

Cabinet Minister, Mr. David Heurtel,

To the Ministry of Sustainable Development, the Environment and the fight against Climactic Changes,

I am writing this "brief" (memoire) as I have several preoccupations with regards to the possible Windmill project (projet Eolien) by Kanawake Sustainable Energy (KSE) in St-Cyprien-de-Napierville, Quebec. I am writing this brief as a concerned citizen who lives within fairly close proximity to where the project is planned.

During the first part of the BAPE, I expressed some of my concerns in a letter to you when I requested that public audiences be held about this possible project. I also asked two, albeit perhaps not well formulated, questions during the first part of this process on the last evening in St-Bernard-de-Lacolle on May 21, 2015. I would like to now elaborate a bit further about my concerns with regards to this project, as well as express my hope that this project will not go forward, at least not in this agricultural and populated area.

Being a nurse by profession, my greatest concerns have to do with the effects such a project may have on Health. My concerns about health have to do with the health of the land, water, animal/plant life, as well as on that of humans.

While I have not had the time to do a full search on the effects of wind turbines on the land; it seems that many concerns were brought up during the first part of the public audiences concerning this project. Certainly, I think that it is inarguable that the large amounts of cement required for these large wind turbines will most certainly cause the surrounding farm land to become arid, and will likely take a very long time for it to return to its original state. As I had mentioned in my letter of request, and was discussed at length in the first part of the audiences; there is allegedly only approximately 2% of land in Quebec which is considered agricultural, and which is able to grow food for Quebecers.

As I had mentioned in that letter as well; I cannot and do not understand how a ministry such as yours, with all due respect, could possibly risk losing any, even a very small amount, of such a precious commodity and resource. Fertile land is certainly very important to protect for so many reasons. Certainly you are also very aware of the fact that local food is a precious resource, and one that is receiving more and more attention not only here in Quebec, but across this whole country and beyond. From a purely 'sustainable' point of view; local food production and consumption is, and is continuing to become, an ever present preoccupation. Access to fresh food is an important determinant of health, and has been extremely well documented in the literature, in terms of its ability to reduce and even prevent many chronic diseases such as cardiovascular disease, obesity & diabetes, as well as many cancers.

With regards to the water in the area; this is another area of concern. While I certainly don't have any clear information or evidence about whether wind turbines may actually cause problems with regards to the water table, I am quite sure that I did hear mention of this during the first part of the public audience which were held in St-Bernard-de-Lacolle in May. It seems that many people mentioned that there have been links between wind turbines and contamination of water sheds. In St-Remi recently, where there is a fairly new wind turbine farm, there have been reports of areas within that municipality having "boil water" advisories. Again here, I am not cognizant of whether there is any link between these boil water advisories and the close proximity of the wind turbines within that municipality, however I am "greatly" concerned with regards to this issue as I live on Rang Double in St-Cyprien-de-Napierville and only have access to a private well (i.e. no municipal water source).

If there was to be found a link between wind turbine 'activity' and its effect on water tables; this most certainly would have a great impact on my life, and that of my family's, in a very real and difficult sense. If the water here were to become contaminated; I would wonder about who would be responsible to ensure my safety as well as the safety of the people within this community who also have private wells rather than access to municipal water supplies.

As you very well know, Water is the next most important thing to Air for the sustenance of life. In the event that the wind turbine project were to have an impact on the water table within this area; I wonder who would be responsible to ensure that the people living within this area would have access to clean and safe water. Additionally, how would people on private wells know if the water shed were to become contaminated? For our part, it has been recommended that we test our well water regularly and certainly we do. If a wind farm were to be erected down the road from our residence, as well as that of others, would this require more frequent testing, and who would pay for this additional cost is another one of my concerns and questions? As previously mentioned herein I am not cognizant as to whether there is any link between the boil water advisories in St-Remy and the wind turbines in that area. Until that information is fully known, and has been well researched and documented; I for one would like to see that this other possible wind turbine project not be allowed to move forward. *I would like to reiterate here the extremely important point that there is no access to municipal water within this area of the municipality, and thereby would potentially put many people's, as well as farmers' livestock, lives and health at risk.*

