

Invenergy

Question and Comment Table

Project: Strong Breeze Wind Project

Proponent: Strong Breeze Wind Power Partnership

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Consultation and Community Relations

Landowner Support

Did Invenergy financially incent landowners so they could obtain support from 75% of abutting landowners for the project?	Strong Breeze Wind Power Partnership ("SBWPP") obtained support from 75% of the landowners with properties abutting the Project Site lands submitted as part of the LRP bid in accordance with the Large Renewable Procurement (LRP) process. Arrangements between SBWPP and these landowners are private agreements.
Will Invenergy repeal their statement that 75% of adjacent landowners support the project now that turbine placement is finalized?	No. SBWPP obtained support from 75% of the landowners with properties abutting the Project Site lands submitted as part of the LRP bid in accordance with the LRP process.
Our citizens have been outspoken in their lack of support of this project, due to both environmental and economic concerns. Consequently, we are concerned that the requirement for 75% landowner support of the project has not been met.	SBWPP obtained support from 75% of the landowners with properties abutting the Project Site lands submitted as part of the LRP bid in accordance with the LRP process.
Why were we informed at the public meeting that 75% of adjoining landowners were in favour of the project, when the vote was 84% against?	SBWPP obtained support from 75% of the landowners with properties abutting the Project Site lands submitted as part of the LRP bid in accordance with the LRP process.

Community Benefits

Considering Invenergy has done an extensive economic evaluation why have they not done a negative impact study and produced it so the community could make fair judgments?	SBWPP believes renewable projects have many positive impacts to communities. In a January 2017 report entitled " <i>Economic Benefits of Wind Power Development and Operation in Dutton Dunwich, Ontario</i> " which was completed by Guy Holburn, PHD, a professor at the Ivey School of Business and Director Ivey Energy Policy and Management Center at Western University. The report found the Direct economic benefits to the Dutton Dunwich community from the Strong Breeze Wind Project total approximately \$1.7 million annually, equivalent to \$1,170 per household. The increased value of Dutton Dunwich municipal property tax receipts and Community Benefit Fund donations amounts to \$180,000 annually on average, equivalent to 6% of Dutton Dunwich's net property tax revenue in 2015. These monies may be used by Council to fund new projects or to support existing commitments, potentially offsetting residential property taxes. The project is also expected to bring local jobs during construction and several permanent high skilled jobs during operation. The full report is available on the Project Website @ www.strongbreezewind.com/documents
Is it true that the money being offered to our community is actually coming from the Green Energy Act paid for with my tax dollars?	The project is currently in development, and will not generate revenue until it is operational. The Community Benefit Fund (CBF) is part of SBWPP's overall business plan, and is a way for the project to benefit the wider community. The funds for the CBF will come directly from SBWPP.
What other Invenergy projects are good examples of how community funds provided by Invenergy made a difference in other communities?	Invenergy's Raleigh wind farm in Chatham-Kent, Ontario provides over \$40,000/year in community funding and has supported numerous rural community improvements such as the opening of a splash pad in the Town of Merlin (2013 - CBF contributed \$20,000); 24 iPads for Merlin Public School, \$5,000 contribution from CBF; new 78" lawnmower for Merlin's Kinsmen Park, \$15,000 contribution from CBF etc.

Community Compensation	
Is it possible to lower the taxes of everybody in Dutton Dunwich?	As per the report "Economic Benefits of Wind Power Development and Operation in Dutton Dunwich, Ontario": Direct economic benefits to the Dutton Dunwich community from the Strong Breeze Wind Project total approximately \$1.7 million annually, equivalent to \$1,170 per household. The increased value of Dutton Dunwich municipal property tax receipts and Community Benefit Fund donations amounts to \$180,000 annually on average, equivalent to 6% of Dutton Dunwich's net property tax revenue in 2015. These monies may be used by Council to fund new projects or to support existing commitments, potentially offsetting residential property taxes. The full report is available at www.strongbreezewind.com/documents .
Will there be tax relief, hydro rebates, or general compensation for any Dutton residents directly resulting from Project implementation? If so, where does this money come from?	SBWPP believes renewable projects have many positive impacts to communities. In a January 2017 report entitled "Economic Benefits of Wind Power Development and Operation in Dutton Dunwich, Ontario" which was completed by Guy Holburn, PHD, a professor at the Ivey School of Business and Director Ivey Energy Policy and Management Center at Western University. The report found the Direct economic benefits to the Dutton Dunwich community from the Strong Breeze Wind Project total approximately \$1.7 million annually, equivalent to \$1,170 per household. The increased value of Dutton Dunwich municipal property tax receipts and Community Benefit Fund (CBF) donations amounts to \$180,000 annually on average, equivalent to 6% of Dutton Dunwich's net property tax revenue in 2015. These proposed contributions to the Municipality and Community Benefit Fund would come from the revenue generated by the clean electricity produced by the project. These monies may be used by Council to fund new projects or to support existing commitments, potentially offsetting residential property taxes. The project is also expected to bring local jobs during construction and several permanent high skilled jobs during operation. The full report is available on the Project Website @ www.strongbreezewind.com/documents .
Who is responsible for reviewing the project contract and ensuring that fair compensation is provided to the community?	Community funding and benefits are at the discretion of project proponents. SBWPP has offered numerous benefit agreements to the Municipality of Dutton-Dunwich for consideration to provide additional financial benefits above and beyond the positive economic contributions the development/construction and operation of the facility will make.
Community Consultation/Relations	
What is Invenergy's public consultation plan for the project?	Consultation is as required by Ontario Regulation 359/09; please visit the project website strongbreezewind.com/community-engagement for a copy of the community engagement plan. SBWPP has implemented multiple measures for consultation including two first public meetings with full layout proposals instead of just one and no layout. Draft REA reports are also being provided to the community for comment more than 60 days before the second public meeting. Following the second public meeting, the reports will be finalized and submitted to the MOECC. Once they have been reviewed for completeness, the MOECC will provide a public comment period on their website, the Environmental Bill of Rights Registry. Furthermore, if the project obtains a Renewable Energy Approval (REA) it will form a Community Liaison Committee (CLC) during construction and operation to keep the public informed about Project Progress and to address any concerns. Public notice will be provided when this group is forming.
Invenergy stated in writing that its goal is to develop a long-lasting positive relationship [with Dutton landowners]? Did	Invenergy has undertaken several steps to build a positive and beneficial relationship with the Dutton Dunwich community. This includes the proposal of a Community Benefit Fund and Municipal Agreement, a proposed partnership with the local Erie Breezes Energy Co-op, and a

<p>Invenergy take the community opposition into consideration when setting this goal?</p>	<p>continued ongoing commitment to integrate public feedback into project development. Invenergy remains committed to being a positive presence in the community.</p>
<p>Is Invenergy going to commit to seriously addressing community concerns tonight and present to this community a revised set of documents that address our concerns?</p>	<p>Consultation is as required by Ontario Regulation 359/09; Draft REA reports have been provided to the community and are available for review and comment at www.strongbreezewind.com/documents. SBWPP is holding a second public meeting October 25th, 2017 to present the content of the draft documents to the public and other stakeholders and to receive feedback. Following the second public meeting, the reports will be finalized and submitted to the MOECC.</p>
<p>What consultation is occurring with Dutton Dunwich council and community members?</p>	<p>SBWPP is discussing agreements with the local municipality and the county. SBWPP has had meetings with Council since the beginning of the project. SBWPP held public meetings during the request for proposal process, and has held two initial public meetings during the REA process with plans for an additional meeting. There is a project website (strongbreezewind.com) where community members are encouraged to learn about the project.</p>
<p>I am concerned that only Dunwich residents receive project information, yet Southwold Township has turbines within 1 km and they do not.</p>	<p>No turbines are planned to be located in Southwold Township as part of this project. Please refer to the project mapping in the Draft Site Plan. Landowners within 550 m of the Project Location and properties abutting proposed project infrastructure properties received direct notification by mail. Broad-based notification to all residents in the area was provided through notification published in local newspapers (West Elgin Chronicle and St. Thomas Times-Journal).</p>
<p>Why hasn't a study of negative impacts been conducted to allow the community to judge the project fairly?</p>	<p>The REA process and studies will analyze the project and assess its potential effects on the environment and local community. As described at the first public meeting, this work has already led to some changes to the Project to reduce its potential effects. This work is ongoing and will be described in the draft REA reports which are released at least 60 days before the next public meeting.</p>
<p>Can you provide proof of delivery to Southwold Township for project documents?</p>	<p>The Project Location is not in Southwold Township. Ontario Regulation 359/09 requires consultation with municipalities in which the Project Location is situated.</p>
<p>Does Invenergy feel that the community is well informed of the Project's negative environmental effects?</p>	<p>The REA process and studies will analyze the project and assess its potential effects on the environment and local community. As described at the first public meeting, this work has already led to some changes to the Project to reduce its potential effects. This work is ongoing and will be described in the draft REA reports which are released at least 60 days before the next public meeting.</p>
<p>When did Invenergy inform local communities about the project and its local and negative environmental effects as per the REA guidelines? What was discussed?</p>	<p>SBWPP first informed the community about the project in 2012 and held a public meeting under the Large Renewable Procurement Process in 2015. The REA process and studies will analyze the project and assess its potential effects on the environment and local community. As described at the first public meeting, this work has already led to some changes to the Project to reduce its potential effects. This work is ongoing and will be described in the draft REA reports which are released at least 60 days before the next public meeting.</p>
<p>Will you have links on your website for the documents on display at the Public Information Centre?</p>	<p>The information on display at the public information centre is found on the project website at: strongbreezewind.com/documents</p>
<p>Please clarify what is said in Section 10.3.1 of the REA guidelines about applications on the environmental registry being subject to a minimum 30-day public comment period.</p>	<p>Once a Renewable Energy Approval application has been reviewed by the MOECC and has been deemed to be a complete application (meaning all reports and report content meet the requirements of the regulation), the MOECC posts a notice on the Environmental Bill of Rights Registry to let the public know they have a minimum of 30 days to provide comments directly to the MOECC on the project. The MOECC then considers these comments during their six-month technical review of the application.</p>

In what format will our questions be answered?	Responses are being provided in several ways. This includes direct responses to individuals, a compilation of questions and responses in this table that are posted on the project website, and through reference in the REA documentation that is being developed.
This Project has caused bitterness between neighbours in our community.	SBWPP is aware that there is both support and opposition to the project in the community. To address concerns, SBWPP focuses on providing factual information about the project so that the local community is informed throughout the project development process, and can review the extensive assessments conducted to ensure the project is developed in a safe way with minimal impacts to the local community.
Were all abutting landowners to the turbine locations notified of this meeting?	SBWPP notified landowners within 550 m of the Project Location and those on properties abutting the property on which the project location is situated.
Does consultation include landowners whose properties were recently added to the Project study area?	Consultation requirements as per Ontario Regulation 359/09 have been followed.
Why Democracy isn't the same for all in this province? A short time ago John Tory and Kathleen Wynne are talking about putting tolls on [Gardiner Expressway, Don Valley Parkway] in Toronto and it would help raise revenue in Toronto. Shortly thereafter [Premier] Wynne went to 905 area and cancelled this saying this is how democracy works. Now in Dutton Dunwich after 84% voting against this project and also over 1800 signatures against by petition presented in government, they won't cancel.	The Strong Breeze project has over 100 participating landowners in the area indeed there is indeed large number of supporters for the project as proposed. SBWPP has received a power purchase contract from the Independent Electricity System Operator through the LRP 1 Program. SBWPP acknowledges the opinion poll and the sentiment from some individuals in the community about wind energy. However, there is a defined regulatory process for renewable projects. Permits and approvals are not subject to local surveys or opinion polls.
Community Working Group	
Did Invenergy assist or advise the liaison group in the identification of valued resources (e.g. heritage resources, species at risk)?	The identification and assessment of resources (i.e. Natural and Cultural Heritage) are included in project permitting through the Renewable Energy Approval Process. The Community Working Group helped identify various areas of concern, which also have been considered in the project studies.
Is the Community Working Group aware of anything that Invenergy did to help resolve community concerns?	SBWPP provides accurate information to the best of its ability to address all concerns as they arise. Working group suggestions on format of First public meeting, and public notification were implemented by SBWPP. The Community Working Group helped identify various issues (for example local infrastructure and places of concern) which also have been considered in the project studies.
Was scenic impairment discussed with the liaison group, and if so, were resolutions determined?	A variety of topics were discussed including the visual nature of wind turbines included in the rural landscape.
Did Invenergy help the liaison group to promote project acceptance to the Dutton community?	The goal of the Community Working Group was to assist SBWPP in its efforts to: <ul style="list-style-type: none"> i. Fully understand the community concerns regarding wind energy development in the area; ii. Identify and address any anticipated impacts of wind energy development; and iii. Share information on wind energy development.
Did Invenergy encourage the liaison group to communicate with liaison groups [for other projects]?	Members were welcome to reach out to other such groups in other project communities.
Has discussion of reasons for community opposition been initiated with the liaison group?	Yes, the group discussed the concerns of the opposition. The community working group was comprised of members both supportive and unsupportive of the project.
Was bird and bat data reviewed with the community working group? What was the conclusion and if not, why not? What negative effects on birds and bats were discussed with the group?	Extensive bird and bat data is being made publicly available through the REA process, and will be included in the Draft Natural Heritage Report. This document is available to the public for review prior to the second public meeting; any member of the public and the community working group are welcome to review it and submit questions and feedback.

