Alliance said, "Big Wind has had extension after extension after extension. The government shouldn't be continuing to prop up industries that never seem to be able to get off their training wheels" ([http://upi.com/Business\\_News/Energy-Resources/2012/09/21/Wind-power-faces-tax-...](http://upi.com/Business_News/Energy-Resources/2012/09/21/Wind-power-faces-tax-...)) Again, who give the OEB a guarantee that the named owner applicant is financially viable?

There is another matter that the OEB should be concerned about when they are considering the financial viability of NextEra. PMI has obtained information in a letter from Vestas (a wind turbine manufacturer out of Denmark) concerned about new regulations regarding low frequency noise emitted by wind turbines. This letter from Vestas is written to Karen Elleman, Minister of Environment, Copenhagen, Denmark dated December 16, 2011 (<http://www.windcows.com/INDEX.html>). In this letter, the Vestas Wind Systems spokesman states that other countries often look to Denmark when adjusting their legislation regarding wind energy. In Denmark new regulations were published in May 26, 2011 including a "significant and severe tightening of the previous noise regulations." In fact, the letter indicates that the wind turbine industry is "subject to requirements of 20dB 24 hours a day."

So what happens of the Canadian government adopts the Danish standards? The Conestogo Wind Energy Centre, as well as many other projects involving NextEra, would be unable to operate because of tightened noise regulations. Would this mean a lot of expensive decommissioning by NextEra, or would this mean walking away from their wind farms leaving behind rusting hulks? Either way the cash flow would cease. Is the OEB aware of the Danish regulations? Would NextEra be financially viable if these regulations came to Canada and the US? (Incidentally, in their letter, Vestas indicates that it is not technically possible at this time to produce a turbine in the 3MW category that produces less noise than their current model) Based on the above information on financial viability, PMI opposes the granting of a licence to the applicant.

#### Technical Capability to Reliably and Safely Operate a Generator

As the OEB will know, the willing hosts for wind turbines sign contracts with wind energy

companies that prevent them from disclosing any problems arising from the turbines such as human health, livestock health, shadow flicker, and so on. As well the OEB will know that if a wind energy company is operating a wind farm unsafely by producing too much audible noise, too much inaudible noise,... and as a consequence have to "buy out" a property owner, that property owner is also not allowed to disclose information. Thus it is difficult for PMI to get information on technical capabilities of the applicant.

However, PMI has obtained some information regarding safety and reliability issues with NextEra. PMI refers the OEB to Appendix A attached. PMI also received information from DeKalb, Illinois, USA dated on or about April 2011 concerning safety and reliability involving a NextEra project. Concerns included excessive turbine noise, turbine leaking oil and shattered blades. PMI found this information on <http://lifewithdekalbturbines.blogspot.com>. However, all blog entries are no longer accessible on this website due to a court case involving NextEra. This court case was settled out of court.

As far as problems with NextEra and generation facilities other than wind generators, PMI has received information regarding the St. Lucie nuclear power plant in Florida, USA and the Turkey Point 3 nuclear power plant. PMI refers the OEB to Appendix B and Appendix C attached.

Concerning another safety matter involving NextEra, this time related to greenhouse gas emitters, PMI has learned that FPL (Florida Power and Light - the former parent company of NextEra) has three natural gas fired power plants among the state's (Florida) top 10 major greenhouse gas producers (<http://www.palmbeachpost.com/news/news/fpl-plants-greenhouse-gas-emissions-top-pal...>). If NextEra is really concerned about safety, would they not have considered using scrubbers at their plants. As well, PMI has learned that the Scherer Power Plant (coal fired) at Juliette, Georgia, USA is the dirtiest plant in the nation according to a 2009 report by Environment America, "America's Biggest Polluters ([http://www.sourcewatch.org/index.php?title=Scherer\\_Steam\\_Generating\\_Station](http://www.sourcewatch.org/index.php?title=Scherer_Steam_Generating_Station))." It is interesting to note that NextEra owns 76.4% of one of the four units at the Scherer Power Plant.

And is NextEra reliable? Not according to the Electric Reliability Council of Texas. PMI refers the OEB to Appendix D.

Given PMI's experience with NextEra, PMI also questions NextEra's motive in relation to the situation involving NextEra's 22 year old Seabrook nuclear power plant in New Hampshire. Apparently with about 20 years left on their 40 year licence, NextEra filed for a 20 year extension on their licence in June 2010. Interesting enough, the Nuclear Regulatory Commission (NRC) in the USA had in the month before told NextEra that it "would increase inspections to evaluate concrete degradation discovered in safety-related concrete structures at the plant (a bill introduced by US Reps John Tierney and Ed Markey in September 2012 could prevent the NRC from granting operating licence renewals to reactor owners that apply more than 10 years before a current licence expires). Could this possibly mean that an honest, transparent company like NextEra would jeopardize safety involving one of their generating facilities?

PMI opposes the granting of a licence to the applicant based on the above information regarding reliability and safety.

#### Belief that the Applicant will carry on business in accordance with law, integrity and honesty

PMI is all too familiar with NextEra and the deceitful, underhanded way in which they do business. Right from the start NextEra and their hired consultants came around the neighbourhood with a high-pressure sales tactic in which they lied to Mapleton homeowners (see Appendix E attached) People in Mapleton were told by "Alex" Elexco that, "your neighbours have signed, you might as well" or "we have enough[turbines] to go, you might as well..." Members of PMI know that, those who signed contracts did not do so until late summer 2009. Alex began his high-pressure tactics in mid-spring of 2009.

At the 2nd public meeting in Drayton, Josie Hernandez, rep for NextEra, acknowledges "that lies were told and they would do better." That is not acceptable. Our community, landscape and livelihoods will be forever altered because of the lies that NextEra allowed under their watch.

PMI experienced NextEra's lack of honesty and integrity throughout the consultation process. Overall, consultation was a sham. NextEra lied, avoided residents of Mapleton's questions and gave half answers. This repeated itself public meeting after public meeting. An

example of this is the 142 errors that PMI found in NextEra's REA documents, see Appendix F attached.

Mapleton Township also dealt with NextEra and were equally frustrated. Residents as well as Township councillors found NextEra was often unavailable. Mapleton's former mayor and former county Warden of Wellington County, John Green, stated in December, 2009, dealing with NextEra is like dealing with a ghost.

In the process of drawing of the Development Agreement, Township was doing a thorough job of going over the proposed agreement to put the citizens of Mapleton's concerns first. NextEra became impatient and sent Mapleton Township a letter which claimed they were purposely dragging their feet, and furthermore, if Township did not improve its process, NextEra threatened legal action against Mapleton (Appendix G). This does not exemplify a company that wants to do business in one's community. NextEra was bullying Mapleton into complying with them. The commitment that NextEra guarantees to the community they work is not there, our trust in that has fallen short. Other communities have experienced the same thing as Mapleton, see Appendix H attached.

However, NextEra's issues with this does not remain solely within Mapleton Township. One very poignant example exists in Nova Scotia, where NextEra owns and operates the wind farm Pubnico Point. Nicole Geneau, a representative of NextEra (also Conestogo Wind LP's project manager) has gone on the record several times stating, "...her company is the largest owner and operator wind turbines in North America with 8200 operating in 65 different projects across 24 states and two provinces. I have not heard one single complaint. That tells us the process we're using is working." On August 11, 2009 in the Walkerton Herald-Times she is quoted as saying this very thing (<http://www.walkerton.com/walkerton/article/74229>). What the press and general public did not know at the time Ms. Geneau said this, was on July 25th, only two weeks prior to this statement, Geneau, Josie Hernandez, and Winston Kutte (all NextEra reps) were sitting at Mr. Daniel D'Entremont's kitchen table discussing the D'Entremont family's negative health issues that they were experiencing since Pubnico Point Wind Farm began operating. In 2006, D'Entremont along with his wife and kids, abandoned their family home located directly adjacent to the Pubnico Point Wind Farm because their home was inhabitable due to excessive noise from the turbines that were making his family sick. On July 25th, the NextEra reps told D'Entremont they didn't know what they could do for him, that he would have to walk away and start over, and that NextEra did not have enough money to offer any compensation. NextEra lied to the D'Entremonts and lied to the public. NextEra boasts about their billion dollar company, but yet have nothing to offer a family who is suffering daily. The Pubnico Point Wind Farm falls under the larger company umbrella of NextEra Energy.

Gordon Whitehead, B.S., M.A., Aud (C), Audiologist from Nova Scotia conducted sound level measurements on May 23, 2006 at the D'Entremont home. His findings (see Appendix I) support Daniel D'Entremont's complaints that the turbines were making his family ill. Ms. Geneau lied to the public when she stated that there were no complaints. Mr. D'Entremont supplied evidence that his complaints were legitimate, which Geneau chose to ignore.

Confidentiality clauses or "gagging" clauses are common practice in the United States and Canada. They are often used to protect sensitive technical and commercial information, patent rights, an what information can be disclosed. The information that can be classed as confidential is *virtually unlimited*. These *limits to disclosable and nondisclosable information* are defined per each contract (<http://www.tms.org/pubs/journals/jom/matters-9405.html>).

NextEra naturally uses these types of clauses in their option to lease contracts/agreements signed by landowners. What is defined as nondisclosable information in these contracts is disturbing and borderline criminal. In a participation agreement (see Appendix J) from North Dakota, the signee or landowner grants the operator, NextEra, the rights to use, maintain and capture the free and unobstructed flow of wind currents. The landowner is not allowed to, in any way, disrupt this flow of wind (whether a new building, planting of trees, etc.) Furthermore, the landowner grants a non-exclusive for sounds, visual, light, flicker, shadow, vibration, wake, electromagnetic, electrical and radio frequency interference, and any other effects on the property caused by the wind farm (these will be collectively referred to as "effects"). The term of these easements is 99 years or as long as any wind turbine operates within a 1/2 mile radius of the landowners residence. In another section of the contract the landowner agrees to

release the operator, NextEra, from any and all claims for damages arising from any injury or harm or conditions related to their property, uncluding but not limited to, any harm or loss due to nuisance, trespass, disturbance, effects (see previous list), diminishment or interference with the ability to use or enjoy the property, and any other injury or harm of whatever kind of character, to persons or property...

Has the OEB ever contemplated why there seems to have been very little to no complaints coming from the people who live the closest to these turbines, the landowners who signed? It is because the landowners that sign these contracts have absolutely no knowledge of any complaints or issues with turbines. Because of these clauses, landowners suffering ill effects from having turbines on their properties cannot speak out to warn the public what can happen if you allow turbines on your land. Shame on NextEra. It is dispicable that NextEra is knowingly subjecting people to these possible effects without any voice to warn other and get help.

Mr. Marc Laurie from North Dakota (Laurie sent in the participation agreement, Appendix K) has attached a letter to the front of the agreement gauranteeing the authenticity of the copy of the agreement. In his letter, Laurie says the NextEra rep found if non-participating landowners received money and signed the agreement this method ensured fewer complaints. Money is not the answer to these issues. One must be "very, very committed to turn down cash because he doesn't think it's right to sign a confidentiality clause. One of the most important facets of common law is to hold up the guilty party to public accountability."

(<http://www.telegraph.co.uk/finance/4460592/Gagging-clauses-that-hide-the-truth.html>)

Owning up to these effects is a step towards integrity. Unfortunately, NextEra did quite the opposite. In the Ashtabula Wind Farm located in North Dakota, Jim Miller encountered this very problem. Mr. Miller was suffering from problems of noise and shadow flicker caused by the turbines near his home. NextEra's solution? To offer Mr. Miller 15 000 dollars and sign a release contract to accept the problems, therefore silencing Miller of further complaints of issues (Appendix L). NextEra did not offer to repair the damage or fix the problem of noise and shadow flicker. One suggestion Miller offered to NextEra's Scott Scovill, was to turn the turbines off during the problem hours. Scovill's response was "we're not shutting them off." NextEra seems more concerned with the income they will lose from having these turbines off during the times they create problems, than Miller's well-being. NextEra's bandaid approach of throwing money at people with valid complaints, is not honest business. A business with integrity does not pay their problems to go away, they deal with them and face them. Based on the above PMI believes NextEra lacks honesty and integrity and opposes the granting of a licence to the applicant.

### The Application Forms

On page 4 of the form "Application for an Electricity Generation Licence, Feed-In Tariff Program", section 7(b)(iii), the applicant answers No to the question, "Does /will the applicant own and operate a transformer station or distribution station that is used to transform the voltage of electricity at a generation facility described in subsection 7(a) on a transmission line or on the distribution system of a local Distribution Company?"

In the Conestogo Wind Energy Centre Project "Revised REA Documents" September 19, 2011 in the section identified as Reports Tab 1, page 3, subsection 1.6.2 Electrical System, it is noted: "The electrical substation for the project will be located west of sideroad 17 south of the sixteenth line. The substation will consist of a 34.5kV/44kV transformer and associated ancillary equipment."

Is PMI misinterpreting the question on P4 section 7(b)(iii) of the application form to which NextEra answered No (this is the reason why PMI requested an oral hearing) or is this another example of NextEra's version of honesty and integrity. PMI requests the reason for NextEra's answer to the question pg 4 7(b)(iii) being No when clearly a transformer will be on site at this project.

Concerning the application form pg 6 10(b) regarding the refusal, suspension, revoking or cancelling of a licence for marketing energy, PMI finds it difficult to believe, based on our dealings with NextEra, that the applicant is able to answer No to the question 10(b).

Previously in this submission, PMI referred to the safety issues relating to NextEra's 22 year-old Seabrook nuclear power plant in New Hampshire USA - a power plant "with documented safety issues" according to Massachusetts's Representative John F. Tierney ([http://en.wikipedia.org/wiki/seabrook\\_station\\_Nuclear\\_power\\_plant](http://en.wikipedia.org/wiki/seabrook_station_Nuclear_power_plant)). These safety issues resulted in legislation being introduced which "was specifically aimed at Seabrook Station" by reps Tierney and Markey from Massachusetts in September 2012. If this legislation passes, NextEra will be refused a 20 year renewal of their licence from the Nuclear Regulatory Commission. PMI will closely monitor this situation.

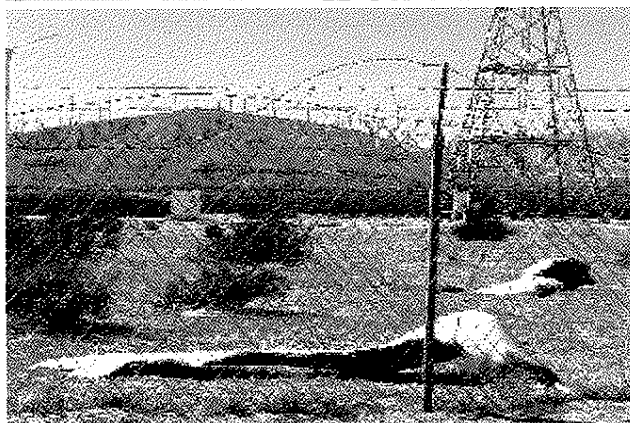
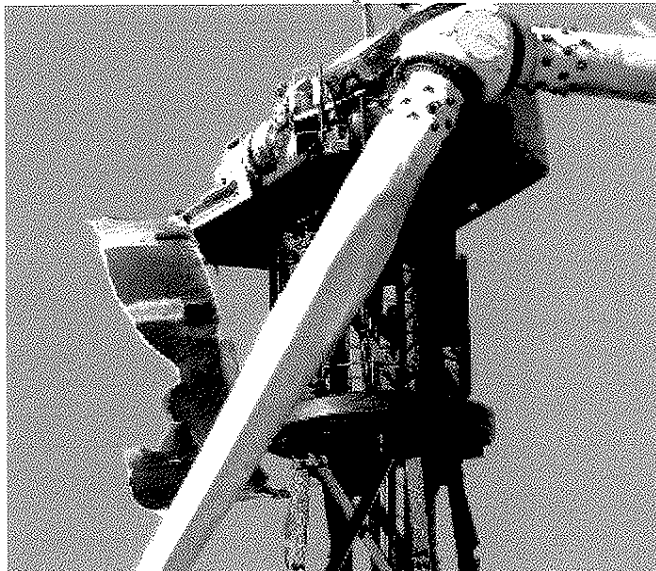
It is hoped that the OEB in reading this submission will realize the frustrations and betrayals that PMI feels in their dealings with the Ontario government and NextEra. PMI is not only concerned for their community but it is concerned for their own province in light of what wind energy companies and our own government are doing to rural Ontario.

PMI respectfully requests a fax of any correspondence between the OEB and NextEra as a result of this written submission to 519-848-2227.

## Appendix A

Florida's Broken Windmills

### Florida's broken windmills: A California problem



The permit allowing windmills to go in didn't say they could sit there broken. Palm Springs is getting tough. If windmills are going to exist in the city they must be operational. A city that has welcomed windmills since it was first approached about them in the early 1980's is finding that many of those windmills are no longer working and it wants them fixed. The question is who's responsible for fixing them? Florida Power and Light (FPL), the owner of the inoperable windmills, was allowed to install and operate local windmill farms under a conditional use permit (CUP) stipulating if the windmill does not run for six months, it's declared a public nuisance and without a hearing, must be abated. ...So far FPL is all talk and no action as it has not been able to satisfy the city's or landowners' concerns. October 28, 2008 by Jackie Devereaux and staff in Desert Valley Star

The permit allowing windmills to go in didn't say they could sit there broken. Palm Springs is getting tough. If windmills are going to exist



in the city they must be operational.

A city that has welcomed windmills since it was first approached about them in the early 1980's is finding that many of those windmills are no longer working and it wants them fixed. The question is who's responsible for fixing them?

Florida Power and Light (FPL), the owner of the inoperable windmills, was allowed to install and operate local windmill farms under a conditional use permit (CUP) stipulating if the windmill does not run for six months, it's declared a public nuisance and without a hearing, must be abated.

Most of these non-working windmills are owned and operated by FPL. The giant energy company leasing the land says it fully intends to comply with all city requests. "We are keeping them informed of how we'll respond to the city," said Steven Stengel, Director of Corporate Communications for FPL located in Juno, Florida.

"In early 2008, we began a 12-month plan to repair turbines that need it. That process will be on-going 'til we have all repairs done in early 2009," Stengel added. "We're in communications with the city and we know the deadline to respond. We will provide the city with a detailed plan. We will sit down and discuss issues and interest," he said.

That plan is apparently not acceptable to the city of Palm Springs. Unable to get FPL to comply, the city has now turned to the owners of the land where the windmills are located. Palm Springs code enforcement says it was forced to send land owners letters of intent to proceed with abatement unless more than 100 broken or malfunctioning windmills are fixed.

"We started the code enforcement with the property owners. They receive payment from FPL to install, operate and maintain the units," Ewing said. "We told the property owners they were ultimately responsible to put pressure on them (FPL) first," Ewing added.

While FPL may be ultimately responsible, the city has only the property owners on the hook regarding windmill operations, he said. Local property owners say they don't want punishment as "good windmill operators" suffering bad press due to the FPL neglect. They just want the windmills fixed. But, they say, they can't do anything to fix the windmills they don't own. The company in control of the repair wrenches is in Florida (FPL).

Landowners include: David Buck of Reno, NV; Wintec of Palm Springs; ChemQuest Corp of Sylmar; Wellesley Rolland Kime of Valley Village; William Leighty of Juneau, Alaska as well as Victoria Rosenthal of southern California.

The pressure applied by the city has apparently gotten FPL to at least come to the table but city officials, after months of effort, are

still not convinced FPL will finally take action.

"We will meet Wednesday with representatives from FPL to discuss the matter," said Craig Ewing, Director of Planning Services, overseeing code enforcement for the city and who sent the letters. So far FPL is all talk and no action as it has not been able to satisfy the city's or landowners' concerns.

The problem also caught the attention of Riverside County. Riverside County stepped up efforts to bring more attention to a number of wind energy generation issues. "We've created a Wind Advisory Committee looking at several issues," said Steven Hernandez, Legislative Assistant for 5th district Supervisor Marion Ashley.

"We want to bring FPL into compliance with the conditional use permit. We also are looking at ways to promote wind energy by looking at new areas for development and possibly fast-tracking" any requests, Hernandez said.

"We want to promote 'Re-power' which means replacing older less efficient models with newer ones generating more power," Hernandez added, without commenting on the lack of county enforcement.

The six landowners who received letters are concerned because they are in a Catch-22 situation. They leased land to FPL to erect, maintain and operate wind energy generators visible on both sides of Interstate 10 between Palm Drive and Whitewater. However, the landowners are in no position to repair or replace any of the outmoded, broken or malfunctioning turbines. That responsibility falls on the laps of FPL.

As part of its investigation into this story, Desert Valley Star contacted several wind turbine maintenance employees. One of those workers, who insisted his name not be used out of concern for his employment, said FPL is known for having many non-working windmills and lax maintenance.

"They do not maintain the type of maintenance support needed to keep the machines flying," he said. The word "flying" is a term used by maintenance crews in reference to a running wind turbine. "It's pretty common knowledge," he said, "and that's sad because there's lots of good windmill operators."

That seems confirmed by the city's unsuccessful attempts to obtain compliance with the CUP ordinance, in part due to the distance of the energy company and FPL lacking a local office here. Requiring maintenance and working windmills is the norm across the country. FPL just doesn't seem able or motivated to resolve the problem.

Meanwhile, abatement, the process of removing a windmill, looms. If the city compels abatement, then the salvage value could be equal to the cost to remove. Obviously, the appeal of re-powering a wind farm remains more economically attractive than reverting back to a non-production. Still, FPL remains behind the curve, allowing neglect

and disrepair to define local operations.

Complaints about these non-working windmills provoked the city to act. According to Ewing, he sent the six property owners letters addressing the issue with deadlines attached. "The property owners receive income from leasing these lands and operating rights to FPL."

"We welcome the city initiating (the abatement process). We've tried for years without success to get FPL to maintain its equipment in a safe and proper fashion," said Fred Noble, President of Wintec Incorporated and one of the few local landowners available for comment. Noble added it was important to distinguish several issues. Landowners are frustrated that no action is being taken and are made to appear "the bad guys." Additionally, FPL's reluctance to correct the broken windmills puts a black-eye on the entire windmill industry. "It's important to distinguish who the good guys are," Noble said.

The style of FLP's problem windmills is distinctive. The Kenetech 33 or (KVS 33) design looks like a mini Eiffel Tower-style with steel supports on a concrete shoe. This older model from the early 1990's is now discontinued. According to a Desert Valley Star investigation, there are more than 100 non-operational windmills in the desert. (See photos).

According to industry insider's, this Kenetech model is known to throw blades. In some cases the "clamshell" or "mushroom cap" unit atop the motor unit (the nacelle) blows off. In a few instances the nacelles exploded. Some wind energy spokespeople say it is only a matter of time until someone is seriously hurt or killed by one. The threat is nearer than you think. Some windmills lie perilously close to Interstate 10 and easily seen by freeway drivers. If a blade or nacelle is thrown it could theoretically land on the freeway and kill someone. Older windmills, especially the KVS 33, create well-documented public safety issues.

The letter from Palm Springs received by the land owners is asking for an accounting of all windmill history for the last five years, including electrical output. That accounting is up to the landowners to supply. Landowners can't do much more.

Ultimately, it is up to Florida Power and Light, meeting with Palm Springs officials today, to solve this windmill problem.

**Web link:** <http://desertvalleystar.com/Floridas-Broken-Windmills-10-29-08.html>

Appendix B

## Energy Matters

Roger Witherspoon

Posted by: roger6t6 | April 28, 2010

### St. Lucie's Safety Rating Among Nation's Worst

**By Roger Witherspoon**

Continuing problems with critical safety systems at the St. Lucie nuclear power plant has resulted in the Nuclear Regulatory Commission downgrading the site's status to among the worst run facilities in the nation.

