Notice of Comments Re: Orillia 3 ULC Reference: EB-2012-0358

November 22, 2012

Comments and support material speaking to The Opposition of Application for an Electricity Generation Licence

As directed by Notice of Application and Written Hearing RE: Orillia 3 ULC – October 11, 2012, and Procedural Order No. 1 – November 12, 2012

For the above referenced application have been compiled by;

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

November 22, 2012

Attention: Board Secretary

Reference: EB-2012-0358

Dear Ms. Walli;

I wish to thank the Board for agreeing to offer an extension, by way of Procedural Order No. 1, in which I am allowed to submit comments, that will show opposition to the above referenced application.

This letter will lay out the comments, while the supporting discussions and attachments will offer an insight into the reasons why I am asking for consideration in my requests.

With all due respect, I ask that the complete submission, that you find before you, be studied and understood in a holistic manner, as intended and presented.

Background:

I have been involved in the study and discussion of the Green Energy Act – O.Reg 359/09 and the subsequent Environmental Protection Act – O.Reg 521/10, since the spring of 2010 and have followed the activities of various solar developers, from their first announcements and meetings until the present.

From the record, it can be seen that I have had much interaction with Provincial ministries, municipal councils, developers, interest groups and the public

The main thrust of my work has been to preserve food producing agricultural land in Ontario.

Guidance for the Ontario Energy Board;

June 7, 2000, A Directive given to the Ontario Energy Board from the Minister of Energy, to give primacy to the objective "to protect the interests of consumers, with respect to prices and the reliability and quality of electricity service".

March 1,2005- Provincial Policy Statement, in section 2.3 states that "prime agricultural areas are to be protected for long term use"

May 16, 2007- A Directive given to the Ontario Energy Board from the Minister of Energy, to "implement measures necessary to address the issue of stray voltage as it affects the farm sector".

(continued)

Recurrent Energy's proposals:

From the onset of the development of Orillia 3 (and most others), Recurrent has been careful to follow the letter of the Green Energy Act, while interpreting that Act and the definitions to their advantage. They have not, however, displayed an interest in the wellbeing and the understanding of the public and the municipalitity(s).

I find it necessary to list many of these repeated actions, by the developer, that have confused and confounded the community, when they had claimed the desire to be a good neighbour.

- 1- No meaningful or understandable material was presented at the public meetings
- 2- No meaningful explanations were offered at any time, therefore no education or transparency.
- 3- Interpretations of definitions were translated into abuse of the fact. ie: seepage areas
- 4- Canadian Land Inventory classifications are being not being respected. At Orillia 3, Class 1 land is currently proposed for lay down areas and parking. That should constitute development. Current applications are supposed to follow the FIT 2 Guidelines, as are amended sections of these proposals.
- 5- Site specific soil studies were done from a desk and proven by a drive by, while no **field** studies were completed and if they were, there was no forthcoming of the results to the public. At all phases of questioning, feeble or no answers have been forthcoming about soil, therefore, it has to be assumed that there has in fact been **no** studies, in the field, to confirm the classification.
- 6- The Ministry of Environment means to protect the environment (plants and animals), while Recurrent, is proposing to eliminate one half of a mature, healthy 16 acre woodlot, claiming that the woodlot is not significant, by its own right or for the habitat of the local wildlife.
- 7- No bonding for de-commissioning was offered to the municipality. (Other companies have made that a requirement to their proposals)
- 8- The Construction Reports that were submitted, to the MOE, during the Renewable Energy Approval process (REA) and from which the MOE assessed the project, appear to have played no significant part in the actual current construction of facilities.
- 9- These Reports were, in fact, the basis of the approvals given by the MOE. For example, the forecast of truck traffic seems to have been woefully underestimated. On sites currently under construction, the traffic is much higher than we expected.
- 10-During construction at sites in Severn, there has been no disclosure of safe work, inspections of engineering or respect for work times. Repeated complaints about noise, vibration and lack of traffic control have been reported to local Council.
- 11- The wildlife studies apparently took an hour, for the Amendment for Orillia 3. In that hour, nothing was said about the resident moose, the eight bears, evidence of cougar, sightings of hognosed snakes, bird count of the Turkey, Meadowlark and Bobolink that bred in the area of Orillia 3, sighting of the many deer including the twelve point buck that travels these reaches, the coyote howls that occurs 4-6 times a day or the wolf howls that we hear 1-2 times a week.
- 12- Upon getting approval of a site, there has been many incidents that the developer has amended the project to increase the size dramatically. This would give the impression that the developer had no understanding of the process, the land or the efficiency of the proposed project.
- 13- Recurrent applied for a licence from the OEB before the REA approval for the amended project.
- 14-Recurrent, as far as can be seen, did not advertise in local papers, the application to the OEB.

(continued)

Arguement;

We have to assume that the Green Energy Act and any amendments were enacted with good intentions, but the Act may have been designed too quickly and as such, many flaws have surfaced. It is clear to many that the responsibility of various Ministries and Boards, is to be the checks by which the people of this Province are governed, properly and fairly.

It is also assumed by the electorate, that fair governance is their right and that the elected government is negligent when creating debt.

With reference to the directives offered as examples, on the first page of this submission, I would suggest the following;

- 1- The electrical infrastructure of the province has failed. The reasons for these failures are for others to discuss and quite frankly, to solve. This is where expenditures should be made.
- 2- The implementation of the Green Energy Act, in its current form, has been a disservice to the people of Ontario, since the loss of food producing farmland is permanent and the discussion of any de-commissioning is a waste of time. There will be no de-commissioning!
- 3- The people of Ontario are dealt a further disservice by having to bear the costs of the huge subsidies given to the developers for generation, then having to pay again for the disposal of electricity during over generation.
- 4- The people of Ontario, then have to absorb the complications of the sale of a site or business. Recurrent was sold to Sharp from Japan, but is now up for sale by Sharp, apparently because of the current instability in that company and in Japan. Further complication develops when parts or majority interests would be sold to Mitsibushi and Osaka Gas from Japan, upon completion of the development, as announced earlier by Recurrent Energy.
- 5- Without bonding, who would pay for rehabilitation of the land in the event of project or company failure? This surely can't fall to the municipality!
- 6- With regard to the directive dealing with stray voltage, we have seen no evidence that this phenomena is understood or is being designed for by the developer. Provincial oversight of this problem is apparent by the evidence of workshops given by concerned groups that are wary of that stray voltage problem. The Directive in 2007 is clear.
- 7- From the Provincial Policy Statement of 2005 and indeed in the current PPS review, there is adequate direction for the need to protect Prime Agricultural Areas. When I attended and participated in the Provincial Policy Statement Review at the Unitarian Church in Toronto, on November 6, 2012, it appeared to me that the main focus on this workshop, by participants, largely urban, was the need for quality of life policies and protection of farmland.

Neither the Proponent, who is required to follow protection policies, dictated in the regulations, nor the Provincial Ministries, that have been entrusted to uphold the protection of farmland, appear to have respect for the perpetual value, of this land, for food producing purposes.

8- At the Annual General Meeting of the Ontario Federation of Agriculture this November 18-20 in Toronto, there was presented and passed a resolution to include the protection of Classes 4 and 5, to the currently protected (in policy) Classes 1, 2, and 3.

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Since this process is proponent driven, there appears to be very little requirement for any review, except that which could be construed as a check list and there certainly isn't a transparency.

Recurrent Energy admitted to Oro-Medonte Council, when starting to engage the municipality in the REA process, that it had never built a facility on food producing farmland, so it is not hard to see that this company had any understanding of the nature and value of farmed soil.

Farmers, however, are most concerned about soil and wind erosion, weed control, the degree of compaction and other factors that would stress the land, all of which are detrimental to productive cropping and soil preservation.

This developer has ignored these ideals and practices.

The farming community, currently the number one value added sector in the Province of Ontario, has long understood the need to protect and enrich the land and soil, from which is generated such great wealth and enduring perpetual prosperity, that benefits the entire community. This is stewardship.

Nutritious food, local employment and ingenuity are only some examples of the net benefit of land protection and preservation.

With the ever increasing world population, farmers have to be allowed to continue to produce food, fibre and fuel and of course to do that, the rural land that can produce this food, has to not only be protected in policy but also in an enforceable practice.

Summary;

The well being and quality of life of the citizens must be of paramount importance to all governments.

The current Government has been seen to place the interests of the developers before the interests of the people that trusted that Government to dispense good, fair and affordable governance.

Although the use of solar energy should be pursued, through good science, the public should not be made to pay for the experiments, generation subsidies and costs for over generation.

Similarly, the most important value added sector, (agriculture) in the Province, should not be squeezed, ever more, out of the land base that is needed now and will be required much more into perpetuity.

The policies are in place, the directives have been given and the will of the people, as shown by the accompanying petitions, is apparent.

The petitions, referred to above, can not be presented to the Legislature, so the views of the public can not reach the Government, therefore, I argue that the Government has broken the contract with the electorate.

Some would argue that this breach of contract constitutes Contra Proferentem.

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The fact, that there is no regular course of appeal for aspects of the Green Energy Act, could be described as a form of bullying, a practice held in low regard by society and the courts.

The **net benefit** of the Green Energy Act has not been displayed, in fact the public will suffer from the burden of this Act in its current form.

The issue of stray voltage, which has been identified and which has been the subject of a Directive from a past Minister of Energy, shows the threatening aspect to both humans, wild animals and domestic stock. Any farmer can quickly explain the stress that domestic stock endures if subjected to this very real physicality.

With regard to Recurrent Energy, I would say that their statement of wanting to be good neighbours is questionable, as is their understanding of the science and I do not see a quality of accountability emerging from their current practices.

I therefore don't see a reliable intention, company or structure. I do see that the attraction of huge profits, by way of subsidies, is the motivating feature of this foreign company.

The courts could say that a proposal for a renewable energy project could be rejected, if it was shown that there deception on the part of the developer and if there was potential harm to humans or the environment. Since there has been no disclosed peer review, have these possibilities been assessed properly? Has the work of the strategy groups (companies) been too efficient?

Clearly, it can be seen from my dissertation that there is a wide body of concern that would make the granting of any licence, that would allow harm to humans or the environment, contrary to the protection afforded in the regulations.

The practice of proceeding with a project in the face of questionable design and the lack of transparent engineering inspection should always be refused. The various Codes in Ontario demand that adherence.