Complaints	
Is a formal complaint resolution process in place? Was this process available early in project development?	Invernergy has and continues to encourage the community and interested stakeholders to reach out if they have any questions, comments, or any additional feedback. If the project obtains a Renewable Energy Approval (REA) it will form a Community Liaison Committee (CLC) during construction and operation to keep the public informed about Project Progress. Public notice will be provided when this group is forming.
Economic Impact and Economic Benefit Study	
Is a list of full-time jobs directly resulting from Invernergy projects available to give credibility to the Economic Benefit study? If not, why not?	We anticipate that there would be 5-6 permanent positions created for the operation and maintenance of the facility in Dutton Dunwich, and over 150 construction related jobs for the building of the project.
What kWh usage per home were the 18,000 houses modelled on in the Economic Benefit study?	When calculating the total number of houses the project could power, the Canadian average household consumption was used, which is a total of about 12,000 kwh per year.
The Economic Benefit case study is modelled after a 30-year period, but the Project contract is only 20 years. Why is Invernergy misrepresenting this information?	The report does reflect the benefits over a 20-year period although it does state that, "The estimates contained in this report of the economic benefits to Dutton Dunwich are relatively conservative since they do not include indirect or induced effects, which are difficult to accurately measure at the very local level, or the value of benefits beyond the initial 20-year period even though the expected lifespan of wind farm infrastructure is generally 30 years or more. Incorporating these aspects would augment the overall value of the expected economic benefits. Extending the time frame to 30 years would add \$24 million to the overall estimate."
What economic impact will the Project have on our township?	Please refer to the Economic Benefit Study available on the Project's website at strongbreezewind.com
Aboriginal Consultation	
Has Invernergy consulted with the Delaware, Munsee, and Oneida and other Indigenous communities?	Strong Breeze Wind Power Partnership has been in contact with all Aboriginal communities on the MOECC's aboriginal contact list.
Why were Aboriginal bands 1000 km away from the Strong Breeze project area approached to invest their gift of 11% from the government, rather than our local bands who actually hold the land treaties to the project properties?	Northern Chiefs Council (NCC) represents six Northern First Nations with a mandate to reduce their dependency on diesel use by 50% and replace it with more sustainable sources of electricity. NCC's 10% ownership interest in the Strong Breeze Wind Project supports these priorities as well; the revenue will provide additional capital to further develop the remote grid system in the communities. SBWPP is also engaging with First Nations to satisfy the applicable aspects of the duty to consult.
Local First Nations groups feel that they have not been consulted about their concerns about the Strong Breeze Project, and minimal consultation with Council and our citizens has not addressed the above concerns.	SBWPP has been in contact with all Aboriginal communities on the MOECC's list. SBWPP will continue to consult with these communities and will ensure that the requirements of Ontario Regulation 359/09 and the REA process for Aboriginal consultation, and the applicable aspects of the duty to consult, are met.
When was Indigenous consultation initiated to obtain relevant information and local knowledge, as per the REA guidelines? What was discussed? Why weren't local Indigenous groups consulted?	Ontario Regulation 359/09 and the REA guidelines require that the Proponent prepare a preliminary Draft Project Description Report and send it to the Ministry of the Environment and Climate Change (MOECC) for the purposes of obtaining an official Aboriginal consultation list. This list was received October 19, 2016, and all REA required notifications and mailings were provided to the Aboriginal communities on the list. Prior to this, letters were sent to Aboriginal communities on the list developed during the Large Renewable Procurement Process, asking if Aboriginal communities would like to participate in the Stage 2 archaeological assessment work. In-person meeting invitations have been extended to all Aboriginal communities on the contact list.

Can Invenergy provide a list of Aboriginal communities that must be consulted, as per the REA guidelines?	The MOECC provided a list of Aboriginal communities to be consulted for the project. That list will be included in the Consultation Report.
Agency Consultation	
Was consultation with the Ministry of Natural Resources and Forestry initiated during preliminary project planning? When?	Yes. The Ministry of Natural Resources and Forestry was contacted as part of the records review to identify natural heritage features to be considered during project planning.
Public Consultation	
Where significant negative environmental effects are anticipated could Invenergy hold a meeting for the public with a panel of government and other experts (e.g., from the MOECC, MNRF and Environment Canada) to discuss these potential impacts and new studies that have been done or are underway on these topics?	The Draft REA reports have been completed and posted to the project website for public review, these were completed based on field studies and technical work to date. The study findings, project specifications, potential negative effects, and mitigation/monitoring measures are documented in various reports.
What does "First Renewable Energy Approval Meeting" mean? Are you expecting Dutton Dunwich to approve this plan?	A Renewable Energy Approval, or REA, is required for all renewable energy projects like this one. The REA process is administered by the Ministry of Environment and Climate Change and includes public, municipal and stakeholder consultation. Ontario Regulation 359/09 requires that at least two public meetings are held at different times, one after the release of the draft Project Description Report and one after the release the draft REA documents. We elected to hold two nights of the first public meeting and disclose full layout of the project to allow sufficient time for the community to provide feedback. A second public meeting is scheduled October 25th, 2017.
Was 6 hours over two weekdays sufficient, since it avoids all community members that travel on a weekly basis?	We assume that this question relates to the public meetings held on March 23-24 both during day and evening hours. According to the REA guidelines, the developer must hold one public meeting at this point in the process. We feel that these two meetings were more than sufficient to provide community members with an opportunity to speak with representatives and obtain information. All the information provided at the public meetings is also posted on the Project website, including contact information for SBWPP and its consultant.
The minimum consultation requirements include two public meetings. Has the second meeting been scheduled?	A second public meeting has been scheduled for later this year. The first round of public meetings was held to ensure enough time for the community to speak to Project representatives and their consultants in person.
The meeting would have been more beneficial if it had been a town hall meeting, where individuals would learn more about the Project.	The open house structure of the public meeting allows more people to get the answers they need and to provide comments. Between Stantec and SBWPP employees, there were 14 staff available over two days for a total of five hours to answer questions and listen to concerns. This format allows people interested in specific topics to get direct answers to their questions. For example, large scale prints of the natural features maps and noise receptor maps allowed members of the community to speak directly with those technical specialists, review the maps, ask questions, and provide feedback.
I am concerned that the information from the PIC and project notifications is "propaganda" and not factual.	All the information provided is based on studies that have been conducted by the Proponent and their consultant to meet the requirement of the regulation (and will be factually checked by government agencies) or obtained from reputable sources of information, including peer reviewed studies (e.g., health research).
I came to the PIC for project information and left with the impression that the PIC was held only to inform the public that the project would go forward despite the community opposition.	The meetings were held to: a) provide useful information to the public; b) allow the public to ask questions and receive direct responses; and c) provide a venue for the public to provide feedback. These meetings were held before the majority of studies were complete in order to obtain valuable information from the community early in the process. Information received from

members of the public will be used in our studies where appropriate. A second public meeting is scheduled later this year to provide information on the results of all the studies conducted.

We have posted the maps and information panels shown at the public meeting on the website for those who did not attend the public meeting and those who did attend to be able to review the information provided at the meeting.

These ministries are consulted throughout the Project starting with a request for background information through to submitting reports for their confirmation. The regulation does not require that notices, including public meeting notices, be mailed to the ministries.

The Dutton Community Centre is an accessible environment for persons with disabilities.

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Erie Breezes Energy Co-operative Ltd.

The Erie Breezes Co-Operative Ltd. was incorporated in 2013. The co-op is governed by a Board of Directors elected from the membership. Anyone over the age of 18 living in the Province of Ontario may apply to become a member of the co-op. There is a one-time membership fee of \$100. Membership in the co-op provides the member with the opportunity to invest, through the co-op, in the Strong Breeze Wind Project. Local activities have included a brochure sent out to every household in Dutton Dunwich, newsletters, advertisements, and articles in the local newspaper. Further information can be found on the co-op website www.eriebreezescoop.com.

Participating Landowners

Landowner and abutting landowner agreements are in place with those who are in favour of the project and renewable energy. There are no such clauses that deny them the right to speak publicly about any aspect of the project.

The requested information is personal information of the participating landowners.

A Notice of Option or Lease is registered on property title, the landowner agreement would transfer to the new owner and they would receive project information the same way the current owner does now.

Yes, landowners are advised to seek independent legal advice prior to signing an Option to Lease.

Existing Activity and Land Use Restrictions

No, for adjacent non-participating landowners, they are not required to get approval from SBWPP to place structures within a certain distance of a wind turbine.

If the owner of the land permits these activities, then the only time these activities may be interrupted is during construction or major maintenance.

Was hunting on turbine lands addressed in turbine property contracts?	There is no reference to hunting in the leases with landowners. A landowner may choose to allow or not allow activities (including hunting) on their property.
Agriculture	
What total amount of agricultural land will be affected?	After construction is complete, 10.71 hectares of agricultural land will be taken out of production during the operational phase of the project.
I am concerned that my horses will be afraid of the turbines [noise, vibration, shadow flicker].	There is nothing in peer reviewed scientific research to suggest that turbines pose any health risks for residents or livestock when sited in accordance with the Ministry of the Environment and Climate Change's mandated setbacks. We appreciate that there is often a level of apprehension among non-participating landowners and residents around new facilities being located in communities that don't have existing projects. There is no reason to think that your horses will be affected.
Air Traffic, Airports, Aerodromes and/or Aviation Safety	
What measures is Invenegy taking to prevent vandalism of turbine blades and aviation lights?	SBWPP will ensure appropriate security measures are enforced during construction and during operation.
Will turbines cause air traffic interference, potentially resulting in crashes and fatalities?	No. The project will abide by all rules and regulations that pertain to registered aerodromes as set out by Transport Canada and NAV CANADA; SBWPP is consulting with these agencies.
Why are wind turbines closer than regulations require for takeoff and landing at the two registered air landing strips in the area?	The project turbines are not closer than required. The project will abide by all rules and regulations that pertain to registered aerodromes as set out by Transport Canada and NAV CANADA, and we are consulting with these agencies. NAV CANADA has already reviewed the project site plan and issued notice that it has no objections to date. Transport Canada is reviewing the proposed lighting plan for the project and consultation is ongoing.
Annoyance	
How can you resolve the disturbing noise and visual effects of wind turbines?	The Project will meet MOECC's Noise Guideline for Wind Farms. Lighting on turbines is subject to approval by Transport Canada (for aviation safety purposes); however, SBWPP will work to minimize the number of turbines needing lighting.
Archaeology	
What is the depth/type of ploughing required for the archaeological work?	The Ministry of Tourism, Culture and Sport's (MTCS) 2011 <i>Standards and Guidelines for Consultant Archaeologists dictate how the assessments are completed</i> . For the Stage 2 archaeological assessment of an agricultural field, the MTCS requires at least 80% of the ground surface to be visible. In order to achieve 80% visibility, crop stubble, weeds, and young crop growth must be ploughed under using a plough that turns the soil over, such as a mouldboard plough. For the depth of ploughing, the <i>Standards and Guidelines for Consultant Archaeologists</i> directs the person ploughing "to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing" (Section 2.1.1 Standard 4).
Southwold Earthworks is a National Historic Site designated in 1923. Was this 1450-1550 native village and potential smaller outposts in the vicinity of turbines taken into consideration during turbine placement planning?	The Southwold earthworks site is located more than 3 km away from the nearest wind turbine. In accordance with Section 1.1 of the <i>Ministry of Tourism, Culture and Sport's (MTCS) 2011 Standards and Guidelines for Consultant Archaeologists</i> all sites located within 1 km of the Project Location are listed in the Archaeological Assessment Report. Stage 2 archaeological field studies were done on all lands that could be disturbed by the Project. Turbines and infrastructure have been placed to avoid identified archeological sites.