The NRC dropped the plant's designation in its color coded rating system from green – which is given to the best run plants – to yellow, the second lowest designation, asserting that the problems at the plant “have substantial safety significance.”

At present, none of the nation's 104 operating nuclear reactors have a “red” rating, the lowest safety classification, and only the Browns Ferry plant operated by the Tennessee Valley Authority currently shares the “yellow” rating.

The downgrade means the plant will be subject to the regulatory agency's highest level of scrutiny, with frequent inspections by special teams supplementing the daily reviews by on site, resident inspectors. Florida Power and Light, which operates the plant, has until May 19 to appeal the NRC's findings.

The yellow finding was the result of two, related, major issues noted by inspectors which are violations of NRC regulations and the plant's operating license. Nuclear power systems have several interconnected, pressurized systems carrying cooling water, steam, and backup fluid for the reactor, its service components, and the actual power generator. In this case, the main violation stemmed from a leak or leaks within the closed system providing cooling water serving the pumps circulating cooling fluid within the reactor itself. If this pump system failed, the pumps could overheat and fail, leading to a loss of coolant within the reactor and a meltdown of its 100 tons of fuel. That scenario – a loss of coolant accident – is the worst that can happen in a nuclear operation.

The NRC sent a notice to FP&L and the nation's other nuclear power plant operators in 2008 to inspect for possible gas accumulations in the emergency corps cooling systems. The

problem at St. Lucie came to light in February when an NRC inspection team was following up on that two year old order and checking the condition of plant's cooling system.

"The component cooling system is fairly large," explained NRC spokesman Roger Hannah, "with hundreds of thousands of gallons of water. The problem was in the seals for the pump system. They got air into the system, but once they identified the problem, they didn't correct it."

Initially, said Hannah, staff at St. Lucie did not understand why the performance of the cooling system was deteriorating and a special inspection team was sent from NRC regional offices to examine the situation. "They knew there was an air intrusion, but they were unable to identify the source of the leakage," said Hannah. "We were able to identify that it came from seals in an air compressor."

But after being informed that the deterioration stemmed from leaks in the air seals, St. Lucie staff did not immediately fix the problem, which was a violation of their operating license. It is for this reason that the plant was cited for two major violations: failing to diagnose the problem, and then failing to promptly fix it. The ability to find the source of problems, called a root cause analysis, is a major requirement of the NRC for plant operators to run nuclear systems.

"This issue illustrates the importance of promptly identifying and correcting problems," said NRC Regional Administrator Luis Reyes. "While there were no actual safety consequences, air in that system could have lessened its capacity to cool plant safety equipment."

Posted in [Nuclear Energy](#), [Uncategorized](#) | Tags: [cooling system deterioration](#), [Florida Power & Light](#), [NRC](#), [nuclear safety systems](#), [nuclear safety violations](#), [St. Lucie Nuclear Power Plant](#), [yellow rating](#)

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- Exelon
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Appendix C

## Energy Matters

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**Regulators Cite FP&L For Safety Violations**

Posted: 22 Jun 2010 10:37 PM PDT

**By Roger Witherspoon**

Federal regulators have fined Florida Power & Light \$70,000 for improperly maintaining hundreds of tons of highly radioactive spent fuel at their Turkey Point 3 power plant near Homestead, in violation of their operating license.

The fine concludes a six month investigation by the Nuclear Regulatory Commission into the degradation of chemicals in the spent fuel pool designed to prevent fission between the thousands of 12-foot-long fuel rods in an under water storage pool.

This is the second nuclear facility owned by FP&L to come under NRC fire in two months. In May, continuing problems with critical safety systems at the St. Lucie nuclear power plant resulted in the NRC downgrading the site's status to among the worst run facilities in the nation.

The NRC dropped the plant's designation in its color coded rating system from green – which is given to the best run plants – to yellow, the second lowest designation, asserting that the problems at the plant “have substantial safety significance.”

At present, none of the nation's 104 operating nuclear reactors have a “red” rating, the lowest safety classification, and only the Browns Ferry plant operated by the Tennessee Valley Authority currently shares the “yellow” rating. The downgrade means the plant will be subject to the regulatory agency's highest level of scrutiny, with frequent inspections by special teams supplementing the daily reviews by on site, resident inspectors.

The problem cited at Turkey Point 3 by the NRC involves one of the most critical safety functions in a nuclear facility. That is, failure to prevent fission in the 1,200 fuel assemblies in the spent fuel pool would cause them to heat up, just as they would in the operating reactor. If that happened, the water covering the fuel rods would boil away. That would allow the exposed fuel rods to reach “critical mass” and erupt in a nuclear fire and meltdown releasing far more lethal radiation than an actual nuclear explosion.

In this case, both NRC and FP&L officials assert that there was never any danger to the public of possible loss of control of the spent fuel pool. But there were fluctuations in its safety margins, and the methods used at the nuclear plant to restore these margins and maintain control of the pool were not approved as part of FP&L's operating license.

Due to the complexity of commercial nuclear power plants and the wide-ranging ramifications following a catastrophe, every major aspect of the plant's operation must be documented in series of design drawings showing every circuit and system. These form the “design basis” on which a company is licensed to operate a plant. Any deviation from the design basis must be tested by the NRC for its effectiveness and approved as a licensed deviation. Violating the design basis can result in the NRC ordering increased inspections, fines, or a shut down.

In this case, the racks holding the 1,200 fuel assemblies have panels of Boraflex – a neutron-absorbing Boron compound – which slide between the fuel rods and acts like a magnet, capturing the neutrons. A decade ago, the NRC issued a general “information notice” to utilities that the Boraflex may dissolve over time and lose effectiveness. That is of particular concern to older plants like Turkey Point 3, which was designed in the 1950s and 1960s and came on line in 1972. Its fuel pool is licensed to house 1,500 fuel assemblies.

According to NRC spokesman Roger Hannah, Turkey Point 3 officials realized at some point last year that the effectiveness of the Boraflex was waning and they added a soluble boron solution to the spent fuel pool water rather than replace the Boraflex panels in their storage racks. FP&L officials did not notify the NRC when they discovered the problem, nor did they have permission from the regulatory agency to unilaterally use an alternative solution.

In a statement accompanying the announcement of the fine, the federal regulators said that “in December 2009, the NRC became aware that the neutron-absorbing material called Boraflex in the Unit 3 spent fuel pool had degraded below the levels spelled out in the plant's design basis documents. Although FPL had taken compensatory measures including the addition of soluble boron, the regulatory requirements that ensure the spent fuel pool remains safe were not met.

“The company's actions ensured the pool's condition did not pose an immediate safety concern, but the NRC found that FPL did not promptly identify and correct the condition.”

Hannah said “the important thing is that this did not rise to a criticality issue because they added increasing levels of soluble boron. But that was not allowed in the technical specifications and was not in compliance with the regulations.”

The problem with the Boraflex coating is that it flakes off over time, in the form of deposits of silica salts and boron in the pool, and can cause fluctuations in the temperature of the spent fuel pool itself. In this case, the material had been decaying and accumulating for quite some time before Turkey Point 3 operators noticed that there was a problem.

“If they had seen this early on and filed for a license amendment to change the design basis documents,” said Hannah, “or had come back with a different solution which would have been part of the license amendment that would have been OK. But it was some time before they actually noticed and reported this.”

FP&L spokesman Michael Waldron said “we monitor the spent fuel pools on a real time basis and at any given time we understand what is going on in the spent fuel pool.”

Waldron did not, however, address the issue of the reporting delay cited by the NRC, why the company belatedly realized it had a problem, or why it did not seek permission for an unapproved solution to the boron problem.



"We did the appropriate testing," said Waldron. "Through engineering analysis, we determined that there was some degradation out of only one cell (among 1,200). Based on that, we took compensatory measures that more than offset any issues related to this one cell.

"We also inserted control rods to stop the movement of neutrons. There was never any safety issue. We manage our spent fuel pools extremely conservatively."

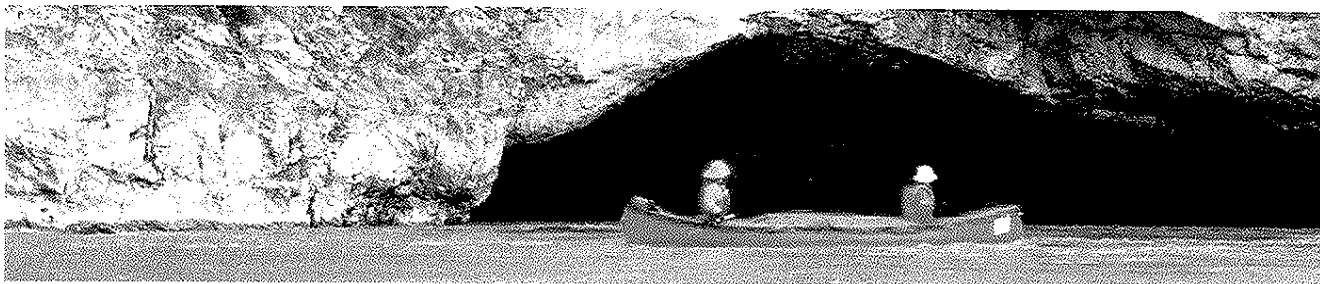
17

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Appendix D

Environmental Law and Litigation

News and analysis (not advice) by a top Ontario environmental lawyer



## Texas wind lawsuit a sign of things to come?

by Dianne Saxe on September 13, 2010



Welcome **Googler!** If you find this page useful, you might want to [subscribe to the RSS feed](#) for updates on this topic. X

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A major Texas wind lawsuit has underscored the importance of proper contracts to allocate the common risk of inadequate transmission capacity.

1

Tweet

Three wind farms owned by NextEra Energy Resources LLC agreed by contract to sell annual minimum quantities of renewable energy (as both credits and wind-generated electric energy that produced those credits) to Luminant Energy Company, an electrical wholesaler, starting in 2002. The wind farms failed to deliver those quantities, allegedly because of inadequate transmission capacity in the grid. Luminant sued to recover \$29 million in liquidated damages, for 2002 through 2005. The contract provided a liquidated penalty of \$50 per megawatt hour for renewable energy and credits the wind farms failed to deliver.

The wind farms counterclaimed, claiming that their shortfall was due to failure (by Luminant and others) to supply adequate transmission capacity by upgrading their lines and facilities. As a result, ERCOT, managed by the Electric Reliability Council of Texas, forced the wind farms to reduce production. Luminant denied any obligation to provide the windfarms with adequate transmission capacity.

In July, the [Dallas Court of Appeals \(Fifth District\)](#) ruled against the wind farms. According to the court, Luminant's explicit obligation to provide transmission services did *not* require it to provide all the transmission capacity that the wind farms needed to meet their contractual commitments to deliver energy. Accordingly, the liquidated damages provision is enforceable. The case was remanded to the trial court to determine the quantum of liquidated damages.

Similar issues must be addressed in Canadian wind energy contracts, since transmission constraints frequently occur. I wonder if the Texas wind farms will be suing their lawyers next?

Tagged as: [capacity](#), [contract](#), [damages](#), [electric energy](#), [energy](#), [energy future holdings corporation](#), [energy in the united states](#), [energy resource](#), [Green Energy](#), [inadequate transmission capacity](#), [lawsuit](#), [liquidated damages](#), [liquidating](#), [luminant](#), [luminant energy company](#), [nextera energy resources](#), [renewable electricity](#), [renewable energy](#), [risk allocation](#), [sustainability](#), [texas](#), [texas wind](#), [transmission](#), [transmission capacity](#), [transmissions](#), [wind](#), [wind energy](#), [wind farm](#), [wind farms](#), [wind power](#)

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## Appendix E

We want to start at the beginning when Next Era was procuring land from farmers in our area (including us) to lease in order to erect industrial wind turbines. We were initially told that they were looking to put up 5 in our area, which incidentally became 10! Shortly after they began this process they told us that they had enough neighbors signed up to go ahead so if we were going to look at them (industrial wind turbines) anyway we might as well sign on too. We were invited to a meeting at the Drift Inn restaurant in Drayton in the spring of 2009 where again we were told that they had enough to go ahead with a 5 turbine project, when indeed they did not because the 2 key landowners to the project did not sign a contract until weeks after this meeting! After several high pressure visits we told them not to come back because they lied to us and everyone else in the neighborhood and we were not interested in dealing with a company that used deceit to get what they want. Instead of pitting neighbor against neighbor why did they not have a meeting right at the beginning to inform every one of their plans and let us make a decision as a neighborhood. Neighbors that were not approached had no idea what was going on but they will also have to live with the consequences of this project which has the potential to negatively affect some residents' health. But Next Era chose to sneak around giving people false information to get what they wanted! So here we are today with the prospect of a 10 turbine project which they said would be 5. Most people would consider the tactics used to get the contracts signed borderline criminal but I guess if you are a wind company it is ok! But, it is not ok because it was a bullying tactic to achieve their ultimate goal to get their hands on some of the lucrative money the Ontario government is offering for renewable energy. Needless to say our neighborhood will never be the same and we are concerned about having Next Era as our neighbor. It was evident to us that they were only concerned about themselves and not about us. The integrity of Next Era needs to come into question because of what happened in our neighborhood.

John & Diana Krul

██████████

Appendix E

19

## farmers letter for OEB

From: **Jitske DeJong** [REDACTED]  
Sent: October-12-12 9:49:54 AM  
To: 'Jeff & Elissa Krul' [REDACTED]

Hi Elissa

I tried to write something up, If you have any suggestions how I could "improve" my letter feel free to say so.  
I don't remember much of my conversations with these sales guy's.

In 2006 I was approached first by a man who asked if I was interested in putting up a windturbine. I told him I was not interested.  
A little while later there was a lady coming to our door who wanted to know if I was interested in signing a lease for a wind turbine. When I asked her why she wanted me to sign up the only thing she could come up with was, because she liked windturbines and they produced "green" energy. She came back at least two more times to see if maybe I had changed my mind. I did not like this at all.  
I made it very clear to her that I wasn't interested.  
After a couple of years, in April 2009, I was again approached by somebody who worked for Exelco and asked if I was interested in putting up a windturbine.  
I told him, no, I wasn't. The next week there was another guy coming to our door and asked me the same question.  
I also made it very clear to him that I was not interested, This person told me that they were the only Company that had an agreement to deliver electricity to the grid in our neighborhood, so if I wanted to deliver hydro to the grid they were the company I had to deal with.  
These men came back at least two more times to try and talk me into putting up turbines.  
The only reason they could give me why I should sign up with them to put up a windturbine was because I could earn \$ 5000 per KW nameplate capacity and they liked windturbines.  
I was very upset that those salesman were not taking no for an answer, I felt they were pushing hard to have me signed up.

Jitske DeJong

I lived close to the sea for more than 20 years and there was a lot of wind all the time.  
Most of the time in this area there is no wind at all compared to where I lived before.

142 errors  
approx

# Appendix F

*[Handwritten signatures]*

## Comment to NextEra's REA

The following is a list of errors and contradictions in this REA, starting at the beginning of the first binder.

### **Binder # 1**

#### **Section 1- Project Description Report:**

Pg. 1 – 1.2 It states that 2400 hectares of land are in the study area. Actually, only 263.06 hectares of land in the study area is being leased and being used for the turbines. The report also states that 16.2 ha will be taken up by turbines, roadways etc., therefore that equates to 6% of the land leased being taken away from farm production. Yet on page 10 of section 2 it says that 2.5 acres will be used for turbines and roadway. Does this mean that 37.5 acres will be used for the transformer station. This is not accurate and is a significant contradiction.

NextEra is also claiming here that the project will be operational by early fall 2011.

Pg. 1 - 1.3 - It says "The project is east of Alma". In actual fact it is west of Alma. This error we find through out the application.

Pg. 2 – 1.5 Project Facility and Equipment

"buried and overhead 3.4 electrical collector system"

"4.4 kV electrical system" doesn't specify whether these will be overhead or buried.

Yet on page 13 -2.6.1.5 in section 2 – Design and Operations Report says all the electrical lines to the grid will be buried. We also read in this - Section 2, pg. 3 that the 4.4kV lines will be overhead using standard poles. When talking to Nicole Geneau or Tom Bird they also indicate that lines will be overhead. Which is it? Another contradiction on NextEra's part! It's interesting to note here that Nicole has been quoted in the local paper as saying that the lines will be completely buried to the grid.

This section also lists 2 meteorological towers yet in section G – the Water Assessment Report –pg 1 says there's only 1. Which is it? If it's 2, then this has changed from the draft and was not mentioned at the last meeting as change. This is also a contradiction.

Pg. 4 - 2.1 Construction Activities

2.1.1 Geotechnical sampling will also be required. This has already been done in Jan.- Feb.2011. The archaeological are to be clearly marked with signage and setbacks. ~~These~~ areas were not marked during the test drilling. Interesting in section 3 it says that no archaeological sites were found. Page 10 – 4.1. Another contradiction.

2.1.2. – Road clearing- It says that minor modifications may be required. How can the widening of a heritage road scape to 11 meters be considered minor. This will forever alter the roads appearance.

Pg. 5-6 -1.5,1.6 -This page lists the trucks used for delivery of parts for this project. The list does not include all the cement trucks that will be used to put in the 20mby20mby3m foundation for each turbine. This road is extensively used for farming purposes. When the weather is right and with 1 farm on either side of this project (as do other farmers in the area) we have to haul hay, corn etc. from one farm to the other. How will this traffic

Pages  
miss. ref \*

of trucks impede our ability to harvest our crops and provide our cattle with feed?

This is one part of farming that does not wait, when crops are ready they need to be harvested. A steady stream of trucks on the road will make that impossible. How will we be protected?

Pg. 8- 1.12 - It talks about 2 meteorological towers however section G of book 2-Water Assessment Report pg 1 lists only 1 met tower: Which is it, one or two met towers?

2.1.8 - Electrical Collector System- This section only talks about ~~3.4kV~~ and how they will share hydro one poles whereas earlier in this section 4.4kV lines are mentioned and that they will be completely buried. Yet, another contradiction!

2.1.9 - Horizontal Directions Drilling- Is a permit required for this especially from GRCA?

2.1.12- Met Towers - already discussed earlier with only 1 tower indicated in section G These towers are shown in figures 3&4. There is no figure 3&4. Could they possibly mean drawing 3&4? These maps should be labeled correctly to eliminate confusion. These are not shown on the maps in the REA draft. Why were we not made aware of met towers also being placed here?

Pg. 9-10 - Stray Voltage. At the end of the paragraph it says that "Livestock such as dairy cattle are sensitive to these small tingle voltages that are not a health hazard to humans": Here NextEra is admitting that dairy cattle are sensitive to stray voltage. There seems to be no required studies from the ministry, regarding livestock, therefore the ~~1450~~ dairy cattle, 200 beef cattle, 70 horses and 7300 pigs within 1600m from the proposed turbines, have the potential to be negatively impacted. These numbers are substantial. That means potential harm to livelihoods living in close proximity to turbines. It is interesting to note that one of the largest hog operations with ~~5300~~ pigs in Wellington County will be less than 700m from a turbine and one of the largest dairy operations with 600 dairy cattle will be approx. 750m. from a turbine. More studies on the impact of turbines on livestock before this project can go ahead, must be conducted. It was interesting that at public meeting #2 not one of NextEra's employees knew how many livestock farming operations were in the study area. For a company who claim to want to be part of the community this is a piece of information they should know. They simply do not care.

2.3 - Decommissioning

2.3.1 - 5. Foundations will left be in place. The top 1m will be removed and replaced by clean fill. Why is whole foundation not removed?

2.3.2 - Land Restoration Activities -

As already stated how can this historical road scape be restored after 20 or more years of use? The hedgerows must also be removed which include the milkweed that is found there. Milkweed is instrumental in sustaining monarch butterflies. This is not replaceable.

Pg: 12 - Potential Environmental Effects

Why the stage 2 archaeological survey only partially complete? This should have already been completed for inspection at Public Mtg # 2.

3.6 - Provincial and Local Infrastructure

This section states that consultations are already underway with the local and regional municipalities to ensure that any disruptions and road impacts are minimal. No consultations were underway when this application was submitted.

3.7 - Public Health and Safety

*Glenn  
Buckin*

\*

4

\* This says that some individuals may occasionally find the sound from wind turbines under certain operational conditions to be somewhat annoying. Health Canada recognizes annoyance as a health issue. Annoyance can lead to stress which can lead to a number of other health issues. See Brett Horner's comment that has already been submitted. What does NextEra plan on doing for those who find the noise annoying? The mitigation measures found on pg. 16 does not answer the questions.

Pg. 16 – Disturbances to wildlife and birds due to operation of the turbines. Mitigation strategy – adherence to setbacks from woodlots and watercourses. Yet on pg. 13 – 3.2 we read that turbines 4,7,8,& 9 are within the 120 m setback. Another contradiction! Who monitors this, the MOE?

### Section 2 – Design and Operations report

\* Pg. 1- 1.1- Overview

Again 2 met towers listed whereas only 1 is listed on pg. 1 of the water report.

Again a contradiction!

The end of the paragraph refers to Figures 3 & 4. These figures do not exist in the REA.

1.2 – Design Changes...- Changes were made to the overhead lines coming from turbines 9 & 10 to the transformer station along the 16<sup>th</sup> concession because in doing this the potential for harm to the existing house along the route was severe. Originally the lines were to come turbines 9 & 10 to the transformer station and then back again to the grid along the same poles. It made much more sense to run them along to 14<sup>th</sup> the transformer station where there are fewer residences. This should have been considered before these plans were made public. The safety of residents was not considered. What else have they not considered for the health and safety of this community?

Turbine 6 was moved because the landowner was talked into signing all 3 of his parcels of land instead of only the 1 which he had originally planned on doing, with the plan to only use the additional 2 parcels not for turbines but for electrical lines or roadway (which by the way was not possible anyway, so was a lie). Apparently the salesman at the time signed a written agreement to that affect. The landowner wanted turbine 6 moved because of his original wish. This salesman whose name is Alex from Elexeco was very high pressure and used underhanded measures to gain what he wanted. Many of our neighbours were lied to. We told him not to come back because we were not interested but he continued to return. This is not right! We all frown upon those who attempt to scam the elderly, well this high pressure that we felt was no different and the government should not allow it to happen. The REA also says that in moving turbine 6 sound levels will be reduced for some non- participating landowners as well as the visibility.

However, others will experience greater noise levels and greater visibility, which is something that NextEra conveniently fails to mention. The residents to the east of the turbine may experience less noise but the residents to the west of the turbine will experience more. See noise assessment comment.

Pg. 1.3.2 – Electrical System- Again it mentions the overhead 4.4kV power lines using existing hydro poles, where as pg 13 of this section says all the lines will be completely

buried. This contradiction is in the same section. Using the existing hydro poles is a concern for us because the hydro lines as is run very close to our house, with the potential of lines running by the greater the electrical issues such as stray voltage and electromagnetics. The existing poles also run in through our fields, we would like new hydro poles put in place along the road if the lines are to be overhead. We have been told by some hydro technicians that these poles are not able to carry more lines than what they already do. It does not appear that NextEra has done enough research in this area.

Pg. 3 – 1.3.6 - Met Towers

We have previously discussed, again the same applies. Figures 3 & 4 aren't in this REA.

Pg. 4 – 1.4.1 – Natural Heritage and Water Features

\*

It reads that interviews with landowners indicate that crop types that attract bobolinks will not be planted. Does this mean for the next 25 years or the duration of this project? Without crop rotation and the use of some crops such as grasses, the land will lose it's nutritional value.

Pg 5 – 1.4.3 – Noise Study

It says that a noise modeling study was completed. How was this study done and where is the model?