Lastly, it is the moral duty of citizens to challenge the government, that unilaterally chooses to abrogate the policies under which the general population has had faith.

The protection and preservation of our food producing land must be one of the goals and priorities of all governments. There is simply no more land being made.

I respectfully ask that the Ontario Energy Board refuse to issue a licence to generate electricity to Recurrent Energy for Orillia 3 and other projects in Recurrent Energy's dossier.

I also ask that the Green Energy Act be reviewed and revamped to encompass the values that are important and fair to the citizens of Ontario.

Respectfully,

Bernard Pope Ontario Farmland Preservation



Index of Attachments

- 1 Directive to Ontario Energy Board from Minister of Energy July 7, 2000 'Protect the interests of consumers, etc.
- 2 Reference to Provincial Policy Statement March 1, 2005 Section 2.3 – Protection of Prime Agricultural Lands
- 2a- Reference to Provincial Policy Statement Review 'Draft" September 2012 Section 2.3 – Protection of Prime Agricultural Lands- re-emphasized
- 3 Directive to Ontario Energy Board from Minister of Energy May 16, 2007 Stray voltage in the farm sector

4 - Letter to Premier McGuinty - January 3, 2011

From Simcoe Solar Farm Awareness Project

Chair - Nancy Robinson

Includes - Discussion on Land Classifications

- Excerpts from document issued in October 2010 by Sussex Strategy Group

5 – Document by Peter Galloway

Sample of comments presented to Ministry of Environment – December 21, 2011 Midhurst 3

Even though this Project is not up for discussion, the intent is to show the level of understanding we have, and the type of comments submitted to the MOE on the Environmental Registry. Unfortunately, many of us identified ourselves on those submissions and as such, the MOE may have discarded many comments that were relevant.

6 – Letter from Township of Severn Mayor and Council - November 14, 2012

Discusses some of the concerns at sites under construction in Severn The Township of Severn has had many issues with the nature of Recurrent Energy's business

7 – Brochure (or copy) - Current

Stray voltage workshop for interested parties Sponsored by local agricultural organization

8 – Petitions (copies) -Current

Prepared from originals for presentation to legislature at a date when there is a sitting assembly

9 – Letter(e-mail) from concerned citizen

This person, with her young family, lives next to a Recurrent Energy project in Severn

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1 - Directive to Ontario Energy Board from Minister of Energy - July 7, 2000

APPENDIX 1

MINISTER'S DIRECTIVE

TO: THE ONTARIO ENERGY BOARD

I, Jim Wilson, Minister of Energy, Science and Technology, hereby direct the Ontario Energy Board (hereinafter referred to as "the Board") under section 27 of the *Ontario Energy Board Act*, 1998 (hereinafter referred to as "the Act"), in order to protect consumers with respect to prices, as follows:

- In making an order under section 78 of the Act approving or fixing just and reasonable rates for the distributing of electricity by a municipal electric utility, in being guided by the objectives set out in section 1 of the Act, the Board shall give primacy to the objective "to protect the interests of consumers with respect to prices and the reliability and quality of electricity service".
- Before making an order under section 78 of the Act approving or fixing just and reasonable rates for the distributing of electricity by a municipal electric utility, the Board shall invite representations from the council of the municipal corporation or municipal corporations within the service area of the distributor.
- 3. This directive applies to every application for an order under section 78 of the Act that was not finally disposed of by the Board before this directive comes into force whether the application was made before or after this directive comes into force.
- This directive is in effect until subsection 26(1) of the Electricity Act, 1998 comes into force or until a new order under section 78 of the Act takes effect, whichever is later.

5. In this directive, "municipal electricity utility" means,

- (a) a municipal corporation that distributes electricity directly,
- (b) a commission established under the *Public Utilities Act* or any other general or special Act through which a municipal corporation distributes electricity,
- any other body, however established, through which a municipal corporation distributes electricity,
- (d) a corporation incorporated pursuant to section 142 of the *Electricity Act*, 1998 for the purpose of distributing electricity, where a municipal corporation owns, directly or indirectly voting securities carrying more than 50 per cent of the voting rights attached to all voting securities of the corporation, or
- (e) Hydro One Inc.

[Original signed by]

June 7, 2000

Minister of Energy, Science and Technology



2 -Reference to Provincial Policy Statement - March 1, 2005



3 - Directive to Ontario Energy Board from Minister of Energy - May 16, 2007



Conseil des ministres

Order in Council Décret

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that: Sur la recommandation du soussigné, le lieutenant-gouverneur, sur l'avis et avec le con-sentement du Conseil des ministres, décrète ce qui suit:

WHEREAS it is desirable to improve the quality of electricity service in order to address certain issues related to stray voltage which are currently being experienced by the agricultural sector and, in particular, by farm customers.

AND WHEREAS the Minister may, with the approval of the Lieutenant Governor in Council, issue directives under section 27 of the *Ontario Energy Board Act, 1998* (the "Act") in order to direct the Ontario Energy Board (the "Board") concerning general policy and the objectives to be pursued by the Board.

AND WHEREAS, in recognition of the fact that one of the primary objectives of the Board, as contained in paragraph 1(1) 1 of the Act, is to protect the interests of consumers with respect to quality of electricity service, it is desirable that the Board develop its own processes, procedures and regulatory instruments to implement measures in order to address the issue of stray voltage as it is currently being experienced by farm customers.

NOW THEREFORE the Directive attached hereto, is approved.

Recommended: Minister of Energy

Approved and O	Ordered: _	MAT TO ZUU/	
		Date	

Concurred Chair of Cabinet

Administrator of the Government

O.C./Décret 1081/2007

Authority Verified Compétence vérifiée Janes Pi+ Paker

Please print name Nom en letters moulées s.v.p. James Rehob

Telephone Téléphone	(416)	325	6676	

Recommended by the Management Board of Cabinet on Recommandé par le Conseil de gestion du gouvernement le ____

> Secretary Secrétaire

:

MINISTER'S DIRECTIVE

TO: THE ONTARIO ENERGY BOARD

I, Dwight Duncan, Minister of Energy, hereby direct the Ontario Energy Board (the "Board") under section 27 of the *Ontario Energy Board Act, 1998* (the "Act") as follows:

 The Board shall implement such measures which, in its own discretion, having regard to the objective related to quality of electricity service provided for under paragraph 1(1) 1 of the Act, are necessary to ensure electricity service to farm customers, in relation to "tingle" or "stray" voltage, is of a quality that does not unduly impact the operation of the farm.

Minister of Energy

MAY 1 6 2007

Date



4 -Letter to Premier McGuinty- January 3, 2011

January 3, 2011

Office of the Premier Hon. Dalton McGuinty Room 281, Main Legislative Building Queen's Park Toronto, Ontario M7A 1A1

Dear Mr. McGuinty:

My name is Nancy Robinson and I am writing this letter on behalf of a group called Simcoe Solar Farm Awareness Project formed by citizens from four townships (Oro-Medonte, Severn, Springwater, and Tay) in the County of Simcoe. We are expressing our concerns over Ontario Power Authority's (OPA) approval of Recurrent Energy's "Midhurst 2, Midhurst 3, Midhurst 4, Midhurst 6, Orillia 1, Orillia 2, Orillia 3, Waubaushene 3, Waubaushene 4, and Waubaushene 5" Solar Project FIT applications. We have information that these projects clearly fall outside the September 24, 2009 directive sent by then Minister of Energy and Infrastructure, George Smitherman to Mr. Colin Andersen, the CEO of the Ontario Power Authority.¹ For this reason, we believe the decision to approve these projects should be reviewed and subsequently overturned.

I have written to you under the group name Concerned Citizens Group of Severn Township in past months and you have directed us to address Mr. Brad Duguid. Having done so, Mr. Duguid assured us "that protecting the environment is a key element of Ontario's Green Energy Act (GEA)" and he also said "We also believe it is possible to encourage solar development while protecting Ontario's prime agricultural lands." Our group has provided proof in the past, as well as further within this letter, that our prime agricultural lands are not being protected. Mr. Duguid went on to say, "I understand that the projects' developer, Recurrent Energy, responded to the concerns you have raised and advised you about the Ministry of the Environment's Renewable Energy Approval process." Recurrent Energy has already had one project retracted in Dorchester, Ontario called 'Highbury 1' for the reason OPA spokesperson Kristin Jenkins was quoted as saying, "I think there was recognition that the site didn't meet the criteria" that excludes prime farmland from solar development. It is for this reason, amongst others that we are not comfortable with Recurrent Energy's response to our concerns.

We felt it was important to address yourself personally, and the Liberal Government as a whole in light of a Sussex Strategy Group document titled 'Renewable Energy Matters-Campaign Outline' that our group finds disturbing. It was prepared for your government and the proponents of FIT projects. We are apprehensive the FIT solar projects are being pushed through with the guidelines and rules set out by the OPA being ignored, this document seems to back our reservations. Page 2 of the Sussex

document titled 'Overview' states:

- A number of renewable energy developers have come together to form a lose coalition of interests, to promote renewable energy policy in Ontario and support the agenda set as part of the *Green Energy and Economy Act* and the Feed-in-Tariff program.
- This coalition will be joined by other groups, such as Environmental Defence and the GEA Alliance, as well as labour, economic development, health and environmental stakeholders, to develop common messaging, communications tools (ie. paid and earned media) and targeted local campaigns in areas where opposition to renewable power exists.
- The goal of this effort will be two-fold:
 - Help support an expedited release of FIT contracts, including those associated with new Bruce-Milton transmission capacity; and
 - Support the broader government plan for sustained contracting for wind and solar through the FIT Program, as part of the Supply Mix Directive and Long-Term Energy Plan.
- As renewable energy is also anticipated to be a wedge issue in the election, with the PCs supporting a move away from renewable, this effort should consolidate industry and non-industry stakeholders in rallying support for a continued focus on green power as important economic, social, and energy policy in Ontario.
- In this, it will be critical to "confuse" the issue in the political/public/media away from just price to include key value attributes such as jobs, clean air, farm income, etc. Renewable cannot be defined by price alone.

Page 9 titled '2. Tactical' says:

 In order to talk past the "noisy activists" and editorial positions, there needs to be a coordinated paid, earned and social media campaign. This should be both reactive and proactive.

Page 11 titled 'Budget' states:

- Goal is to have \$300,000 in hand through contributions from developers and manufacturers to seed the campaign (will support efforts through to Q1 2011)
- Anonymous contributions to campaign possible.