Natural Environment

Bats

<p>Will Invenergy consider using bat echolocation detectors to monitor the presence of bats near turbines, and shut down any turbines with nearby bats as a mitigation measure?</p>	<p>The REA permit will have requirements to implement operational mitigation in the event that bat mortality at the project exceeds MNRF's threshold. REA required mitigation, which involves stopping or feathering turbine blades during low wind nights (conditions when bat activity is high), has been proven to be effective. During project operation, SBWPP will consider advances in research that increase efficiency of mitigation strategies.</p>
<p>I am very worried about the number of bats that will be killed by this project. How will you ensure that bats will not be killed in larger numbers than allowed? How far away from the turbines do you look for bat carcasses to count? Do you count at all turbine sites? How frequently? How do you decide which sites to measure?</p>	<p>The Ministry of Natural Resources and Forestry (MNRF) provides guidelines for post-construction monitoring at wind farms. The monitoring program will run for a minimum of three years after operation begins. Monitoring will occur twice weekly at a minimum of 10 turbines and monthly at all turbines in the projects. The subset of 10 turbines is selected in consultation with MNRF to provide a spatial representation of the area. Corrections will be used to account for bats that may fall outside of the search areas, are removed by scavengers, or overlooked by searchers. Mitigation to reduce bat mortality at wind turbines have been well studied, and there are identified measures that are proven to be effective. The REA will have requirements to implement proven mitigation, in the event bat mortality at the project is over MNRF's threshold.</p>
<p>How long will you be counting bat mortalities at this project?</p>	<p>As part of the REA, there will be a monitoring plan in place for at least 3 years post-construction.</p>
<p>If bat mortalities are too numerous, what mitigating measures will you take to decrease the mortality rate? Will the turbine be shut down at night-time?</p>	<p>At a minimum, we expect the REA to incorporate the mitigation measures set out in MNRF's bat and bat habitat guidelines.</p>

Birds

<p>I am concerned about wind turbines affecting the flight patterns of migratory waterfowl into a wetland was recently created in Dutton to attract them.</p>	<p>Based on a review of previous studies on waterfowl and wind turbines, avoidance by migratory waterfowl is not expected to be a concern. Waterfowl avoidance studies were reviewed in another Ontario project, which is situated in an Important Bird Area, recognized for its globally significant concentrations of migrating waterfowl. The study found no material difference in the numbers of waterfowl that continued to use the wetlands in proximity to wind turbines. Migratory waterfowl are expected to continue to utilize the created wetlands in Dutton after the Project is operational.</p>
<p>How will our Bald Eagles be protected? How many Bald Eagles do you expect to kill with this project?</p>	<p>Bald Eagle mortality at wind turbines is a rare event, with very few incidents across North America. Mortality at the Strong Breeze project is not anticipated. Regardless, the Natural Heritage Assessment considered Bald Eagle habitat. The Draft Natural Heritage Assessment is available for review on the project website www.strongbreezewind.com/documents.</p>
<p>What will the impacts be to eagles? What studies have been done and how are eagles addressed?</p>	<p>The REA studies include an assessment of Bald Eagle habitat in proximity to the project. Aerial surveys using fixed wing aircraft were conducted to identify locations of active Bald Eagle nests. A conservative approach was taken by assessing within 2 kilometers of all Project components, a much larger area than required under REA regulation and guidelines. Two surveyors were positioned on each side of the aircraft. Transects were spaced roughly 500 m apart, and were flown at low altitude (100-150 m above ground) at the slowest speed possible. Furthermore, ground based surveys were used to assess potential nesting areas and observe Bald Eagle behavior. Ground based surveys focused on areas of possible Bald Eagle nesting, as identified by Bird Studies Canada, eBirds and through consultation with members</p>

	of the public. Ground based surveys included Bald Eagle behavioral monitoring from roadside, as well as traversing woodland habitat at historic or reported Bald Eagle nest locations to confirm current activity.
Bald Eagle nests are located at the following locations: south of Walnut Lane and east of Turbine 17, west of Coyne Road one concession north of the lake, on Wiley Road by the gravel pit, and in the Talbot Creek ANSI between Erin Line and Fingal Line.	Thank you. This information was used for the REA surveys as discussed within the "Birds" topic section.
Golden Eagles congregate in the spring at the Port Talbot Estate.	We will use this information in our impact assessment.
Wildlife and Wildlife Habitat	
If the turbines are shut down during peak migration periods, who is responsible for funding the electricity interruption?	Turbine shut downs at the Project, if any, do not necessarily trigger electricity interruptions. The IESO is responsible for managing the reliability of the electricity grid.
Will Invenergy encourage local nature clubs to conduct joint studies with the University of Western Ontario to provide accurate data? Will Indigenous groups be allowed to participate?	SBWPP is already conducting environmental studies as the Project must receive a Renewable Energy Approval from the Ministry of the Environment and Climate Change as governed by Ontario Regulation 359/09 under Part V.0.1 of the Environmental Protection Act. As part of this process, natural heritage studies will result in a Natural Heritage Assessment, Environmental Impact Study and Water Assessment and Water Body Report, providing the study methodology, results, and mitigation and monitoring measures (where required). The draft reports are now available for review on the project website www.strongbreezewind.com/documents .
What mitigative measures are being implemented to protect the marsh areas surrounding Marsh Line from turbine vibrations that could affect wildlife? The soil has a muck base which is very soft and vibrates very easily. Could vibrations affect the wildlife, turtles, amphibians, people, etc.? What steps are being taken to alleviate this problem as a marsh land vibrates?	Marsh habitat along Marsh Line are outside of the Zone of Investigation for the Project. Impacts to these habitat from turbine operation are not anticipated.
I am concerned that wind turbines will affect wildlife and wildlife habitat.	In compliance with REA regulations, a Natural Heritage Assessment (NHA) will be completed for the project identifying and delineating wildlife habitats in, or in proximity to, the Project. The NHA will include an impact assessment, which will consider potential effects from both construction and operation of the facility, as well as mitigation measures to reduce or avoid such effects. Furthermore, the location of wildlife habitats was considered during Project planning, resulting in the Project being sited outside of wildlife habitats, such as woodlands and wetlands.
I am concerned that wind turbines will affect birds and butterflies.	In compliance with REA regulations, the NHA will consider potential impacts to wildlife habitats for birds and butterflies. Where impacts may occur, mitigation measures will be identified to reduce or avoid such impacts. Furthermore, the REA regulations require an extensive post-construction monitoring for both wildlife habitats and bird mortality. In the event impacts are higher than anticipated, the REA will require additional measures are implemented to reduce impacts.
What mitigation measures will Invenergy use to prevent fatalities in Tundra Swans that use Dutton as a migratory stopover?	Generally, waterfowl are a group of birds that are at lower risk from turbine collision. Specific to Tundra Swans, there has been no mortality recorded at wind turbines in Ontario to date. Fatalities of Tundra Swans at the Strong Breeze project are not anticipated.

What effect will turbine vibrations have on earthworms and other grubs in the soil?	Impacts to earthworms or other soil dwelling organism are not anticipated. We are unaware of any scientific literature that suggest vibrations from wind turbines affect earthworms.
The Public Information Centre staff informed us that carcass searches are conducted twice annually. How can scavenging accounted for in the mortality count when turbine lands are searched so infrequently?	As a condition of the REA, post-construction mortality monitoring will be undertaken in accordance with MNRF guidelines, which include monitoring twice <u>weekly</u> , to calculate mortality rates. This calculation will correct for scavenging, search efficiency, and carcasses that fall outside of the search area.
Were local experts consulted about migratory routes?	The Records Review chapter of the NHA includes consultation with provincial and local agencies to identify wildlife habitats or other natural features. Other sources of information used to identify bird habitat include the Important Bird Area database, eBirds and the Ontario Breeding Bird Atlas.
Is Invenergy funding wildlife mortality [research] on all turbines?	As a condition of the REA, post-construction mortality monitoring will be undertaken in accordance with MNRF guidelines, which includes monitoring twice weekly at minimum of 10 turbines and once monthly at all turbines in the Project.
How late into the spring migration will your consultants be surveying migration pathways? Which migrating birds do you feel will be travelling through this project area, and how will you protect these species from excessive mortality rates?	In accordance with MNRF guidelines, the NHA will identify and delineate habitat for different groups of migratory birds, including landbirds (i.e. passerines), waterfowl and shorebirds. To identify and delineate habitat for migratory studies, MNRF guidelines call for surveys in the spring from March to May. To address potential bird mortality, the REA will require three years of post-construction monitoring, with the requirement to implement mitigation, should bird mortality be higher than provincial thresholds.
Is the wetland near John Pierce Provincial Park that was created by the Ministry of Natural Resources and Forestry included in the Natural Heritage Assessment report, since it is wildlife habitat and waterfowl stopover and nesting habitat?	John Pierce Provincial Park is outside of the Zone of Investigation for the Project. No impacts to habitats within the park are anticipated.
I am concerned about impacts on wildlife and wildlife habitat and the natural environment. Would smaller turbines mitigate negative effects?	Provincial bird and bat mortality thresholds are the same for all turbines, regardless of the size. As such, all wind energy projects in Ontario must follow the same standards, regardless of turbine size.
Will any Bald Eagle nests or other large raptor nests need to be removed to make room for a turbine? If so, how will these nesting areas be protected?	The REA required studies to identify Bald Eagle habitat in proximity to the project include locating the nest itself, followed by behavior studies to delineate the habitat around the nest. These studies are ongoing. In the event that Bald Eagle habitat is identified, the NHA will identify potential impacts and measures that will be implemented to reduce or avoid such impacts.
Will the Project create wildlife corridors and pollinator habitat?	The Project is largely sited in open agricultural fields. Significant impacts to wildlife corridors or pollinator habitat are not anticipated.
Tundra Swans stopover in a different field west of Dutton every spring.	Studies at other operating wind power facilities along Lake Erie have found Tundra Swans continue to use fields in proximity to wind turbines, without any recorded mortality. Based on these studies, impacts to Tundra Swans from the Strong Breeze Project are not anticipated.
Dutton is home to white-tailed deer, Golden Falcons [presumably Golden Eagles?], foxes, turtles (particularly Blanding's Turtle), Red-headed Woodpeckers, Red-bellied Woodpeckers, and Monarchs.	Thank you for this information. We will use this information during our assessment.
There are turtles in the woodlots west of Dutton and in the woodland by Turbine 1.	Thank you for this information. We will use this information during our assessment.
Muskrat, mink, deer, turkey, and turtles are found in the woodland near Turbine 1. Hunting traps are in this woodland.	Thank you for this information. We will use this information during our assessment.
The study area is a major flyway for raptors.	Thank you for this information. We will use this information during our assessment.

Dutton Dunwich is one of the last areas along the Lake Erie shoreline without turbine obstacles for migratory species.	Studies completed at existing wind farms along Lake Erie have found the turbines are not an obstacle nor create a barrier effect to movement of migratory birds and bats.
The study area is in Important Bird Area ON 048 (Southwest Elgin Forest Complex).	Thank you for this information. We will use this information during our assessment.
I am concerned about impacts on Tundra Swans, Bald Eagles, deer, turkeys, migratory birds, and bats. I am concerned about situating the Project near wildlife corridors and that the wildlife will disappear.	In compliance with REA regulations, a NHA will be completed for the project identifying and delineating wildlife habitats in, or in proximity to the Project. The NHA will include an impact assessment, which will consider potential effects from both construction and operation of the facility, as well as mitigation measures to reduce or avoid such effects. Furthermore, the location of wildlife habitats was considered during Project planning, resulting in the Project being sited outside of wildlife habitats, such as woodlands and wetlands.
The Ministry of Natural Resources and Forestry is doing a study on [bird and bat?] mortality on Port Huron/Huron Shores.	Thank you for this information. We will use this information during our assessment.
Will Invenergy create a wildlife corridor to compensate for land being impacted by the Project?	The Project is largely sited in open agricultural fields. Impacts to wildlife corridors are not anticipated.
Will Invenergy match all government and private funds (up to \$600,000 per year) to establish a wildlife corridor around the project?	The Project is largely sited in open agricultural fields. Features that provide wildlife corridors will not be affected by the Project thus the need to create a wildlife corridor around the Project location is not anticipated.
Was the fact that Dutton is part of a major migratory route factored into turbine placement decisions? Were studies of birds and bats considered in the selection of turbine locations? Landscape level factors should be considered in developing mitigation measures.	The location of wildlife habitats was considered during Project planning, resulting in the Project being sited outside of wildlife habitats, such as woodlands and wetlands. Wildlife habitats that remain in proximity to Project components will be addressed in the NHA, including an impact assessment, which will consider potential impacts from both construction and operation of the facility, as well as mitigation measures to reduce or avoid such impacts.
Were the findings that taller turbines cause higher bat mortality rates than short ones considered in the selection of turbines? How?	Provincial bird and bat mortality thresholds are the same for all turbines, regardless of the size. As such, all wind energy projects in Ontario must follow the same standards, regardless of turbine size.
Can Invenergy provide an estimate of anticipated bird and bat mortality rates for the project?	The MNRF has provincial mortality thresholds of 14 birds per turbine and 10 bats per turbine. As a requirement of an REA, mitigation measures would be required if these thresholds are exceeded.
There are many provincial and national species at risk in our area, including several species of birds, bats, and reptiles that will be harmed by the construction and operation of industrial wind turbines (IWTs) in our municipality, as well as by the construction and use of roads by heavy machinery.	Potential impacts of construction and operation of the project will be considered for all species at risk protected under the Endangered Species Act.
Are Environment Canada migratory bird and bat permits required for the project?	Environment Canada and Climate Change permits under the Migratory Bird Convention Act (MBCA) are not required for operation of wind farms in Canada. However, a MBCA permit will be required by the firm that undertakes the post-construction wildlife monitoring.
Should the anticipated project bat and bird mortality rates be increased to accommodate turbine size differences between the project and the data used to model these rates?	Provincial bird and bat mortality thresholds are the same for all turbines, regardless of the size. As such, larger turbines are not permitted to have larger take of birds or bats.
Will studies on residential and migrating bird and bat populations be conducted before construction?	In accordance with MNRF guidelines, studies will be completed to identify and delineate wildlife habitat in or in proximity to the Project, including habitat for migratory birds and bats.
Why does the database for bird and bat mortalities only start in May when migration starts 3 months prior and no correction is in place for this? Same for the fall with regard to raptors.	An earlier version of the Bird and Bat Monitoring Database included data from studies that extended earlier or later in the year. Results of these studies found the May to October period captures the vast majority to bird and bat mortality. MNRF's guidelines require all wind farms in

Ontario to monitor during the May to October window. The MNRF's guidelines also require supplementary monitoring in November for potential mortality to late migrating raptors.