Pg. 6 – 1.6 Design Constraints and Setbacks

An 80m setback from property lines is not far enough if a turbine were to topple over or if a blade were to come flying off. That has the potential to do harm to someone to someone working in adjacent fields. In the winter time the roadway is used for snowmobiling, what happens in the event of ice throws? This seriously endangers the lives of those on a snowmobile.

There are also 4 turbines located closer than 120m. as stated else where in this REA, however this is not what is indicated on this page.

Turbine 10 is only 77m from a woodlot and wetland.

Turbine 6 is only 78m line and turbine 10 is 67m from a participating lot. What happens in the event that the owner wants to sell the property? Can he do so?

Pg. 8 – 1.6.3 – Distance Setbacks- Table

\*

In this table we actually find 5 turbines with distances under the recommended 120m setback from a woodlot or wet land. Else where in this REA, we find this number to be 0 or 4. Which is it? Another contradiction!

Pg. 9 – 2.2- Meteorological Data

“Turbines shut down during extreme weather.” What happens in the event of a tornado. With 3 tornados having come through this area in the last 25 years and 1 of those having come less than 1km in 1996, merely shutting them down isn't going to prevent a disaster.

Pg. 10 – 2.5.1. - Stray Voltage

This is a repeat of pg. 9 of section 1- 2.2.6. Refer to previous comment.

Pg:10 -2.6.1.1 – Land Use

This contradicts what it says on pg. 1 of section 1 – 1.2 overview. This section says that .25 acres will be taken up per turbine including access roads. That equates to 2.5 acres or 1.20 hectare considering 10 turbines. They failed to include the transformer station or construction lay down area. This is very deceiving. However in section 1 – pg. 1, it says 16.2 hectare which is about 40 acres will be taken up. This is a substantial difference.

Which is it? How come we don't know how many km of access roads there are?

16.2 h  
40 a  
\*



Considering these 2 separate statements in the REA, the math does not add up. Does this mean that the transformer station takes up 37.5 acres? This is very contradictory!

Pg. 10-11 – 2.6.1.2 – Visual Impacts

Potential Impacts- This section is backwards. It should read “ many residents may perceive this to be a reduction in the aesthetic quality of the landscape” in Residual Impacts the word should be few. “Few residents indicated that they liked the look of turbines”. When conducting a petition in the study area and beyond in 2009 after the first public meeting (this was given to the municipality) 90% of the residents did not like them and did not want them close by. Since it doesn't specify which area NextEra, the area could be somewhere else.

Pg. 11 - 2.6.1.3. – Noise Impacts

Potential Impacts- “ High winds are anticipated during winter months and summer months when residents are indoors with the windows and doors closed due to weather”. NextEra is making an assumption that during high winds we will be inside. First of all not always – sometimes during the summer we are still outside especially if it is warm outside. High winds doesn't necessarily mean bad weather. Secondly, this statement implies that the noise levels will be higher than allowed but it doesn't matter because we will supposed be inside. On pg. 25 of the consultation report there is question pertaining to tornadoes and their affects on turbines. The answer given by NextEra is “this shouldn't be a problem considering the last tornado was in 1993.” Before making such a comment NextEra should get its facts straight first. In reality the last 25 years has seen 3 tornadoes come relatively close to this area with one of them touching down less than 1km away from the turbines. This tornado came April 20, 1996, the others were in 1985 and 2005, so 1993 is not accurate.

What happens in the event that the noise assessment done by computer model is inaccurate and there are problems?

NextEra claims that no residual impacts are anticipated. What will be done if there are?

Pg. 12 - 2.6.1.4. – Wildlife Disturbance

Who will monitor the number of birds and bats that will be killed and who will pick them up? If that's NextEra responsibility, who checks to make sure that responsibility will be carried out.?

The last paragraph on the page says “turbines used at the project will have no steady lighting to disorient birds”. Yet on the next pg. 2.6.1.5., says that “transport Canada's specific guidelines on the lighting requirement for the turbines will be utilized”

This is also a contradictory statement. Which is it, lights or no lights?

Pg. 13 – 2.6.1.5. – Safety Issues

When addressing the issue of electromagnetic fields as a concern NextEra states that the steel tower will act as a shield. That is not true. Here NextEra also says that the low voltage cable system that conveys the electricity to the Hydro One grid will be buried to minimize exposure to electromagnetic fields. As mentioned else where in the REA the electrical will be overhead from the transformer station to the grid.

Ice throws were also an issue. The mitigation measure or theory by NextEra was highest winds come in the winter months when there are few people on the fields. As mentioned earlier the 80m set backs from a road is too close to prevent ice from being hurled that distance to the road. This road in the winter also serves as a snowmobile trail, but with potential ice throws this is a hazard.

## Pg 14-. 2.6.1.7 – Bird/Bat Activities

“Surveys may be taken at various times through the year to search for bat and bird carcasses”. We read on pg. 20 -3.10 that mortality surveys will be completed bi-weekly. We were also told by the experts at Public Mtg # 2 that carcasses would be picked up bi-weekly a week. Which is it various times throughout the year or bi-weekly? Another contradictory statement!

## Pg 17. 3.3 – Vegetation &amp; Wildlife During Construction

Here overhead electrical lines are mentioned stating that they will share poles with Hydro One. This is one of several places in this REA that we see the contradictory issue of buried verses overhead electrical lines.

## Pg. 18 – 3.5

The Stage 2 archaeological survey has yet to be completed.

## Pg 20 – 3.10 – Post Construction Bat and Bird Monitoring

Why only 3 years of mortality monitoring?

\* Here it talks about bi-weekly mortality surveys for birds and bats. This contradicts pg. 14 2.6.1.7. where it says “various times through the year”.

## Pg. 23

\* It reads for mitigation measures for wildlife disturbance that it adheres to the setbacks from woodlots and wetlands. Yet we know that 3-5 turbines (depending on the section) lie within the required setback.

## Pg 26 -4.1 Public Complaints

\* “Any complaints will be addressed promptly”. We know this to be untrue since NextEra did not respond to emails or phone calls for months. Actually it was late Oct. 2010 when we finally received a response from emails sent. We also know from people in other projects that this statement is not true. (Attached to this comment report are names and problems found in other NextEra projects.)

## Pg. 27 – Emergency Responses

Are the local emergency units such the fire department equipped to handle emergencies 80m high in the tower?

**Section 3 – Construction Plan Report**

## Pg. 1 – 2.1-

Geotech. studies were done in Jan. 2011.

Were all the archaeological requirements adhered to?

## Pg. 2- 2.2

\* Widening side road 17 to 11 m and upgrading 2 culverts will destroy this historic roadway. Present hedgerows will be removed destroying the habitat for monarch butterflies.

\* The construction lay down area is not Figure 3. This is mislabeled which is confusing.

## Pg. 3 2.3

\* The location of the construction lay down area is not in figure 3. Cannot find this map in the REA.

## Pg. 5 – 2.7 – Timing

“The turbine will preferably be put together in late spring or summer”. Of which year?

## Pg. 5 - 2.8 – Electrical Collector System

Again we find the contradiction of overhead or buried cables.

Pg. 7 – 2.11

This section talks about the shared electrical lines that 34.5Kkv but the first line of this section says these electrical lines are 44kV. This contradiction we find many times in this REA. Which is it? We were led to believe that the 34.5kV line is the line used to connect the turbine to the transformer and these lines are to be buried, so why are they shared with already existing lines.

Map of the purposed routing of the line - fig. 3 – This is map is not in the REA. The orange and black line is not found in the legend.

Pg. 7. 2.12

This is one of the areas in which 2 met towers are mentioned. But fig.s 3&4 - where they are supposed to be located, do not exist or are mislabeled.

Pg 10 -4.1- Archaeological Resources

It says that “there are no recorded archaeological sites in the subject area”

Yet drawing 3 found in appendix A shows an archaeological site. This is a contradiction Again we find that after decommissioning no lasting impacts will be anticipated. Again I ask the question how can a road way be widened by 11m and driven on and not leave any impacts.

4.2. – Widening a road and removing the vegetation will alter the land landscape.

Pg 11 - 4.8.1 – Surveying and Siting Operations

This has already been and mitigation measures were not adhered to. The mitigation measure reads that they will drive as far as possible on the road then walk. The trucks drove right to the site.

Pg. 12 – 4.8.2. Road and Lands Clearing

It says that 4 turbines (4,7,8,& 9) will be located within 120m from a woodlot or wetland yet 4.8.6. says there are 3 (4,7&9) located within 120m from a woodlot or wetland.

This is a contradiction.

Pg 13

Here we read that the historic roadway will be widened to 11m and any road improvements will be left in place. In several places within this application it says that the roadway will be restored to its original state. Which is it? Is it yet another contradiction?

Pg. 14 - 4.8.5. – Delivery of Equipment

If there are road closures then that could mean problems for the local farmers who depend on the roadway to travel from one to the other especially during harvest. The crops when ready do not wait.

4.8.6.

3 turbines within 120m from a woodlot or wetland. See previous page.

Pg 15- The rest of this section pertains to mitigation measures taken in the event that an archaeological site is discovered. Who will oversee this and make sure proper measures are adhered to?

4.8.7 Wind Turbine assembly

It again mentions 4 turbines within the 120m setback from a woodlot or wetland. Mitigation measures – no woodlands or wetlands will be disturbed. Cranes and equipment working within 120m could very well disturb the wildlife and who will oversee this?

Pg. 16- Inconsistency pertaining to the 4 turbines again!

#### **Section 4 – Decommissioning Report**

Pg. 1 #2 –Where will this stockpiling of soil be?

# 5 - Foundations will be left in place. However the Green Energy states that they must be removed.

#### **Section 5 – Consultation Report**

This report can be found at the end of this report in conjunction with Appendix I

#### **Section 6 – Aboriginal Consultation Report**

This report was not in the REA draft so could not be reviewed at the public meeting and questioned. Is that acceptable?

Table of contents is in the middle of the report.

Question – Where is NextEra in Ontario?

Where is the map of current and potential projects that is referred to in the answer to the question.

Pg. 10-11

There are many dates listed for when bird and wildlife surveys were conducted, however no permission in which to conduct these surveys was sought, nor permission granted by us or our neighbors so these studies should be not considered, given they were obtained unlawfully.

\* It states here that there is no bobolink habitat within 300m of any turbines. This is untrue since turbines 1 and 4 are 130m or less from hay fields or potential hay fields.

It also talks about 5 turbines being within 120m from a woodlot or wetland.

Pg. 13 – seems to suggest that stage 3 work needs to be done and yet this application was deemed complete without a complete stage 2 study. How can this be?

It would appear that this report is still ongoing so it seems that submitting this application was premature.

Some of the pages in this report are not numbered.

\* One of the table of contents indicates a there is a map with all of NextEra's projects planned for Ontario. This is not in the application.

#### **Section 7 Environmental Impact Assessment Report**

Table 1 – Summary for Woodlots and Wetlands

First column says turbine 4 but it should read turbine 6. \*

\* Turbines 7 & 9 for mitigation measures will limit construction t outside of sensitive timing windows.- who will monitor this?

There will also be ongoing reporting of bird and bat deaths- Aren't the mitigation measures supposed to prevent these deaths from happening and who will monitor this.

Turbines 4 & 8 – They say they will control sediment but how do you control the exhaust and dust and airborne sediment that will be part of the increase in traffic and construction activity.

## Appendix A

### Maps

Drawing #2 - The red circles and orange and black lines are not listed in the legend.

Drawing # 3 – The red circles are not listed in the legend. The inset map shows wrong layout of the turbines

Drawing # 4- The red circles are not listed in the legend. The side roads are incorrectly marked. The inset map shows wrong layout of the turbines. This map also shows that vacant lot receptor (108) is 617m from turbine 10 to be about 250m from the road whereas the vacant receptors along the 16<sup>th</sup> line are about 50 – 75m . This is interesting because if this receptor was placed the same distance from the road turbine 10 would be closer than the 550m setback. This would severely affect where a residence could be placed giving the potential builder no freedom to build where he would like. This is not fair and very misleading to place the receptor where they did on the map. The same applies to vacant lot receptor number 111.

### Appendix B

Map – Drawing 1 on page 4. This is not a current map. This is the original placing of the turbines which is now altered

Natural Heritage Evaluation

Pg. 1 – 1 meteorological tower , this contrary to other sections of the REA.

Pg. 4 – Wetlands- “ In the study area there are wetlands that have not been evaluated”

Why not? Why should this wetland be considered part of the Alma wetland, it should be studied on its own. That makes this REA incomplete.

Pg. 7 – Wetlands Policy

How can we be sure, that with all the wetlands in this study area, that this project will not negatively affect the surface and ground water quality and quantity. Over 400 people depend on this water for their well-being as well as for the well-being for the livestock (over 3000 animals) living in close proximity to the turbines. The aquifer servicing the town of Arthur is very close to this project and how will this affect that source of water.

Pg. 11- site investigation

No one was in to our place to seek permission to evaluate the lands. To survey areas from the road or fence lines is not sufficient.

It also says that fig 1 shows where property access was obtained. This is not correct, it does not show this information.

What does ELC mean – no explanation is given in the legend.

All side roads are incorrectly labeled on this map.

Table 5 – pg. 17

Unit#2- provides bat roosting, amphibian breeding and potential habitat for raptors yet these are shown on fig. 3

Unit #3 – No permission was sought nor granted for this evaluation so should be removed from this REA

In the attributes section it says that there is a small severance residential property contained within the woodlot and is not part of the study area. First of all it's not a small severance its 12 acres in size. And why isn't part of the study area, all of the maps include it as part of the study area.

Unit 6 – how could they know the details of this woodlot if they surveyed from the road.

Units #2,3,4,5,6,9,10,18 & 20 all have incorrect attributes. Hwy 12 is not in the study area.

Unit 20 – on the map fig 7 it says potential for woodland nesting habitat, but that information is omitted in this description. Table 16 – pg. 54- none of these locations are in the study area.

Pg. 19 Unit 6 – How can they know the details of this woodlot if it was surveyed from the road. It says it was surveyed from the road because permission was not granted. I contacted the owner and he said he was never approached for permission. This is a lie.

Pg. 22-23 – windshield surveys done on these properties as permissions was not granted. Were they asked? – considering the above was not asked I would guess that these people have not been approached either.

Pg. 26 – 3.4.5 – Plants and vegetation- This section discusses the extensive searches that were done within the understorey of woodlots ELC 3 & 8. The dates mentioned April 27, June 18 and 24 all in 2010. **This means that on at least 3 occasions NextEra was trespassing on private property. No permission was sought and none was granted. A good part of ELC 3 is ours. On April 27<sup>th</sup>, researchers were caught on this property by a neighbour, Donna Weaver and asked to leave. This was documented and taken up with LGL Ltd. It is distressing to know that even after this incident NextEra conducted more searches on June 18 and June 24<sup>th</sup> in this woodlot without permission. NextEra claims to want to be a good neighbour but this is not being a good neighbour. This is wrong and clearly indicates that NextEra can not be trusted. This study should be deleted from the REA.**

Pg. 43 – 4.2.1 ELC #3 is not mentioned. Why not? Its significant. It also refers to woodlot b/w Wellington rd. 12 and side road 6. There is no side road 6 in the study area.

Pg. 55 - #1 - not in the study area.

ELC numbers on pgs 17-23 are confusing when compared to pgs. 54-57.

Fig. 1

Red circles not listed in legend.

Wrong side roads labeled.

Numbers for turbines and ELC units are the same therefore it is difficult to read.

Fig. 2

Same as for fig. 1

Fig. 3 - Same as above

No bat roosting areas marked as in table

Fig. 6 – the overhead wires go right over top of the houses, is this correct?

Figs. 4-9

Red circles not listed in the legend

Side roads labeled incorrectly.

What is a blade sweep area?

## Binder # 2

### Appendix C - Avifaunal Report for the Conestogo Wind Energy Center

The entire report has no page numbers.

3.0

### 3.1 – Overview

It says 5 surveys conducted in the original study were done in the original study b/t the dates of Jan 3, 2007 and July 1, 2007. The specific dates are Jan 3, Feb 2, March 27, June 6, 7, 8, 29 and July 1. First of all this study is 4 years old. Secondly, how did they gain access to the land without permission to do so. We own 300 acres within the study area with approximately 30 acres of woodlands. No permission was sought to access this land for study. So they either trespassed on our land or did not conduct a proper study. Therefore this study should not be valid and should be disregarded.

#### 3.2.1

353 sparrows of various varieties are listed for the 8000ha study area. That number is ridiculously low.

#### 3.2.2

2 ruby-throated humming birds are listed for this same study area. Again how ridiculous. I should feel privileged because these 2 birds have made my place home.

Woodland breeding birds-if studies were conducted in the woodlands again no permission was granted.

### 3.3 Species at Risk

Chimney Swift- 2 were spotted in this study area (southwest) on July 1. Nextera states that these birds could be nesting in an area house chimney but more likely in a chimney in nearby Arthur. This statement is making an assumption that these birds are nesting in Arthur. Unless they have seen this then they can't make this statement.

No wild turkeys were listed in this southwest study area. This is totally false. We have more than 20 roaming our forest and fields as do our neighbors, so I won't even speculate as to how many there are.

The following are also not listed in this study area-junco, robin, cardinal, whip-or-will, starling, american goldfinch, rose-breasted grosbeak yet I regularly see these birds at my feeder and I am in the study area.

The following had only 1 sighting – upland sandpiper, field sparrow, yellow-bellied sapsucker, blue-gray gnatcatcher, common loon, American bittern, red-breasted nuthatch, hermit thrush, tennessee warbler, yellow-rumped warbler, yellow-breasted chat, lincoln's sparrow, orchard oriole.

36 Blue Jays were seen – this is also a very low number. Again I can say that these 36 blue jays make my place home and sure that I am not the only place with blue jays.

White-breasted nuthatch, eastern towhee, and Baltimore oriole, all have low numbers that were sighted, yet I regularly see these birds, so others must as well.

### Appendix D – Preliminary Bat Likelihood Assessment Report, Environment Screening Study

This study was done June, 2007 which is rather outdated.

It also states FPL Energy not NextEra Canada – Shouldn't this be updated.

Pg 1 – This encompasses the entire study area which changed to a smaller study area, so how is this relevant.

*avoided SAR*

*heard 2 calling in study area*

Pg. 10 – Description of Luther Marsh and other wetlands – these are not in this study area so should not be accepted

Pg. 17 – Table- overall ranking in this area. It says that likelihood for supporting bats remains unknown. This is an assumption, not a fact, so should not be considered acceptable

Pg. 18 – There is an assumption made here to drainage systems- also not acceptable

Pg. 19- Second paragraph – we were not approached to gain access to land - again an issue of trespassing.

Pg. 20 – FMS- wrong location on map – fig 3

Pg. 21

Pg. 23-26

Photo 1– Con B –lot 13 & 14 -not in study area

Photo 2– Same as above

Photo 3- Con B lot 13 – not in study area

Photo 4 - Con A - not in study area

Photo 5 – Con A – not in study area

Photo 6 – Con A – not in study area

Photo 7 – Con A – not in study area

Photo 8 – Con 16 lot 16 – not in current study area

Photo 9 – Con 17 lot 17 – not in current study area

Photo 10 – same as photo 9

Photo 11- Con 17 Lot 18- not in current study area

Photo 12 – Con 17 Lot 19 – not in current study area

Photo 14 – Con 17 lot 18 – not in current study area

Photo 15 – Con 1 lot 20 – not in study area

Photo 16 – Con 1 lot 20 – not in study area

Photo 17 Con 4 Lot 10 – not in study area

Photo 18 Con 4 Lot 10- not in study area

Photo 19 Con 4 lot 4

Not one of these photos is in the current study area, so how are these relevant.

Study - Bat Monitoring at the proposed Conestogo Wind Farm is performed by biologist Rogelio Rodriguez who is from Baton Rouge, LA – Why is this study done by an American biologist and not a Canadian who may be more familiar with Canadian wildlife and their habitats

Conestogo Wind Farm – Bat Monitoring Report & Environmental Impact Study - Nov 10, 2010

Pg. 2 – wrong side road listed – side road 3 should be side road 15

Map-fig. 1 Side road names are all incorrect, turbines 4,5,6 are not located in the right place. Met towers are not on the map.

Pg. 9 -Map – fig 2 – Side road names are incorrect. Red circles not mentioned in legend

Pg. 19. Map – fig-3 – Side road names are incorrect Red circles not mentioned in the legend. Fig 3 is also a found on pg. 11



Pg. 20. Last paragraph states that "turbine locations & other project components are located within 120m" of both bat-002 & 003. Aren't they supposed to be at a distance greater than 120m. Why is this allowed?

Pg 30 Last paragraph – says "the anticipated impacts on natural areas & local wildlife are expected to minimal." The phrase "expected to be minimal" which we find through out the REA does not mean it won't happen and who will monitor that.

#### Bat Monitoring at Conestogo Wind Project

Pg 5 of 14, Map B – met towers 12 & 13 are not close to the study area so how is data taken from these towers relevant to study area.

Pg 11 of 14 – table 3 several dates in Aug 2007 with only of several species of bats detected. O can there only be 1 of a species, there has to be at least 2. So how accurate is this study.

#### Appendix E

Pg 1 FIT letter – needs a stage 2 archaeological assessment. Has this been completed yet? My understanding is they cannot complete this study until May, 2011. So why is this REA complete without it?

Letter from Min. of Tourism and Culture sites 4 nineteenth century farms capes, however there are more within the study area. One of them will be about 800m from turbine 1. Why is this not included in the study? This letter also states that turbine 1 should be sited further to the east. The letter to Tom from Rebecca Sciarra – Manager & Cultural Specialist – Built Heritage & Cultural Landscape planning division also says that turbine 1 should be sited further east. Why has this not been done?

*not any more!  
why?  
- see approval*

#### Initial Heritage Assessment Report

Pgii 3. mentions only 4 farms capes. As already stated there are more within the study area, one of them about 800m from turbine 1. The 4 farms mentioned are on leased property.

Fig. 1 map – this is an old map as it still lists Maryborough and Peel twps.

Pg 7 – not all lots and concessions are listed correctly under township of Peel which should be Mapleton Twp. Twps of Luther and Garafraxa do not exist should be North Wellington Twp. This type of information should all be correct.

Pg. 13 – photos- plate 1 & 3 are taken at side road 5 & 6 respectively. These side roads are not in the study area.

Pg. 15 – Table 2 – CHL 3 describes the property as accessed by a long tree lined drive. This is not true. This driveway is lined by a few trees about half-way down the lane. These descriptions should be accurate.

CHL 4 describes this road as a historic thoroughfare. This no winter maintenance road will be changed forever that is not used by the general public. The vegetation and hedgerows bordering this road will have to be taken away to widen this road. How is this justified?

Pg 17. 4.0 Conclusions- last paragraph

"However the overall scene quality, setting, and character of these farms capes & roads capes will be temporarily altered by the undertaking" What does temporarily mean?

The roads cape will be permanently altered due to its widening. After more than 20 years of usage, this cannot realistically be returned to its original state.

Pg 19- 20 maps figs. 3&4. side roads are wrongly labeled.

Legend –appears on both maps. What does the red dot mean? Transformer 2? There is no red dot on the map.

Fig. 1 –map- side roads not labeled correctly.

Figure 2 – map- red dots not identified in legend

Detailed Heritage assessment Report

Pg. 2 – map- old map that still uses the township names of Maryborough and Peel. This should be Mapleton.

Pg. 8 not all the lots and concessions on the list are in the study area.

Maps – Figures 2,4,5 side roads are incorrectly labeled

Pg. 16 – photos – plate 1 & 3 taken from side road 6 & 5 respectively. These roads are not in the study area.