If the FIT projects have met the criteria set out by the 'Green Energy and Economy Act' and the Ontario Power Authority, we do not see the call for a coalition to support this program, nor should the release of the FIT contracts be expedited. We do not consider ourselves "noisy activists" and we do not see the need to "confuse" the citizens of Ontario. It is extremely important to note, we do not oppose renewable energy, we are concerned citizens requesting that the Ontario Government uphold the rules and regulations set out by the 'Green Energy and Economy Act' and the Ontario Power

Authority.

These project sites were sought out before the directive of Mr. George Smitherman to protect prime agricultural land and therefore include land that is prohibited to be used. The FIT Program was enabled by the <u>Green Energy and Green Economy Act, 2009</u> which was passed into law on May 14, 2009. The Ontario Power Authority is responsible for implementing the program.ⁱⁱ On September 24, 2009, the Ontario government announced the new Feed-in Tariff (FIT) Program under the *Green Energy and Green Economy Act*. In conjunction with the announcement, the Minister of Energy and Infrastructure issued a directive to the Ontario Power Authority (OPA) indicating that the OPA is not to enter into contracts for ground-mounted solar PV projects greater than 100 kilowatts (kW) on lands with:

Canada Land Inventory (CLI) class 1 soils CLI class 2 soils

Specialty Crop Areas within the meaning of the 2005 Provincial Policy Statement (PPS) The directive allows the OPA to procure energy from ground-mounted solar PV projects greater than 100 kW located on CLI Class 3 agricultural lands up to a province-wide cap of 500 megawatts (MW). On Class 3 soils, the 500 MW capacity cap has been divided among the four <u>Ontario Realty Corporation Regional Administrative Boundaries (RABA)</u> (PDF).^{III} Simcoe County is in the central region, so, there is a 39MW cap on class 3 soil.

I have verified the soil classifications for the 10 proposed large scale solar facilities with the OMAFRA (Ontario Ministry of Agriculture Food and Rural Affairs) mappingⁱⁱⁱ and my findings confirmed by visits to the Midhurst OMAFRA office location.

The proponent has responded by saying they intend to utilize class 3 soil or below on the sites that have 1, 2 and 3 soil classifications on the proposed sites. This means that the very land promised to be protected by the Government of Ontario and clearly written into the 'Green Energy Act' (class 1, 2 and 3 which is prime agricultural land) will be taken out of production. Clear cutting of trees would occur on some properties to maintain solar development on class 3 or lower to avoid the use of class 1 and 2 soils, this is an unnecessary and disparaging act. It also means that the system nameplate capacity (MW) would be greatly reduced for a majority of the sites because prime agricultural lands were included in the initial proposals. Now, another question to consider is, would it be feasible to upgrade hydro lines to these areas for a much smaller quantity of power?

The proponent's project description reports are to include a CLI map showing:

- The entire property
- The part of the property where the ground-mounted PV facility is proposed to be located
- The CLI classifications for the entire property.

FIT project eligibility will be based on OMAFRA's official CLI maps on the date the FIT application is submitted to the OPA.

If the land proposed for your project has multiple CLI classifications, including 1, 2 or 3, your FIT application package must also include a site-specific soil study performed by a qualified soil scientist, independent from the FIT applicant, to confirm the CLI Classification using accepted standards.^{iv} We have written and verbal confirmation from one of the soil specialists hired by Recurrent Energy that "The soil report for the FIT application was prepared from digital soil and soil capability maps provided by OMAFRA with a drive by the property to observe any obvious errors in the mapping that would significantly change the soil capability classification." To our knowledge this is not a sitespecific soil study that is required when multiple soil classifications are present on a property that includes class 1, 2 or 3 soils.^{iv} Our group have requested the results of the studies from Recurrent Energy on numerous occasions and we have not received them. To assist the proponents in evaluating soil classifications they are to refer to information such as county soil reports^v, which are available and have been recently updated; in our area they are called 'Simcoe County Interactive Soil Maps'. The Simcoe County Interactive Soil Maps would be of value because they include soil improvements such as tile drainage systems. Another issue is that one of the proposed sites is zoned 'rural', the developer is permitted to build on the land if agriculture is not the dominant use on the land.^v The land in question (Waubaushene 3) is used in its' entirety for agriculture and therefore does not qualify for the FIT program.

The Ontario Federation of Agriculture states the following:

Ontario needs power and farmers need income. The Ontario Federation of Agriculture (OFA) favours solar power on buildings, in fencerows, in small plots yards or gardens, in otherwise vacant hydro corridors or roadsides. Yes, the power is expensive until the solar cells are paid for; but once a project is amortized, rates can become reasonable. And they are quiet and generally unobtrusive.

However, OFA is concerned that large scale solar development on good farm land is ill-suited to Ontario. In temperate farming areas OFA believes solar will cause erosion, bake the soil, disrupt carbon and nitrogen fixing, create habitat for noxious weeds, destroy habitat for many native creatures on farms including worms and frogs and needlessly remove good land from production. Ontario is blessed with great amounts of land, but less than 15% of the total is well suited for farming. If large land based solar installations are needed in Ontario, there are vast areas of land that are not particularly useful for farming or recreation, forestry or wildlife that could be used for solar farms. There is no need to sacrifice other potentials to have solar in Ontario. There are tens of thousands of kilometers of suitable power line, the sun shines for between 2,200 and 3,000 hours each year in all parts of Ontario varying with cloud cover and the price offered is more than sufficient to enable solar development on all but the most inhospitable sites. Accordingly, Ontario has opted to protect good farmland and not use it for solar power. This is a sound policy.vi

All of these properties have many drainage systems running throughout them, as well as rivers, creeks, environmentally protected areas and some are tile-drained. The proposed sites are currently being used for agricultural purposes and should remain that way. The run-off would be detrimental to our wildlife and the environment.

Each of the sites is unique as to how they are situated with dwellings around them. Another major concern is the noise from transformer substations and inverter clusters. Those who live in rural areas seldom hear industrial noise for any duration of time. Most of us are able to hear neighbours talking from several hundred metres away depending upon the wind direction and weather conditions. We find it difficult to believe that the proponent will control the noise levels in accordance with the Ministry of Environment's (MOE) acceptable 40dBA level. Recurrent Energy's 'Orillia 2 Draft Noise Assessment Study' says the following:

This Noise Impact Assessment has been prepared based on the document entitled "Basic Comprehensive Certificates of Approval (Air) – User Guide" by the Ontario Ministry of the Environment (MOE). The sound pressure levels at the points of reception (POR) have been estimated using ISO 9613-2, implemented in the CADNA-A computer code. The performance limits used for verification of compliance correspond to the values for Class 3 areas (45 dBA for day time, 40 dBA for night time). The results presented in this report are based on the best available information at this time. It is the intention that, in the detailed engineering phase of the Project, certified noise data based on final plans and designs will confirm the conclusions of this noise study.

Based on the results obtained in this study, we believe that the sound pressure levels at POR will not exceed MOE requirements for Class 3 areas (rural). Any noise issues that might arise during commissioning will be manageable and can be resolved by implementing typical remediation measures as described in this report. It is our intention to verify by field measurements taken on completion of installation and during commissioning that the noise levels at the POR are within the limits set by the MOE.^{vii}

Documentation in this same report says that inverter clusters and transformer clusters may have individual noise levels up to 99.5dBA. Proof needs to be provided prior to commissioning that MOE requirements are met, not during the installation and then unacceptable mitigation measures taken.

There are concerns and discrepancies with each of the sites that will be broken down

for your observation. Since the projects are being 'expedited' these concerns are valid and troubling. The break-down of the individual projects and their specific concerns are as follows:

Midhurst 2 version 2.2 – Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%20Midhurst%202%20-%20Draft%20Project%20Description%20Report% 20-%20v2.2_072610.pdf

Address 1878 Matheson Rd., Springwater, ON LOL 2KO

Zoning Agricultural

Agricultural Land Class The leased area is approximately 35% class 2, and 65% class 3, Please find CLI map (figure 2) for further details.

System Nameplate Capacity 3.5 MW AC/3.5 MVA

-This site includes class 2 and 3 soils, which means the property is to be avoided and a site-specific soil -study is required.^{iv}

-The proponent would have to clear cut several trees to make way for solar panels on class 3 soils.

-The system nameplate would be drastically reduced.

Midhurst 3 version 2.2 – Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%20Midhurst%203%20-%20Draft%20Project%20Description%20Report% 20-%20v2.2 072610.pdf

Address 217 Line 5 North, Oro Station, ON LOL 2E0 Zoning Agricultural

Agricultural Land Class The leased area is approximately 27% class 2, and 73% class 3, Please find CLI map (figure 2) for further details.

System Nameplate Capacity 3.5 MW AC/3.5 MVA

-This site includes class 2 and 3 soils, which means the property is to be avoided and a site-specific soil study is required.^{iv}

-The system nameplate would be drastically reduced.

Midhurst 4 version 2.2 – Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%20Midhurst%204%20-%20Draft%20Project%20Description%20Report% 20-%20v2.2_072610.pdf

Address Property does not have a civic address, it is bordered to the southwest by Highway 11N and bound to the east by Line 6N and west by Line 5N in Oro-Medonte Township, LOL 2XO

Zoning Agricultural

Agricultural Land Class The Property is approximately 23% class 1 and 28% class 2, 45% class 3 and 4% organic. Please find CLI map (Figure 2) at the end of report for further details.

System Nameplate Capacity 6.5 MW AC/6.5 MVA

-This site is wholly made up of class 1, 2 and 3 soils, which means the property is to be avoided and a site-specific soil study would be required.^{iv} -The system nameplate would be drastically reduced. -Clear cutting of trees is required.

Midhurst 6 version 2.3 – Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/MH6/RE%20Midhurst%206%20-%20Draft%20Project%20Description% 20Report%20-%20v2.3.pdf

Address 2024 Old Second St., Midhurst, Ontario LOL 1X0

Zoning Agricultural

Agricultural Land Class The Property is approximately 27% class 2, 36% class 3, 13% class 4, 4% class 5 and 20% class 7. Please find CLI map (Figure 2) at the end of report for further details.

System Nameplate Capacity 9 MW AC/9 MVA

-This site includes class 2 and 3 soils, which means the property is to be avoided and a site-specific soil study would be required.^{iv}

-The system nameplate would be drastically reduced.

-Clear cutting of trees required.