With regards to the effects of wind turbine activity on the health and well being of animals, birds, and plant life; there is evidence that there are detrimental effects. Unfortunately, there also seems to be a lot of controversy within the literature, at least as far as I was able to find, with regards to these risks. Certainly with regards to plant life there are obvious risks with regards to the immediate surrounding area in terms of drying of the land, etc. With regards to the safety of migrating birds; there is controversy in the literature about whether birds do or don't adapt to these giant turbines. With regards to bats, however, the evidence certainly seems to be more solid. It seems that most scientists agree that bats are affected negatively by wind

turbine activity for a variety of reasons. One has to do with the radiofrequencies that are emitted by the wind mills, and how these 'attract' the bats to what in the end is a danger to them. Nina Pierpont, M.D., PhD, in her book entitled "Wind Turbine Syndrome" also cites studies that have demonstrated that bats are affected negatively by the vibrations emitted by the large wind turbines. With regards to this issue, and the fact that your ministry is interested in sustainability, the *Environment* and the fight against climactic changes; I can't imagine that you are not cognizant of the importance of bats within our precious ecosystem. Many types of bats are already threatened, and getting close to being on the list of endangered species. Wind turbine projects surely must weigh the risks associated with the protection of these important species.

As I write this, I find myself wondering about the smaller creatures such as bees and butterflies; the ever and equally important pollinators. I am not aware as to whether there is any knowledge or research that has been conducted about the effects of wind turbines on their wellbeing, but I certainly don't think they should in any way be ignored. If you refer back to my earlier point about food production; it is a known fact that fruits and vegetables simply cannot be grown without the help of the pollinators. Perhaps some in the corporate world of genetically modified organisms (GMO) so-called "food production" would argue that food can be grown without the help of bees and butterflies. Of this latter statement I do not presently know, but I do know for certain that I for one don't want to see the day that Mother Nature does not have *her* hand in creating food. This most certainly would, in my humble opinion, surely mark the end of life as we know it on this precious planet Earth, and bring about the eventual extinction of *our species*.

Again here, I invite you to search the scientific literature for the very well documented "proof" that fresh fruits and vegetables are perhaps one of '*the*' most important food sources which are health promoting and protecting, as well as multiple-disease preventing.

With regards to human health and wind turbine proximity, I would make the argument that, while the evidence is controversial, again here there are many reasons to not ignore what is documented. I believe that it was during the BAPE held in St-Valentin, Quebec, a few years ago where a group of medical doctors spoke out against the possible wind turbine project that was slotted to see its day in that municipality. Seeing how BAPE information is public and accessible; I would invite you to revisit some of the testaments and 'memoires' that were given during those sessions. It is my understanding that Dr. Nina Pierpont herself wrote a brief for that BAPE session, and fight against wind turbines there. Her book, as mentioned previously, clearly describes what she has coined "Wind Turbine Syndrome" in humans; adults and children alike. She certainly makes some strong arguments about her profession as a medical doctor versus some of the 'scientific researchers' who refute the relationship between wind turbines and health.

Again here, I was not able to allot the time required to do an extensive search of the literature to become more informed about this issue, and syndrome, but I did find some compelling information which I would like to share here. One of the articles which I found in the Dawson College library, which was published in December 2014, did make some interesting points. The article in particular, entitled "Health Effects related to Wind Turbine Noise Exposure: A systematic Review" by Jasper Hvass Schmidt and Mads Klokher (PLOS ONE DOI: 10.1371/journal.pone.0114183) summarizes all the evidence in the literature to that point with regards to these health effects. In the discussion part of this article, the authors mention: "Noise from wind turbines results in significant annoyance for neighbours of wind turbines,...It has shown that the sound exposure from wind turbine noise increases noise annoyance by close-responsive degrees, and this annoyance may be the primary mediating agent causing sleep disturbance and increased psychological distress." (p.19-20) The authors go on to state that "It is not known with certainty if the association between wind turbine exposure and health related outcomes is caused by sound exposure, visual disturbance, economic aspects or something else." (p.20) They then go on to say that "virtually all of the studies did point toward an association between the wind turbine exposure and annoyance or sleep disturbance." (p.20)