Species at Risk

What is the mortality rate allowable for Species at Risk, such as the Acadian Flycatcher?	To be compliant with the Endangered Species Act (ESA), wind farms are required to implement preventative measures from the onset of operation, with increasing measures in the event of a single mortality.
How about other Species at Risk that nest in hollowed trees? How will you protect these nesting sites?	Location of wildlife habitat (including species at risk) was considered during project planning. Through this process, the project was sited outside of woodlands. As such, impacts to woodland birds, including those that nest in tree cavities, are not anticipated.
Which Species at Risk have you found during your surveying of the project lands? How will these species be protected?	Surveys for species at risk are ongoing. Once the surveys have been completed, the results will be discussed with MNRF to identify measures required to reduce and avoid impacts to species at risk and if required, apply for an ESA permit.
There are 56 species identified in Elgin County as being endangered, threatened, or of special concern. Will all of these species in the project area be assessed during your natural heritage assessments? Will your mitigation plans for your permit application under the Endangered Species Act be presented at the next public meeting?	Potential impacts of construction and operation of the project will be considered for all species at risk protected under the ESA. In accordance with the REA regulations, these impacts will be considered under the ESA, in a parallel process to the REA and Natural Heritage Assessment (NHA). As such, species at risk are not presented in the NHA or public meeting. In the event a permit application under the ESA is required, there will be a public comment period, separate from the REA open houses.
Are any authorizations required under the <i>Endangered Species Act</i> ?	Surveys for species at risk are ongoing. Once the surveys have been completed, the results will be discussed with MNRF to determine if authorization under the ESA is required.

Parks and Areas of Natural and Scientific Interest

What effects will the Project have on Pierce Provincial Park?	The Project will not impact the John E. Pierce Provincial Park. The Project Location is more than 1.7 km from the park. For more information please see the Draft Natural Heritage Assessment reports.
Wind turbines should not be too close to Areas of Natural and Scientific Interest, which are habitats for wildlife.	The wind turbines will be sited outside of Areas of Natural and Scientific Interest (ANSIs). There are no ANSIs in the Project location.

Environmental Impacts

How is the environmental impact of all transmission lines and towers assessed? Have any photos been provided?	The potential environmental effects of all Project components and activities, including electrical lines and turbines, are being assessed through the REA process. This will include a review of existing records for environmental features present, field studies, an assessment of potential effects, analysis of feasible modifications or changes to the Project to avoid effects, identification of mitigation, net effects and monitoring measures. Further discussion about specific requirements are provided in Ontario Regulation 359/09 and in the <i>MOECC's Technical Guide to Renewable Energy Approvals</i> (https://www.ontario.ca/document/technical-guide-renewable-energy-approvals-0). The Draft REA reports are now available for review at www.strongbreezewind.com/documents .
Will the Project have negative effects on forests and agriculture?	Our priority is ensuring renewable energy projects are developed in a way that will protect the natural environment. Ontario's Renewable Energy Approval process requires developers to conduct extensive consultation, including with municipalities, and sets out clear requirements to protect the natural environment. We have set back from as many natural features as possible, including forests. The Project will temporarily, during the life of the project, remove a small amount of agricultural land from production.
Have you identified any heritage trees within the project sites? If so, how will these be protected?	As part of the REA, the study team consulted with municipalities, the Ontario Heritage Trust, and Ministry of Tourism, Culture and Sport to determine the presence of protected properties

including, but not limited to, heritage trees. Publicly available online sources were also consulted including www.forestsontario.ca. No heritage trees were identified within the Project Location specifically or within the study area more generally.

Groundwater

Will wind turbines affect well water? Why are there turbine-induced issues with water wells in Chatham-Kent? Staff present at the Public Information Centre said that clay soils were the reason for water well problems in Chatham-Kent. Since Dutton has clay soils also, how will Invenenergy prevent the same problems from happening here?

No well water impacts as a result of the project are expected. We cannot comment on other projects, but studies for the Strong Breeze Wind Project and expected construction designs do not indicate any impact to well water quality or quantity.

What measurements have been done to monitor the impact of the turbines on our well water? Have wells in our area been documented?

No impact on drinking water or groundwater as a result of the project is expected. Before excavation commences, a geotechnical study is completed at all potential sites for ground water depth as well as to determine necessary parameters required for foundation design. For stability reasons, turbine foundations cannot be built in areas where the ground water is too close to the surface. If water is encountered at any time, good construction practices will be used such as minimizing the length of time that the excavation is open and monitoring seepage during excavation. Should pumping be required to dewater excavated areas, water will be directed to the closest drain or spread across the construction area and appropriate energy dissipation techniques will be used to reduce the potential for erosion and sourcing. Concrete used during the building process becomes inert once it is cured and should cause no damage to the water table.

Will turbine vibrations affect farm wells in neighbouring townships? What research has been done on turbine vibrations and wells?

The levels of vibration from wind turbines are so small that only the most sophisticated instrumentation and data processing can reveal their presence, and they are almost impossible to detect. Vibrations at this level and in this frequency range will be available from all kinds of sources such as traffic and background noise - they are not confined to wind turbines. Turbine vibrations are not anticipated to affect farm wells in neighbouring townships.

How will Invenenergy measure well water quality pre- and post-construction, and what water quality mitigative measures are planned, if necessary?

There is no current demonstrable effect of the Project on groundwater quality. As a result, there are no plans to monitor groundwater quality in the vicinity of the Project. Requirements for the measuring of water well quality (if any) are typically identified and become a condition of a Renewable Energy Approval.

The marsh near Marsh Line has a high-water table. What is being done to prevent disruption to nearby wells?

Before excavation commences, a geotechnical study is completed at all potential sites for ground water depth as well as to determine necessary parameters required for foundation design.

Telecommunications

My internet installation business has lost sales because turbines prevented connection to towers and satellites.

It has been our experience that wireless internet services will not be affected by wind turbine operations. SBWPP is undertaking a telecommunications impact assessment to determine the effect if any wind turbines will have on local telecommunications assets. The criteria for this assessment have been developed through consultation of the wind development industry and the Radio Advisory Board of Canada. In the unlikely event that signal disruption is experienced, mitigation measures are available to alleviate the impact.

Project Siting and Draft Site Plan

Is it possible for changes to be made to the Draft Site Plan, and if so, how many proposed turbines could be removed?	Yes, changes can be made to the Draft Site Plan (DSP). SBWPP has indicated 20 potential turbine locations in the Draft REA documents, depending on the Turbine selected for the project anywhere from 14-16 could be included in the final design.
What are the noise receptors referred to in the Draft Site Plan?	In general, a noise receptor is a building or structure that contains one or more dwellings, is used for an institutional purpose (e.g., school, church), a campsite or a point on a vacant lot that has been zoned to permit a building. The Draft Site Plan (DSP) must demonstrate that the location of the turbines relative to the location of noise receptors complies with Ontario Regulation 359/09 and with noise limits at noise receptors.
Why was a range given for the original number of project turbines (i.e. 17-20 turbines), instead of an exact number?	SBWPP was offered a contract from the IESO for 57.5 MW. The number of turbines required to meet this requirement varies depending on the nameplate capacity of the selected turbine. Depending on the make/model of the turbine and noise/environmental constraints, not all turbines may be required. However, we intend to permit 20 turbine locations.
How does Invenergy/Stantec decide where to put wind turbines?	The turbine location decisions are made by SBWPP based on wind resources, electrical interconnection, participating landowners, environmental features and habitat, regulated setbacks to certain features, and other factors.
Why were turbine locations released to the public only weeks before the Public Information Centre?	A project layout is not required for a first public meeting under the REA process. SBWPP chose to release the turbine layout as soon as it was available to allow for the public to see where proposed units would be located.
I suggest Invenergy removes Turbines 1, 2, 3 from the Project based on proximity to Dutton Meadows Golf Course, Dutton Aerodrome, an Important Bird Area, and on safety issues related to length of power connection line.	All turbines have been sited to comply with required setbacks. Consultation is ongoing with NAV CANADA and Transport Canada regarding aviation safety. The electrical lines will be buried in rights of way where possible. The Southwest Elgin Count Forest Complex Important Bird Area (IBA) was identified for the presence of woodland breeding birds, in particular the Hooded Warbler, which use forested areas in this part of Elgin county. The Project, including all turbines, has been sited outside of forest habitat. As such, impacts are not anticipated to the forested breeding habitat or the function of the IBA.
Where is the communications tower to be located?	The communications tower will be located near the substation, which is north of Aberdeen Line and west of Iona Road.
Why was Dutton Dunwich selected for a wind farm when they already have a solar farm?	Ontario is building an energy system with various sources of renewable energy.
I suggest Invenergy moves the Project to Toronto.	The project location and point of interconnection as contracted by the IESO is located in Dutton Dunwich. The Project cannot be moved.
I suggest Invenergy relocates Turbine 17 based on proximity to town and Important Bird Area, requirement for multiple property leases, and long power connection line.	All turbines have been sited to comply with required setbacks. The Southwest Elgin Count Forest Complex Important Bird Area (IBA) was identified for the presence of woodland breeding birds, in particular the Hooded Warbler, which use forested areas in this part of Elgin county. The Project, including all turbines, has been sited outside of forest habitat. As such, impacts are not anticipated to the forested breeding habitat or the function of the IBA.
I suggest that Invenergy puts up large signs indicating turbine locations to the community prior to construction.	The proposed location of turbines has been provided to the public in the Draft Site Plan. The Draft Site Plan is available on the project website www.strongbreezewind.com\documents
How close to a non-participating property line can a turbine be placed?	A turbine can be located up to a distance equal to the blade length plus 10 m. For this Project, depending on the make/model of turbine chosen, that distance would be either 78 m or 78.5 m from a property line.

Construction

Will there be any municipal road closures during construction? What will the daily usage of municipal roads by construction traffic be?	SBWPP is in discussion with the Municipality and County about entering into a Road User Agreement. We expect the agreement to be made publicly available through the standard Council process. The Draft Construction Plan Report is now available for review on the Project website www.strongbreezewind.com/documents
To what depth will soils be disturbed?	Topsoil will be removed and stockpiled to the depth of the interface with the subsoil.
Drainage	
What effects will the project have on drainage?	It is SBWPP's responsibility to repair tiles that are damaged from the installation of project components and to restore them at the time of decommissioning. If necessary, culverts will be installed as needed. Invenergy is also consulting with the local Drainage Superintendent to understand impacts on any municipal drains the project may have.

Design and Operations

How many personnel will occupy the operations and maintenance building? What is the general building design?	There will be 5-6 full-time staff working from the operations and maintenance building. The design will be made public once complete and in the permitting phase.
Who owns the transformer substation during operation? What is the general transformer station design?	Strong Breeze Wind Power Partnership will own the substation and related equipment (such as the transformer) during operations. The location of the transformer has been identified on the mapping for the purpose of modeling noise but the substation layout will be finalized during detailed design prior to construction.
Did Invenergy provide additional details to explain changes to the project design?	We are uncertain what you mean by "changes to the project design". All Project components (except for access roads) must be located on lands identified as the Project Site under the LRP process and as submitted to the IESO. As technical studies and field research was completed, we were able to refine the lands needed for the Project and shifted components within the original "site" as needed to avoid environmental features and minimize negative environmental impacts. Until the final documents are submitted to the MOECC as part of a REA application, changes will continue to be made based on studies and consultation.
Why is the transformer 69 MVA nominal capacity, while the project is 57.5 MVA maximum? Why is it over capacity?	The project transformer has to be sized to accommodate real power (MW) as well as reactive power (MVARs) – this reactive power is needed to support the grid voltage. The Turbines will be able to provide 57.5MW at a power factor of 0.9, which results in 64 MVA (as turbines produce 27.84MVARs). Furthermore, our design criteria are to usually oversize the transformer by an extra 10% capacity.
How wide are turbine access roads?	The access roads are approximately 6 m wide.
Can farmers use turbine access roads to enter their fields?	Yes, after the construction phase the landowner may use the access roads.
Will all acts of professional engineering related to the Project be carried out by professional engineers licensed to practice in the province of Ontario?	Yes.
Project Modification/Alternatives	
Would Invenergy consider using smaller turbines at each house in addition to solar power generation?	SBWPP supports many types renewable energy generation but the proposed Project is for up to 20 turbines with a nameplate capacity of up to 57.5MW.
Why use wind energy instead of solar energy?	SBWPP is proposing a wind project for Dutton-Dunwich and does not have any plans to develop a solar project in the municipality at this time.