Orillia 1 version 2.1 – Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%200rillia%201%20-%20Draft%20Project%20Description%20Report%20-% 20v2.1_071510.pdf

Address 1599 Line 13 North, Hawkestone, ON LOL 1TO

Zoning Agricultural/Rural

Agricultural Land Class No Class 3 on property. Please find CLI map (Figure 2) at the end of report for further details.

-This site has potential environmental effects with the Langman Marsh Provincially Significant Wetland located only 140m away from the property boundary. -Run-off from the panels would deposit toxic soil in this area.^{vi}

Orillia 2 version 2.2 - Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/OR2/RE%20Orillia%202%20-%20Project%20Description%20Report%20-% 20v2.2.pdf

Address Property does not have a civic address. It is located on the east side of Line 13N, 750m Southeast of the interesection of Line 13N and Bass Lake Sideroad E LOL 2XO Zoning Agricultural/Rural

Agricultural Land Class The Property is approximately 3% class 1, 2% class 4, 94% class 6, and 1% class 7. Please find CLI map (Figure 2) at the end of report for further details. System Nameplate Capacity 10 MW AC/10 MVA

-This site contains a small portion of class 1 and 2 soils which makes it applicable for a site-specific soil study.^{iv}

-It appears some clear cutting of trees may be required.

Orillia 3 version 2.1 - Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%20Orillia%203%20-%20Draft%20Project%20Description%20Report%20-% 20v2.1 073010.pdf

Address 1683 Line 13 North Hawkestone, ON LOL 1TO

Zoning Agricultural/Rural

Agricultural Land Class The Property is approximately 8% class 2 and 72% class 5. Please find CLI map (Figure 2) at the end of report for further details

System Nameplate Capacity 6.5 MW AC/6.5 MVA

-This property contains class 1 soil which makes it applicable for a site-specific soil study.^{iv}

-A portion of the Provincially Significant Langman Marsh is situated adjacent to the property. It may be closer than 120m.

Waubaushene 3 version 2.1 - Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/RE%20Waubaushene%203%20-%20Draft%20Project%20Description% 20Report%20-%20v2.1 073010.pdf

Address 1216 Wood Rd RR1, Wyebridge, ON LOK 2E0

Zoning Rural

Agricultural Land Class Not applicable to site because property is zoned rural. Please find confirmation letter of rural zoning. (see figure 3) System Nameplate Capacity 10 MW AC/10 MVA

-This property contains class 2 and 3 soils which requires a site-specific soil study.^{IV} -The properties primary use is agriculture, which prohibits the use of the land for a FIT project regardless of the zoning.^V

-Two municipal drains cross the property and empty into the Hogg River.

-Environmentally Protected areas (EP1 & EP2) are proposed to have solar panels built on them, these are restricted areas and are not to be used for building or structure as per Tay Township's Zoning by-law No. 2000-57, Section 28 – Environmental Protection "EP" Zone (refer to Recurrent Energy's project description report Waubaushene 3 version 2.1, link is above).

-Run-off from solar panels would deposit toxic soil in these areas.vi

Waubaushene 4 version 2.2 - Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/WB4/RE%20Waubaushene%204%20-%20Project%20Description%20Report% 20-%20v2.2.pdf

Address 1952 Irish Lane, Coldwater, ON LOK 1E0

Zoning Agricultural

Agricultural Land Class The Property is approximately 55% class 3, 3% class 5 and 37% class 7. Please find CLI map (figure 2) at end of report for further details. System Nameplate Capacity 8 MW AC/8 MVA -There are discrepancies in the quantity of class 3 soils between what the proponent states and OMAFRA's CLI mapping. The OMAFRA mapping shows the property as approximately 95% class 3 and 5% class 5.ⁱⁱⁱ

-This property contains class 3 and class 5 soils and therefore requires a site-specific soil study.^{iv}

-The quantity of class 3 allocated to this property is substantially higher than noted by the proponent which increases the MW allowed in the Central Region.

Waubaushene 5 version 2.2 - Accessed Dec. 30, 2010

http://www.ontariosolarfuture.ca/docs/WB5/RE%20Waubaushene%205%20-%20Project%20Description%20Report% 20-%20v2.2.pdf

Address 1524 Taylor Line, Coldwater, ON LOK 1E0

Zoning Agricultural

Agricultural Land Class OMAFRA soil mapping indicates the soil classification within the leased area of the property is predominantly CLI class 3 and is located within a soil polygon that contains a mix of Class 3 and Class 7. Please find CLI map (Figure 2) at end of this report for further details.

System Nameplate Capacity 5 MW AC/5 MVA

-This site's soil classifications have changed 4 times from the first version of the project description report. According to my findings, the CLI mapping of the property is 90% class 3 and 10% class 7.ⁱⁱⁱ

-The property contains class 3 and 7 soils and therefore, requires a site-specific soil study.^{iv}

-The North River runs through this particular site where each spring Pickerel spawn. (Fisheries and Oceans Canada are investigating this issue.)

-Run-off from the solar panels will deposit toxic soil into the North River.vi

-The quantity of class 3 allocated to this property is substantially higher than noted by the proponent which increases the MW allowed in the Central Region.

-The system nameplate has been reduced because of water drainage systems running throughout this property.

Solar power can and will play an important role in the energy future of Ontario; however, I am passionate about protecting our farmland! With prime agricultural land only representing a very small proportion of Ontario, there is no reason to sacrifice food for energy. And I am not alone with these concerns; I am representing a very large group of people that continues to grow. We are spending an enormous amount of time educating the public on the difference between FIT and micro-FIT programs. The major concern is that prime agricultural land is being taken out of production. Once people have this understanding, they are as equally upset and frustrated as those of us who are taking the initiative to address the Ontario government, the Ontario Power Authority and the Ministry of the Environment. It is unfortunate that the Ontario Government feels the need to expedite the release of FIT contracts. We are all left asking the questions; is this because the rules were changed for the proponents and the government is trying to accommodate their investments or is it simply an election tactic?

In closing, we strongly encourage you to review and reopen the evaluation of Recurrent Energy's "Midhurst 2, Midhurst 3, Midhurst 4, Midhurst 6, Orillia 1, Orillia 2, Orillia 3, Waubaushene 3, Waubaushene 4 and Waubaushene 5". We require the following information:

- Site specific soil studies where required (9 of 10 sites) to prove beyond a doubt that prime agricultural lands are not being taken out of production.
- DFO approval on 'Waubaushene 5' because of potential harm to Pickerel spawning.
- Quantity of class 3 soils actually allocated in the Central Region, because there
 are discrepancies in the CLI mapping and Recurrent Energy's project description
 reports.

Proof that the MOE noise requirements will be met prior to commissioning.
 We need clarification of these issues in an appropriate manner and quickly since the projects are being 'expedited'. A moratorium would be helpful until all issues have been investigated and resolved. Prime agricultural land (all farmland) needs to be protected for present and future generations for food production. Please forward correspondence to our group.

Sincerely,

Nancy Robinson 1656 Silk Line, R.R.1, Coldwater, ON LOK 1E0 (705)686-7743 pncjrobinson@amtelecom.net

On behalf of the Simcoe Solor Form Awareness Project

Cc: Mr. Brad Duguid, Minister of Energy; Mr. John Wilkinson, Minister of the Environment; Mr. Gord Miller, Environmental Commissioner of Ontario; Mr. Colin Andersen, Ontario Power Authority; Mr. Sheldon Kimber, Recurrent Energy; Mr. Bruce Stanton, MP; Mr. Garfield Dunlop, MPP

End Notes:

- ⁱ Ministry of Environment Directive, September 24, 2009, <u>http://www.powerauthority.on.ca/sites/default/files/page/15420_FIT_Directive_Sept_24_09.pdf</u> Accessed Dec. 30, 2010.
- Ontario Power Authority, Feed-In Tariff Program: What is the Feed-in Tariff Program? <u>http://fit.powerauthority.on.ca/Page.asp?PageID=1115&SiteNodeID=1052</u> Accessed Dec. 30, 2010.
- ⁱⁱⁱ Ministry of Agriculture Food and Rural Affairs: Specialty Crop and Canada Land Inventory

Mapping for the Feed-in Tariff Program http://www.omafra.gov.on.ca/english/landuse/feed-in-tariffprogram.htm Accessed Dec. 30, 2010.

^{iv} Ontario Power Authority, Renewable Energy Feed-in Tariff Program: Evidence http://fit.powerauthority.on.ca/Page.asp?PageID=122&ContentID=10649&SiteNodeID=1143

<u>&BL ExpandID=260</u> Accessed Dec. 30, 2010.

Ontario Power Authority, Renewable Energy Feed-in Tariff Program: Prime Agricultural Lands

http://fit.powerauthority.on.ca/Page.asp?PageID=834&ContentID=10597&SiteNodeID=1126#Q8 Accessed Dec. 30, 2010.

vi Ontario Federation of Agriculture : Fact Sheet <u>http://www.ofa.on.ca/uploads/File/facts/OFAFactSheet_SolarSM.pdf</u> Accessed Dec. 30, 2010.

vii Re Orillia 2 Solar Project Draft Noise Assessment Study <u>http://www.ontariosolarfuture.ca/docs/OR2/RE%20Orillia%202%20-%20Noise%20Assessment%</u> 20Study.pdf

Accessed Dec. 30, 2010.



5 -Document by Peter Galloway- December 21, 2011
Comments to the Ministry of the Environment re: RE Midhurst 3 Solar Generating Facility EBR no. 011-5211 December 21, 2011

My name is Peter Galloway. I am a long time resident of Oro-Medonte Township in Simcoe County and I live at 175 Line 5 North. I am submitting the following comments to the Ministry of the Environment concerning the proposal for Renewable Energy Approval for the RE Midhurst 3 solar generating facility. The EBR Registry number for this project is 011-5211. I have a personal interest in this project as it is proposed for the farm property adjacent to my residence on Line 5 North. In the project reports my residence is identified as POR 2 (Point of Reception 2). I am also including several documents in Appendices which I intend to refer to and which support the comments I am submitting.

I first became aware of the proposed Midhurst 3 project in the summer of 2010. The project proponent, Recurrent Energy, held a public meeting in July where the Project Description Report was distributed. No other project information was made available until May 2011 when several additional project reports were placed on the Recurrent Energy website over a period of several weeks.