Pg. 21 – last paragraph – side road 6 is not in the study area

Pg. 27-28 – CHL 6 # 11 – mitigation measures- “ roadway should be restored to existing condition” – as stated else where how can this road be restored after more than 20 years of use. # 13 “ the existing road is not expected to be impacted by the undertaking” Who will monitor this?

CHL 4 # 12 – “ widening to only 6 meters will generally maintain the historic appearance of the road.” – Widening of this road will change the appearance of the road so what will the MOE do if NextEra’s assumption is not correct.

Pg. 33 & 34 side roads labeled incorrectly. Red dots in the legend are a puzzle as they were earlier maps

Pg 40 Why do we not have a printout of all the pictures taken?

Pg 41- 44

These pictures were taken from the vantage point from the ditch, giving a different angle than what you would see from the road. This is misleading. The size of the turbines in these pictures is not accurate. They are entirely too short in relation to the trees and buildings. I have taken pictures from another wind project at about the same distances and same size of turbine and mine are very different. This is misleading and unfair example of what they will look at. In researching other NextEra wind projections in the United States, people have complained that the before and after pictures are very different. What happens in that event?

Fig. 8 shows the blade of the turbine at left to be almost the same length as the tower. Turbine 6 is not in the correct location in relation to the house. It should be located slightly to the right of the house.

Fig. 9. The location of turbine 1 is not accurate because it is not even located on this farm but on the farm to the right or west of it. Turbine 2 should be slightly to the right of the house.

Fig. 10. It says that turbine 6 is obscured. Obscured by what, the trees? It should tower over the trees. It should be to the west of the house in b/w the house and turbine 5. Other turbines are barely visible which is not accurate.

Fig. 11. These turbines are barely visible which is not accurate. If you have driven by any of the turbine projects that are already installed you know how visible they are.

*Widening to 11m*

*\**

*\**

These pictures give a very misleading concept of what this wind project will look like. Is this fair to the community? What will the MOE do if actual photos of the project go ahead, does not match the photos in this application? \*

Fig. 12 – 14 – These profile views are not to scale and misleading. Fig 12 both A & B show this area to be about 430m above sea level, which is correct, however at close examination of the trees and turbines show the trees to be about ½ the size of the turbines. This is not correct. According to these profile views the trees are about 40 m tall. Fig. 13 - D These are trees located at the end of the laneway close to the road which is not accurate. These trees are shown to be about 70m tall. Plan view of section D shows a turbine # 12. There is no turbine 12.

Fig. 14 This profile view shows the trees to be approx. 60m tall.

WHEN WAS THE LAST TIME YOU SAW A 40 -70M TALL TREE IN ONTARIO. THAT EQUATES TO ABOUT 130 -196 FT. An average tree is about 60 ft. \*

If these are the measurements used to project the size of turbines into the photos than no wonder these photos are not accurate.

If these views are not accurate how can we be sure other aspects of this application are accurate particularly the noise assessment. What numbers were used to do the simulation of the photos?

#### Addendum Stage 1 Archaeological Assessment

Pg 1 – map – incorrect townships labeled- Peel & Maryborough

Pg 4 – map shows 12 turbines. What is it 12 or 10 turbines? Side roads incorrectly labeled

Pg 6 – map – same as above

Pg 7 – Table-1 shows 12 turbines, again which is it – 10 or 12 turbines

Pg 8- same as pg 4 & 6

Pg 10 – 12 turbines, side roads incorrectly labeled

Pg. 11 & 12 – 12 turbines, side roads incorrectly labeled, some of the lot descriptions are not correct – lot 7 con 15, and lots 7,8,9, con 15 on pg. 12

Pg 16 – plate 12 refers to turbine 11.

Pg 17 – plate 13 refers to turbine 12

Again we were led to believe that this was a 10 turbine project so where did turbines 11 and 12 come from.

#### Stage 2 Archaeological Assessment (property assessment)

August 2010- Is this correct?

The second page of the report states that turbines 1,2,6&9 remain subject to a stage 2 archaeological assessment which to my understanding can't be done until May, 2011.

Why are there 4 Stage 2 Archaeological Assessments in this REA which I might add are all the same?

There are 2 figure 1's. ?

Pg. 1 fig 1 wrong townships labeled \*

Pg 4& 5 – incorrect side roads

Pg. 9 - Plate 2&3 side road 6 – not in study area

Fig. 2 – mislabeled side roads

## Appendix F

### Conestogo Wind Farm Noise Assessment

This study is not signed.  
Who conducted this study?

Pg. 1 – 2 – Project Layout

Describes this location as east of Alma, which is incorrect

With all the errors in this application referring to location, how do we know, where this wind farm is actually going to be placed.

Pg 3 – 4 - Receptors

States “ for vacant lots, the receptor height was set at the center of the 1 hectare building envelope.” The receptor 108 which is a vacant lot has the potential dwelling or receptor about 230m back form the road. All other receptors on vacant lots are positioned close to the road. This receptor 108 if placed close the road like the others would fall within the 550 m of turbine 10. This would severely limit where a person could build.

Pg. 4 – Receptors con't

The last sentence in this paragraph says that there are 6 participating receptors, 98 non-participating receptors and 16 vacant lots within 1500m of a wind turbine. **This could mean that more than 350 people could be at risk of potential health affects according to the latest WHO guidelines. This is assuming that an average of 3 people live in each of these receptors, which is a very modest figure. A more accurate number is probably closer to 500 residents. Along with that, take into account the more than 3000 head of livestock also living within the 1500m of the turbines. There are also 2 industries within 1500m from the turbines, 1 employing over 30 people and the other employing about 6 people. This area is far too densely populated to host turbines, why is it even being considered?**

When I asked various representatives of NextEra what the population of this area was or how many farming operations there are within the 1500m from turbine, no one could answer that question. With all the bird and bat studies that need to be done, shouldn't this information also be important.

Attachment D- Noise contour drawing – this map has no scale and no legend.

The little black and white circles or little red and white circles are not labeled. Assuming they are receptors, they should also be labeled with the appropriate number.

Comparing this map with the map(D-2) on the back of the page, the turbines are not exactly in the same location. Which one is correct?

## Appendix G – Water Assessment Report

This report is not in the draft copy so we did not have a chance to review it and ask questions or to make comments at the public meeting on Nov. 30, 2010

Pg. 1 - lists only 1 meteorological tower whereas pg. 8 of the project description report lists 2 towers. Which is correct?

Pg 15 – side roads are incorrect and not in the study area.

Pg 16 – Photo 1 – side road 6 – not in the study area

Photo 2 – side road 12 – not in the study area

Pg 17 – 26 – small diagrams are confusing

Photos – some labeled incorrectly and are no in the study area.

After pg 31 there are no pg numbers and all side roads of all maps are incorrectly labeled and not in the study area.

LGL Ltd.

No page numbers

A long list of photo numbers, but where are the photos?

One map has 12 turbines on it.

Genivar

No page numbers.

The forms are difficult to read.

A letter at the end of the report from Michael Ewaschuk dated Aug 27, 2009 mentions the incorrectly labeled side roads, but none of them were corrected.

The letter also refers to turbines 15, 16, & 17. Where are these turbines?

#### **Appendix H – Post Construction Follow-up Plan**

Pg. 10 – Mortality thresholds- Who will monitor this?

#### **Appendix I and Section 5**

The meeting on March 7, 2007 is called public information centre #1 and was hosted by FPL. This should not be considered as Public Meeting #1 because it is named differently and the proponents name changed. Table 7 calls this meeting on March 7, Initial Public Meeting, where as table 8 refers to the meeting on Dec 2, 2009 as Public Meeting # 1. Therefore, the 30 day notification should be applied to Public meeting # 1 held on Dec 2, 2009.

One of the posters at this meeting (March 2007) indicates that the turbines will be 80m tall with a blade diameter of 77m. At Public Meeting # 1 the posters available indicated that the turbines would 80m tall with a diameter of 82.5m. In actual fact the turbines are 80m tall with a diameter of 101m. as stated in the REA. Why did this number keep changing?



The meeting on Dec 2, 2009 was called Public Meeting # 1 so should adhere to the regulation in section 2 of the green energy act, - 30 day notification to the public. If NextEra does not now consider this meeting as Public Meeting # 1, then why call that. This 30 day notification to the public should have been adhered to but was not. It was not put in the newspaper until the 20th of Nov. 2009 at which time we also received our letters notifying us of the meeting. This was less than 2 weeks and not 30 days as required by law. This is unfair to the community and NextEra should not be granted special privileges. This meeting was also held in Moorefield- 20 km away for some people in this study area. This could have been held in Drayton or Arthur considering that the north end of the study area is in North Wellington. This is also unfair. This meeting was only put in the Enterprise News and Wellington Advertiser on Nov 20, 2009. Why was this notification omitted from the Drayton Community News. This is also unfair. Some of the comments to this meeting are not included in this REA. The comments to this meeting were replied to Nov 25, 2010 almost 1 year later. This is **not** a prompt reply

as they say they do. As mentioned in more detail later in this comment letter most of the replies give did not address the concerns raised. Not everyone received a reply. This meeting also indicated that the wind project would be up and running by Dec. 2010. **Public Meeting #2 – Nov 30, 2010**

One of the posters indicated the project would be completed late fall of 2011. There were notifications in the Wellington Advertiser twice, and once in the Enterprise News, Mt. Forest Confederate and the Minto Express. There was no notification in the Drayton Community News, the town in which the meeting was held. My question would be **why?** The Mt. Forest Confederate and the Minto Express are not near this study and are at least 30km away. This is unfair. There was also a piece of important information missing from the Sept 17 issue of the Wellington Advertiser and that was the day comments were to be submitted by Dec. 6. This was also omitted from the letter that we received mid Sept. This information only appeared in the Nov 26 issue of the Wellington Advertiser giving us about a week to make comments. Even though NextEra says that comments could be made in all notifications, it wasn't until Nov 26<sup>th</sup> that they gave us a deadline. This was unfair and was a deliberate act on NextEra's part. The address list used to notify the residents within and 120m adjacent to the study area was outdated with people receiving letters who were no longer in the area, some of them have moved 5 plus years ago. The names of a few people who have been deceased for more than 15 years are also on this list, yet some people including industries were not on the list eg. Canarm Ltd. This list should be up to date.

Pg 4 – 2.2

Why is the Minister of Energy overriding the Ministry of Tourism and Culture. Is this lawful? Why are they rushing the approval before all the reports and studies are conducted as required by the MTC.

#### 4. Municipal Consultation

“actively engaged in consultation” The mayor John Green indicated that he wasn't aware of NextEra even being in the area obtaining signed contracts, so how is this engaging in consultation.

4.1 table 4 – Twp. of Mapleton (staff meeting)- Aug 11, 2009

- introduction of project under new REA process- how did they even know what the new process was if the Green Energy Act didn't come out until Sept. 23, 2009.
- why does the municipality have to assist in getting NextEra an office.
- What does “discuss community commitments” mean and why isn't that disclosed to the public.

Pg. 7 5.1.1

-here again the March 7, 2007 meeting is referred to Initial Public Mtg. not Public Meeting # 1

Issues from Initial Mtg. 1

Concern expressed over potential noise impacts

Answer- refers to Noise study report (appendix F) - How could this have been answer in 2007 when this noise assessment wasn't even completed at that point. The green energy act was not even in place at that time so how can they possibly refer this assessment.

Question asked about power backup indicating that Germany uses backup battery power. Answer – Project will not use battery backup but it does not indicate what it will have.

Pg 9

Concern expressed express about a possible link b/w low frequency noise and neurological damage

Answer – The chief medical officer says there is no direct link b/w wind turbine noise and adverse health affects. This does not address the comment.

Pg 10

Comment- visuals could have been more in depth

Answer – this meeting was a general information meeting and that there would be more specific information at PIC # 2. If this refers to the mtg. held on Dec 2, 2009 and it is called PIC#2 then it should have been under the rules of a second public mtg. That being the notification to the public should have been 60 days prior to the meeting. This answer is given throughout these comments.

Comment concern over night lights

Answer – night lights will be kept at a minimum. Else where in this REA it says no lights will be used. This has already been pointed out within this comment paper.

Pg. 12

Comment – quality of life is reduced by light pollution and reduced visibility of the night sky.

Answer- siting of turbines away from residents where possible. With 98 receptors within 1500m of the turbines how can this be achieved? There are 5 turbines about 5km away from this house and the lights are very visible during the night as well as the turbines themselves during the day. Trees can't possibly hide them. These massive structures are very intrusive.

Were these comments addressed at the time of this meeting and did the answers to their questions come in the mail

Pg. 15

Comment- can you guarantee our quality of life will not change.

Answer- This answer does not answer the question. They will not guarantee our health or livelihood. They do say they care about the community and seek to improve the quality of life.

If this were true why was it necessary to deceive and lie in order to obtain signatures for the leases. We were lied to as well as several of our neighbours. The pressure to sign was outrageous. This can be likened to the scam we read about when comes to the elderly, and any decent person frowns upon that. Well this is no different. Several of those farmers who signed are elderly. They have said to us that they no longer employ the company they hired to do this work and regret that it was done in such a manner. If they truly felt that was than they would start over and null those original contracts. Interestingly the company they said they do not use anymore whose name is "Elexeco" mailed our last correspondence. Could this possibly have been another lie?

They say they care, than why the need to continually try to lie and deceive us. This is discussed else where in this application.

Pg. 16

Comment – I want to see real evidence that these turbines are having no negative effects health wise on any living being.

Answer – The Chief Medical Officer.... – This is not real evidence. This report by Dr King is not peer reviewed



It also says that there will be a communication program in place to address any concerns related to the project.

So far, it is our experience that NextEra has been very difficult to reach with questions or concerns that we may have. How will this be different in the event that the project is approved and concerns arise? In networking with people in other NextEra projects a number of concerns go unanswered. A listing of some of these projects and their problems by NextEra will be included in these comments.

Pg. 17

Comment - will it create stray voltage problems.

Answer- stray voltage is not a wind energy problem

This does not answer the question.

If problems arise with stray voltage particularly in the dairy barn after the turbines are running then indeed it is a result of the turbines. So who will fix the problem? Stray voltage can be problem with dairy cattle, creating a host of issues, this intern can affect our livelihood. NextEra does acknowledge that dairy cattle are sensitive to stray voltage. This project is surrounded by 5 dairy farms and 2 hog farms, all within 1500m of the turbines. More studies need to be done in this area. With all the bird and bat studies that are mandatory, why not livestock studies? Livelihoods have the potential to be in jeopardy if this is not carefully considered.

Also with NextEra's claims to care about the community, than how is it that various employees – Tom Bird, Nicole Geneau as well others at the Public meetings, could not tell me how farms were in the immediate area of the turbines.

Pg.18

Comment – Will visual impacts be considered.

Answer- A visual simulation of the project will be available at the final public mtg.- As stated else where in this comment, the visual simulation is incorrect and does not portray at all what it will look like in reality. In comparison to pictures that I have taken from another nearby project, at similar distances, the turbines are much too small. If you consider that a tree is about 60ft tall and turbine is 550' tall, just imagine what that should look like. In the simulated pictures by NextEra some of trees close to the turbines seem to hide the turbine. This is very misleading, so if this is so, can we assume that the noise study is correct.

Comment- What is the maximum size of this project.

Answer- The maximum proposed size is 12. But the project is 10 turbines.

Pg. 19

Comment- No one would put in writing that the wind turbines will NEVER exceed 40 dBA.

Answer- The answer given does no not answer the question

Not one of the comments on this page were answered according to the question.

How will the MOE monitor the noise levels at nearby residences?

Should the noise be such that one is unable to sleep at night will the MOE come immediately and take appropriate measures?

Pg. 22

Comment – expressed the need for independent health studies

Answer – referred to Dr. Arlene King's health study and one from canwea



This does not answer the question, neither of these studies are third party nor are they peer reviewed.

Comment – Why wind since coal plants are burning cleaner.

Answer – N/A – Why not? This is not a reasonable answer.

Pg. 23

Comment – Wanted research that shows the effect of wind turbines on dairy operations in other wind project areas.

Answer- “ It has not been the experience of NextEra that wind resources have any negative impact on livestock.

This answer we received from all the “experts” at the open house. However on page 10 of section 1 it says that livestock especially dairy are sensitive to tingle or stray voltage.

This statement contradicts what we told at the open house and the answer given by NextEra in this REA.

Studies do show that stray voltage can be a real issue for livestock causes numerous problems. Enclosed is a study conducted by the University of Michigan.

Pg. 24-25

Comment- The danger of tornadoes and turbines and to residents in its path.

Answer- The last tornado recorded was in 1993.

This is incorrect the last tornado in Mapleton Twp. was 2005. Previous to that there was one in 1996 and 1985. The tornado that struck in 1996 touched down less than kilometer from turbine 1. All 3 of these tornados left extensive damage in it's wake.

How do turbines withstand a tornado or will how dangerous will it be for anyone or anything directly in its path.

Pg. 31

Comment – Improper consultation

Answer – NextEra followed consultation requirements

Actually no they have not. Public meeting as discussed earlier in this comment paper did adhere to the 30 day notification. We were given less than 2 weeks. Public Meeting # 1 was only publicized in the Wellington Advertiser and Arthur Enterprise News, it should have also been placed in the Drayton Community News. This meeting was meeting was also held in Moorefield almost 20km away. Why not Drayton or Arthur, since part of the study area is in North Wellington? Is this what you call working with the community?

Public meeting # 2 was in Drayton yet there was no notification of this meeting in the Drayton Community News. Why not?

Pg. 32

Comment – Who will be accountable if my family becomes ill.

Answer – does not answer the question

Pg.33

Too few representatives for the number of people present

Answer- 25 experts in various fields

However most were American and were not familiar with metric.

Many questions were not answered or these so called “experts” did not know the answers.

Comment- How many claims (health/property values) have been settled.

Answer- To date NextEra has never had a documented health claim.

This is not true, there are ongoing negotiations with a gentlemen from Nova Scotia who has been forced from his home due to health issues as a result from the wind project close by.

There are also ongoing issues in North Dakota and Illinois some to do with shadow flicker and health. These examples are enclosed.

Pg. 34

Comment - concern about livestock and no setback for livestock operations

Answer- same as for pg. 17

Comment- concern about livestock and who can we turn to?

Answer – NextEra will have a response plan in place.

This does not answer the question. What will that response plan be and this should already be in place. Once livestock are negatively impacted we need prompt response not a run around while decisions have yet to be made.

Reference to this indicates that it is found in section 4 – Design and Operations report. Section 4 is actually The Decommissioning report. So this is incorrect.

Pg. 35. 5.2.2 Letter

“this letter contained some concerns and numerous baseless accusations which are not substantiated”.

Public Meeting # 2 left most people feeling very frustrated. The so called experts mostly from the U.S. could not answer many questions. Even simple questions such as what the decibel rating is of these turbines could not be answered by many of these so called “experts.” Tom Bird who is project manager could not answer that question. He was to email that info but has yet to do so.

One expert did not know what the < sign meant. When asked what the red circles were the map another expert did not know. There many examples listed in this letter so I won't repeat all them. These are not considered accusations, but are fact! Are they substantiated – I guess not due to the nature of the meeting. Had it been a “consultation meeting” where everyone present would have been able to ask questions and hear the response, than everyone would have been witness to the answer. As it is NextEra can recant on what it said because perhaps only 1 or 2 people heard what was said so it becomes a case of my word against your word. Although in this case many were given the same answers to questions. Considering that Tom Bird is project manager he could answer very few questions. He could not tell me what the population was of the study area or how many farms could potentially affected. Tom Bird was also very good at rolling his eyes at questions which was very condescending. On at least 2 separate occasions Terry Rasmussen was asked to pay attention to questions asked instead of looking very disinterested at what was being said.

Concern – The Dec 6<sup>th</sup> deadline for comment was unfair due to the fact we had only a few days in which to respond following the meeting.

Answer – Comments were requested in both notices published for Public Meeting # 2. Where this may be true, it wasn't until the notice put in the Nov. 25<sup>th</sup> meeting that we knew there was a deadline of only 4 working days, that being Dec 6<sup>th</sup>. This information was absent from the notice in the Sept. newspaper and the letters that we received. This is unfair and a deliberate ploy on the part of NextEra to add to the stress of an already busy time of year.

Repeated attempts to get hold of NextEra throughout 2010 either by phone or email were futile, until about the end of Oct. when replies were finally given.

Concern – Public Meeting # 1 was held in Moorefield, too far away.

Answer – Ontario Reg. 359/09 states that the public meeting must be held in the municipality where the project location is situated.

Drayton is also in the municipality and is much closer than Moorefield, so why was it held in this town as was Public Meeting # 2. Besides that the north end of the study area falls in North Wellington Twp. therefore this meeting could also have been held in Arthur.

Concern – NextEra did not observe the 30 day notification for Public Meeting # 1.

Answer – This was not technically Public Meeting #1 so it was not bound by the 30 day notification.

As pointed out else where in this application this meeting was called Public Meeting #1 on notifications of this meeting, on posters at the meeting and everywhere in this application yet now they say it is not technically Public Meeting # 1. The meeting on March 7<sup>th</sup>, 2007 is referred to as Public Information Meeting or Initial Public Meeting **not Public Meeting #1**. This a poor attempt at trying to get out of adhering to the notification section as stated in the Ontario Reg. 359/09. If NextEra wants to call the initial meeting Public Meeting #1 than maybe they should also adhere to the old system where the municipality had more say.

Pg 36

Concern-nothing changed with the project design

Answer – in fact the changes suggested by (blank) are being made.

At the time of that comment submission no changes had been made and if changes were made than they were not revealed at Public Meeting #2. These concerns were raised well before the Public Meeting but attempts to contact NextEra were futile. It was only after they realized that they could possibly use this as a consultation meeting which is to their benefit, did they finally return phone calls.

Report

These comments were submitted before the Dec 6<sup>th</sup> deadline and thus should have been considered when the MOE was reviewing this REA to determine whether or not was complete. These comments should have been replied to, according to the Green Energy Act.

Considering the number of residents living within 1500m of these turbines, there is very little in this REA addressing possible health issues.

Answer #2 in this report refers to Section3 – Potential Environmental Effects. First of all there is no section in this REA with that title so I'm sure to what they are referring. It goes on to say that noise impact receptors may result in minor irritation to some residents. What exactly does that mean? Are they admitting that there could be some problems? They do not however say what they would do if there are problems.

Answer # 3 – This answer does not make sense and it appears that NextEra is grasping at straws. "After mitigation measures are applied, no residual impacts are anticipated". This section that is referred to 2.6.1.3 talks about noise dBA of 45 and 51, yet the limit is to be 40dBA. There does not appear to be any mitigation measures in place but it does say that after mitigation measures are applied, no residual impacts are anticipated. What does this mean? The word anticipated does not mean there won't be any impacts. This is not

comforting, considering that NextEra refuses to guarantee its claim, that there are no health issues associated with wind turbines. Who will monitor this? NextEra continually throughout this REA refers to the health study by Dr. Arlene King and by Canwea. Neither study, was peer reviewed and Canwea is a lobbyist group who draws much of its support from the government (both provincial and federal). On the other hand the comment submitted by Brett Horner refers to over 100 peer reviewed studies. Therefore this comment cannot be so easily dismissed. It should also be included in this REA as a comment and it is not.