There is a landfill nearby with methane available for energy. Why not put in a landfill gas plant like in Guelph, instead of wind?	SBWPP supports many types of renewable energy projects but the project proposed for Dutton Dunwich is a wind project.
Is there a chance this project can be cancelled?	The Strong Breeze Wind Project currently holds a valid power purchase agreement with the Ontario government. If the Project meets regulatory requirements and obtains its required permits and approvals, there is no reason for the Project to be cancelled.
Why doesn't the province cancel the Project?	The Province has indicated that renewable energy is an important part of a sustainable energy supply mix and has contracted the Strong Breeze Wind Project to be built to contribute to the Ontario's energy supply.
Turbine Safety	
Other communities are reporting that ice is being thrown from the turbine blades, how will Invenergy manage the operation of the turbines to ensure that no one is injured in this community?	Turbines are setback certain distance from habitable structures and public roads according to Ontario turbine siting standards; and, our control center and site operations team have capability to monitor for icing conditions 24x7 and to operate at reduced or no output if icing conditions are observed.
Almost all of the turbines are located in close proximity to woodlots, and often gulleys. Turbine fires can extend to the woodlot. Would gulleys make it very difficult to fight the fire in the woodlot? Fire fighters cannot go near a burning turbine because of falling debris. How many fires and turbine collapses are anticipated during the Project lifespan?	We do not anticipate any turbine collapses or fires as these are very rare events. We will work with local first responders on an Emergency Response and Communications Plan.
What safety measures are in place to prevent and mitigate turbine fires and other accidents? Have Dutton fire and police services been consulted about turbine fire procedures?	An emergency response and communications plan will be developed. SBWPP will consult with the local fire department in the development of this plan. Furthermore, the turbines are built with fire suppression systems.
What security measures is Invenergy implementing to ensure safety in the event of sabotage or vandalism to turbines and associated electrical infrastructure?	All turbine access doors are locked at all times that operations staff are not present. Any external electrical components will be locked out/tagged out at all times. Electrical lines will run underground and/or be attached to existing electrical poles. The transformer in the substation will be located within a fenced yard with a locked gate.
How many accidents with road traffic and above ground electrical power line poles are anticipated over the Project life span? How many of these accidents could result in fatalities? How do accident numbers compare between above ground power line poles and buried power lines?	SBWPP will attempt to place connection lines underground wherever possible. Drivers are very familiar with utility poles in municipal rights of way and there is no reason to believe that accidents related to loss of control of vehicle (e.g., on ice) would be higher in relation to the Project's poles than existing municipal poles should above ground electrical lines be required.
How is Invenergy preventing injury or casualty from vandalism to power line poles?	Electrical lines will run underground and/or be attached to existing, upgraded or new poles. The transformer in the substation will be located within a fenced yard with a locked gate.
Turbines (General)	
How does Invenergy prevent sanitation problems for turbine workers without appropriate washroom facilities in turbines?	During the construction phase, portable washroom facilities will be provided on site. Once the project is operational, an operations and maintenance building will house the appropriate facilities for on-site staff.
What is the height of a turbine relative to a house? Can you show a picture on a poster board at the next meeting so people can get a sense of the size?	Thank you for the suggestion.
How is the magnetic field in the generator established? Is it a permanent magnet or is it electrically excited?	The turbines we are considering for this project are type 3 (DFIG) doubly fed-induction generators. The converter provides excitation energy. In more detail - in order to provide constant frequency output from a wind turbine, you change the rotor excitation according to the rotational speed of the turbine. A closed loop controller decides the amount of excitation

	applied to the rotor to provide uniform frequency output. There are no magnets in these turbines.
How wide and deep will the turbine's cement pad be?	SBWPP will do geotechnical testing at each location to determine the type of foundation. Typically, a spread style foundation would be installed and depending on the turbine dimensions range from 18-30m in width using a tapered design that goes 3-4m below grade.
Where are the project turbines manufactured?	SBWPP has not made a final decision for the turbine supplier.
What happens when [turbines] fail?	Our control center and site operations team have capability to monitor 24x7 and to operate at reduced or no output if there is an issue with a turbine. Operations and maintenance crews are trained to repair the turbines.
How tall are wind turbines?	Current commercial wind turbines available from manufacturers vary in height from 500-700' in height
What does "installed nameplate capacity" mean?	Name plate capacity means the total of the design electricity generating capacities of all the generation units at the facility. For example, if you had 20 turbines, each rated 3 MW then the total name plate capacity would be 30 MW. SBWPP has a contract to build a project with a name plate capacity of up to 57.5 MW. The final design of the facility will determine whether the installed name plate capacity is 57.5 MW or less, depending on the size of the turbines.
What is the nacelle?	The nacelle houses all of the generating components in a wind turbine. It is located at the top of the tower and behind the rotor (where the blades are attached).
What is the height and blade circumference of the project turbines? How do these relate to those used in other studies?	Two potential makes/models are being considered for the Project. The hub (tower height) would be either 110 m or 112 m and the blades will be either 68 m or 68.5 m. These types of turbines are similar in size to other turbines currently operating and proposed in Ontario.
Since these turbines are almost 600 feet higher than any other turbines in Ontario, why isn't the setback more than 550 m?	The hub height + blade length of the turbines will be approximately 180 m (or 590 ft.) tall. The requirements of the regulation regarding setbacks is being followed.
How much power in kW (or energy in kWh) is needed to power the electric magnets in the turbine generator?	The turbines we are considering for this project are type 3 (DFIG) doubly fed-induction generators. The converter provides excitation energy. In more detail - in order to provide constant frequency output from a wind turbine, you change the rotor excitation according to the rotational speed of the turbine. A closed loop controller decides the amount of excitation applied to the rotor to provide uniform frequency output. There are no magnets in these turbines.
How much oil is contained in each turbine?	The gearbox and a few other components in the nacelle contain less than a small amount of lubricating oil that is changed at about 3-10-year intervals per manufacturer's recommendations. The ground-mounted transformer (approx. 3 x 3-meter green box next to tower base) contains a small amount of non-toxic mineral oil to help insulate and cool the transformer's interior, and the oil remains sealed inside for the multi-year life of the unit.

Decommissioning and Land Restoration

Who is responsible for decommissioning and removal?	The REA application will include a Decommissioning Plan Report. Units have operating life spans of 20-25 years. A large amount of the units will be recycled and reused, and the rest will be disposed of appropriately. The Project owner (SBWPP) is legally responsible for decommissioning. Furthermore, included in the project land lease agreements are decommissioning clauses requiring the Project owner to remove project components and return the land to its original state as best as possible. The Draft Decommissioning Plan Report is available for review on the project website www.strongbreezewind.com/documents
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I am concerned about wind turbine debt remaining after turbines are obsolete in 20 years.	At the end of operation, SBWPP will be responsible for the costs associated with Project decommissioning.
What guarantee do the lease-holders have that they will not be held liable and responsible for decommissioning of the turbines?	It is the responsibility of the company to ensure that decommissioning funds are in place. SBWPP will establish a decommissioning security that will cover the cost of decommissioning. The liability for decommissioning is held by the Project owner and not the leaseholders or the municipality.
Who is responsible for the decommissioning of the turbines, in the case of a potential bankruptcy of Invenergy or sale of the Project?	In order to finance the project, SBWPP has to detail their Decommissioning Plan and post a security. The contract for the power and the plans associated with it, are tied to the legal entity of the Project. SBWPP is prepared to execute a Municipal Agreement, which will include assurances for decommissioning. In the event of bankruptcy, the lenders for the facility would step in, there would be mechanisms in place for this process. A Project entity holds all legally binding contracts and permits and they would transfer with the Project if ownership changes.
What financial measures does Invenergy propose to cover the cost of decommissioning the turbines?	It is the responsibility of the company to ensure that decommissioning funds are in place. SBWPP will establish a decommissioning security that will cover the cost of decommissioning. The liability for decommissioning is held by the Project owner and not the leaseholders or the municipality.
How will the land used for turbines and roadways be remediated during decommissioning? Is there a guarantee to lease-holders that this land will be suitable for farming use again?	A decommissioning plan is being prepared as part of the Renewable Energy Approval permitting documents as per Ministry of the Environment and Climate Change guidance. Agricultural land restoration is covered per leaseholder agreements with SBWPP. The Decommissioning Plan Report, which discusses remediation, will be updated 6 months prior to actual decommissioning and will be reviewed again by the MOECC.
What does restoration after decommissioning involve?	Restoration after decommissioning will involve returning the land used for the Project to its original land use or to the use found at the time of decommissioning. Details on decommissioning restoration will be provided in the Decommissioning Plan Report.

Cultural Heritage

How can I provide input on potential cultural heritage impacts (built heritage and heritage landscapes) of the Project?	You can call, email or write to us. Contact information is available on the website and on copies of all notices published in the West Elgin Chronicle and St. Thomas Times-Journal.
Has the heritage and land use planning cultural services unit at the Ministry of the Environment and Climate Change been consulted? If not, why not?	Yes, Stantec contacted the Ministry of Culture, Tourism and Sport (MTCS) earlier this year and received a response from Joe Muller on June 7th, 2017. He provided direction on what the MTCS requires for the scope of REA projects and directed that the Information Bulletin on Cultural Heritage Resources for REA projects be followed. The Cultural Heritage Report included in the REA documents will be provided to the MTCS for review and comment.

Electricity and Transmission

What happens to the energy after it is at the transmission circuit located north of Aberdeen Line?	The Project will connect into Hydro One's 230 kV electrical line, the Independent Electricity System Operator (IESO) then manages the transmission system. The power will flow to points of demand on the system.
Will the peaks and dips in electricity produced by wind energy cause this electricity source to be unreliable for industry?	Wind energy forms part of a mix of energy sources that make up our electricity system. The Independent Electricity System Operator (IESO) balances the supply of and demand for electricity on a second-by-second basis and directs the flow, making it available to consumers when and where they need it.

Electricity Costs	
Will wind turbines lead to increased hydro bills in our area?	No. Electricity rates are set by the Ontario Energy Board and are not based on local factors.
I am concerned that wind farms greatly increase the cost of hydro in Ontario while providing little to no benefit, and that industry is leaving due to these costs.	Renewables make up a small share of electricity bills. Wind power is responsible for 6% of the average residential electricity bill. The electricity delivery charge is the largest contributor, followed by nuclear. The benefits of wind power are plentiful. The wind industry has provided a clean, reliable, affordable source of electricity for the modern power grid. Allowing the grid to be flexible to respond to changing economic and environmental circumstances. At the same time, Ontario's wind industry has created thousands of well paying, much-needed jobs in manufacturing, construction and local services. Across the province, wind energy projects are delivering new income to landowners, new property tax revenue to municipalities and new funding for community-based initiatives.
What is the stand-by rate per kilowatt when the grid is not using the power? How is the controlled or monitored?	In Ontario, rates are set by the Ontario Energy Board. The transmission system is monitored and controlled by the Independent Electricity System Operator.
We are concerned about the impact that this project will have on our citizens' hydro bills, which are already unaffordable. Any more unnecessary electricity added to the grid will make them more so.	The cost of renewable energy projects has reduced dramatically in the past few years and the government has revised their procurement process to make it more cost competitive. Wind energy makes up only about 6% of the charges on the average residential electricity bill in Ontario as of 2016. Hydro rates in Ontario have increased in large part because of aging infrastructure that need to be upgraded/refurbished. For additional information see the Electricity Economics information panel presented at the first public meeting (available on the Project website at strongbreezewind.com/documents).
Why has the kilowatt price paid by the government for this project not been made public?	The competitive bid process is confidential but the IESO has provided the average weighted price contracted to 5 wind projects under the Large Renewable Procurement Phase 1 as \$8.59 cents/kWh.
I am concerned about this American company selling electricity to factories in the U.S. that left Canada because of high electricity costs.	As per the power contract, all of the electricity produced by this project will be fed into the Hydro One 230kV line at the point of interconnection and will be managed by the IESO. SBWPP does not control power where the power is distributed.
The energy produced by the Project will be sold to the United States at a fraction of the cost to produce it. We already have too much energy.	As per the power contract, all the electricity produced by this project will be fed into the Hydro One 230kV at a point of interconnection located north Aberdeen Line and west of Iona Road and will be managed by the Independent Electricity System Operator (IESO). SBWPP does not control power where the power is distributed.
Electricity Production	
Will the Project really produce energy equivalent to the needs of 18,000 homes?	Yes, the production of this project is sufficient to produce the energy equivalent to the needs of 18,000 homes. When calculating the total number of houses the project could power, the Canadian average household consumption was used which is a total of about 12,000 kwh per year.
How can 100% of Dutton Dunwich's energy needs be supplied by renewable energy when the wind speed is too low to generate enough energy? Is surplus energy storage available to supplement periods of low energy production? Will the requirement for energy storage make electricity more expensive?	Dutton Dunwich will be powered by a mix of energy sources determined by the Independent Electricity System Operator (IESO) and your Local Distribution Company. Electricity produced from the project will be fed into the Hydro One 230kV line and will be managed by the IESO. No energy storage will be required. The statement that you reference, means that the project would produce enough energy to meet the annualised energy needs of Dutton Dunwich.
Is there an operations agreement in place? Have slowdowns or shutdowns been suggested (i.e., for holidays)? Why/why not?	The facility will be available to run as the wind resource allows. SBWPP has prepared a Draft Design and Operations Report as part of the which is now available on the project website at strongbreezewind.com/documents .