The Project Description Report included a Soil Capacity Map – Figure 2 (see Appendix A in this document) showing the property boundaries of the whole farm located at 217 Line 5 North. That map also shows the border of the lands leased by Recurrent Energy for this project. As well, the map shows the Canada Land Inventory (CLI) Agricultural Land Classes for the entire property. The property is composed of Class 1, 2, and 3 Agricultural Soils. The Soil Capacity Map was prepared for Recurrent Energy by the Soil Research Group of Guelph, an independent soil science consulting company, as required by the Ontario Power Authority for solar projects under the FIT program having multiple 1, 2, and 3 CLI land classifications.

The Soil Capacity Map shows the demarcation between the CLI Class 1, 2, and 3 Agricultural Lands as lines on the map that are similar to contour lines found on a topographical map. Under the FIT program solar facilities are to be located on CLI Class 3 through 7 Agricultural Lands in their entirety.

It should be noted that the Soil Capacity Map prepared by the Soil Research Group was a desk top study only (see Appendix B for a copy of the e-mail from SRG concerning the soil study). No on-site field study was conducted even though the OPA has stated that "both a field study and desk top study are necessary for land with multiple classes that include classes 1, 2, or 3 land" (see Appendix C for the reference to the OPA program guidelines). A close examination of the Soil Capacity Map reveals that the Class 3 land to be used for the proposed Midhurst 3 solar facility appears to be composed of two sections. There is a larger northern section that wraps around two residential properties, and a smaller triangular shaped southern section. On the Soil Capacity Map the two sections of land don't seem to be connected (see an enlargement of the central part of the Soil Capacity Map in Appendix A).

In the spring of 2011 several additional project reports containing more detailed information pertaining to the Midhurst 3 project were made public. As well, the final public meeting for the Midhurst 3 project was scheduled by Recurrent Energy for July 13, 2011.

Prior to that final public meeting, while reviewing the project reports, I was surprised to discover that the site plans included in those reports contrasted sharply with the site plan contained in the SRG Soil Capacity Map. The Site Layout Plan presented in the Construction Report shows the Class 3 land sections as linked by a "neck of land" that was not evident in the Soil Capacity Map (see Appendix D for a copy of the Site Layout Plan, including an enlargement of the central part of that plan). In the Natural Heritage Environmental Impact Study, in Figure 1.1, which shows the Project Location and Natural Heritage Features, there is a similar "neck of land" (see Appendix E for a copy of that plan, including an enlargement of the central part). In the Landscape Plan in the Design and Operations Report, the "neck of land" is larger still (see Appendix E for a copy of that plan, including an enlargement of the central part).

The boundary line between the Class 2 and 3 lands clearly appears to have shifted. What was no more than even a thread of land in the Soil Capacity Map has grown in the Construction Report to a width 20 metres, wide enough to accommodate a 5 metre wide road, an inverter and transformer equipment pad, two fences, presumably power lines or trenches, and maybe even more.

The proposed project plan in the reports released in the spring of 2011, and especially in the Construction Report, hinges very much on having a "neck of land" to allow the two sections of Class 3 land to be operationally linked. Without that land link of Class 3 land a second transformer substation would be necessary. And it is not inconceivable that, without a neck of land linking the northern and southern portions of the project, the Midhurst 3 project might not be viable at all.

What was even more disturbing was that while reviewing the project reports I also discovered that in the site plans published in May 2011 my property lines were skewed – they did not represent the actual dimensions and shape of my property. They were not even close. That is also true of the plans included in the latest versions of those reports. My property is exactly one acre, with 200 ft. frontage on Line 5 North and a depth of 217.8 ft. In the Site Layout Plan of the Construction Report my property lines scale out at 175 ft. wide by 230 ft. deep

(see the enlargement of the south part of the Site Layout Plan in Appendix D that shows an overlay of the correct property lines).

At the final public meeting for the proposed project I raised these matters with representatives of Recurrent Energy. I specifically indicated to them that they had made mistakes with respect to the manner in which my property was portrayed on the site plans. I also pointed out that one consequence of their plan was that a portion of the leased lands for the project actually fell inside my property. My concerns were duly noted. I expected that Recurrent Energy would correct the mistake they had made, or at least acknowledge that a correction was forthcoming. No correction or acknowledgement was made.

On September 28, 2011, eleven weeks after the final public meeting, I made a deposition to the Oro-Medonte Township Council and presented my concerns about the misrepresentation of my property in Recurrent Energy's site plans for the Midhurst 3 project and the apparent encroachment of the project on my property (see Appendix F for a copy of Township's response to my deposition and their complete support for my concerns, which formed part of the Township's submission of the Municipal Consultation sent to the MOE and to Recurrent Energy as well. I also submitted a copy of the legal survey of my property as part of my deposition to the Oro-Medonte Council. A copy of that survey is included in Appendix F).

On November 25, 2011 the Ministry of the Environment accepted Recurrent Energy's application for Technical Review for Renewable Energy Approval for the Midhurst 3 project. Accordingly, the proposal was placed on the Environmental Registry. On December 5, 2011 the updated reports were made available on the proponents' website including the 329 page Consultation Report.

On page 24 of the Consultation Report, Recurrent Energy provided a response to my concerns that my property lines were inaccurately portrayed on their site plans. To the comment that "Reports show project encroaching on my property" Recurrent Energy responded as follows,

"The mapping provided in the RE reports uses a broad line width to denote the edge of the leased area, for visual purposes. RE Midhurst 3 ULC has conducted a legal land survey to form the basis for the developable area during the detailed design process. No part of the project will encroach on adjacent lands." (see Appendix G)

In the project site plans my property has been consistently represented as being more rectangular in shape than it actually is. This is evident in the site plans having "broad line widths" as well as those that do not have wide lines. Line width has no bearing whatsoever on the accuracy of the representation of my property lines. To suggest that the inaccuracy in the representation of my property lines was due to "broad line widths" is, in effect, to deny that they are

inaccurate. Rather, they are claiming that the property lines represented on their site plans are in fact accurate, just that they are represented with heavy drafting lines.

The consistent misrepresentation of my property lines on the project plans has instead the guality of systemic distortion. Distortion in GIS map products is not uncommon when two distinct digital data sources are integrated to produce a new combined GIS mapping product. In fact, the technical term used to describe this GIS mapping procedure is called "rubbersheeting" (see Appendix H for information pertaining to this GIS mapping procedure). The procedure is used to digitally align one layer of data with another layer of data that is in close proximity in a common domain. For example, digital CLI Land Class data was combined with digital elevation data to produce the border lines of the Recurrent Energy site plans. As a result of this rubbersheeting procedure the map representation of a geographic surface is literally digitally stretched. The result can be quite properly described as a form of systemic distortion. Property lines could easily be distorted as a result of using this mapping technology, as could geographic features such as the contour lines between CLI 2 and 3 lands. It is certainly not inconceivable that the mapping exercise undertaken by Recurrent Energy that yielded a significant "neck" of Class 3 land also resulted in the distortion of my property lines. It remains, however, that my property lines have been misrepresented on the site plans by Recurrent Energy and they have chosen to dismiss this fact.

Recurrent Energy has not only denied any misrepresentation, they have also indicated that they have conducted a legal land survey. The survey, they say, validates their site plans. However, to use a legal land survey to legitimate any misrepresentation is to engage in wilful deception.

I am also deeply concerned by the impact that the misrepresentation of my property lines has on where exactly the transformer substation is planned to be located. Figure C1 in the Noise Assessment Study Report is a Noise Map at 4.5m during Day Time (see Appendix I which also includes an enlargement of the noise pattern predicted for the transformer substation). This map shows the noise "plume", or footprint, for the Midhurst 3 project in terms of decibel ranges. The Day Time Map clearly shows the sound range of 40 to 45 dBa falling directly on POR 2, my property at 175 Line 5 North. In the body of the report, Table 4.1, Point of Reception Noise Impact by Source (Day Time) (see Appendix I in this report) identifies POR 2 as being 91m from the Substation with a Sound Level of 36 dBA. Parenthetically, it should also be noted that Table 5.2, Acoustic Assessment Summary (Day and Night Time) (see Appendix I in this report) identifies the Sound Level for POR 2 as being 39.8 dBA for Day Time and 36.6 dBA for Night Time. It is not clear why there is a discrepancy in the Day Time Sound Levels for POR 2 between the two tables.

Please note that the noise impact analysis in the Noise Assessment Study is based on the location of Points of Reception found in the Ontario Base Maps for the Midhurst Area. Coordinates used for these Points of Reception are identified on Table C1, Sound Pressure Levels for POR (see Appendix I in this report). Predicted noise levels for the Points of Reception are then based on the distance from the noise source to the centre of the POR. As well, in the Recurrent Energy Noise Assessment Noise Study the noise levels were calculated at a height of 4.5m.

Another discrepancy becomes evident when the 91m distance from the Substation to POR 2 is transferred to the Site Layout Plan (see enlargement of that plan in Appendix D) and is shown as the edge of the 40 to 45 dBA noise range. The discrepancy is that the radius of the noise "plume" from the Substation does not intersect with the centre of the POR. In fact, the noise range of 40 to 45 dBA extends approximately 132 ft into my property. The noise levels are supposed to be made from the source to the centre of the POR which in my case, POR 2, would be 100 ft from my property line. The error is obvious. By placing the Substation in the location indicated on the Site Layout Plan, the noise range of 40 dBA to 45 dBA would cover two-thirds of my residence. It would span the entire living area of my home encompassing my kitchen, dining room, living room, front hall, bathroom, and most worrying, two bedrooms with windows that would face the Substation. That is the impact that the proposed Substation would have if it is located where it is planned according to the Site Layout Plan. It is not a pretty picture.

The calculations used by Recurrent Energy to predict noise levels for Points of Reception are based on calculations that define the POR as the centre of the dwelling at a height of 4.5m. However, in the 2008 publication of the Ministry of the Environment entitled "Noise Guidelines for Wind Farms" (see Appendix J for page 10 of that publication) that is not the only manner in which a POR is defined. The 2008 Noise Guidelines call for two sets of calculations to be made for noise emission impacts to determine the location of Points of Reception. Section 6.3.2.a refers to dwellings up to Two Stories High. POR noise impacts are to be calculated at 4.5m above grade at the centre of the dwelling; or, at 1.5m above grade and 30m horizontally from the facade of the dwelling in the direction of the noise source. If the 30m radius spans beyond the property dwelling then the receptor location is at the property line. Based on the results of these calculations the POR location that results in the higher noise impact must be selected. A footnote also states that assessment at the centre of the dwelling is simpler. As well, it states that the sound level at 4.5m above grade at the centre of the dwelling is generally higher except where transformer noise is a factor (emphasis added). Furthermore, it states that the location of the POR is especially significant where dwellings are in close proximity to the noise sources (emphasis added). My property line is 51m from where Recurrent Energy is proposing to locate the Transformer Substation for the Midhurst

Project. Surely that qualifies as being close enough to merit two sets of calculations to determine the Point of Reception for my dwelling.