Pg 37 – 6.1

This section makes it sound like NextEra engaged in many consultation meetings and therefore made alterations to the project as a result. As stated earlier the meeting at Tim Horton's with some concerned neighbors came after many attempts at trying to contact Tom Bird. It was only 1 meeting. The former reeve of Mapleton twp. indicated that there was very little contact b/w the municipality and NextEra and the meeting with a landowner was also explained earlier. Turbine 6 was not moved to keep it away from non-participating lands. The reason it was moved is explained elsewhere in this comment but to put it briefly, the landowner had requested that no turbines be placed on that parcel of land and got that in writing. He was talked into signing that parcel for roadway or transmission lines. So if NextEra would have adhered to this in the first place no move would have had to be made. As stated in this section, that as a result of this move the sound and visual impact will be reduced for some residents. While this might be true for the residents to the east of the project, the residents to west and north of the project will have more noise and visual impact.

Where is the Aboriginal report as stated in the title of this section?

Pg. 37 -6. Table 13

Comment – The Project Description Report inadequately addresses potential annoyance effects of wind turbines.

Answer- The following sentence was added “some individuals may occasionally find.. somewhat annoying.”

What does this mean and what's the plan to eliminate this or help those who will be affected? According to the WHO annoyance is an adverse health affect and you can find information pertaining to this in the comment by Brett Horner.

In the consultation section in an email from Tom Bird to Neil Jones he says that he was distracted at the meeting held at Tim Hortons needed information on what was said at the meeting. This is not professional.

Four emails from one individual went without a response. Several people in this area have either phoned or emailed Tom Bird without any response. After several attempts from this house through the year of 2010 we finally got a response in late October.

In another email from Tom Bird to this person, Tom says that construction will begin spring of next year meaning 2011.

A number of comments that were written following Public Meeting #1 are not included in this application as they should be. Why is this? It is my understanding that all comments must be submitted with the REA. Was this deliberately done or is this just another example of NextEra's carelessness!

It is interesting that NextEra puts more focus on the comments submitted at the Initial Public meeting where the comments were more positive and leaving other comments out of this REA. In 2007 little was known of the potential adverse health affects to both humans and livestock. The idea of clean renewable energy at one time sounded like a good thing until more and more problems started coming to light. Problems that the government seemly chooses to ignore in an attempt to ram these turbines through in rural Ontario at no matter what cost. Even choosing to disregard rules and regulation initially set by them.

Consultation Undate Report – no page numbers are given, but on the Drop in Center-Renewable Energy Approval Process the March 7<sup>th</sup>, 2007 meeting that NextEra claims to be Public Meeting # 1 is not even listed as a public meeting. The Dec 2, 2009 meeting is referred to as Public Meeting # 1

On this same page it says that Environmental & Technical studies were completed early fall 2011. The 2<sup>nd</sup> archaeological study has not been completed so this is not true. It states that the draft was available for public review the week Sept 13<sup>th</sup>. This is not true as it was not available until the Sept 22.

45

Attachment 2



Appendix G

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Box 270, TD Centre  
Toronto, Ontario  
M5K 1N2 Canada  
Tel 416.865.0040  
Fax 416.865.7380

www.torys.com

100000

**Date** May 15, 2012 **Client-Matter #** 36009-2001  
**From** Tyson Dyck **Direct Tel** 416.865.8136  
**Page(s)** 5 (including this cover page)

Recipient	Fax Number	Tel Number
Mayor and Members of Council, Township of Mapleton c/o Ms. Patty Sinnamon, Chief Administrative Officer	1-519-638-5113	

**Comments** Please see the attached letter which is being sent to the Mayor and Members of Council of the Township of Mapleton c/o Ms. Sinnamon.

Regards,

Tyson

If there are problems with this transmission, please call the FAX department at 416.865.7950.

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46



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May 15, 2012

**VIA FAX AND EMAIL**

Mayor and Members of Council  
Township of Mapleton  
7275 Sideroad 16, Box 16  
Drayton ON N0G 1P0

Dear Mayor and Members of Council:

**Re: Issuance of Building Permits and Execution of Development Agreement for the Conestogo Wind Energy Centre**

We are counsel to NextEra Energy Canada, ULC ("NextEra") and its subsidiary Conesogo Wind, LP ("Conestogo").

You will be aware that Conestogo is in the final stages of pre-construction of the Conestogo Wind Energy Centre (the "Project"), which received its Renewable Energy Approval ("REA") from the Ministry of the Environment on December 8, 2011. We are writing on behalf of our clients to express their frustration and serious concern with respect to the actions that the Council of the Township of Mapleton (the "Township") has taken to delay the issuance of building permits and the execution of a development agreement for the Project.

We are also writing to put you on notice that, if the Township continues on a course to frustrate the issuance of the building permits and the execution of the development agreement, our clients will have no choice but to initiate legal action to request the appropriate courts or administrative tribunals to compel the issuance of the building permits and to issue such other decisions that would obviate the need for a development agreement. Our clients will also have no choice but to seek damages for the losses that they have suffered and continue to suffer as a result of the actions of the Township, its council members and the officials responsible.

**The Issuance of Building Permits**

As you are aware, since early this year, Conestogo has communicated with the Chief Building Official several times about its anticipated building permit applications. It formally applied for the municipal permits required to construct the Project (for the turbine foundations, turbines, crossings, substation driveway, turbine road driveways and substation foundations) starting on April 12, 2012. On May 9, 2012, the Chief Building Official requested certain additional construction drawings only with respect to the control house building. Conestogo's construction firm is working on this request now, and expects to provide the drawings imminently, as Conestogo has done with respect to all such requests. Given that no further requests have been

- 2 -

47

made for supplementary material related to the building permit applications, it is self-evident that all the building permit applications (other than possibly with respect to the control house) have been deemed complete. We also understand that on May 8, 2012 the Chief Building Official indicated during a Township Council Meeting that all the building permit submissions were in fact complete, which we assume includes the necessary submissions with respect to the control house.

A delay in issuing the building permits will be in contravention of the *Building Code Act, 1992* (the "Act"). Section 8(2)(a) of the Building Code Act, 1992 states that the chief building official **shall** issue a building permit unless the proposed building, construction or demolition will contravene this Act, the building code or any other applicable law. The term "applicable law" is defined in section 1.4.1.3 of the Building Code, which is a regulation under the Act. Under the Building Code, the only relevant "applicable law" is the Project's REA, which was issued on December 8, 2011 and remains in full force and effect, meaning that the building and construction of the Project will not contravene any "applicable laws". Therefore, the Chief Building Official is now obliged under the Act to issue the building permits for the Project in a timely manner.

In this regard, it is worth noting that since January, Conestogo has had several conversations with Township staff, who have advised that Township Council has expressed concern about the appeal of Conestogo's REA before the Environmental Review Tribunal, and have as a consequence been advising Township staff not to spend time on the Conestogo project until the litigation has cleared. In each case, Conestogo has made it clear that despite the REA appeal (and the subsequent judicial review application filed by the same party), the REA has not been stayed and as such constitutes a full and valid approval that is in no way conditional. The fact that the REA has been challenged in a legal proceeding is not a valid basis to interfere with, or in any way slow down, the ordinary approval process.

When we received the following Township Council resolution (dated March 27, 2012), we were concerned that the same motivation was behind it:

The Township directs staff to request that the Chief Building Official provide immediate notice to the Township, through the CAO/Clerk, of any applications for Building Permit submitted by NextEra so that the Township can, at that time, review the application in the context of other required approvals for the Wind Turbine project.

We were struck by the clear implication that the Township seeks to review and assess Conestogo's building permit applications "in the context of other required approvals", which presumably means the REA approval. As you know, the Act and Building Code set out a complete regulatory framework for the powers and duties in respect of building permits. Municipalities have no authority under the Act or the Building Code to be involved in reviewing and assessing Conestogo's building permit applications. As such, the Township has no authority to delay the issuance of the building permits to accommodate such review or assessment. Similarly, the Township has no authority to delay the issuance of the building permits pending the execution of a development agreement with Conestogo. The Act and Building Code do not condition the issuance of building permits on the execution of such an agreement.



### The Execution of the Development Agreement

On January 25, 2012, Nicole Geneau, Derek Dudek and Michael Bogie of NextEra, and Pat Becker of Genivar, met with Patty Sinnamon and Larry Lynch of the Township at the Mapleton Municipal Offices to discuss a draft development agreement that would administer certain of Conestogo's activities in the Township. We understand that at that meeting, Ms. Sinnamon advised that Council had advised her not to spend any time on the Project because of the REA appeal. Conestogo expressed its frustration then, and made it clear that the REA was valid, which we understand Ms. Sinnamon acknowledged to be the case. It was subsequently agreed that the draft development agreement, including NextEra's proposed edits, would be promptly forwarded to the Township's legal counsel for review, so that the draft agreement would be ready for review by Municipal Council in early March 2012.

We understand that Municipal Council discussed the draft development agreement in camera on March 13, 2012, and then sent the draft back to the Township's legal counsel for further review. On April 2, 2012, Ms. Sinnamon informed Mr. Dudek that the draft development agreement still remained with the Township's legal counsel, but that the draft was expected to be finalized at a Council meeting on or about April 24, 2012. However, the development agreement was not on the agenda for that meeting.

On April 25, 2012, hoping to address any concerns about the REA litigation, Mr. Dudek informed Ms. Sinnamon that the Divisional Court had unanimously dismissed Preserve Mapleton Inc.'s judicial review application. Mr. Dudek implored Ms. Sinnamon to move expeditiously to process the development agreement so that the development of the Project could proceed. We understand that the Township has not done so. Moreover, having provided no comments on the draft development agreement, we are concerned that the Township Council is further delaying the agreement's execution.

In light of these actions, it appears clear that the Township has adopted a course of action designed to prevent our clients from exercising their lawful right to construct the Project. If this continues, our clients will have no choice but to initiate legal action to request the courts or tribunals to compel the issuance of the building permits and to issue such other decisions that would obviate the need for a development agreement. Our clients will also have no choice but to seek damages for the losses they have suffered, and continue to suffer. We remind you that should Council members and the relevant officials act with knowledge that they do not have legal authority for the actions they take and with the knowledge that these actions are likely to injure our clients, the tort of misfeasance of public office may be engaged.

If the Council wishes to eliminate the need for Conestogo to resort to the courts or tribunals, please call me so we can discuss how the timely issuance of the building permits and the execution of a development agreement can be facilitated.

Yours truly,



Tyson Dyck  
Tel 416.865.8136  
tdyck@torys.com

49

- 4 -

TD/nb

- cc Patty Sinnamon, Chief Administrative Officer, Township of Mapleton
- David Kopp, Chief Building Official, Township of Mapleton
- Larry Lynch, Director of Public Works, Township of Mapleton
- Nicole Geneau, Project Director, Development, NextEra Energy Canada, ULC
- Derek Dudek, Community Relations, NextEra Energy Canada, ULC

Appendix H

50

## Information request

From: Ernie King (mailto:Ernie.King@nextera.com)  
Sent: October-14-12 12:57:11 PM  
To: [REDACTED]

Hi Donna and Elissa, the NextEra experiences I have seen that shows this company as it really is.

NextEra's project coordinator Ben Greenhouse was speaking to the mayor and councilors in council chambers last year. I don't recall exactly what he was there for but the council chambers was full, as was the front entrance with people standing wherever they could find a spot. Mayor Hewitt was speaking to him about how upset folks around the county were with NextEra's representative continually revisiting property owners to gain access to their land to place the transmission lines required for the project. He mentioned how upset we all were with the proposal of these industrial turbines blotting our views of our county. Even though Mr. Greenhouse mentioned more than once how NextEra was willing to work with the community to find the best resolve for everyone involved stated loudly so everyone in chambers and out could hear " if they don't like the view they can just face south". If that was any indication of how they will work with anyone anywhere then this company should not be allowed access to our province for any reason. People erupted immediately after his comment with disgust and disbelief that he would say something so disrespectful. I thought it showed his true colors, money is more important to this company than the health of anything.

This came out at the OMB hearing for the severance of some land needed for the placement of NextEra's required switching and transmission or point of interconnect stations. The archaeological digs that were done on the land needing severance from the farmer's farm had many artifacts. I don't recall how the number of artifacts change the site designations but this required land had so many they classed it a level 4 (I think that is the correct designation) which meant there were actually many human bones found. I learned during the OMB hearing that when this happens the Six Nations must be contacted prior to anything else being done. That didn't happen and the remains were removed and placed somewhere else, according to Mr. Greenhouse they were placed in an environmentally controlled building to keep them safe. Mr. Monture learned about this and was not impressed. He commented that that would be the same as him going to someone's great ancestor's grave-site and digging up their remains and taking them somewhere unknown. He did ask Mr. Greenhouse where the artifacts were but I don't know if he ever found out.

My recollection of both of these happenings are a bit faded so I hope I got them right. Someone else Betty sent your request to may also recall these and have a better explanation of them. Good luck!

Regards,  
Ernie

# Appendix I

*integrity  
& technical*

51

## SOUND LEVEL MEASUREMENT AND ANALYSIS, AND ACOUSTICAL RECOMMENDATIONS REPORT

23 May 2006

DANIEL D'ENTREMONT HOUSE  
ADJACENT TO THE  
PUBNICO POINT WIND FARM  
Lower West Pubnico,  
Nova Scotia

Prepared for:  
Mr. Daniel D'Entremont  
Lower West Pubnico,  
Nova Scotia

Prepared by:  
Gordon Whitehead, B.S., M.A., Aud(C), Audiologist

[Redacted contact information]

Telephone: [Redacted contact information]

[Redacted contact information]

TABLE OF CONTENTS
-------------------

4.0	PURPOSE
5.0	INTRODUCTION/SUMMARY
6.0	MEASUREMENT AND ANALYSIS DATA
7.0	INTERPRETATION OF DATA/CONCLUSIONS
8.0	RECOMMENDATIONS
9.0	APPENDICES
9.1	Nova Scotia Department of Labour Threshold Limit Values
9.3	Preferred Noise Criterion Curves
9.5	Sound Measurement and Analysis Instrumentation
9.7	Sound Level Measurement Procedure
9.9	Effects of Noise on Hearing
9.11	Non-Hearing Loss Effects of Noise
9.13	Curriculum Vitae of Writer

PURPOSE
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The purpose of this cursory sound level measurement and analysis study is to document the sound levels present in the home of the Daniel D'Entremont family, located in Lower West Pubnico, Nova Scotia. These activities were quite time-attenuated and, therefore, not a complete evaluation, but were designed to investigate whether or not the sounds/vibrations generated by the adjacent Pubnico Point Wind Farm might have the potential of causing the health complications noted by some members of the family.

This measurement and analysis study allows an assessment of whether or not the sound levels present are:

1. of adequate intensity to cause potential permanent hearing loss in house occupants, over time.
2. of adequate intensity to cause, potentially, the vision, balance, nausea, sensation of lack of well being, and other symptoms reported.

Additional purposes were to:

3. provide guidelines for improvement of the acoustical characteristics of the sound generator, if appropriate.
4. provide opinions concerning resolution of any noted problems.

## INTRODUCTION/SUMMARY

### INTRODUCTION:

Gordon Whitehead, audiologist, was notified by Dalhousie University's Graduate School of Human Communication Disorders (where he has been an adjunct professor for 27 years), that Mr. Daniel D'Entremont of Lower East Pubnico, Nova Scotia, had contacted them concerning sound level measurements of the Pubnico Point Wind Farm. Mr. D'Entremont was interested in determining whether or not the sound and vibration from the wind turbines might be having a detrimental effect on his family's health. Previous activities did not conclusively establish this.

Some of his family members have reported, variously, visual disturbance, imbalance, disorientation, unsteadiness, nausea, sleep disturbance, behavioural changes and a general feeling of lack of well-being, since the installation and operation of the wind farm.

This author conducted sound level measurements on 23 May 2006. Sound levels were measured in several areas of the D'Entremont home, including:

- kitchen
- bathroom (main floor)
- bedroom (basement)
- bedroom (second floor)
- deck (outside rear)
- porch (front of house)

The details and results of the measurements can be seen following this *Introduction/Summary* section, in the *Interpretation of Data/Conclusions* section 7 and the *Recommendations* section 8.

### SUMMARY:

**It should be understood at the outset that the author of this paper is firmly in support of wind-generation of electricity, and encourages its continued expansion, as long as the government of Nova Scotia adopts appropriate noise/vibration/health guidelines for such installations. Wind farm operation should be designed so that it does not present any threat to the health or well-being of persons living adjacent to these facilities. These government guidelines should accomplish two objectives:**

- (1) Provide wind farm developers with definite noise/vibration recommendations for their installations, rather than adopt some potentially inappropriate guidelines that may or may not address complaints in the future. This would allow developers to construct wind farms without the concern of affecting human health from sound and vibration. Government should be a leader in such legislation, not a follower.
- (2) Provide realistic assurance to persons living in the wind farm vicinity, that there are no generation by-products that will negatively affect their health and well-being.

The analysis of the sound measurements, published research, observations made and public knowledge, allow the following summary statements, observations and/or recommendations:

1. The sound levels measured are in compliance with the Nova Scotia Department of Labour's threshold limit values (TLVs; see *Appendix 1*, page 9.1-9.2, for more details) for noise exposure in the work environment. These are not meant for assessing the home environment (or low frequency sound), however, they are the only Nova Scotia provincial guidelines for noise exposure. Such compliance means that the Nova Scotia Department of Labour does not consider the sound levels present during these specified activities intense enough to cause damage to hearing. Such compliance does not necessarily mean, however, that the sound levels are not a potential cause of other health problems noted by the residents.
2. One report notes that the Nova Scotia Department of Environment guidelines specifies 55dBA as the maximum allowable sound emission. dBA measurements filter out, thus disregarding the infrasonic (very low frequency) sound that may be causing the problems referred to in this report.
3. The general definitions encountered of "infrasound" (very low frequency sound) include the concept that it is so low in frequency that the human ear cannot hear it. This is essentially true. Some of the documented court challenges against wind farms around the world have used the rebuttal that if it is inaudible, it cannot hurt you. This is untrue. People with profound hearing losses, for example, who work in loud noise (that they cannot hear) still suffer further damage to what hearing remains. There is very little scientific information available about the effects of low levels of infrasound on the human. Even though it may not affect hearing in any manner, the vestibular system (the part of the ear which assists in balance) has been thought to be more sensitive to vibration than the hearing portion of the ear. Vestibular dysfunction can affect vision as well as produce other symptoms. Legislation pertaining to wind farm generated noise and vibration does not extend beyond noise levels which have had the low-frequencies filtered out (dBA).
4. It is the opinion of this writer that the Provincial Government of Nova Scotia may not have in place adequate guidelines for assessment of the affects of noise and vibration of such an installation, nor construction guidelines that may minimize potentially negative effects. More detail is presented in the *Recommendations* section 8 of this report.
5. The sounds and vibrations measured during this evaluation period documented the presence of significant low-frequency sound (infrasound)/vibration, that may potentially affect the human vestibular (balance) system.

Similar measurement results of the Vestas turbine units appear on page 13, figure 5 of *Wind Turbine Acoustic Noise* (A. Rogers, J. Manwell, S. Wright. Renewable Energy Research Laboratory, Department of Mechanical and Industrial Engineering, University of Massachusetts, Amherst, June 2002). The authors of that article, however, mistakenly state that "The infrasound levels (range marked by the arrow) are below human perception level." It may be below the human perception level for hearing, but not necessarily below the human perception level for vibration.

Similarly, in *Noise and Vibration From Wind Farms* (Hawke's Bay, Australia-Today, February 18, 2006), the following statement appears: "Dr Geoff Leventhall, a noise and vibration acoustics expert from the UK who looked into infrasound at the request of Genesis Power, says "I can state quite categorically that there is no significant infrasound



from current designs of wind turbines." Yet, in Dr. Leventhall's own paper *Notes on Low Frequency Noise from Wind Turbines with Special Reference to the Genesis Power Ltd Proposal, Near Waiuku NZ*, his spectrum analysis graphs on pages 16 and 17 show that infrasound is the most prominent range of frequencies that he measured from the Vestas units. This misconception is not unusual in the literature.

6. Low-frequency infrasound can reach a dwelling predominantly through the ground as vibration. In *Noise and Vibration From Wind Farms* (Hawke's Bay, Australia-Today, February 18, 2006), engineer Dr. Ken Mosley states: "The foundations of modern turbines create vibrations in the ground when they are moving, and also sometimes when they are not moving, Dr. Mosley says. This vibration is transmitted seismically through the ground in a similar manner to earthquake shocks and roughly at similar frequencies. Generally, the vibrations cannot be heard until they cause the structure of a house to vibrate in sympathy, and then only inside the house. The effects inside appear as noise and vibrations in certain parts of a room. Outside these areas, little is heard or felt.

In *Noise and Vibration From Wind Farms* (Hawke's Bay, Australia-Today, February 18, 2006), Dr. Mosley also quotes South West Wales engineer and acoustician Dr. David Manley: "it is found that people living within 8.2km of a wind farm cluster can be affected and if they are sensitive to low frequencies they may be disturbed."

7. Engineering solutions are available that significantly decrease earth-borne vibration in structures such as wind generators. These options should be investigated. More detail is presented in the *Recommendations* section 8 of this report. In *Wind Turbine Acoustic Noise* (A. Rogers, J. Manwell, S. Wright. Renewable Energy Research Laboratory, Department of Mechanical and Industrial Engineering, the University of Massachusetts, Amherst, June 2002), the authors state: "Turbines can be designed or retrofitted to minimize mechanical sound. This can include . . . using vibration isolators and soft mounts for major components, and designing the turbine to prevent sounds from being transmitted into the overall structure."
8. **The information available to this writer suggests that the operators of the wind farm have, in good faith, adhered to of all the Provincial Government's guidelines, and should be considered blameless in this particular situation.**
9. It is important to for the affected family members to have further health testing, especially ENG (electronystagmography) to measure the function/dysfunction of their vestibular (balance) systems. More detail is presented in the *Interpretation* section 7 of this report, #12 on page 7.2.
10. This author experienced some disorientation during the measurement session, although this was not documented by scientific evidence.

The measurement activity in this report was not officially requested of this author by the wind farm developer or the Government of Nova Scotia. The author did not have the option of requesting the generators be switched off for purposes of comparison. It is hoped that future analysis activities will focus on assessing the presence or absence of low-frequency sound and vibration.

- 11. One obvious solution to the siting of new wind farm installations is the distance allowed from the wind farm to adjacent dwellings. Mr. Robert Leth, a renewable energy advisor with significant experience and expertise in wind generation of electricity in both Europe and North America states: "As you travel throughout Europe, the first thing you notice is the quantity and ubiquity of wind turbine installations. Usually, you will find them close (within several km., say 3-10) of the community which they serve, usually as a secondary activity on agricultural land, well away from human activity. And so in Denmark, we now peacefully co-exist with over 5,000 turbines, mostly owned by local communities and/or businesses/co-ops."

We have a lot of unoccupied shoreline in Nova Scotia, and a lot of wind. It should not be too difficult to develop wind farms on sites that are not within a few hundred feet of human dwellings. Distance would solve the problem. We should learn from the mistakes of other locales and countries, many of which have been able to circumvent their earlier errors.