What will be done with the energy that is produced from the Project? Will it be used locally or shipped off elsewhere?	Electricity produced by the project will be fed into the Hydro One 230kV line and will be managed by the Independent Electricity System Operator (IESO) who manages the supply of and demand for electricity.
Will all of Dutton Dunwich be powered by renewable energy sources 100% of the time?	Dutton Dunwich is powered by a mix of energy sources determined by the Independent Electricity System Operator (IESO) and your Local Distribution Company. Electricity produced from the project will be fed into the Hydro One 230 kV line and will be managed by the IESO.
Why does the power return to West Lorne within an hour after an outage, but takes 6-36 hours to come back to areas west of Division Street? Will wind power help reduce lengths of power outages in Dutton?	The Independent Electricity System Operator (IESO) and your Local Distribution Company manage the power for Dutton.

Finance

Will Invenergy share with us a copy of the contract with their First Nations partner so we can assess fair compensation for our community?	The contract with NCC, our Aboriginal Partner, is a legal document that binds our business relationship and is private information SBWPP is not at liberty to share.
Will landowners face obstacles when refinancing their homes or getting insurance because of the turbines?	No.
How will Invenergy use liens on the Dutton Dunwich properties, in order to finance this wind turbine project? How will this impact farm lease-holders?	SBWPP does not intend to use liens on Dutton Dunwich properties, private or Municipal, to finance this project. SBWPP uses project financing with commercial lenders to finance its developments. A notice of option or lease would be registered on title.
If the Chicago-based company, Invenergy, can bring so many good things to a community, then why bring it to Canada and not the US? Don't the Americans want the jobs? Don't they want the money?	Invenergy is North America's largest independent wind developer, we develop projects in both Canada and the US.

Freedom of Information Request(s)

Why have the 75% of supportive abutting land owners not been named?	The abutting land owner forms were disclosed and vetted by IESO for the purposes of the LRP I Procurement.
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General

Has Invenergy ever made financial contributions to Bat Conservation International, Ontario Nature, Nature Canada, Nature Conservancy of Canada, Ducks Unlimited, or any Canadian university?	As a long-term large-scale renewable developer, Invenergy is actively involved in industry conversations surrounding a wide variety of discussions and research around wind energy and its relationship with the natural and human-made environment
How many people at this meeting actually live near a wind turbine?	SBWPP did not ask attendees to register on arrival at the meeting, so we would not know how many attendees live near wind turbines. Project representatives at the meeting have come from locations across North America.
Why does the scenic view on strongbreezewind.com not have a wind turbine in it, only small hydro towers, beautiful field and wood lot? This is a misrepresentation	The picture on the Strong Breeze Project website is of Dutton Dunwich. It is a true representation of the area where the wind turbines will be placed.

Government

I am concerned that the provincial government ignores our concerns to further the necessary wind energy agenda of the Liberal government.	The REA process is a prescribed provincial permitting process, all stakeholder comments are included in the Consultation Summary Report that is submitted with the final application and reviewed by the Ministry of Environment and Climate Change (MOECC).
Future Ontario governments may cancel the Strong Breeze Wind Project.	Comment received.
It is absolutely outrageous that Canadian citizens have no right to choose or stop projects against [their] wishes. Canada used to be a democratic country. If this project goes ahead without citizens' wishes [then] we are living in a third world country or under Communist regime. The provincial leader of Ontario and all supporting government supporters pushing for this project should reconsider. This project is illegal as it is a violation of people's rights in this country.	Comment received and recorded.
How does the Green Energy Act benefit Ontario citizens?	The impacts of climate change affect both global and local communities. Ontario farmers contend with increasing droughts, basement flooding impacts homeowners, and heat waves can impact entire communities. The Green Energy Act was created as part of the Ontario government's long-term strategy to combat climate change, and made Ontario one of the first leading jurisdictions for renewable energy development in North America.

Health and Safety

Is there danger to turbine workers or Dutton residents if communication is lost between the turbines and the operating centre?	No, there will be back-up communications systems in place.
Who pays for extra law enforcement?	Extra policing is not needed for the Project, although the police will be notified as needed.
Are turbine maintenance workers prepared to do their dangerous jobs in a community that is opposed to the project?	Construction crews, engineers and maintenance crews work according to Health and Safety regulations and plans. They are trained to do their jobs. If they are threatened by members of the community for doing their jobs the police will be notified.

Human Health

What pre- and post-construction mitigation is Invenergy planning for radon gases to ensure the safety of the community?	Radon is a gas that is found naturally throughout the environment. Health Canada has advised the MOECC that the radon level in a home is a combination of several factors, and given the uncertainty of all factors, it is practically not possible to determine the exact contribution of each factor to the level of radon in a home. There is no anticipated impact from radon to homes as a result of the construction of the project.
Has Invenergy considered the United Nations Convention on the Rights of the Child, articles 3, 6, 19, 24?	SBWPP believes that wind energy is a safe, clean and reliable source of energy.
Will Invenergy take into consideration the recent Health Canada study results which stated that up to 25% of people who live 550 metres from a wind turbine will suffer from	The information provided in this comment is not entirely accurate. As part of their wind turbine noise study, Health Canada found a statistically significant exposure-response relationship between increasing noise levels from turbines and the prevalence of people reporting high annoyance. In the context of Ontario, at the highest noise levels (≥ 40 dBA), 16.5% of

<p>extreme annoyance, and compensate property owners who must leave their homes due to wind turbine sounds?</p>	<p>respondents were highly annoyed by wind turbine noise. In PEI, 6.3% of respondents identified as being highly annoyed, and almost all of the participants who were highly annoyed by wind turbine noise lived within 550m of a wind turbine. Setbacks for non-participating landowners closer than 550m to a turbine are not permitted in Ontario. What is more, consistent with other studies, reports of annoyance by people living around wind turbines appeared to be more related to visual aspects and not a turbine-specific variable like noise. Further information about the Health Canada study can be found here: http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php</p>
<p>Are there any caveats to the contract that if the project is cancelled due to human health effects, the taxpayers are responsible for funding to complete contract obligations (as in the cancellation of the Ontario gas plant)?</p>	<p>No.</p>
<p>Do turbines produce humming noises, light, and shadow flicker that may have adverse effects on children, particularly those with autism? These environmental irritants can cause severe distress to a child who has ASD (autism) or sensory processing issues. The United Nations Convention on Rights of the child states that parties recognize the right of the child to the enjoyment of the highest attainable standard of health. How is Invenergy going to ensure that the children in this community continue to enjoy the highest attainable standard of health when you are building structures which cause distress to children, particularly the most vulnerable children? What is Invenergy prepared to do to minimize the adverse health effects of IWT on our children?</p>	<p>Many studies have been conducted world-wide to examine how living near wind turbines could affect human health. Studies have focused on two subjects: reported health effects and the operation of wind turbines (i.e., electromagnetic fields [EMF], shadow flicker from rotor blades, audible noise, low frequency noise and infrasound); and reported health effects and subjective variables (e.g., attitude, visual cue, stress, expectations). The great weight of the peer-reviewed scientific evidence indicates that wind turbines sited correctly do not cause adverse health effects. In the context of Ontario, the Ministry of the Environment and Climate Change has established mandated setbacks (based on noise and distance) that are deemed protective of human health. While there are no studies on children specifically, over 100,000 turbines are spinning around the world, and credible reports of distress in children causally related to wind turbines have not manifest. SBWPP will ensure that if approved, turbines from the Strong Breeze project will operate in compliance with Ministry of the Environment and Climate Change mandated setbacks.</p>
<p>Does Invenergy recognize the potential human health effects of wind turbines?</p>	<p>Many studies have been conducted world-wide to examine how living near wind turbines could affect human health. Studies have focused on two subjects: reported health effects and the operation of wind turbines (i.e., electromagnetic fields [EMF], shadow flicker from rotor blades, audible noise, low frequency noise and infrasound); and reported health effects and subjective variables (e.g., attitude, visual cue, stress, expectations). The great weight of the peer-reviewed scientific evidence indicates that wind turbines sited correctly do not cause adverse health effects. In the context of Ontario, the Ministry of the Environment and Climate Change has established mandated setbacks (based on noise and distance) that are deemed protective of human health.</p>
<p>What is Invenergy prepared to do to minimize the adverse health effects of wind turbines on our children?</p>	<p>The great weight of the peer-reviewed scientific evidence indicates that wind turbines sited correctly do not cause adverse health effects. In the context of Ontario, the Ministry of the Environment and Climate Change has established mandated setbacks (based on noise and distance) that are deemed protective of human health. As such, SBWPP will site turbines in a manner consistent and compliant with Ministry of the Environment and Climate Change's setbacks.</p>
<p>If there is a class action lawsuit regarding damages to health of citizens who are forced to live in close proximity to these turbines, would the Municipality of Dutton Dunwich be liable?</p>	<p>The great weight of the peer-reviewed scientific evidence indicates that wind turbines sited correctly do not cause adverse health effects. In the context of Ontario, the Ministry of the Environment and Climate Change has established mandated setbacks (based on noise and distance) that are deemed protective of human health.</p>

If I suffer health problems from the wind turbines, and the problem is not rectified by the wind company, who should I have my lawyer contact to pursue legal action?	There is no reason to believe anyone will suffer health problems as a result of the Project.
Dr. Knopper has stated, "I'm not a medical doctor so I cannot diagnose issues; I am an academic". Why does Invenergy continue to rely on him as a medical expert when he has admitted that he is not qualified to act in this capacity?	SBWPP relies on Dr. Knopper for his independent knowledge and scientific opinions on the issue of wind turbines and human health. Indeed, Dr. Knopper is an internationally recognized expert in the field of wind turbines and human health. He has worked with developers and regulators across North America and has published numerous articles on the topic in peer-reviewed journals.
Will Invenergy/Stantec provide solid reassurances to Dutton Dunwich citizens from qualified human health scientists and/or practitioners that their health will not be affected by the Project? This is not what is claimed by citizens in Chatham-Kent and Huron County, who claim to suffer ill effects from wind turbines, particularly in those with autism or who suffer from motion sickness.	Many studies have been conducted world-wide to examine how living near wind turbines could affect human health. Studies have focused on two subjects: reported health effects and the operation of wind turbines (i.e., electromagnetic fields [EMF], shadow flicker from rotor blades, audible noise, low frequency noise and infrasound); and reported health effects and subjective variables (e.g., attitude, visual cue, stress, expectations). The great weight of the peer-reviewed scientific evidence indicates that wind turbines sited correctly do not cause adverse health effects. In the context of Ontario, the Ministry of the Environment and Climate Change has established mandated setbacks (based on noise and distance) that are deemed protective of human health.
Will Stantec provide the 2014 Health Canada report on wind turbines and human health?	Health Canada issued results of its comprehensive, two-year study in 2015. A summary of the results is located here: http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php . There is no one main report; rather, Health Canada published its findings in a series of peer-reviewed journal articles in 2015 and 2016.
How will your noise studies prevent negative impacts on human receptors?	Noise studies were conducted to ensure the placement of proposed turbines would follow Ministry of the Environment and Climate Change mandated setbacks (i.e., 40 dBA) that are deemed protective of human health.
Invenergy	
Did lawsuits from other Invenergy projects prompt the company to make changes in order to recognize community concerns?	No.
Where does Invenergy have similar wind farms?	To view a map of all Invenergy's projects, visit the Invenergy website at invenergyllc.com/projects/overview
What other Invenergy projects have used local businesses or services?	Invenergy always tries to use local contractors, businesses, services and labourers where possible.
Legal	
Do American or Canadian laws apply in the event of a cross-border dispute (i.e. between Invenergy and Ontario citizens/government or Canadian manufacturers)?	The project is owned by an Ontario entity (SBWPP) and abides by the law of Ontario.
Municipal Infrastructure and Consultation	
Invenergy has been withholding information from local council since the beginning. Is Invenergy appealing Dutton Dunwich's request for information from IESO regarding your RFP?	Questions relating to any request for information that Dutton Dunwich has made to the IESO should be directed to the IESO.