Another related matter that is puzzling concerns the proposed placement of barriers to mitigate noise levels at the three noise sources – Transformer/Inverter Cluster 1, Transformer/Inverter Cluster 2, and the Substation (see Figure B1, Location and ID of Proposed Sound Barriers, in the Noise Assessment Study Report which can be found in Appendix I of this document). The orientation of the proposed barriers is shown there. POR 10, POR 5, and POR 1 all benefit from lower predicted noise levels as a result of the proposed barriers. But no barrier at the Substation has been proposed to lower noise levels at POR 2 even though the noise level at that POR clearly falls in the 40 to 45 dBA range higher than the noise levels predicted for those other Points of Reception. A barrier located at the Substation, and placed perpendicular to the one already proposed there, would definitely lower noise levels for POR 2. But no barrier has been proposed for POR 2 in spite of the obvious requirement for one for that POR.

The REA process, while intending to integrate and streamline the review and approval process, appears to have resulted in a process having somewhat low standards when it comes to what information project proponents are required to provide and how they are to provide it. At a minimum, it should be possible to have CLI land classifications, elevations, proposed facilities, natural heritage matters, landscape plans, noise modelling, etc., all available in a layered format. In the present format, layering is impossible and comparison very difficult. The unfortunate result is a very wide variation in site plans.

This variation between site plans is evident when it comes to the matter of what constitutes the project area. In the Soil Capacity Report the Midhurst 3 project was to be limited entirely to CLI Class 3 Agricultural Land (see Appendix A). In that site plan no use would be made of any portion of CLI Class 2 Land that was part of the land leased by Recurrent Energy. When the Site Layout Plan was made available in May 2011 as part of the Construction Report (see Appendix D), we learnt for the first time that a sizable portion of the leased CLI Class 2 Land was being planned for use as "Temporary Lay Down and Parking Area". In Figure 1.1, entitled as RE Midhurst 3 Project Location and Natural Heritage Features, and included as part of the Natural Heritage Site Investigations Report (see Appendix E), the project area is defined to include all of the CLI Class 3 Land, and all but a small portion of the CLI Class 2 Land in the leased land area. The small area that is not included appears to be land designated by the MNR as sensitive wetland as a result of their investigations. What this evolution of site plans reveals is a relatively significant amount of "project creep". The portrayal of the project site has for the most part become synonymous with the leased land area minus a small amount of wetland. To a degree, the Midhurst 3 project has taken on a life of its own.

In this regard it is interesting to note that in Version 2.1 of the Project Description Report the project site is identified as consisting of "approximately 30 acres of land" (see Appendix K). This description contrasts with how the Midhurst 3 project is described in the MOE's Listing of Renewable Energy Projects. There, the Midhurst 3 project is currently described as a "3.5 MW solar project. Site consists of 32 acres" (see Appendix K).

The discrepancy is apparent. Is the site 30, or 32, acres; is the site 12, or 13, hectares? One wonders just how long it will be before the Temporary Lay Down and Parking Area will become a permanent part of the solar facility? Little information is provided in the Construction Report about how and when the 675 cubic metres of granular material (i.e. gravel) planned for the Temporary Lay Down and Parking Area will be removed from the site and the area restored to CLI Class 2 Agricultural Land. If 40 large dump truck loads are required to deliver the gravel to the site, it would likely require 40 large dump truck loads to remove the gravel from the site.

Another instance of variation in the site plans is the wide disparity of scales that are used in the many different plans. In the 35 or more site plans there are at least 5 different scales are used: 1:10,000, 1:7,000, 1:5,000, 1:2000, 1:1,500. While this variation of scales makes the layering of site plans virtually impossible and comparison difficult, it also raises the question of the accuracy of the plans. This is perhaps no more true than for the use of the digital version of the CLI Land Classification Maps for Simcoe County. The CLI Land Maps are based on the 1962 Soil Survey of Simcoe County with a scale of 1 inch to 1 mile, or 1:63,360. It should be noted that the CLI was not created until the late 1960's, several years after the soil mapping of Simcoe County. Dr. Stewart Sweeney of the Environmental Management Branch of the Ontario Ministry of Agriculture, Food and Rural Affairs has stated,

"The Simcoe County CLI map that is currently in circulation is a "retrofit" product using the 1962 soil map and the CLI mapping criteria. The same story as was the case with the original soil map can be told of the move from paper to the current digital version of the CLI map. The "rubbersheeting" issues resulted in inaccuracies in CLI polygon locations in that product as well." (see Appendix L)

Furthermore, he states,

"...the digitization of that "legacy" soil map gives the impression of greater accuracy (example 1:10,000 as suggested) but it, in fact is not the case." (See Appendix L)

He also adds,

"The problem is that the perception of scale and accuracy of the soil map products does not meet the reality of their application..." "(See Appendix L)

It is hard not to reach the conclusion that relying on the CLI Land maps introduces a definite measure of spatial inaccuracy. And to combine that map data with other data sources yielding maps having much more detailed scaling (i.e. 1:2,000) simply compounds the question of accuracy. But that is precisely what Recurrent Energy has done. The Site Layout Plan (see Appendix D), a key plan in the Recurrent Energy application for REA, is not more accurate at a scale of 1:2,000, than the source data from which it was derived.

I believe that the Recurrent Energy proposal is flawed and contains many discrepancies. The site plans contain errors, distortions, and misrepresentations, none more significant than the misrepresentation of my property lines. They deny any misrepresentation and intend to use a land survey instrument to legitimate their site plans, mistakes and all. Their air of entitlement extends to expanding the project site to incorporate significant amounts of CLI Class 2 land in direct violation of the regulations governing land use for renewable energy projects. Their noise report contains contradictory information and, if implemented as proposed, would result in noise levels at my property line and the north side of my residence in excess of Province of Ontario standards.

I believe Recurrent Energy has submitted a proposal that is without merit and Renewable Energy Approval for the RE Midhurst 3 Project should be rejected.

Appendix A

Figure 2, Soil Capacity Map, Soil Research Group

Enlargement of Part of Figure 2, Soil Capacity Map

Appendix B

E-mail from Dr. Greg Wall, Soil Research Group

Appendix C

Ontario Power Authority, Renewable Energy Feed-in Tariff program information

Appendix D

Site Layout Plan, Construction Report

Enlargement of Part of Site Layout Plan

Enlargement of South Part of Site Layout Plan Showing Property Lines of POR 2

Appendix E

Figure 1.1, Project Location and Natural Heritage Features, Natural Heritage Environmental Impact Study

Enlargement of Part of Figure 1.1, Project Location and Natural Heritage Features

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Page 10, Noise Guidelines for Wind Farms, Ministry of the Environment, 2008

Appendix K

Page 1, Project Description Report, Version 2.1

Project Description Information for Midhurst 3 in the Project Listing of Renewable Energy Projects in the Ministry of the Environment (website)

Appendix L

E-mail from Dr. Stewart Sweeney, Environmental Management Branch, Ontario Ministry of Agriculture, Food and Rural Affairs

Appendix M

Report from Mfr. Brent Rowe, RhoEng Technical Services, concerning the potential noise impacts of the proposed substation to my property at 175 Line 5 North, Oro-Medonte Township Appendix A

Figure 2, Soil Capacity Map, Soil Research Group

Enlargement of Part of Figure 2, Soil Capacity Map



Soil Capacity Map





Appendix B

E-mail from Dr. Greg Wall, Soil Research Group

Galloway PS@CFSTG Tech Svcs CE@Borden

From: Sent: To: Subject: Greg Wall [gwall@srgresearch.ca] Wednesday, 1, December, 2010 14:52 Galloway PS@CFSTG Tech Svcs CE@Borden Re: Soil report ref. RE Midhurst 3 Project

Peter

The soil report for the FIT application was prepared from digital soil and soil capability maps provided by OMAFRA with a drive by the property to observe any obvious errors in the mapping that would significantly change the soil capability classification.

Let me know if you require further clarification on this. To my knowledge, it is the same approach that was used in support of all FIT applications.

Regards,

Gregory J. Wall, Ph.D. The Soil Resource Group

----- Original Message -----From: <PETER.GALLOWAY@forces.gc.ca> To: <gwall@srgresearch.ca> Sent: Wednesday, December 01, 2010 8:53 AM Subject: Soil report ref. RE Midhurst 3 Project

Greg,

recently spoke to you by phone regarding the soil report you prepared for Recurrent Energy this past summer on a farm located on Line 5 North in Oro-Medonte Twp. I anticipate obtaining a copy of the report from Recurrent Energy at some point, but in the interim could you confirm that your report was basically a "desk top" summarization of the Canada Land Classification and soil capacity data for that property, and that no field soil samples were taken or analysed in the preparation of the report.

I am trying to compile relevant information that pertains to the categorization of the soil on that property as it has a significant bearing on the ground mounted solar PV generating project Recurrent Energy is planning for that site. It is formally identified as RE Midhurst 3 and the property in question is identified as PT W 1/2 LT 19 CON 6 ORO PT 1, 51R17157 ORO-MEDONTE.

I look forward to hearing from you.

Peter Galloway E-mail (home) pkgalloway@bell.net Appendix C

Ontario Power Authority, Renewable Energy Feed-in Tariff program information



ublished on Ontario Power Authority - Feed-in Tariff Program (http://fit.powerauthority.on.ca)

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Prime Agricultural Lands

- What are the prime agricultural land restrictions?

- What is the Canada Land Inventory?
- Where can I find the most up-to-date Canada Land Inventory maps?
- What are the specialty crop areas?
- I have a municipal official plan indicating that one of my properties is zoned as industrial land and another property is zoned as "rural". Can
- I build my ground-mounted solar PV project on either of these lands?
- The land on my property is improperly classified who should I contact?
- I was going to use a gualified geologist to perform the soil studies, but he is not on the list on the OMAFRA website. Can I still use him?
- The soil study requirement refers to multiple CLI classifications. Do I need a soil study if my property is classified as a combination of any

land classes? Or is a study only needed if it has prime and non-prime land (e.g., Classes 1 and 3)?