**The reader is encouraged to study the photograph on page 6.1 of this report. It clearly shows the relationship of the D'Entremont house in the center foreground, to the wind farm. The only obvious conclusion is that they are too close to each other.**

If this report raises any question, please contact the writer:  
 Gordon Whitehead, B.S., M.A., Aud(C), Audiologist

[REDACTED]

MEASUREMENT/ANALYSIS RAW DATA
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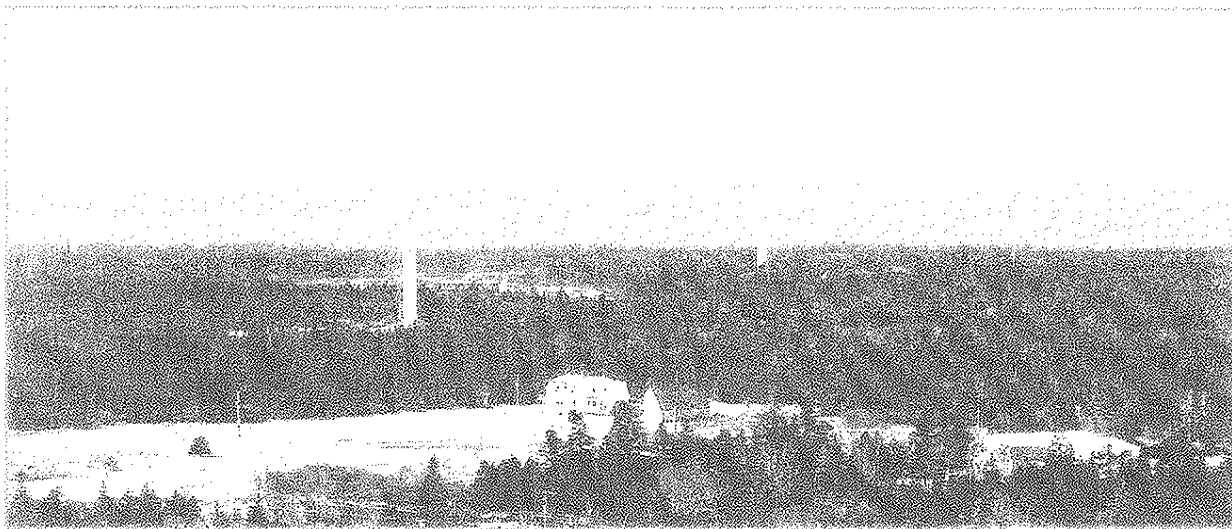
The photograph on page 6.1 shows the location of the D'Entremont house in relationship to the six nearest of the seventeen existing wind turbines.

The raw sound level measurement and analysis information can be found in table form on page 6.2, for each of the 6 measurement locations/conditions.

The graphs on pages 6.3 and 6.4 show the raw sound data as recorded on computer, and the subsequent computer analysis to determine the frequency make-up of the sound and vibration present. This spectrum analysis shows the FFT (fast Fourier transform) assessment, or how much of the sound intensity is in the lower-frequency range, the middle-frequency range, and the higher-frequency range.

Interpretation of the following values can be viewed in the *Interpretation of Data/Conclusions* and *Recommendations* sections of this report.

PHOTOGRAPH OF THE D'ENTREMONT HOUSE



The above photograph shows the relationship of the D'Entremont house in the center foreground, to the wind farm, with six of the nearest seventeen wind turbines in the background.

## Raw Sound Level Measurement Data\*

Location: Daniel D'Entremont house-Lower East Pubnico, Nova Scotia

## Instrumentation:

- Extech digital sound level meter/wind filter, model 407750, serial #3047723, \*\*NIST traceable via certificate #251191
  - Extech sound level calibrator model 407744, serial #O125807, \*\*NIST traceable via certificate #241200
  - Audio Technica model ATM10a professional omnidirectional condenser microphone
  - Sound Forge (v5.0) Spectrum Analyzer (Sonic Foundry/Sony)
- \*\* ("NIST" = National Institute of Science and Technology)

Measurements taken by: Gordon Whitehead, B.S., M.A., Aud(C), Audiologist

Date: 23 May 2006

Site No.	dB A ave	dB A pk	dB C ave	dB C pk	10 Hz	22 Hz	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	3000 Hz	4000 Hz	5000 Hz	6000 Hz	7000 Hz	8000 Hz	9042 Hz
#1	31.3 dBA	34.5	47.3 dBC	48.4	40 dB SPL	79 dB SPL	74 dB SPL	73 dB SPL	58 dB SPL	51 dB SPL	49 dB SPL	46 dB SPL	47 dB SPL	47 dB SPL	45 dB SPL	43 dB SPL	46 dB SPL	46 dB SPL	48 dB SPL	60 dB SPL
#2	33.5 dBA	38.7	48.4 dBC	49.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
#3	34.3 dBA	35.1	44.5 dBC	46.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
#4	32.8 dBA	34.7	49.4 dBC	53.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
#5	44.1 dBA	45.4	62.6 dBC	64.6	37 dB SPL	78 dB SPL	73 dB SPL	68 dB SPL	65 dB SPL	62 dB SPL	54 dB SPL	52 dB SPL	52 dB SPL	50 dB SPL	46 dB SPL	45 dB SPL	47 dB SPL	48 dB SPL	49 dB SPL	55 dB SPL
#6	55.6 dBA	69.4	74.3 dBC	74.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Site description/conditions:

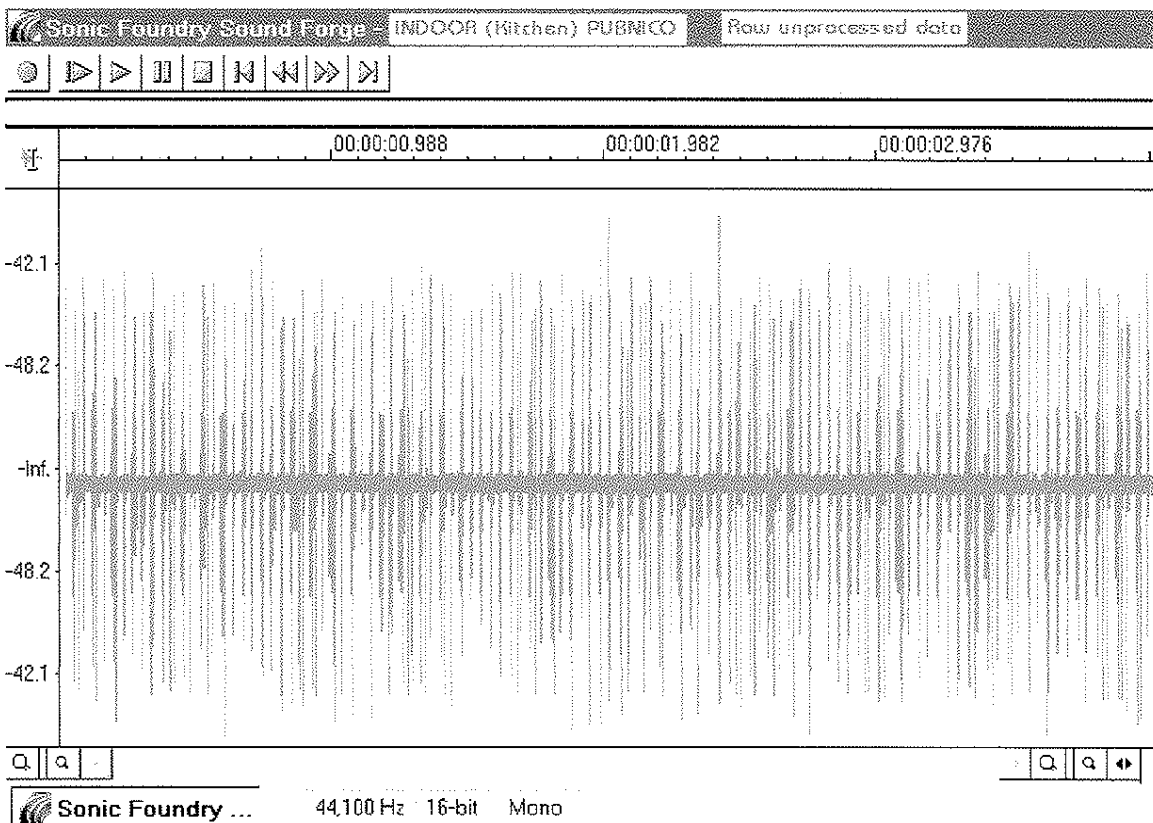
- #1: Kitchen-central location near dining table. All house electrical/plumbing/heating systems inoperative.
- #2: Bathroom-main floor location. All house electrical/plumbing/heating/etc. systems not operating.
- #3: Bedroom-basement location. All house electrical/plumbing/heating/etc. systems not operating.
- #4: Bedroom-upstairs location. All house electrical/plumbing/heating/etc. systems not operating.
- #5: Rear deck.
- #6: Front porch.

Note: The most prominent frequency measured was 22Hz, both indoors and outdoors.

Note: A second prominent frequency measured 9,042Hz, which is an harmonic of 22Hz.

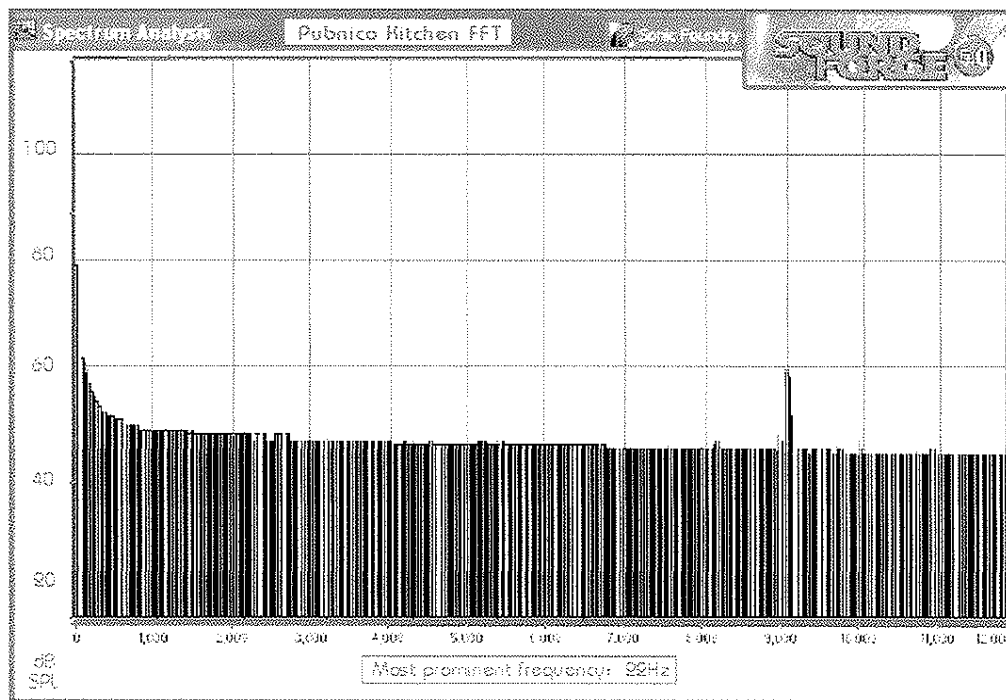
\*The above intensity measurements are corrected for ambient circuit noise and microphone frequency response.

### RAW, RECORDED DATA OF INDOOR KITCHEN SOUND



### SPECTRUM ANALYSIS OF INDOOR KITCHEN SOUNDS

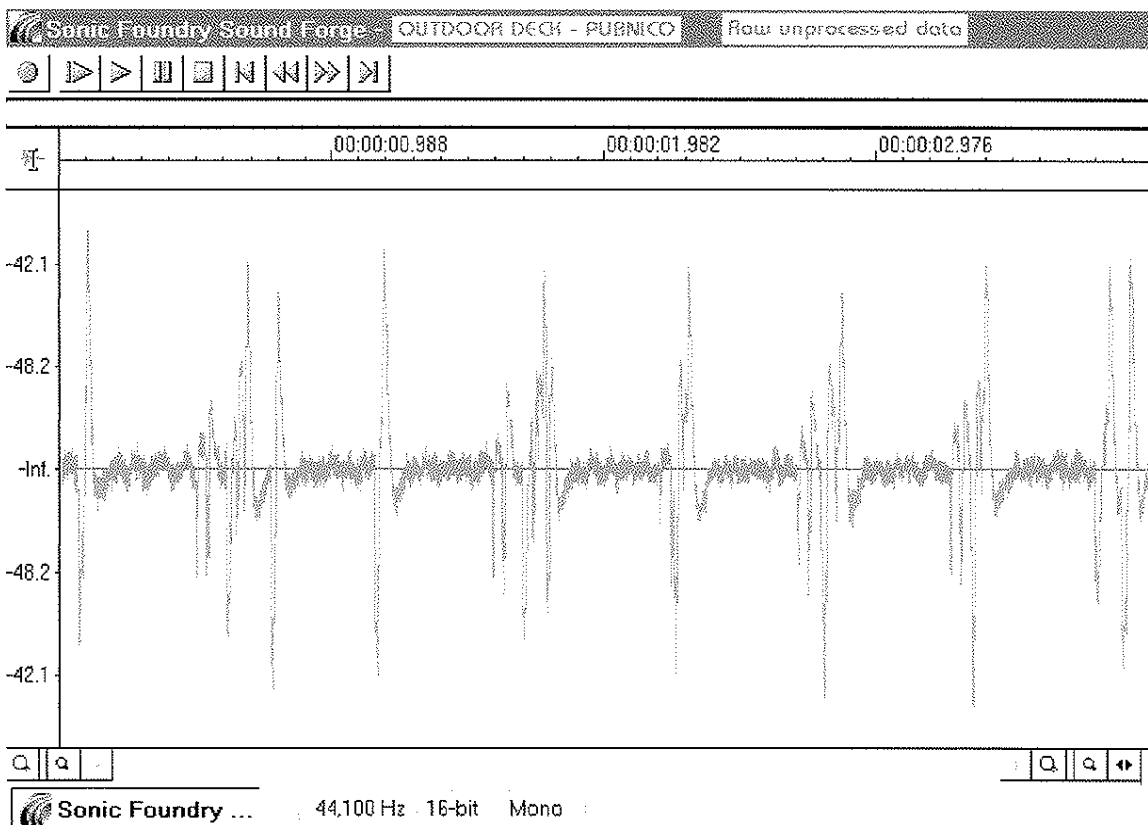
The following graph is a spectrum analysis that shows how much of the sound intensity is low-frequency/middle-frequency/high-frequency.



See the *Interpretation of Data/Conclusions* section for more detailed information on the above.

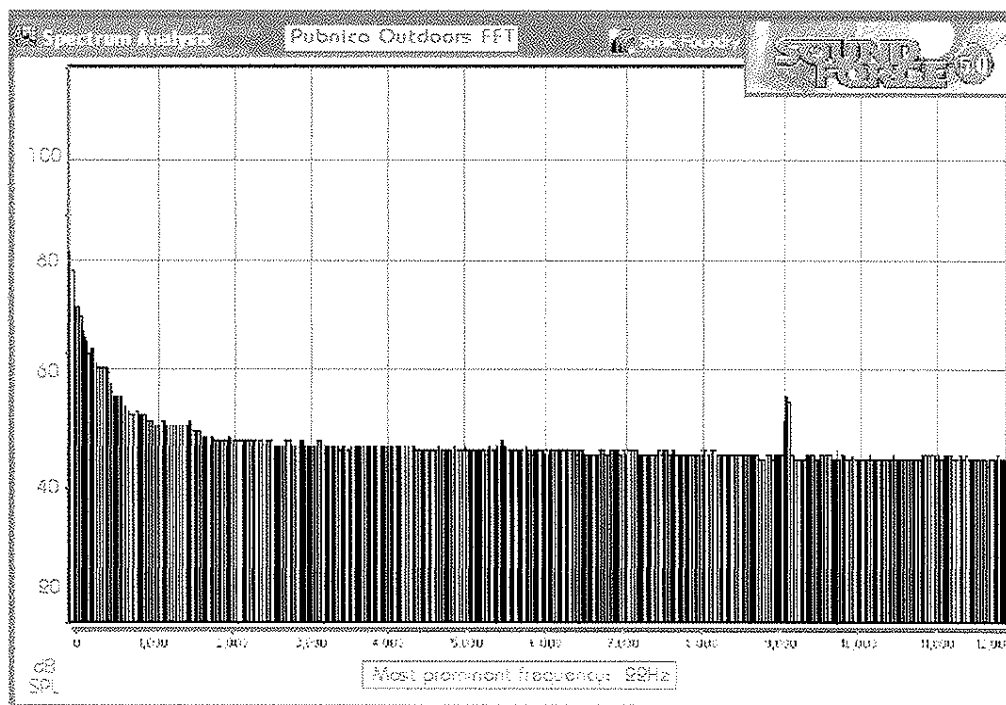
62

### RAW, RECORDED DATA OF OUTDOOR DECK SOUND



### SPECTRUM ANALYSIS OF OUTDOOR DECK SOUNDS

The following graph is a spectrum analysis that shows how much of the sound intensity is low-frequency/middle-frequency/high-frequency.



See the *Interpretation of Data/Conclusions* section for more detailed information on the above.

## INTERPRETATION OF DATA/CONCLUSIONS

### INTRODUCTION:

Sound intensity is measured and expressed in a unit called the "decibel" (dB). There are a number of different decibel scales. **The scale most used by government is the dBA scale.** This dBA scale is meant to mimic the manner in which the human ear responds to very quiet sounds. **The dBA scale filters out the majority of low-frequency sound, and does not measure the very sounds we are interested in when considering ground-transmitted sound from wind farm turbine vibration.**

The dBC scale is meant to mimic the manner in which the human ear responds to loud sounds. The dBC scale measures most of the low-frequency sounds, and is a better indicator of sound which has significant low-frequency content. The government does not utilize this dBC scale.

Spectrum analysis of sound by computer, as completed for this study, allows the analysis of sound by frequency, and measures the sound intensity at all frequencies (low/middle/high) in the range of about 10Hz (a very low frequency which can be felt as vibration but cannot be heard by humans) to about 12,000Hz (a higher-frequency sound).

Note: All instruments utilized in this assessment were of professional quality which meet and/or exceed all national and international standards (see *Appendix 3* for details). The accuracy and calibration of the units are traceable to the National Institute of Standards and Technology. Like all technology, they work well within their design limitations. It is possible that there may be even more low frequency sounds than were identified in this study, that may be apparent if equipment with an even lower-frequency response was available. This would not in any manner change the interpretation or concepts presented in this report.

### INTERPRETATION OF DATA:

The raw and analyzed measurement data allows the following interpretations/conclusions/opinions relative to the sound measured on this date.

1. The noise measured at all locations inside the house is of low enough intensity to be within acceptable limits to the Nova Scotia Department of Labour's threshold limit values (TLVs for work noise, which this is not). This means, however, that the noise levels present would not be expected to cause any permanent hearing loss amongst house occupants over time. In other words, average sound intensities do not exceed 85dBA.
2. The noise measured at all locations outside the house is of low enough intensity to be within acceptable limits to the Nova Scotia Department of Labour's threshold limit values (TLVs for work noise, which this is not). This means, however, that the noise levels present would not be expected to cause any permanent hearing loss amongst house occupants over time. In other words, average sound intensities do not exceed 85dBA.



Note: The two comments, above, refer to Nova Scotia limits on sound in the workplace. This study does not have an interest in the workplace, as it is the home environment that is in question. The province of Nova Scotia, however, does not have legislation (to this writer's knowledge) specific to noise and vibration emanations from wind farm activity when measured in a private dwelling.

One report notes that the Nova Scotia Department of Environment guidelines specifies 55dBA as the maximum allowable sound emission. dBA measurements filter out, thus disregarding the infrasonic (very low frequency) sound that may be causing the problems referred to in this report. It should be noted that the author of this paper measured a noise intensity of 55.6dBA from the front porch of the dwelling in question (see #6 on page 6.2).

3. A comparison of the dBA and dBC sound level measurements, and the computer-based spectrum analysis of the sounds present, identify the loudest sounds present to be very low frequency sounds, that would be perceived by persons able to detect them as more of a vibration than a true sound.
4. The low frequency sounds are present, and identical in frequency, both inside the house and outside the house. All house electrical, plumbing, heating and other systems were inoperative during the measurements, therefore, there were no systems within the house that were contributing to the sounds measured. It suggests that the sounds measured were originating external to the house.
5. Some of the very low frequency sounds were slightly more intense inside the house. This can be attributed to the fact that the ground/bedrock vibrations were travelling into the home through the footings, foundation and structural components, and the floor and walls were enhancing the low frequency sounds in much the same manner in which a stereo speaker cabinet works. Further evidence of this is that the floor (over a joist) had a resonant frequency of about 19Hz; the prominent low frequency ground vibration was 22Hz. See #6 on page 5.2 for more information of this ground wave phenomena.
6. The middle and higher frequency sounds were more intense outside the house. This can be attributed to the fact that these frequencies are not efficiently transmitted through the ground or house structure, but are airborne. They enter the house primarily through openings such as windows, doors and vents. The only exception to this was the high-frequency sound at 9,042Hz, which is an exact harmonic (overtone) of the 22Hz most prominent frequency which would be produced by the vibration of the house structure.
7. The overall noise level varied considerably from second-to-second, especially external to the house. Outdoor noise is influenced by wind, vehicles, and other sound-producing activities. The low-frequency component of the noise, however, did not vary; it was constant over the entire measurement period. This constancy of the low-frequency sound indicates that it is not due to vehicular or boat noise, wind noise, or tidal causes, all of which vary constantly. The only identifiable, potential sound producer in the area appears to have been the wind turbine units.
8. The noise measured one metre from one of the wind generators (on its concrete support pad) also showed the presence of the low-frequency component.

9. Without the ability to close down the wind turbines, temporarily, in order to take comparative sound level measurements, it is not conclusively possible to prove the low-frequency noise is generated by this system, but the measurements and conditions within this report make it reasonable to surmise that, beyond reasonable doubt, the wind farm is the origin. There are no other obvious sources of such sound. It should be noted that in the excellent report of the Pubnico Point Wind Farm sound levels, Dr. Marek Roland-Mieszkowski noted that shutting down even the #3 turbine decreased the sound level by 7dB. This is quite significant in that a reduction of just 3dB cuts the sound intensity in half, as sound measurement is logarithmic and not linear.
10. This author, while taking measurements in the house, placed his forehead on what he perceived as a vibrating ceramic tile floor in the main floor bath, and immediately became disoriented and nauseous. This is neither scientific or conclusive, but is an accurate presentation of what was experienced. The same, but stronger effect was noted when placing his forehead against a concrete wind turbine support structure.
11. This author, when taking measurements from the front porch of the home, was surprised to realize that the sound he thought was a small airplane was, in fact, the normal sound of the wind turbines as experienced on this property; outside the home, and inside the home when windows are open.
13. A quick review of the internet showed the presence of about 179,000 entries concerning "wind farm vibration complaints", worldwide. Some of these are from prestigious organizations such as the World Health Organization. At least a small number of these 179,000 entries must represent true conditions; this would suggest it is imperative to take the experiences of the D'Entremont family seriously, and investigate them more thoroughly.
13. **This author is quite firmly of the opinion that infrasonic sound has the capability of causing dysfunction of the vestibular system (balance portion of the ear), especially in persons susceptible to motion sickness.** Vestibular dysfunction can manifest itself as visual problems when the dysfunction causes nystagmus, a rapid/slow, involuntary set of eye movements. It can also cause light-headedness, imbalance, disorientation, unsteadiness, nausea, sleep disturbance, and a general feeling of lack of well-being. There can be other unrelated causes of vestibular dysfunction, however, these symptoms have been noted just since the installation and operation of the wind farm. Further vestibular-related tests have been recommended, to rule out other causal factors. If this link is established beyond reasonable doubt, absence from the area should be expected to resolve the symptom, over time.

RECOMMENDATIONS
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1. Any further sound level measurements contemplated at the Pubnico Point Wind Farm should pay particular attention to assessing infrasound (low frequency sound).
2. The affected family members should have an electronystagmographic (ENG) evaluation completed, in which the vestibular system (balance system) is investigated.
3. Any planned wind farm turbine installation should utilize an engineered approach to decrease low frequency sound. This may be achieved with:
  - A. isolation of the tower through a suspension system, or
  - B. and/or the possibility of utilizing active vibration control.Reducing or eliminating earth-borne vibration is within the current capability of engineering science.
4. The Pubnico Point Wind Farm should not be held financially accountable for any modifications to reduce sound emissions, or recompense to home owners. It appears that they have complied, quite commendably, with the requests of the government of Nova Scotia for environmental assessment and other concerns.
5. The government of Nova Scotia should write appropriate, comprehensive legislation for the development of wind farms, especially:
  - A. regarding noise and vibration emissions, including infrasound transmitted through the ground.
  - B. wind farm location in relation to existing housing; see #11 on page 5.3 for more detail; this is a solution for future projects.