Many of the roads that will be used to access the turbine sites during construction are not designed for the heavy truck traffic that will be required during construction. It would be likely that immediate damage to the roads may be caused and asphalt roads may suffer from reduced life spans. How will the municipality be compensated for any damage to their roads?	The proponent is responsible for road improvements and repair, details are determined through a road user agreement with the host municipality which is currently under review by Dutton legal counsel.
Will the Project create increased traffic in Dutton Dunwich?	We are working on a Road Use Agreement with the Municipality of Dutton Dunwich that will address road traffic and safety. There will be increased traffic along haul routes during construction and safety measures will be in place accordingly.
Who is responsible for maintaining roads during construction?	Road maintenance and repair are part of the road user agreement between the municipality, county and the SBWPP.
Has the municipality been consulted on their master plans for growth in relation to the Project?	A 1000 metre setback from the town was established to accommodate the growth areas in the municipality's official plan, similar setbacks were requested by council for the hamlets, and these were applied.
What are the consequences if Dutton Dunwich refuses to negotiate road access?	In the event that the municipality does not negotiate a road user agreement for access, SBWPP would apply for access permits, which may not give the municipality the full protection of an agreement.

Noise, Vibration, and Infrasound

Will concerned residents be permitted to measure vibration at the base of the turbines?	The levels of vibration from wind turbines are so small that only the most sophisticated instrumentation and data processing can reveal their presence, and they are almost impossible to detect.
Will Invenergy compensate property owners who must leave their homes due to wind turbine sounds?	The project is designed to adhere to all noise regulations and setbacks.
Will Invenergy provide confidence intervals of output estimates from the noise study?	Confidence in the model is derived from a modelling approach that includes assumptions to ensure the predictions are conservative. These assumptions include down wind conditions in which wind directions were assumed to be from each turbine towards each receptor. This approach is described in the noise study report
The Irish government recently used the same noise model, but used a lower value for ground absorption of the sound, and arrived at a greater distance for the sound to travel. This would be applicable to Dutton Dunwich during the winter months when the ground is frozen, and trees are bare. Based on this recent development, will Invenergy run the model with lower ground absorption assumptions, and revise the distances if needed?	The Noise Study for the Strong Breeze Project is being done in accordance with the applicable MOECC technical requirements and in accordance with Ontario provincial requirements
I am concerned that the open house confirmed that at 2 km away [from turbines], receptor noise level will increase by 28 dB.	The sound level at any receptor location will not increase by 28 dB as a result of the Project. At locations 2 km away, the noise contribution from the Project will be well below the existing sound level.
Why are the sound pattern borders in the noise study irregularly shaped? Topography seems to have been ruled out as a reason.	The 40 dBA contours surrounding a turbine is a cumulative effect of all turbines within the study area. These contours are also influenced by the topography in the area, therefore it is not expected to be a perfect circle. These contours are established based on grid interpolation.
Who will come out to my home if I report excessive noise from the wind turbine?	SBWPP will have a dedicated facility with skilled technicians and management personnel on site. They will be able to respond in a timely manner to all inquiries and assess a complaint as soon as possible. If we receive a complaint about excessive noise once a turbine is operating,

	we want to hear from you because this could indicate a problem with the turbine that can be fixed.
Will the turbines be turned off/shut down if they are producing higher levels of noise than allowed (40 dBA)?	If the sound level from the Project at a non-participating receptor exceeds the MOECC's limit, which is 40 dB for low wind speed, an investigation of the exceedance will be conducted. Based on the investigation, an action plan as per the MOECC's approval conditions will be developed. The action plan will include actions necessary to bring the Project into compliance.
How quickly will I receive a response if I report excessive noise to the Ministry of the Environment and Climate Change?	SBWPP will take immediate steps to investigate the issue as soon as it receives a complaint.
Have your noise estimates been tested on real projects? What projects were those and have there been any noise complaints from the citizens living around those projects?	The prediction methods are based on MOECC's guidelines and technical requirements; these methods have been repeatedly used in the province of Ontario and subsequently audited. SBWPP follows these steps rigorously when seeking approval. Based on a tested and widely practiced method, SBWPP does not see a complaint issue.
Will Invenergy provide proof of accuracy for their noise estimates?	Discussion on conservatism is provided within the report; the modelling approach includes assumptions to ensure the predictions are conservative. These assumptions include down wind conditions in which wind directions were assumed to be from each turbine towards each receptor. In addition, during the worst-case wind turbine generator operating conditions, the noise impact would meet the MOECC's lowest noise criteria at noise-sensitive points of reception. SBWPP will complete an audit once the facility becomes operation to verify compliance.
Will Invenergy provide information on the full range of noise emissions emitted from the proposed wind turbines, including audible noise, low frequency noise, and infrasound?	SBWPP will complete the studies required per MOECC's requirements for wind turbines. Low frequency sound, below 31.5 Hz and infrasound are not part of the study. As the MOECC commissioned study in 2010 indicated, (Low frequency noise and infrasound associated with wind turbine generator system RFP No OSS-078696, dated December 10, 2010) infrasound from wind turbines is not expected to be heard by humans or pose an issue for human health and as such, routine measurements of infrasonic sound pressure levels from operating wind farms is not warranted.
What process will Invenergy use to monitor noise? How will complaints be dealt with? What remediation measures are proposed for noisy turbines or noise complaints from receptors? If remediation measures do not provide sufficient relief, what recourse would the complainant have?	There is a dedicated response plan requirement as part of the permitting process. The province sets response guidelines in the operating permit, all complaints go to the local branch of the MOECC and they are responsible for contacting the Project owner. The owner is responsible resolving the issues that arise. From our previous experience in Ontario, in instances where there are complaints from landowners about sound levels from a nearby turbine, the local branch of the MOECC in co-ordination with our operations and maintenance personnel visit the turbine in question and perform routine tests to determine whether the noise in question is mechanical in nature. If this cannot be resolved to the landowner's satisfaction, the MOECC can require additional measures to be taken, at their discretion.
Will investigators come out to my home if I lodge a complaint, and will they do tests on days that were as windy as when I complained? What kind of tests are done?	There is a dedicated response plan requirement as part of the permitting process. The province sets response guidelines in the operating permit, all complaints go to the local branch of the MOECC and they are responsible for contacting the Project owner. The owner is responsible resolving the issues that arise. From our previous experience in Ontario, in instances where there are complaints from landowners about sound levels from a nearby turbine, the local branch of the MOECC in co-ordination with our operations and maintenance personnel visit the turbine in question and perform routine tests to determine whether the noise in question is mechanical in nature. If this cannot be resolved to the landowner's satisfaction, the MOECC can require additional measures to be taken, at their discretion.
What are the qualifications of your acoustic expert and the person responsible for the noise measurements- who and	Stantec is SBWPP's acoustical consultant and will complete the acoustical assessment to be submitted as part of the REA application. The MOECC will review the acoustical assessment

what are they? Is this the person that we sue if the analysis does not prove to be correct?	before making a decision on the REA application. During operation noise measurements will be conducted by a third-party other than Stantec as required by the MOECC. SBWPP is obligated to operating the Project in compliance with MOECC's requirements.
If noise is not a problem near turbines, as you have stated, why is such a complex report required for the REA?	A complex report is required for the REA to ensure that the noise levels near receptors are within the provincial regulations. The noise model predicts noise levels at noise receptors based on many factors including the make/model of turbine and locations of turbines. The noise modeling software is approved by the MOECC for the purpose of planning and permitting the wind project and for placing turbines in ways to minimize noise. Once the Project is operational a noise audit must be done by a third party of the actual noise in the field and reported to the MOECC to confirm compliance.
What should I know about impacts to surrounding landowners from the noise study?	That the sound level from the Project at non-participating receptors comply with the MOECC noise requirements.
Will Invenergy make available a noise report that can be used by the municipality and community in their evaluation of the Project?	A Draft Noise Study Report has been prepared and is available for review on the Project website, at the Municipality of Dutton Dunwich and the Dutton Library. A final Noise Study Report will be submitted to the MOECC with the REA application and will be available on the Project website as soon as the MOECC deems the project documentation complete.
Will the noise model Invenergy is using be tested and verified as accurate by a third party?	The methods are approved by MOECC and have been the basis for MOECC's approval for many projects within the province of Ontario.
Why do the noise study usages exclude any post-approval enforcement activities even by the Ministry of the Environment and Climate Change? How can the public/Municipality encourage enforcement of any noise infractions without using the study noise estimates?	The noise study does not prevent or exclude any post-approval enforcement. The study was completed in accordance with the MOECC's requirements.
Will Invenergy provide the output calculations for every receptor?	The output calculations are provided for every receptor in Appendix E of the Draft Noise Study Report.
How would the Stantec noise report have changed without the scope, schedule, and other limitations? What project definition limitations were in the contract with Invenergy?	The only contractual requirement from SBWPP with respect to the Noise Study was for Stantec to conduct the study and produce a report that is consistent and compliant with REA requirements and the MOECC technical requirements for noise studies.
Has the newly developed noise model been verified by actual field measurements?	The noise model predicts noise levels at noise receptors based on many factors including the make/model of turbine and locations of turbines. The noise modeling software is approved by the MOECC for the purpose of planning and permitting the wind project. Once the Project is operational, a noise audit of the actual noise in the field must be done by a third party and reported to the MOECC to confirm compliance.
Will Invenergy run the model with lower ground absorption assumptions to account for winter months when the ground is frozen and trees are bare, and revise the distances if needed?	Modelling includes sufficient conservatism and will be verified during different seasons once the Project becomes operational. The conditions mandated by the MOECC through the REA approval will be followed.
Have the values generated by the various manufacturers been verified by a third party?	The turbine manufacturer's values are provided by the manufacturer and follow international standards.
How was the 40 dBA contour line derived, and why does it curve inwards around houses? Is Stantec manipulating these lines to look like they are in compliance with noise receptor standards?	The 40 dBA contours surrounding a turbine is a cumulative effect of all turbines within the study area. These contours are also influenced by the topography in the area, therefore it is not expected to be a perfect circle. These contours are established based on grid interpolation.
Why are there different shapes and sizes of the greater than 40 dB zone in figures 6 and 7? Why aren't there more uniform circles since the wind can come from any direction and the	The 40 dBA contours surrounding a turbine is a cumulative effect of all turbines within the study area. These contours are also influenced by the topography in the area, therefore it is not expected to be a perfect circle. These contours are established based on grid interpolation.

topography is relatively flat compared to the proposed new turbines?	
What turbine models and generating capacities were used in the noise model?	Please refer to the Draft Noise Study Report for this information. It is provided in the text of the report and the appendices. The Draft Noise Study Report is available on the Project website (strongbreezewind.com\documents) as part of the Draft Site Plan.
Dutton Dunwich is a noise constrained area. Has Invenergy considered installing the General Electric Wind Turbine Generator with turbine noise management?	The Draft Noise Study Report and all units installed will adhere to Ontario provincial regulatory requirements.
Has proper infrasound testing been completed on the larger turbines? If so, where are these results?	Infrasound is naturally occurring and not unique to wind turbines. Studies have found that infrasound from turbines are less than other items that people are exposed to on a daily basis. As the MOECC commissioned study in 2010 indicated, (Low frequency noise and infrasound associated with wind turbine generator system RFP No OSS-078696, dated December 10, 2010) infrasound from wind turbines is not expected to be heard by humans or pose an issue for human health and as such, routine measurements of infrasonic sound pressure levels from operating wind farms is not warranted.
When turbines are operating at the maximum power level, how is exceedance of noise limits due to wind gusts prevented?	The manufacturer confirms the maximum sound power for all wind conditions. The maximum power was used to establish compliance.
What is the time base for the Leq if no suffix is added?	For wind farms, the MOECC requires Leq(1hour). Since it is based on MOECC's requirements, the suffix was not added.
In the noise study, what does "global ground factor" mean?	It is a factor used to calculate noise impact from a noise source at a receptor location. The MOECC provided guidance on this factor that was used in this study.
What is the maximum sound level in dBA and Leq?	Maximum Leq sound level at receptor locations were established to be less than 40 dBA.
What are the peak noise levels, the noise that wakes you up at night?	The project will comply with the MOECC's requirements. Peak noise level depends on the location and the sources nearby, for example a house near Highway 401 will experience car pass by noise and its peak depends on how far it is from the road. Therefore, it is not feasible to establish the peak level without knowing more about the location and nearby source. For wind farm noise, it is assumed to be steady sound from turbines.
What is the peak noise level that a turbine is capable of producing? Why is there no maximum peak noise level in the Ontario regulations?	Specific unit information is included in the Draft Noise Assessment report. Ontario regulations are based on equivalent sound level (Leq) and not on peak sound level. This question could be best answered by MOECC. https://www.ontario.ca/en/contacts/feedback/index.htm
If "Stantec did not verify information provided by others", how reliable is this noise study report?	Stantec does not verify the information provided by the manufacturer. The output levels of the turbines as projected in the noise assessment reports form the basis of the Renewable Energy Approval and are requirement for the permit to remain in good standing.
The noise study states that manufacturer documentation for Vestas and General Electric suggests that noise levels are "best estimates" and "informative", and that the real noise levels can be much higher. Will Invenergy measure noise measurements and adjust the turbines to comply with noise regulations if necessary?	Once the facility becomes operational, SBWPP will conduct noise verification measurements and submit these to the MOECC.
How were the GE's estimates of errors from the power output estimates used in the model? Were there multiple runs based on different estimates of power output or did Stantec just use	The assessment used the worst-case scenario where the highest sound produced by the turbines was used to establish the impact and compare against the lowest limits.