- How will Class 3 land be calculated in the 500 MW cap?

- Do we need to do a soil study if part of our site is Class 3 land and part is Class 4 land? Presumably the project will be allowed to proceed based on current rules as long as the cap on Class 3 land is not reached.

- For Class 1 or 2 land, is a site-specific soil mapping study conducted by desktop (i.e., not in the field) by qualified consultants acceptable?

- Is a field visit required if my property is Class 3 or 4? Is a desktop soil study sufficient?
- Can I build a solar farm if my property is a designated as multi-use consisting of agricultural and residential?

- There is a small island of Class 2 among the Classes 3 to 7 lands on my property. From a practical perspective, it makes sense for me to develop the land entirely with a solar farm. Will the OPA consider my FIT application?

14/hat are the prime agricultural land restrictions?

The Minister of Energy and Infrastructure directed the Ontario Power Authority not to enter into contracts for ground-mounted solar PV projects greater than 100 kW whose facilities are located on:

- lands comprised of Canada Land Inventory (CLI) Class 1 or 2 soils
- specialty crop areas within the meaning of the 2005 Provincial Policy Statement (PPS).

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What is the Canada Land Inventory?

The Canada Land Inventory is a comprehensive inventory covering capability for land uses, including agriculture, forestry and recreation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is responsible for maintaining and managing the Canada Land Inventory.

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Where can I find the most up-to-date Canada Land Inventory maps?

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)'s website has the latest official Canada Land Inventory maps. For more information, please visit <u>http://www.omafra.gov.on.ca/english/landuse/feed-in-tariffprogram.htm</u> [1].

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What are the specialty crop areas?

The 2005 Provincial Policy Statement outlined three specialty crop areas: Niagara Peninsula Tender fruit and grape area, Holland Marsh and Grey County. Maps of these areas are available on the Ontario Ministry of Agriculture, Food and Rural Affairs. For more information, please visit their website at http://www.omafra.gov.on.ca/english/landuse/feed-in-tariffprogram.htm [1].

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I have a municipal official plan indicating that one of my properties is zoned as industrial land and another property is zoned as "rural". Can I build my ground-mounted solar PV project on either of these lands?

A municipal plan is not sufficient evidence and you will need to refer to the municipal zoning by-law. For CLI Classes 1, 2 and 3 soils, if the land where the project is being proposed was zoned as industrial or rural by your municipality's by-law before or on October 1, 2009, you are not required to submit information and maps regarding soil classifications.

'ou are, however, required to submit a copy of the zoning schedule (map) with an outline of the site proposed for your project. You must Iso submit written confirmation from the municipality's chief planning official or clerk certifying that the land proposed for your project was zoned entirely for non-agricultural purposes as of October 1, 2009.

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The land on my property is improperly classified - who should I contact?

The Canada Land Inventory is updated from time to time by OMAFRA. For more information, contact OMAFRA toll-free at 1-877-424-1300, or by email at ag.info.omafra@ontario.ca [2].

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I was going to use a qualified geologist to perform the soil studies, but he is not on the list on the OMAFRA website. Can I still use him?

You do not have to use one of the soil scientists on OMAFRA's list. As the website indicates, these are just examples. However, proponents should ensure that those whom they consider hiring have professional expertise in pedology - CLI in particular.

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The soil study requirement refers to multiple CLI classifications. Do I need a soil study if my property is classified as a combination of any land classes? Or is a study only needed if it has prime and non-prime land (e.g., Classes 1 and 3)?

The soil study is only needed if your property has multiple CLI classifications, including Classes 1, 2 and 3. Please note that the study must be consistent with OMAFRA's soil survey guidelines.

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How will Class 3 land be calculated in the 500 MW cap?

Class 3 land will be calculated as follows:

... you have a project that is 50 percent Class 3 land and 50 percent Class 4 land, only the portion of your project that is on Class 3 land (50 percent in this case) will count as Class 3 land towards the 500 MW cap.

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Do we need to do a soil study if part of our site is Class 3 land and part is Class 4 land? Presumably the project will be allowed to proceed based on current rules as long as the cap on Class 3 land is not reached.

A soil study is needed in this case. Just as it is reasonable to expect a soil study for Class 2 and 4 land, we are requiring a soil study for Class 3 and 4 land. This is to confirm the Class 4 land, regardless of whether the 500 MW cap is reached.

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For Class 1 or 2 land, is a site-specific soil mapping study conducted by desktop (i.e., not in the field) by qualified consultants acceptable?

Both field study and desktop soil study are required in situations where the lands include prime agricultural land (Class 1 or 2).

A desktop study before a field visit is useful and essential. This includes a review of information such as county soil reports, provincial digital elevation modelling, air photo interpretation, geology maps and other studies undertaken on the area.

A site visit including soil inspections then confirms, corrects and/or refines the desktop sources of information.

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Is a field visit required if my property is Class 3 or 4? Is a desktop soil study sufficient?

A field visit and a desktop soil study are necessary for land with multiple classifications that include Class 1, 2 or 3 land.

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1 I build a solar farm if my property is a designated as multi-use consisting of agricultural and residential?

Please refer to the municipality's zoning by-law for the appropriate zoning. The developer is permitted to build on the land if agriculture is not the dominant use on the land.

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There is a small island of Class 2 among the Classes 3 to 7 lands on my property. From a practical perspective, it makes sense for me to develop the land entirely with a solar farm. Will the OPA consider my FIT application?

Consistent with the directive the OPA received from the Ministry of Energy and Infrastructure on September 24, 2009, the OPA will not accept a FIT project that is on Class 1 or 2 land as prescribed by OMAFRA's official CLI maps listed here: <u>http://www.omafra.gov.on.ca/english/landuse/feed-in-tariffprogram.htm</u> [1].

We encourage developers to work around CLI Class 1 or 2 soils for their projects.

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Source URL: http://fit.powerauthority.on.ca/prime-agricultural-lands

Links:

[1] http://www.omafra.gov.on.ca/english/landuse/feed-in-tariffprogram.htm
[2] mailto:ag.info.omafra@ontario.ca

Appendix D

Site Layout Plan, Construction Report Enlargement of Part of Site Layout Plan Enlargement of South Part of Site Layout Plan Showing Property Lines of POR 2







Appendix E

Figure 1.1, Project Location and Natural Heritage Features, Natural Heritage Environmental Impact Study

Enlargement of Part of Figure 1.1, Project Location and Natural Heritage Features

Landscape Plan, Design and Operations Report

Enlargement of Part of Landscape Plan









Appendix F

Motions Carried by the Oro-Medonte Township Council in support of my deposition to them concerning the potential encroachment of the Midhurst 3 project on my property

Township of Oro-Medonte Municipal Consultation Form for RE Midhurst 3

Copy of legal survey of my property at 175 Line 5 North in Oro-Medonte Township



November 8, 2011

Hatch Environmental Suite 500, 4342 Queen Street Niagara Falls, ON L2E 7J7 Attn: Noel Boucher, REA Coordinator

RE: Municipal Consultation Form – Orillia 1 and 3 and Midhurst 3 and 4, Solar Facility Projects, Township of Oro-Medonte, County of Simcoe

Dear Mr. Boucher:

At the September 28, 2011 and October 5, 2011 Council meetings the following Motions were passed:

Motion No. C110928-20

Moved by Crawford, Seconded by Evans

Be it resolved:

- THAT Report No. DS 2011-038 Andria Leigh, Director of Development Services, re: Recurrent Energy –Orillia 1 & 3, Midhurst 3 & 4 Solar Projects Municipal Consultation Forms be received; and
- THAT the Renewable Energy Municipal Consultation Form be endorsed, as amended, by Council and submitted to the proponent (Recurrent Energy) and the Ministry of the Environment.

Carried.

Motion No. C110928-21

Moved by Crawford, Seconded by Evans

Be it resolved:

- That the Ministry of the Environment and the proponent (Recurrent Energy) be advised of the following concerns with respect to the Midhurst 3 – 217 Line 5 North - Renewable Energy Project.
- That the representation of the Midhurst 3 project area be addressed to appropriately reflect the property boundaries of the abutting property, municipally addressed as 175 Line 5 North.

148 Line 7 South, Box 100	P: (705) 487-2171	www.oro-medonte.ca
Oro, Ontario LOL 2X0	F: (705) 487-0133	WWW.WOLD INCOULDING

- That the proponent re-locate the sub-station further away from the residence at 175 Line 5 North to address potential sound issues.
- And that the owners of 175 Line 5 North be advised of the support of the Township of Oro-Medonte with respect to the above-noted concerns.

Carried.

Motion No. C111005-16

Moved by Lancaster, Seconded by Crawford

Be it resolved:

That the Ministry of the Environment and the proponent (Recurrent Energy) be advised and requested to consider the following information in conjunction with the Renewable Energy Municipal Consultation Forms for the following Renewable Energy Projects known as Orillia 1 -1599 Line 13 North, Orillia 3 – 1683 Line 13 North, Midhurst 3 – 217 Line 5 North, and Midhurst 4 – Line 5 North:

- That the Official Plan of the Township of Oro-Medonte identifies Natural Heritage and Rural Character. The goals associated with these aspects are to protect and enhance significant natural heritage features and related ecological functions in the Township and to protect, maintain and enhance the natural, agriculture and open space character of the rural area. The Green Energy Act identifies the local municipality is not the approval authority, however, the Township of Oro-Medonte advocates that Renewable Energy projects be treated in the intent of the guidelines for pits and quarries with respect to site lines.
- That the proponent states that there will be remediation of soil after expiration of the Project. The Township requests assurance that the subject lands be turned back into its previous form when the Projects end.
- That the Township of Oro-Medonte requests that an update to the land classification on the soil classification be undertaken as part of the application process.
- 4. The Township of Oro-Medonte requests that a suitable provincial standard be established for setbacks from property lines and from nearby residences. Solar panel installations are not within the jurisdiction of the Township of Oro-Medonte's Zoning By-law, accordingly there are no restrictions to prevent placing solar panels at the edge of the property.
- Solar farms are large commercial/industrial facilities. There could be road damage during construction and the facilities could require additional municipal services. The Township advocates an appropriate property assessment to assist in mitigating the costs of services.