Again, the reader is encouraged to study the photograph on page 6.1 of this report. It clearly shows the relationship of the D'Entremont house in the center foreground, to the wind farm. The only obvious conclusion is that they are too close to each other.

6. The family involved, who moved from their house, should expect the government of Nova Scotia to purchase the house from which they have had to move, and have been unable to sell, apparently because of its proximity to the wind farm. It appears that the government may not have required or assisted the developer to complete all environmental assessments concerning noise and vibration emissions, thereby being indirectly responsible for the reported plight of the family.

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Any questions concerning this report should be directed to the author.

APPENDICES
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- 9.1 Appendix 1: Nova Scotia Department of Labour Threshold Limit Values (TLVs)
- 9.3 Appendix 2: Preferred Noise Criterion Curves (PNC)
- 9.5 Appendix 3: Sound Level Measurement and Analysis Instrumentation
- 9.7 Appendix 4: Sound Level Measurement Procedure
- 9.9 Appendix 5: Effects of Noise on Hearing
- 9.11 Appendix 6: Non-Hearing Loss Effects of Noise
- 9.13 Appendix 7: General Sound Strategies for Music Rooms
- 9:15 Appendix 8: Curriculum Vitae of Writer

APPENDIX 1

NOVA SCOTIA DEPARTMENT OF LABOUR  
THRESHOLD LIMIT VALUES (TLV's)

**THRESHOLD LIMIT VALUES (TLV's) FOR NOISE**  
Nova Scotia Department of Labour

Sound Level in dBA	Maximum Duration of Exposure
80dBA	24 hours
82dBA	16 hours
85dBA	8 hours
88dBA	4 hours
91dBA	2 hours
94dBA	1 hour
97dBA	30 minutes
100dBA	15 minutes
103dBA	7.5 minutes
106dBA	3.75 minutes
109dBA	1.88 minutes
112dBA	56.3 seconds
115dBA	28.1 seconds
118dBA	14.1 seconds
121dBA	7.0 seconds
124dBA	3.5 seconds
127dBA	1.8 seconds
130dBA	.9 seconds
133dBA	.4 seconds
136dBA	.2 seconds
139dBA	.1 seconds

THRESHOLD LIMIT VALUE FOR NOISE
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Sound Level in dBA	Maximum Exposure	Sound Level in dBA	Maximum Exposure	Sound Level in dBA	Maximum Exposure
<b>80dBA</b>	<b>24 hours</b>	101dBA	12min./30sec.	122dBA	6 seconds
81dBA	20 hours	102dBA	10 minutes	123dBA	4.8 seconds
<b>82dBA</b>	<b>16 hours</b>	<b>103dBA</b>	<b>7min./30sec.</b>	<b>124dBA</b>	<b>3.5 seconds</b>
83dBA	13hrs./20min.	104dBA	6min./15sec.	125dBA	3 seconds
84dBA	10hrs./40min.	105dBA	5 minutes	126dBA	2.4 seconds
<b>85dBA</b>	<b>8 hours</b>	<b>106dBA</b>	<b>3min./45sec.</b>	<b>127dBA</b>	<b>1.8 seconds</b>
86dBA	6hrs./40min.	107dBA	3min./7sec.	128dBA	1.5 seconds
87dBA	5hrs./20min.	108dBA	2min./29sec.	129dBA	1.2 seconds
<b>88dBA</b>	<b>4 hours</b>	<b>109dBA</b>	<b>1min./53sec.</b>	<b>130dBA</b>	<b>.9 seconds</b>
89dBA	3hrs./20min.	110dBA	1min./34sec.	131dBA	.7 seconds
90dBA	2hrs./40min.	111dBA	1min./15sec.	132dBA	.6 seconds
<b>91dBA</b>	<b>2 hours</b>	<b>112dBA</b>	<b>56.3 seconds</b>	<b>133dBA</b>	<b>.44 seconds</b>
92dBA	1hr./40min.	113dBA	47 seconds	134dBA	.4 seconds
93dBA	1hr./20min.	114dBA	38 seconds	135dBA	.3 seconds
<b>94dBA</b>	<b>1 hour</b>	<b>115dBA</b>	<b>28.1 seconds</b>	<b>136dBA</b>	<b>.2 seconds</b>
95dBA	50 minutes	116dBA	23.5 seconds	137dBA	.18 seconds
96dBA	40 minutes	117dBA	18.8 seconds	138dBA	.15 seconds
<b>97dBA</b>	<b>30 minutes</b>	<b>118dBA</b>	<b>14.1 seconds</b>	<b>139dBA</b>	<b>.1 seconds</b>
98dBA	25 minutes	119dBA	11.7 seconds	<b>&lt;140dBA</b>	<b>No exposure</b>
99dBA	20 minutes	120dBA	9.3 seconds		
<b>100dBA</b>	<b>15 minutes</b>	<b>121dBA</b>	<b>7 seconds</b>		

**Bold** typeface values indicate actual Nova Scotia Department of Labour Threshold Limit Values; other values are interpolated and approximate.

APPENDIX 2

PREFERRED NOISE CRITERION CURVES



PREFERRED NOISE CRITERION (PNC) CURVES
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Some sounds are not intense enough to cause hearing damage, but are intense enough to interfere with the successful completion of specific tasks normally associated with the workspace in question. These noises may also be of sufficient intensity to cause detrimental physiological, psychological and communication effects. The PNC curves are not designed to determine potential damage to hearing, but are designed to determine whether or not the sound levels present in a given environment are acceptable for the tasks for which the space was designed or is designated. The lower intensity value in the chart below refers to the ideal limit (the design limit), while the higher intensity value is the maximum permissible. The PNC curves have listings for many work environments, a few of which are provided below for examples.

APPROXIMATE MAXIMUM NOISE LEVEL IN dBA	TYPE OF WORK ENVIRONMENT
21dBA to 30dBA	Broadcasting/recording studios
30dBA	Auditoriums/churches/theaters
42dBA	Meeting/conference rooms
<b>34dBA to 47dBA</b>	Sleeping: hospitals/hotels/ <b>homes</b>
38dBA to 47dBA	Private office/library/classroom
42dBA to 52dBA	Large office/reception/store/restaurant
47dBA to 56dBA	Lab/general secretarial (fair listening)
52dBA to 61dBA	Light maintenance/computer/laundry
56dBA to 66dBA	Shops/garages/power plant control room

The Preferred Noise Criterion curves suggest that in environments where the ambient noise exceeds 66dBA (PNC-60), personnel should not be expected to communicate effectively through verbal means.

APPENDIX 3

SOUND MEASUREMENT AND ANALYSIS INSTRUMENTATION

## SOUND LEVEL MEASUREMENT AND ANALYSIS INSTRUMENTATION

Sound level measurements and analysis utilized extremely accurate professional quality instrumentation.

Real-time sound level intensity measurements were taken on:

- Extech model 407750, Type 2 Digital Sound Level Meter, serial number 3047723, with N.I.S.T. traceability via certificate #251191. This meter is equipped for measurement of impact/impulse sound, as well as continuous sound, and RS232 output. This unit meets and/or exceeds all applicable international standards for its class, at the time of manufacture, including:
  - ANSI S1.4 Type 2 (American National Standards Institute/standard composed by the Acoustical Society of America)
  - IEC 651-1979 Type 2 (International Electrotechnical Commission - Geneva, Switzerland)
  - NIST Traceability (National Institute of Standards and Technology)
- The sound level meter microphone utilized was the Extech ½-inch condenser microphone, in conjunction with the proper microphone protective grid fitted, and appropriate Extech wind filter.

Calibration of the above units was accomplished utilizing:

- Extech model 407744 Sound Level Calibrator, serial number O125807. This unit meets and/or exceeds all applicable international standards for its class, at the time of manufacture, including:
  - ANSI S1.40 - 1984 - Class 2
  - IEC 942 - 1988 - Class 2 and/or
  - N.I.S.T. traceability via certificate #251191

Analysis of sound, including frequency was accomplished utilizing:

- Sound Forge (Sonic Foundry/Sony) spectrum analyzer, version 5.0
- Audio-Technica model #ATM10a professional omnidirectional condenser microphone

75

APPENDIX 4

SOUND LEVEL MEASUREMENT PROCEDURE

## SOUND LEVEL MEASUREMENT PROCEDURE

The sound level meter system, and computer-based recorder, were calibrated with the appropriate calibrator unit prior to use, during use, and following use, to assure measurement integrity. Calibration procedures adhered to those specified by the manufacturer of the instrumentation.

Battery status of the sound level meter instrumentation was monitored before, during, and following use, to assure measurement accuracy. Battery status of the calibrator unit was monitored at each use.

The reported spectrum analysis intensity measurements are corrected for ambient instrumentation circuit noise and microphone frequency response.

Sound level measurements, where appropriate, are expressed in:

- dBA scale: this approximates the response of the human ear to quiet sound, and is the scale of choice for government threshold limit values (TLV's). This scale, however, significantly filters out lower-frequency sounds.
- dBC scale: this approximates the response of the human ear to loud sound (and is almost identical to dBSPL), and amongst other uses, is utilized for the Preferred Noise Criterion curve assessment. This scale measures many of the lower-frequency sounds ignored by dBA.
- Frequency specific scales ("FFT" - Fast Fourier Transform): these measurements allow analysis of the frequency content of the sound.

APPENDIX 5

EFFECTS OF NOISE ON HEARING

## EFFECTS OF NOISE ON HEARING

Noise which is intense enough to cause damage to hearing, has the potential of damaging more than just the ability to hear quieter sounds. Other effects upon hearing often include:

- **HEARING LOSS** - this is the damage to hearing that does not allow a person to hear quieter sounds; it is now necessary for sound to be made louder before it can be heard. The damage can cause a hearing loss for all sounds, or just for higher-frequency sounds, or just for lower-frequency sounds, or for virtually any configuration. The type of damage that noise causes to the ear is permanent in nature; there is no medical or surgical cure. A hearing aid may assist, but will not give back normal hearing.
- **SPEECH DISCRIMINATION PROBLEM** - this problem is characterized by a person's inability to understand speech well, even when it is made loud enough to hear without straining. In other words, the damaged ear is "distorting" speech so that understanding is difficult. In many persons, this problem is aggravated when background noise is present. A hearing aid may assist, but will not give back a normal ability to understand speech. Speech discrimination problems cannot be cured by medical or surgical means.
- **TINNITUS** - this is the presence of a sound in the ears or head, even when no sound is really present. The sound is variously perceived as a whistling sound, a hum, a buzz, a roar, etc., and may be heard occasionally, or it may be experienced all of the time. The sound can be quiet, or extremely loud. The noise can interfere with understanding of speech, can seriously affect sleep patterns, and often causes significant changes in lifestyle. Tinnitus can rarely be improved by medical or surgical means; coping techniques may assist in acceptance.
- **RECRUITMENT** - this is a type of tolerance problem that can be caused by noise exposure. Even though a person with recruitment may have enough of a hearing loss that a sound has to be made louder before they can barely hear it, making sound just a little louder is perceived as making it a lot louder, louder than can be tolerated. With recruitment, a hearing aid may be of little use in many listening environments. Recruitment cannot be cured by medical or surgical means.
- **BALANCE PROBLEMS** - the balance mechanism is part of the ear. Some people who have been exposed to intense sound, experience significant problems with balance. Lower-frequency sounds appear to be most effective in instigating balance problems. These vestibular system (balance system) side-effects can include visual disturbance and nausea. This can negatively affect almost every activity encountered. These problems can rarely be improved by medical or surgical means.

Excessive exposure to intense noise can cause one, or a combination of the above-noted effects.

APPENDIX 6

NON-HEARING LOSS EFFECTS OF NOISE



## NON-HEARING LOSS EFFECTS OF NOISE

Excessive noise, whether or not it is intense enough to cause damage to hearing, may still have the potential to cause some other undesirable auditory and non-auditory effects, including physiological and psychological complications. These may include:

- CONstriction OF BLOOD VESSELS
- RESPIRATION (Breathing rate) INCREASE
- SHALLOW BREATHING (Less oxygen intake)
- MUSCLE TENSENESS INCREASE
- VISUAL FOCUS ABILITY DECREASE
- BALANCE AND RELATED PROBLEMS
- INCREASED GASTRIC ACIDITY
- HORMONAL PRODUCTION INCREASE
- HEADACHE
- TENSION
- ANXIETY
- IRRITABILITY
- FRUSTRATION
- DECREASE IN THE QUANTITY OF WORK PRODUCTION
- DECREASE IN THE QUALITY OF WORK PRODUCTION
- DECREMENT IN EFFECTIVE EMERGENCY RESPONSE ABILITY

81

APPENDIX 8

CURRICULUM VITAE OF WRITER

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Name: Gordon Lee Whitehead  
Title: Audiologist  
Date of Birth: 29 September 1943  
Citizenship: Canadian  
Address: [REDACTED]  
Telephone: [REDACTED]  
Facsimile: [REDACTED]

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PROFESSIONAL EDUCATION/CERTIFICATION:

Bachelor of Science degree (B.S.) in Audiology and Speech Language Pathology, minor in Psychology, Western Illinois University, Macomb, Illinois, U.S.A., granted in 1966.

Master of Arts degree (M.A.) in Audiology, Northern Illinois University, DeKalb, Illinois, U.S.A., completed in 1968, granted in 1969.

Professional certification in Audiology [Aud(C)] from the Canadian Association of Speech Language Pathologists and Audiologists, the national Canadian professional certification organization.

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RECENTLY CONCLUDED EMPLOYMENT AND CONSULTANTSHIPS:

Mr. Whitehead partially retired in May 2005, and became fully retired in June 2006.

**Adjunct Professor/Lecturer, Dalhousie University, Graduate School**, School of Human Communication Disorders, Halifax, Nova Scotia, 1980 to June 2006. Most currently taught coursework in *Noise in Industry and the Community*.

**Member, Faculty of Graduate Studies**, Dalhousie University, Halifax, Nova Scotia.

**Private Practice Industrial and Community Audiology Services**, Halifax, Nova Scotia, Sept. 2000-April 2005.

**Workers' Compensation Board of Nova Scotia**, audiological consultant, and ongoing activities including sound level measurement and analysis in relationship to hearing loss, and back-to-work assessments, concluded June 2005.

**Veterans Review and Appeal Board Canada**, Charlottetown, Prince Edward Island. Ongoing audiological consultantship, concluded April 2005.

**Royal Canadian Mounted Police**, Community Noise Bylaw Enforcement Training, various locations. Sound level training certification workshops for RCMP personnel; ongoing audiological consultant, concluded April 2005.

. . . *Curriculum Vitae, Gordon Whitehead – Recently Concluded Consultantships, cont.* . . .

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**Railroad Association of Canada/Canadian National Railway.** Concluded hearing standards consultantship 2005.

**Attorney General's Office/National Police Force,** the Department of Health, and the Department of the Environment, Road Town, Tortola, British Virgin Islands. Concluded consultantship June 2005.

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#### MAJOR RECENT PROFESSIONAL ACTIVITIES:

**Sound Level Measurement and Analysis and Formal Reporting,** services have been provided in myriad environments, including industrial, mining, forestry, general outdoor environments, naval/military, educational institutions, music industry, compensation activities, etc. Measurement includes sound intensity, spectrum analysis, reverberation analysis, etc.

**Acoustical Assessment/Modification Recommendations,** bandrooms/rehearsal rooms, classrooms, gymnasias, etc.

**Provision of Hearing Conservation Services,** including sound level measurement and analysis, noise reduction/ hearing protection, hearing testing/retesting, and hearing conservation employee educational activities.

**Educational/Training Workshops,** hearing conservation training and refresher courses, occupational health nursing workshops, tinnitus management for audiologist workshops, employee education, special-purpose workshops relating to noise and hearing issues, police training relating to noise issues, etc. Custom designed/taught workshops with an audiological content, as requested.

**University Teaching/Professorship,** audiology graduate program full coursework relating to *Noise in Industry and the Community*, and requested lectures in other courses. Twenty-plus university graduate level courses have been taught over the past 25+ years.

**Calibration Services,** calibration of audiological instrumentation for hospital-based audiology clinics, private practice audiology clinics, school and industrial hearing screening programs.

**Client Audiological Diagnostic Services,** limited predominantly to tinnitus patients.

**Canadian International Hearing Services,** served as a volunteer providing services to 3 Caribbean countries during 7 trips.

**Note:** professional audiology services have been provided for more than 38 years.

. . . *Curriculum Vitae, Gordon Whitehead – New Audiological Clinic Establishment* . . .

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PROFESSIONAL ASSOCIATION AFFILIATIONS:

Canadian Association of Speech Language Pathologist and Audiologists (CASLPA) - full member.

- Holds professional certification [Aud(C)] in Audiology from CASLPA.
- CASP (Canadian Accreditation of Service Programs) site visitor, for the professional accreditation of audiology clinic facilities in Canada.

Speech and Hearing Association of Nova Scotia (SHANS) - full member.

Former member (and 2-time presenter) of the National Hearing Conservation Association.

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NEW AUDIOLOGICAL CLINIC ESTABLISHMENT ACTIVITIES (15 Clinics):

Established audiology clinic at Surrey Place Centre (formerly Mental Retardation Centre), Toronto, Ontario.

Established Barrie Audiology Clinic, a private practice clinic, Barrie, Ontario.

While serving as Audiology Division Supervisor/Assistant Supervisor for the Nova Scotia Hearing and Speech Clinic, was instrumental in establishing thirteen initial, permanent audiology clinics in the following Nova Scotia communities: Sydney Mines, Glace Bay, Cleveland, Antigonish, New Glasgow, Truro, Amherst, Kentville, Yarmouth, Bridgewater, Lower Sackville, Camp Hill Hospital (Halifax), Halifax Infirmary (Halifax). Also established two civilian ENG (electronystagmographic) clinics in Nova Scotia (Halifax and Sydney).

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PREVIOUS PERTINENT EMPLOYMENT:

Director, Industrial and Community Audiology - Nova Scotia Hearing and Speech Clinic (NSHSC), Halifax, Nova Scotia, September 1997 to 31 October 2000.

Audiologist, Nova Scotia Hearing and Speech Clinic, Halifax, Nova Scotia, November 1990 to September 1997.

Supervisor of the Audiology Division, Nova Scotia Hearing and Speech Clinic, Halifax, Nova Scotia, September 1981 to November 1990. Directly involved in setting up 13 new audiology clinics around Nova Scotia.

Assistant Supervisor of the Audiology Division, Nova Scotia Hearing and Speech Clinic, Halifax, Nova Scotia, June 1980 to September 1981.

. . . *Curriculum Vitae, Gordon Whitehead - Previous Pertinent Employment, continued* . . .

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Audiologist, Nova Scotia Hearing and Speech Clinic, Halifax, Nova Scotia, November 1979 to June 1980.

Lecturer, Teacher Education of the Deaf (TED Graduate Program), Université de Moncton, Moncton, New Brunswick, 1987, 1989, 1990.

Audiology Clinical Practicum Coordinator, Dalhousie University, Graduate School, School of Human Communication Disorders, 1980-1981 academic year.

Clinical Audiologist/founder, Barrie Audiology Clinic, Barrie, Ontario, March 1975 to August 1979. This is a private practice clinic that is still operating.

Industrial Audiologist/Founder, Hearing Conservation Services, Barrie, Ontario, March 1975 to August 1979.

Audiological Consultant, Huronia Regional Centre for the Mentally Retarded, Orillia, Ontario, 1974, 1977 and 1979.

Audiological Consultant, Prince Edward Heights, Hospital School for the Mentally Retarded, Picton, Ontario, 1972 to 1974.

Clinical Supervisor, Department of Rehabilitative Medicine, Program in Speech Language Pathology, University of Toronto, Toronto, Ontario, July 1970 to December 1974.

Audiological Consultant, Ottawa Civic Hospital, Department of Otolaryngology, Ottawa, Ontario, 1970 to 1973.

Audiological Consultant in Cortical Audiometry, Children's Psychiatric Research Institute, London, Ontario, 1970.

Research Audiologist/Research Grant Writer, Department of Otolaryngology, University of Toronto, Toronto, Ontario, July 1969 to July 1975.

Clinical Audiologist, Toronto General Hospital, Toronto, Ontario, July 1969 to January 1975.

Clinical/Research Audiologist (and founder of Audiology Clinic), Mental Retardation Centre, (now Surrey Place Centre), Toronto, Ontario, July 1969 to January 1973.

Audiologist, Dixon State School for the Mentally Retarded, Dixon, Illinois, July 1968 to June 1969.

. . . *Curriculum Vitae, Gordon Whitehead - Previous Pertinent Employment, continued* . . .

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Teacher of aural rehabilitation, speech reading, auditory discrimination, remedial English and current events, in adult deaf vocational rehabilitation program, State of Illinois Department of Vocational Rehabilitation, Northern Illinois University, DeKalb, Illinois, 1967-1968 academic year.

Speech Language Therapist, Dixon State School for the Mentally Retarded, Dixon, Illinois, June to September 1967.

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MISCELLANEOUS:

Adjunct professor/lecturer in graduate schools of Dalhousie University/Université de Moncton/University of Toronto, teaching numerous courses, including: Noise in Industry and the Community, Hearing Aids, Pediatric Audiology, Electrophysiological Audiometry seminar, Electronystagmography seminar, Calibration seminar, etc.

Presenter of hundreds of lectures and workshops from one hour to three day's duration, including most areas of diagnostic audiology, industrial hearing conservation, cortical audiometry, sound level measurement and analysis, physics of sound, instrument calibration, infant hearing screening, tinnitus management, electronystagmography, and electrocochleography.

Active participant in the CASP (Canadian Accreditation of Service Programs) process that evaluates and accredits hospital-based and private audiology clinics across Canada.

Expert witness in numerous court sessions and compensation hearings.

Recipient of audiological sound level measurement/analysis contract services for the Canadian Department of Defence-funded study granted to Dr. Sharon Abel and Brian Crabtree, entitled *A Study of Risk Factors for the Development of Noise-Induced Hearing Loss in Canadian Forces Personnel*, July to September 2003.

Recipient of Veterans Review and Appeal Board Canada (Public Works and Government Services Canada contract #51019-02-7022), 2003, for policy development: *Tinnitus Disability Guidelines: Development of a Formal, Model Tinnitus Policy*, and *Hearing Loss Disability Guidelines: Recommended Revisions to Existing Policy*.

Writer and co-researcher of four Defence Research Grants entitled "Hearing Under Stress", Department of Otolaryngology, University of Toronto, Toronto, Ontario, 1973 to 1977.

. . . *Curriculum Vitae, Gordon Whitehead - Miscellaneous, continued* . . .

Councillor, Executive Board, Ontario Speech and Hearing Association, Toronto, Ontario, 1972 and 1973.

Acting Chairperson/Co-founder, Audiology Section, Ontario Speech and Hearing Association, 1973.

Study visit (impedance), Dr. K. Terkildsen, Copenhagen, Denmark, 1969.

Study visit (pediatric assessment), Dr. B. Barr, Stockholm, Sweden, 1969.

Study visit (insert masking), Dr. T. Jouhiainen, Helsinki, Finland, 1969.

Study visit (evoked response audiometry), Dr. G. Solomon, Copenhagen, Denmark, 1969.