the worst-case scenario (i.e. the highest estimate in the range of outputs or did they just use the statistical average)?	
How will the new studies on sound influenced the project?	While SBWPP is unsure as to which studies this refers to, if there is any new credible evidence established it is expected that MOECC will issue a directive to all wind farm operators. Such regulations will be honored by SBWPP.
Section 5.4 quote the Noise Study Report says “The guideline provides a SLL for class 3 areas which is dependent upon a difference wind speed at 10 m height. This SLL is greater for higher wind speeds, because wind induced background noise levels increase with wind speed. Noise emitted by the WTGs increases with the wind speed up to a maximum sound level. At this level, regardless of increases in wind speed the sound level remains at the maximum.” What is the number for the maximum sound level in dBA and in Leq? I hope the SLL is maximum 40 dBA at any POR.	As noted in the question, MOECC’s limit is higher for high wind speed. However, the highest sound power level of the turbine was used to establish the impact at receptors and compared to the lowest limit of 40 dBA to establish compliance.
Will infrasound and other noise and vibration be monitored at each turbine? Will this be monitored throughout the lifetime of the turbine? Will this information be made public?	Infrasound is naturally occurring and not unique to wind turbines. Studies have found that infrasound from turbines are less than other items that people are exposed to on a daily basis. With respect to noise, once the Project is operational a noise audit must be done by a third party of the actual noise in the field and reported to the MOECC to confirm compliance. The levels of vibration from wind turbines are so small that only the most sophisticated instrumentation and data processing can reveal their presence, and they are almost impossible to detect.
How does Invenergy know that the noise and vibration created by turbines do not exceed acceptable levels when the turbines are larger than any others in Ontario? Are they using studies in other parts of the world? What are they?	The sound level at any receptor location were established using methods established by the MOECC and will be verified once the turbines becomes operational. The guidelines from MOECC are designed to work for all type of turbines.

Project Reports

Why does the Project Description Report not address negative effects when it is required to do so?	The preliminary draft Project Description Report that was released prior to the first public meeting included a description of potential environmental effects in Section 5.0. Potential negative environmental effects, and ways to avoid or minimize them, are identified as various studies are conducted (e.g., the natural heritage study, water assessment, archaeological assessment). Now that these studies are complete, the draft Project Description Report (dated July 26, 2017) has been updated with more specific information on potential negative effects and mitigation measures. SBWPP's first priority is to avoid environmental effects through careful siting and design of the Project.
How did Invenergy identify locally valued resources? Is a list of these resources available?	The public meetings provide opportunities for information exchange. Many members of the public identified locally valued features and presence of species. This information is taken into account in the field studies that are undertaken and the reports that are produced.
Will the Natural Heritage Assessment report be made available? Is it reviewed by the Ministry of Natural Resources and Forestry?	Yes, the Draft Natural Heritage Assessment report is made available at least 60 days prior to the second public meeting. and is now available for review on the project website www.strongbreezewind.com/documents . The Ministry of Natural Resources and Forestry reviews the reports and provides comments and a letter of confirmation that is submitted as part of the REA application.

<p>For some reason, the noise report states that it can only be used by the company, the MOECC, the MNRF, and the ERT tribunals. Will Invenergy make available a noise report that can be used by the municipality and community in their evaluation of the project?</p>	<p>The report may be used and reviewed by the municipality as part of the regulatory approvals process and stakeholders may provide comment as part of the regulatory approvals process. The wording in the sign off page has been revised to make this clear.</p>
<h3>Noise Receptors</h3>	
<p>I am concerned that although turbines are not generally being placed on farms with homes, there is a lack of concern for proximity to neighbouring properties.</p>	<p>All turbines have been placed at least 550 m from non-participating noise receptors.</p>
<p>The positions of receptors RP357, RP360, RP3358, and VP355 are not in compliance with O. Reg. 359/09 Part 1 subsection 4.4 and are inconsistent with the typical building pattern in this area. R354, R349, R244, R359, R346, R2049, R359, R399, R356, and the residence on Silver Clay and the house on Coyne Road are all buildings with a long lane way. These buildings are within the next road area. The average built distance from the road is 100m. This 100m average should also be used for RP357, RP360, RP358, and VP355. Please correct.</p>	<p>Thank you for this feedback, we are reviewing and will consider these comments for final submission.</p>
<h3>Property Values</h3>	
<p>Why are wind turbines valued at such a low rate for property assessment purposes when their value is much higher?</p>	<p>After the project is completed, MPAC will reassess properties where project components are located (Turbines, Access Roads, Cabling, Substation etc.). We estimate the annual property tax payment to total approximately \$100,000.</p>
<p>Are owners of properties in Dutton Dunwich being informed that they will need to disclose these lease agreements and potential turbine site locations to buyers? If not, how are they being protected against potential liability and litigation?</p>	<p>A notice of Option to Lease or a Notice of Lease is registered on property title notifying any potential buyer. The landowner agreement would transfer to the new owner when a sale occurs.</p>
<p>Considering the concerns of devaluation of properties near turbines and substations, and potential tax reassessments, will this not in turn negatively affect the municipality's tax revenue? Who will compensate the municipality for these losses?</p>	<p>Multiple studies, including several in Ontario, have consistently found no evidence that wind energy projects around the world are negatively impacting property values.</p>
<p>How are property owners going to be assured that there will truly be no loss in property values in Dutton Dunwich? I am concerned that property values will decrease near the wind farm.</p> <p>What studies have been done in 2016 to investigate the long-term effects of wind turbines on the real estate market and property values?</p>	<p>Multiple studies, including several in Ontario, have consistently found no evidence that wind energy projects around the world are negatively impacting property values. The Municipal Property Assessment Corporation (MPAC) in Ontario routinely examines the effects of Industrial Wind Turbines on property assessment values in proximity to wind turbines. MPAC's most recent study concludes that 2016 Current Value Assessments (CVAs) of properties located within proximity to an IWT are assessed at their current value and are equitably assessed in relation to homes at greater distances. This finding is consistent with MPAC's 2008 and 2012 CVA reports. The study underwent a rigorous independent third-party peer review (conducted by Robert J. Gloudemans) and includes appendices describing the study parameters and documenting the analyses." This report can be found here: https://www.mpac.ca/PropertyOwners/IndustrialWindTurbines</p>

Another useful study by Richard Vyn and Ryan McCullough was published in the peer-reviewed Canadian Journal of Agricultural Economics on January 23, 2014 titled "The Effects of Wind Turbines on Property Values in Ontario: Does Public Perception Match Empirical Evidence". The study examined 5,414 rural residential sales and 1,590 farmland sales to estimate the impacts of an Ontario wind farm in Melancthon Township (larger than the one proposed for Dutton Dunwich) on surrounding property values. The study concludes that "wind turbines have not significantly impacted nearby property values."

Who will be liable if I try to sell my property and the price is drastically reduced due to wind turbines nearby? Invenergy? The owner of the land on which the turbine sits?

Landowners who lease their land for the Project are not responsible for any potential negative impacts of the Project. Based on multiple studies, a decrease in property values is not expected.

Has Invenergy consulted with local real estate agencies and mortgage brokers to confirm that property values will not decrease due to the Project? I think they will strongly dispute this.

Multiple studies, including several in Ontario, have consistently found no evidence that wind energy projects around the world are negatively impacting property values.

I was told by your environmental specialist that once the turbines are erected, property values will rebound. What studies can you provide to prove this?

There are a number of studies on property values, including studies from Ontario, that indicate no significant changes in property values as a result of wind projects in the vicinity. There are some studies that indicate a slight dip in property values after a project has been announced and during construction because people are uncertain what the Project will look like but the property values tend to rebound after the project is constructed.

Renewable Energy Approval (REA)

What government body gives REA approval?

The Ministry of the Environment and Climate Change issues the Renewable Energy Approval but several ministries, including the Ministry of Tourism, Culture and Sport and the Ministry of Natural Resources and Forestry provide feedback and sign-off on specific reports that make up the application for a REA.

What does REA mean?

Renewable Energy Approval (under Ontario Regulation 359/09 of the *Environmental Protection Act*)

How does the Strong Breeze Wind Project get Renewable Energy Approval?

The Project is issued a REA if it meets all the requirements in Ontario Regulation 359/09. An application for a REA is expected to be submitted to the Ministry of the Environment and Climate Change later this year.

Could the chapters of the REA report be made publicly available as it is being written?

Drafts of all the reports (other than the Draft Project Description Report and Draft Site Plan) are provided together and are now available for public review on the project website www.strongbreezewind.com/documents. These reports are all inter-related and are produced together for consistency.

Timeline

What is the timeline for the Project?

Please refer to the schedule in the Draft REA materials located on the project website www.strongbreezewind.com/documents

Why has Invenergy already established dates of project completion without addressing written concerns from the community?

We have provided a preliminary schedule based on REA requirements and typical wind project timelines to address questions from the community about the timing of the Project and when it could be constructed.

Shadow Flicker

What steps will be taken to ensure that shadow flicker from the turbines will not fall on surrounding high density residential communities (especially Dutton and Wallacetown)?	Shadow flicker occasionally occurs and is dependent on the angle of the sun and time of day to line up in a way that could cast a shadow over a residence of other building. While these circumstances are rare, mitigation measures may be taken into consideration at specific residences. Due to the setback distances from Dutton and Wallacetown it is not anticipated that shadow flicker will impact on these residential communities.
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Visual Disturbance

Does Invernergy have mitigative measures to address scenic impairment?	Placement, spacing and number of units are considered to mitigate possibility of visual impacts when determining the final design in conjunction with adherence to provincial regulations.
How is Invernergy addressing the issue of red light flicker? Is it reasonable to advise people to avoid going outdoors and to close their blinds?	Turbine lighting is regulated by Transport Canada for aviation safety. We are working closely with Transport Canada to draft the aviation safety plan that determines the obstruction lighting that is required.

Wind Energy

Can Invernergy's Dutton Dunwich wind speed data or summaries of the data be made public?	The IESO has a generation output feature on their website that shows the current real time electrical output from all generators in the province including wind farms that illustrates production levels. Visit www.ieso.ca to learn more.
I am concerned that wind energy does not benefit local residents.	Wind projects are long-term investments that return significant funds into the local community. See full Economic Benefits Case Study that quantifies the benefits to Dutton Dunwich and Elgin County at: strongbreezewind.com/documents .
Why did the government order a halt on future wind turbine installations?	The government paused the proposed LRP II renewable procurement of all generation sources and is anticipated that it will be resumed when determined by the IESO and the Ministry of Energy.
I am concerned that wind energy is not "green".	As a zero-emission source of energy wind power is one of the cleanest forms of energy generation available.
I am concerned about motionless wind turbines costing residents money.	Wind is an intermittent resource; the capacity factor is the percentage of the year that it operates at 100 percent; approximately 30 percent of the year the turbine runs at 100 percent.
Our children and grandchildren will be paying for "30 years mortgage", 10 years after project will be obsolete. So unnecessary according to reports and statistics.	The Projects power contract is for 20 years. Ontario's clean energy initiatives have attracted billions of dollars in new investments, generated more than 42,000 jobs, and significantly increased the amount of clean energy in the province. Wind energy contributes to approximately 6% of residential electricity bills and the costs per kWh are significantly lower than even 5 years ago. The environmental costs of not having green energy is a more significant cost to pass onto future generations.
I am concerned that wind turbines require more fossil fuels/nuclear power to keep the level of electricity constant, costing the consumer additional fees.	This is incorrect. Wind energy contributes to baseload and peaking electricity needs and during the peaking times actually displaces the need for fossil fuels that they would otherwise have used to help meet peak demand. Nuclear facilities are always running and wind power doesn't affect them.
Why is German wind energy used as a positive example of wind energy benefits, when German officials have said that the country may lose its industry due to wind energy?	That is a question for the German government.

<p>I am concerned that the high costs of wind farms that will be passed on to future generations.</p>	<p>Ontario's clean energy initiatives have attracted billions of dollars in new investments, generated more than 42,000 jobs, and significantly increased the amount of clean energy in the province. Wind energy contributes to approximately 6% of residential electricity bills and the costs per kWh are significantly lower than even 5 years ago. The environmental costs of not having green energy is a more significant cost to pass onto future generations.</p>
<p>I am concerned that the return on investment of renewable energy is poor.</p>	<p>Wind projects are long-term investments that return significant funds into the local community. See full Economic Benefits Case Study that quantifies the benefits to Dutton Dunwich and Elgin County at: strongbreezewood.com/documents.</p>