Dr. Nina Pierpont, for her part, in her book "Wind Turbine Syndrome", published in 2009, describes several symptoms including "sleep disturbance, headache, tinnitus, ear pressure, dizziness, vertigo, nausea, visual blurring, tachycardia, irritability, problems with concentration and memory, and panic episodes associated with sensations of internal pulsation or quivering that arise while awake or asleep". ( p. 26)

While it is true that there may be varying opinions about whether wind turbines are detrimental to human health, and that the literature so far has not found any 'causal' evidence supporting this; there is certainly plenty of evidence that there are correlations between wind turbines and its effects on human health. I mentioned in my earlier letter to you about my concerns with regards to this last point. It is a well known fact that for many years, tobacco companies refuted the scientific communities, and medical doctors, who were finding links between smoking and ill health. It is now a well known *fact* that tobacco *causes* many illness and diseases. Likely there were equally 'controversial' findings in the literature on that topic in those years, and during those debates! I think my point here is clear and I will not elaborate on it any further.

I had mentioned on May 21 during the first session of these public audiences that I was concerned about the stress created with regards to this possible wind turbine project in St-Cyprien-de-Napierville. It has become quite clear to me throughout this process, and these last weeks, that many people in this municipality as well as in surrounding ones, are suffering great stress and have been for some time now, directly in connection with the threat of this project.

While there is perhaps need for further research about the effects of wind turbine effects on human health, there is most certainly an overwhelming body of evidence that *stress* has *\*multiple\** negative effects on health. Again here, if you are not aware of the existing literature

on this topic; I invite you to do a search for yourself. You could start by having a look at the website of the Douglas Mental Health University Institute, and doing a search with the simple word "stress".

While it is most certainly true that humans need access to clean air and water as well as fresh and wholesome food to ensure good health; there is a huge body of evidence which is showing that stress is a major determinant of people's overall general health state. The cost to the health care system with regards to the illness' and diseases related to *stress* would be a worthwhile subject to investigate. As ministries such as health (MSSS) and education (MELS) are struggling to find a balance between budgets and these essential services; the workers within these areas are falling prey to the illnesses associated with stress as they have to work within budget constraints, and environments of cutbacks. One could argue as well that the patients and students who come into contact with, and access these services, are also suffering from stress related illnesses and diseases. I would go so far as to say that *stress* is perhaps becoming one of the biggest public health concerns of this 21<sup>st</sup> century in the developed world.

These are all the reasons why I would like to see this project of KSE be rejected. While I do agree that "green" and "sustainable" forms of energy are needed in this world, I also think that there has to be upstream thinking in all areas related to sustainability, the environment and the fight against climactic changes. For the record let me say that by no means do I think that it is only within your ministry that these concerns need to be looked at. I have worked within another large ministry in this province, and I know that there is a lot of talk about working collaboratively with other ministries. I can only hope that this is not only political talk, but a call to actual change and growth. All these ministries are after all made up of individual human beings with similar needs and aspirations.

It is a well known fact that Quebecers don't presently need more electrical energy. While I agree that energy consumption has to be looked at, as do ways to increase clean energy; my sense is that the bigger picture must not be ignored in the process.

During an information evening in April before the beginning of these public audiences; Mr. Morris from KSE mentioned that he would have liked to take this project to a different area of Quebec that is uninhabited, and which could likely contain a larger wind turbine farm than the one proposed in this municipality. Mr. Morris went on to say that Hydro Quebec, or perhaps it was the government of Quebec, told him that KSE could only do such a project in the Monteregie area.

Clearly, this makes no sense as so many citizens and groups have come forward during these sessions of public audiences to bear witness. Additionally, it seems that many more people from this general area have come forward with these same arguments in recent past years. Such a situation as this raises the question as to whom is benefiting from all this, as well as what (or whose) agenda is actually at the forefront of this issue!

I strongly propose and hope that this project will be rejected. That being said, however, I would certainly be in support of KSE working toward building a wind turbine farm in a northern area of Quebec where the land is not agricultural, and as previously mentioned, where there are no human inhabitants. I would support such a project wholeheartedly, *especially if the bigger picture of sustainable energy was being addressed within such a project!*

With the greatest of sincerity and respect,

Pamela Mercer-Walsh, R.N, BsN.

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