Study visit (noise exposure), Dr. Salmavalli, Turku, Finland, 1969.

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PUBLICATIONS:

Baker, J.G. and Whitehead, G. A portable recording apparatus for rating behavior in free-operant situations. *Journal of Applied Behavior Analysis*, 1972, 5, 191-192.

Baldursson, G. and Whitehead, G. Industrial Hearing Conservation Workshop Manual, 62 pages, 1980.

Dayal, V.S., Whitehead, G.L. and Smith, E.L. Gentamycin: progressive cochlear toxicity. *Canadian Journal of Otolaryngology*, 4 (2), 348-351, 1975.

Deecke, L., Goode, R., Whitehead, G., Johnson, W., and Bryce, D.P. Hearing Under Respiratory Stress: part I. Latency changes of the human auditory evoked response during hyperventilation, hypoxia, asphyxia, and hypercapnia. *Aerospace Medicine*, 44 (10): 1106-1111, 1973.

Published simultaneously in German in *EEG/EMG*, 4 (4): 176-181, 1973.

Whitehead, G. The audiologist in private practice. *Human Communication Canada*, VII (6), 371-374, 1983.

Whitehead, G. The clinical applicability of eeg audiometry. *Journal of the Ontario Speech and Hearing Association*, 1971.

Whitehead, G. Tinnitus Management. *Canadian Association of Speech Language Pathologist and Audiologists Communiqué*, 15: 11-13, 2001.



88

. . . *Curriculum Vitae, Gordon Whitehead - Publications, continued* . . .

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Whitehead, Gordon. Tinnitus Management Strategies for Audiologists: A Practical Guide for the Clinical Audiologist. 88 page textbook. Halifax, 2002.

Whitehead, G.L., Goode, R.C., Rubin, A.M., Johnson, W.H., and Bryce, D.P. Hearing under stress: part II. Effect of hyperventilation and hypercapnia on speech discrimination. *Aviation, Space and Environmental Medicine*, 48 (1): 5-6, 1977.

Whitehead, G.L., Rubin, A.M., Johnson, W.H., and Bryce, D.P. Hearing under stress: part III. The effect of external auditory meatal pressure on speech discrimination. *Aviation, Space and Environmental Medicine*, 47 (3): 308-309, 1976.

Whitehead, G.L., Rubin, A.M., Johnson, W.H., and Bryce, D.P. Hearing under stress: part IV. A speech delivery communication system for utilization in high ambient noise environments.

*Aviation, Space and Environmental Medicine*, 47 (8): 811-812, 1976.

Published simultaneously in *O.R.L. Digest*, 1976.

# Appendix J

89

**AFTER RECORDING RETURN TO**

Mikel Greene  
NextEra Energy Resources, LLC  
700 Universe Blvd. (JB/LAW)  
Juno Beach, FL 33408  
(561) 304-5934

(This space reserved for recording information)

**PARTICIPATION OPTION AGREEMENT**

THIS PARTICIPATION OPTION AGREEMENT is dated this \_\_\_\_\_ day of \_\_\_\_\_, 2010 ("**Agreement**") by and between \_\_\_\_\_, with an address of \_\_\_\_\_ ("**Owner**"), and Baldwin Wind, LLC, a Delaware limited liability company, with an address of 700 Universe Blvd., Juno Beach, FL 33408, and its successors in interests ("**Operator**").

RECITALS

WHEREAS, Owner is the owner of a certain tract of real property located in Burleigh County, North Dakota and more particularly described on **Exhibit A** attached hereto and made a part hereof ("**Property**").

WHEREAS, Operator is the holder of certain easement and other related rights covering real property located adjacent to and/or in the vicinity of the Property because it is constructing a wind energy conversion system with wind turbines, collection lines, roads, maintenance and operations facility and an electric substation in Burleigh County, North Dakota (collectively "**Wind Farm**").

WHEREAS, Operator desires to have certain landowners participate in the benefit of the Wind Farm and Owner desires to grant an option to Operator to purchase an exclusive easement for wind non-obstruction and a non-exclusive easement for effects on the Property attributable to the Wind Farm.

NOW, THEREFORE, for good and valuable consideration set forth herein, the adequacy and receipt of which is hereby acknowledged, Owner and Operator agree as follows:

1. **Option.** Owner grants to Operator an exclusive option ("**Option**") to acquire the Easements referenced in Section 2 in accordance with the following terms and conditions.

A. **Option Term.** The initial period during which Operator may exercise the Option shall be for a term of thirty-six (36) months, commencing on the Effective Date and expiring on the date immediately preceding the third (3<sup>rd</sup>) anniversary of the Effective Date ("**Initial Option Term**"). Operator shall have a single election to extend the Initial Option Term for an additional twenty-four (24) months ("**Extended Option Term**") by written notice to Owner at any time prior to the third (3<sup>rd</sup>) anniversary of the Effective Date, which notice shall be

accompanied by the Option Extension Payment (as defined in Section 1(B)). References herein to the "**Option Term**" shall mean the Initial Option Term and, to the extent exercised by Operator, the Extended Option Term, unless the context otherwise expressly requires.

B. Option Payment. As initial consideration for the granting of the Option, Operator agrees to pay Owner the sum of One Thousand Dollars (\$1,000.00) within sixty (60) days after the Effective Date. Additionally, Operator shall pay Owner the sum of One Thousand Dollars (\$1,000.00) per year on or before each anniversary of the Effective Date during the Initial Option Term unless Operator elects to discontinue the Option. If Operator wishes to extend the Option Term, Operator shall give Owner written notice thereof and pay Owner the sum of One Thousand Dollars (\$1,000.00) ("**Option Extension Payment**") before the end of the Initial Option Term. Thereafter, Operator shall pay to Owner the sum of One Thousand Dollars (\$1,000.00) per year throughout the Extended Option Term on each subsequent anniversary of the Effective Date.

C. Use of Owner's Property. During the Option Term, Operator and its employees, agents and contractors shall have a non-exclusive right to enter upon the Property and the right of ingress and egress over and across the Property for the purposes of performing such tests and studies as Operator may desire in connection with the Option, including, without limitation, sound, visual, light, flicker, shadow, vibration, wake, electromagnetic, electrical and radio frequency, environmental, avian and cultural resource assessments, provided that such activities do not unreasonably interfere with Owner's use of the Property.

D. Exercise of Option. Operator may exercise the Option by giving written notice to Owner ("**Option Notice**") at any time during the Option Term. Operator shall specify in the Option Notice the Commencement Date of the Easements, which shall be a day that is the first day of a month and a day that is not sooner than thirty (30) days and not later than sixty (60) days after the date the Option Notice is given to Owner. On the Commencement Date, the Easements referenced in Section 2 shall automatically become effective, and Operator and Owner shall be subject to all of the terms and conditions of this Agreement with respect to such Easements and all rights and obligations relating thereto.

E. Termination of Option. If Operator fails to exercise the Option within the Option Term, the Option and the rights of Operator as provided herein shall automatically terminate.

F. Authority to Grant Option. Owner warrants and represents to Operator that (i) the statements in Section 4 concerning Owner's title to the Owner's Property are true and correct; (ii) Owner has the authority to grant this Option to Operator without the consent or approval of any other party; and (iii) there are no other existing options, rights of first refusal, contracts to purchase, leases or mortgages that would prevent Operator from exercising its rights with respect to the Option.

2. Grant. Owner hereby grants Operator an exclusive easement for the right and privilege to use, maintain and capture the free and unobstructed flow of wind currents over and across the Property. Owner shall not engage in any activity on the Property that might interfere

with wind speed or wind direction over the Property; cause a decrease in the output or efficiency of any wind turbine that is part of the Wind Farm or accuracy of any meteorological equipment that is part of the Wind Farm; or otherwise interfere with Operator's operation of the Wind Farm or exercise of any rights granted to Operator in this Agreement. Owner grants to Operator a non-exclusive easement for sounds, visual, light, flicker, shadow, vibration, wake, electromagnetic, electrical and radio frequency interference, and any other effects (collectively "**Effects**") on the Property caused or alleged to be caused by the Wind Farm. The easements described in this paragraph shall collectively be referred to as "**Easements**".

3. **Term.** The term of the Easements shall begin on the Commencement Date and expire ninety-nine (99) years thereafter or as long as any wind turbine which is part of the Wind Farm exists within a one half (½) mile radius of Owner's residence as measured from the outside walls of the residence ("**Term**") unless otherwise terminated as provided in this Agreement.

4. Owner represents he or she is the holder of fee simple title to all of the Property, and has the right, without the joinder of any other party, to enter into this Agreement and grant Operator the Easements. Owner agrees to warrant and defend its ownership of the Property and Operator's interest in this Agreement against any other party claiming to have any ownership interest in or other claim to the Property. Owner agrees to cooperate with Operator's request to any mortgage holder or tenant for a subordination of any mortgage or lease to this Agreement and for an agreement not to disturb Operator's rights under this Agreement.

5. **Assignment.** Operator shall have the right, without Owner's consent, to sell, convey, lease, or assign all or any portion of its interest in this Agreement on either an exclusive or a non-exclusive basis, ("**Assignment**"), to one or more persons or entities (collectively "**Assignee**"). Any such assignment by Operator of its interests in this Agreement shall release Operator from all obligations accruing after the date that liability for such obligations is assumed by the Assignee.

6. **Right to Mortgage** Operator shall have the right, without Owner's consent to encumber, by one or more mortgage, security interest or otherwise, Operator's interest, or any portion thereof, in this Agreement ("**Mortgage**") to any mortgagee or secured party of or under any Mortgage ("**Mortgagee**"). Any Mortgagee shall be permitted to exercise or perform any and all of Operator's rights and obligations in this Agreement and Owner shall accept such exercise and performance by Mortgagee. Any Mortgagee under any Mortgage shall be entitled to assign its interest or enforce its rights thereunder, as permitted by applicable law, without notice to or approval of Owner.

7. The Easements shall run with the Property and shall be binding on Owner and Operator, together with their mortgagees, assignees, and respective successors and assigns, heirs, personal representatives, tenants or persons claiming through them.

8. Owner reserves the right to use the Property for all other purposes not granted to Operator under this Agreement, including but not limited to ranching and agricultural uses, and all recreational uses, provided that no such other use interferes with the Easements.

9. Owner hereby releases Operator from any and all claims for damages arising from any injury or harm or conditions related to the Property, including but not limited to, any harm or

92

loss due to nuisance, trespass, disturbance, Effects, diminishment of the value of the Property, proximity of the Wind Farm to Owner's Property and/or residence, diminishment or interference with the ability to use or enjoy the Property, and any other injury or harm, of whatever kind or character, to persons or property, whether now known or unknown, or which may appear or develop in the future, caused or alleged to be caused by the Wind Farm or by Operator, its parent companies, affiliates, successors, assigns, whether claimed or not claimed, or which hereafter might be brought by Owner or any of their successors and assigns.

10. Operator shall comply with valid laws applicable to the Property and Owner shall not be liable in the event that Operator violates a law relating to the Easements on the Property.

11. This Agreement shall be governed by and interpreted in accordance with the laws of the State of North Dakota.

12. If Operator fails to operate the Wind Farm for a period of three (3) years, then Owner may terminate this Agreement unless Operator continues to pay to Owner the Annual Installment Payment, which is the amount set forth in Compensation Agreement entered into contemporaneously with this Agreement.

13. The Parties agree to first attempt to settle any dispute arising out of or in connection with this Agreement by good faith negotiation. If the Parties are unable to resolve amicably any dispute arising out of or in connection with this Agreement, each shall have all remedies available at law or in equity. EACH PARTY HEREBY WAIVES ALL RIGHT TO TRIAL BY JURY AND SPECIFICALLY AGREES THAT TRIAL OF SUITS OR CAUSES OF ACTION ARISING OUT OF THIS AGREEMENT SHALL BE DECIDED BY A JUDGE WITHIN THE APPROPRIATE JURISDICTION.

14. Operator shall pay Owner the amounts set forth in a separate Compensation Agreement as the consideration for this Agreement. Owner and Operator acknowledge and agree that the Compensation Agreement shall not be recorded with the County Recorder, and that by separating the Compensation Agreement from this Agreement prior to recording does not in any way affect the validity of this Agreement.

**REMAINDER OF PAGE INTENTIONALLY BLANK**

EXECUTED effective the day and year set forth below.

**Owner:**

\_\_\_\_\_

\_\_\_\_\_

**ACKNOWLEDGEMENT**

STATE OF NORTH DAKOTA      )  
  )ss:  
COUNTY OF \_\_\_\_\_)

The forgoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_,  
2010, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

94

EXECUTED effective the day and year set forth below.

**OPERATOR:**

Baldwin Wind, LLC

A Delaware limited liability company

By: \_\_\_\_\_  
Dean R. Gosselin, Vice President

STATE OF FLORIDA                    )  
  )ss:  
COUNTY OF PALM BEACH         )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2010, before me, the undersigned notary public, personally appeared Dean R. Gosselin, personally known to me to be the person who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of said limited liability company and that he was duly authorized so to do.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

*(notary seal)*

\_\_\_\_\_  
NOTARY PUBLIC, STATE OF FLORIDA

95

**EXHIBIT A**

**Legal Description of Property**



96

**COMPENSATION AGREEMENT TO PARTICIPATION OPTION AGREEMENT**

In consideration for entering into the Participation Option Agreement (“**Agreement**”) with Baldwin Wind, LLC, a Delaware limited liability company (“**Operator**”), [Name], (“**Owner**”) shall receive the following compensation:

Upon exercise of the Option, Operator shall pay to Owner annually for the Term of the Agreement the sum of Two Thousand Dollars (\$2,000.00) times the number of wind turbines which are constructed by Operator within a One Half (½) mile radius of Owner’s residence as measured from the outside walls of the residence and which are part of Operator’s Wind Farm (“**Annual Installment Payment**”); provided, in the event there are three such wind turbines, the Annual Installment Payment shall be Five Thousand Dollars (\$5,000.00), for the Term of the Agreement. Operator shall have the right to terminate the Agreement and stop paying Owner the Annual Installment Payment in the event the Owner, or Owner’s successors and assigns, objects to any application made by Operator to any governmental agency for a permit necessary for the development and operation of the Wind Farm. Annual Installment Payments for partial years shall be prorated based on the number of days in the partial year included in the Term. Payments for the first partial year of the Term shall be made within sixty (60) days after the Agreement is exercised by the Operator. All subsequent Annual Installment Payments shall be due on or before January 15<sup>th</sup> of the succeeding calendar year or partial calendar year to which they are attributable during the Term. For example purposes only, Annual Installment Payments for the 2011 calendar year shall be due on or before January 15, 2012. Annual Installment Payments shall increase annually at the rate of two percent (2%) per year beginning with the payment due on the January 15<sup>th</sup> after the Wind Farm has been operating for a period of twelve (12) consecutive months.

Operator shall also pay to Owner a signing bonus of One Thousand (\$1,000.00) Dollars if Owner signs the Agreement on or before the date which is fifteen (15) days from the date in which the original draft of the Agreement is tendered to Owner or Owner’s representative or attorney. Payment for the signing bonus shall be made within sixty (60) days of mutual execution of the Agreement.

Payment shall be distributed as follows:

100% to [Name]

Signed and completed W-9 form required from each payee before payment is due from Operator.

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

Appendix K

integrity

97

September 26, 2012

Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, 27th Floor  
Toronto, Ontario, Canada  
M4P 1E4

NextEra Non Participation Agreement


To whom it may concern:

My name is Marc Laurie and I live in Baldwin, North Dakota, USA. Since moving to my residence in Baldwin in 2006, I have been involved in the public input process of developing an ordinance regarding the construction of wind farms in the township and county where I reside. In 2009, the Burleigh County Commissioners began the process of developing an ordinance because the Township had relinquished this responsibility years prior to Burleigh County officials. The development of the ordinance was necessitated by NextEra Energy's plans to construct wind turbines in our township.

As plans were developed and revealed by NextEra, proposed sites for wind turbines were not on our property, but the plan did show that turbines would be constructed within close proximity to our property. One day in 2010, a representative from NextEra came to our residence and the residence of our neighbors. The purpose of his call was to discuss an agreement that would be between NextEra and non-participating landowners to provide monetary benefits, this agreement was titled "Participation Option Agreement". As I remember the sales pitch, the representative told me that NextEra found that if non-participating land owners received money, that there would be fewer complaints. At the end of the meeting, the representative provided me with a copy of the agreement to review. I have saved this agreement and I have provided a copy of the agreement to Elissa Krul. The "Participation Option Agreement" provided to Mrs. Krul is a true and accurate copy of the agreement I was given by NextEra.

If you have questions in the future, please don't hesitate to contact me.

Sincerely,



Marc Laurie



Integrity

98

## Appendix L

posted: April 18, 2010 • Contracts, Health, Human rights, North Dakota, Property values, Siting

## Shadow Flicker release contract

Author: Ashtabula Wind (Nextera Energy Resources [FPL])

Jerry Lien  
North Dakota Public Service Commission  
April 16, 2010

Greetings Jerry,

I appreciate your attention to this matter of the effects of living next to wind turbines. As was discussed in our phone conversation, Next Era Energy is not offering to repair the damage or fix the problem of the noise and shadow flicker imposed on our home, business and property. They merely want to pay us to accept it. They say we can use the payment to fix the problem ourselves. In order to receive the payment, we must accept this contract as offered, which I have attached to this letter [*below*]. This contract, as you can see, is a release for the company to negatively affect us. Furthermore, this contract has more wording in it about keeping quiet about the whole issue than solving the problem. Also you can see that it will be binding on us and our property in any future issues.

\$15,000 as a payment is not going to fix this problem. We did not ask for money from this company but requested a relief to the problem at hand. Scott Scovill from Next Era, suggested for us to buy trees with the money. Trees will not block the effects because they are not tall enough and may take up to twenty years before they would grow even fifty ft. tall. One solution we suggested was to turn the offending turbines off only during the time they cause shadows. That suggestion was answered by Scott bluntly saying "we're not shutting them off". Since then Scott or any other Next Era representative has not returned our phone calls.

Mary Ann and I cannot sign on to a contract of this nature. Our attorney advises against it as well. We are not willing to release to the company our property and enjoyment of our home so they can cause noise, shadow flicker, interference, diminishment of property value and the effects acknowledged in their contracts. We are now suffering from these problems as a result of the decision to allow this irresponsible siting of wind towers too close to our farm.

By reviewing the project you can see there are about four or five turbines to the east of our farm that are causing blinking shadows up to an hour and a half per day for at least 12 weeks of the year. The shadow effects across the windows of our offices are severely disruptive to our business.

How does the Public Service Commission plan to deal with our issue? Is this going to be allowed in every wind farm project in the future? Is it going to be allowed that a large out-of-state company negatively impact a local business? Are the residents of this state expected to sell –

(quoted from the contract) "the ability to use or enjoy your property, nuisance, injury or harm to persons, anxiety, suffering, mental anguish and loss of ability to enjoy life"?

I would like a response to these questions.

It has been brought to my attention that Next Era representatives have been spreading a lie that we knew this wind farm project was planned before we purchased our property here in Griggs County. This is a false statement and can be proven. We were living on our farm when we were invited to the first meeting of this project.

I request that you make this contract and my letter part of the public record.

Sincerely,  
Jim Miller

[[[ ]]]

#### RELEASE

THIS RELEASE ("Release") is made as of the \_\_\_\_ day of \_\_\_\_\_, 2010 by and between Ashtabula Wind II LLC, a Delaware limited liability company ("Company") and \_\_\_\_\_, ("Owner") (hereinafter collectively the "Parties") upon the terms and conditions set forth below:

#### RECITALS:

WHEREAS, Owner is the owner of a certain tract of land located in Griggs County, North Dakota legally described on the attached Exhibit A ("Property") and incorporated herein; and

WHEREAS, Company owns and operates the Ashtabula Wind Energy Center ("Wind Farm"), a wind farm which is adjacent to the Property; and

WHEREAS, Owner notified Company that they are experiencing problems with shadow flicker at their residence on the Property.

NOW THEREFORE, in consideration of the mutual promises and agreements set forth herein, the Parties hereby agree, as follows:

The recitals are true and correct and are incorporated in this Release by reference.

Company shall pay to Owner the one-time amount of Fifteen Thousand Dollars (\$15,000.00), payable on or before March 31, 2010, for any and all shadow flicker related to the Property, caused or alleged to be caused by the Wind Farm stemming from, related to or attendant to the operation of the Wind Farm by Company, its parent companies, affiliates, successors, assigns, related companies including but not limited to interference with glare, shadow flicker, diminishment of the value of the Property, the ability to use or enjoy the Property, nuisance, and

any injury or harm to persons, including but not limited to anxiety, suffering, mental anguish, loss of the ability to enjoy life, or any other harm or wrong, tort, intentional or negligent conduct stemming from, related to or consequent to shadow flicker from the Wind Farm whether claimed or not claimed, including all claims that could have been brought, or which hereafter might be brought by Owner or any of their successors and assigns.

The matters settled and released pursuant to this Release include all matters, claims, causes of action, and disputes of any nature whatsoever within the authority of the Parties (including third-party claims, indemnity claims, contribution claims, direct and derivative claims, and any other claims held in any capacity) whether or not fully accrued, relating to or arising out of the interference on the Property. The foregoing matters described in paragraph 2 are referred to hereinafter in this Release as the "Released Matters."

The Parties, each for itself and its directors, officers, agents, and/or representatives, hereby expressly and unconditionally release and discharge one another, and their respective directors, officers, agents, representatives, employees, agents, successors and/or assigns, from any and all obligation, liability or responsibility arising from or as a result of the Released Matters.

The execution of this Release shall not be construed as an admission by any Party as to the validity or invalidity of any other Party's position with reference to the issues resolved in this Release and neither party shall, directly or indirectly, seek to take or advance any position before any court, agency, or administrative tribunal, predicated in whole or in part on any term or condition of this Release except in connection with an action to enforce this Release or the terms or conditions thereof. The fact of settlement, the amount, nature of terms of the Release, and this Release are to remain strictly, totally and completely confidential and any breach of the terms of this Release shall entitle the non-breaching Party to seek all equitable relief as well as monetary damages from Owner. The Parties agree not to make any statements, written or verbal, or cause or encourage others to make any statements, written or verbal, that defame, disparage or in any way criticize the personal or business reputation, practices, or conduct of the other party, its employees, directors, and officers. The Parties acknowledge and agree that this prohibition extends to statements, written or verbal, made to anyone, including but not limited to, the news media, investors, potential investors, any board of directors or advisory board or directors, industry analysts, competitors, strategic partners, vendors, employees (past and present), and clients. Either Party, if approached, has the right to state "we had an issue and that the issue has been resolved to our satisfaction."

The Release may not be modified or amended except by a written instrument signed by all the Parties hereto.

In the event of litigation arising out of or in connection with the enforcement of this Release or any dispute arising out of this Release, the prevailing party shall be entitled to recover all reasonable attorneys' fees, costs and incidental expenses incurred in connection with such litigation proceeding, including all costs or fees incurred on appeal.

The provisions of this Release shall be governed by North Dakota law.

8. This Release shall be binding upon the predecessors, heirs, successors, and assigns of each Party.

EXECUTED on the dates appearing below their signatures by the Parties' undersigned officers, duly authorized.

Company:  
Ashtabula Wind II LLC,  
a Delaware limited liability company

By: \_\_\_\_\_  
Name: Dean R. Gosselin, Vice President  
Date: \_\_\_\_\_

Owner: \_\_\_\_\_  
Name: \_\_\_\_\_  
Date: \_\_\_\_\_

*This article is the work of the author(s) indicated. Any opinions expressed in it are not necessarily those of National Wind Watch.*