Carried.

I trust the above noted resolution is self-explanatory.

Enclosed please find a copy of the Staff Report DS 2011-038 and the respective Municipal Consultation Form comments for each of the four facilities (Midhurst 3 and 4, Orillia 1 and 3) which were included in the above noted resolutions for your consideration.

Yours Truly,

Andria Leigh, MCIP, RPP Director of Development Services

Ministry of Environment- Sarah Raetsen and Shannon McNeill cc.



I REQUIRE THIS PLAN TO BE DEPOSITED RECIEVED AND DEPOSITED AS UNDER THE REGISTRY ACT PLAN 51R- 77156 1715 OR. 12, 1988 DATE : 1288 DATE : 77.07 LAND REGISTRAR FOR THE REGISTRY DEPUTY RUDUMAK DIMSION OF SIMCOE (No. 51) ONTARIO LAND SURVEYOR PART I: PART OF THE WEST HALF OF LOT 19, CON. 6; PART OF INST. Nº 609423, PART 2: PART OF THE WEST HALF OF LOT 19, CON. 6; PART OF INST. Nº 609423. 4014 PLAN OF SURVEY OF PART OF THE WEST 1/2 OF LOT 19 CONCESSION 6 IN THE TOWNSHIP OF ORO IN THE COUNTY OF SIMCOE SCALE: 1" = 200' RUDY MAK, OLS. 1988. CAUTION ! 473184 THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT. SURVEYOR'S CERTIFICATE I CERTIFY THAT:

473184

THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT.

SURVEYOR'S CERTIFICATE .

and the minute of the

I CERTIFY THAT:

- 1) THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER.
- 2) THE SURVEY WAS COMPLETED ON THE 151h., DAY OF MARCH , 1988.

APRIL 516., 1988.

RUDY MAK

ONTARIO LAND SURVEYOR

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(738) .	DENOTES R. C. KIRKPATRICK O.L.S.		
(1035)	DENOTES R. WELSMAN O.L.S.		
(976)	DENOTES C. W. A. JONES O.L.S.		
(1255)	DENOTES R. C. RAIKES O.L.S.		
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Appendix G

Page 24 of the Consultation Report


RE Midhurst 3 ULC - RE Midhurst 3 Solar Project Consultation Report

generation model. As the grid gets smarter, distributed energy generation is the way to go. True Distribution. On rooftops, poles, hedgerows, roadsides, everywhere!" In Oro Medonte there is only so much capacity for generation. I submit that Oro-Medonte can install that amount of generation without going onto any farmland".		
Verbal Comment Expressed at Final Public Meeting Project is unfair to neighbours, price of power under contract is too expensive.	Comment noted.	N/A
Verbal Comment Expressed at Final Public Meeting Reports show Project encroaching on my property.	The mapping provided in the REA reports uses a broad line width to denote the edge of the leased area, for visual purposes. RE Midhurst 3 ULC has conducted a legal land survey to identify the legal edge of the property and will be using this survey to form the basis for the developable area during the detailed design process. No part of the project will encroach on adjacent lands.	N/A
Verbal Comment Expressed at Final Public Meeting Concern regarding aluminum corrosion issues from the support structures in the ground and resulting contamination.	The panel support structures will be galvanized and no corrosion is anticipated to occur. Therefore, no negative effects on ground water or soil quality are anticipated to occur during the presence of support structure racking.	N/A
Verbal Comment Expressed at Final Public Meeting What are the health risks associated with the Project? Concern regarding electromagnetic fields	No adverse effects to health are anticipated to occur as a result of the proposed solar project. The vast majority of the facility consists of DC power generated by the crystalline silicon photovoltaic panels that does not create electromagnetic fields. Other electrical equipment, including the intermediate transformers, main substation transformer and low voltage distribution lines will emit small electromagnetic fields in close proximity to the components. However, this low voltage equipment is quite similar to electrical infrastructure present in residential areas throughout Canada and does not pose any threat to health.	

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B Working Tagether

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Appendix H

Background information pertaining to "rubbersheeting"

About spatial adjustment rubbersheeting

Resource Center * Professional Library * Data Management * Editing data * Spatial adjustment * Rubbersheeting data

Geometric distortions commonly occur in source maps. They may be introduced by imperfect registration in map compilation, lack of geodetic control in source data, or a variety of other causes. Rubbersheeting is used to make small geometric adjustments in your data—usually to align features with more accurate information.



In rubbersheeting adjustments, you are usually trying to align one layer with another that is often in close proximity. The source layer (drawn with solid lines) is adjusted to the more accurate target layer. During rubbersheeting, the surface is literally stretched, moving features using a piecewise transformation that preserves straight lines. During this process, you place links to stretch or warp the data you are trying to align to the underlying datasets.

Similar to transformations, displacement links are used in rubbersheeting to determine where features are moved. The key difference between rubbersheeting and transformations, however, is that the distance features move depends on their proximity to a link and the length of that link. The closer features are to displacement links, the farther they will move.

In some cases, you may not want some features to move at all as they may already be aligned. Locations that are known to be accurate, such as those that already match the target layer, can be held in place with another type of link called an identity link. Identity links "nail" down the surface at the specified point. Additionally, you can define a polygonal area with the Limited Adjustment Area tool to limit a rubbersheet to just that area.

Rubbersheeting is commonly used after a transformation to further refine the accuracy of the features to an existing layer or raster dataset.

Conflation applications use rubbersheeting to align layers in preparation for transferring attributes.

How rubbersheeting works

Rubbersheeting uses two temporary triangulated irregular networks (TINs) to interpolate changes in x (dX) and changes in y (dY) for feature coordinates along user-specified links. Each TIN has the same triangulation structure. The from end of the displacement links and all identity links are used as the TIN triangle corners (nodes). A node is defined by its x,y location and a z-value.

The z-value of each node is used to interpolate the amount of x,y adjustment applied to each feature coordinate. The z-value is the amount of change between the from-end and to-end of a link. For example, if the change in x for a link is 10 map units, the z-value of the TIN node at the from-end of that link will be 10. Since identity links represent no change, the z-value is zero. Once each node of a TIN triangle has a z-value, the corresponding z-value of any point falling on that triangle can be interpolated.

http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html

About spatial adjustment rubbersheeting

The interpolated z-value from the x-shift TIN is added to the x-ordinal of the feature's coordinate. The z-value interpolated from the y-shift TIN is added to the y-ordinal of the coordinate. For example, if an input feature coordinate is 1000,1500; the interpolated dX for this point is 20; and the interpolated dY is -100, the output coordinates after adjusting will be 1020,1400 (1000 + 20 = 1020 and 1500 + (-100) = 1400).



new Y = 1500 + (-100) = 1400

The rubbersheeting adjustment has two options: linear and natural neighbor. These options refer to the interpolation method used to create the temporary TINs. You can read about these well-known mathematical models online or in the reference texts.

The linear method creates a quick TIN surface but does not really take into account the neighborhood. The linear option will be slightly faster and produces good results when you have many links spread uniformly over the data you are adjusting.

Natural neighbor (similar to inverse distance weighting) is slower but is more accurate when you don't have many displacement links and they are scattered across your dataset. Using linear in this case will be less accurate.

Rubbersheeting data in a geometric network

You can perform spatial adjustments on data participating in a geometric network. For example, you can use rubbersheeting to update utility data in a geometric network to reflect changes in the underlying land base data. It is important to note that the spatial adjustment process will only work against geometric network junctions, so you should place your displacement links appropriately.

During the rubbersheet adjustment, junctions will move and drag any connected lines with them. To preserve the shape of linear features during the adjustment, you should open the Editing

http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html

About spatial adjustment rubbersheeting

Related Topics Choosing a rubbersheet method Creating identity links Using the Limited Adjustment Area tool

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5/6/2011

http://help.arcgis.com/en/arcgisdesktop/10.0/help/001t/001t0000D0v3000000.htm

Appendix I

Figure C1, Noise Map at 4.5m during Day Time in the Noise Assessment Study Report

Enlargement of Figure C1, Noise Map at 4.5m during Day Time, including an Enlargement of the Corresponding Scale

Table 4.1, Point of Reception Noise Impact by Source (Day Time) in the Noise Assessment Study Report

Table 5.2, Acoustic Assessment Summary (Day and Night Time) in the Noise Assessment Study Report

Table C.1, Sound Pressure Levels for POR in the Noise Assessment Study Report

Figure B1, Location and ID of Proposed Sound Barriers in the Noise Assessment Study Report





RE Midhurst 3 Solar Project – Noise Map at 4.5m during Day Time

Google



3.3 Noise Summary Table

A summary of the sound sources described above, including sound level, characteristics and potential noise control measures, is presented in Table 3.1.

Source ID	Source Description	Overall Sound Power Level (dBA)	Source Location	Sound Characteristics	Noise Control Measures
Sub	Subs. Transformer: 44kV/3.5MVA	86.2	0	S-T	В
Inv1	Inverter at Cluster 1: 2MW	99.5	0	S-T	В
Inv2	Inverter at Cluster 2: 1.5MW	98.2	0	S-T	В
Tran1	Transformer at Cluster 1:13.8kV/2MVA	88.1	0	S-T	В
Tran2	Transformer at Cluster 2: 13.8kV/1.5MVA	87.1	0	S-T	В

Table 3.1 Noise Source Summary

Notes:

1. 5-dBA penalty is included in this table.

2. Location: Inside building (I), Outside building (O).

3. Sound Characteristics: Steady (S), Tonal (T), Impulsive (I), Quasi-Steady Impulsive (QSI).

 Noise Control: Silencer (S), Acoustic lining (A), Barrier (B), Lagging (L), Enclosure (E), Other (O), Uncontrolled (U).

4. Point of Reception Summary

The POR used in this study have been taken from the OBM for the Midhurst area. Some additional receptors (residential buildings) were added based on satellite imagery from Google Earth Pro (2004). The total number of POR located in the proximity of the project location is 100 (see Figure A2). Five of these receptors have been chosen as representative for evaluating the noise impact from each individual source, and are presented in Table 4.1 (see also Figure A2 in Appendix A). The complete set of results is included in Appendix C, including a noise map from CADNA-A. For this study, the elevation above ground of the POR is 4.5 m.

	PC	POR 1		POR2		POR5		POR 10		POR 14	
Source ID	Distance (m)	Sound Level at POR 1 (Lea), dBA	Distance (m)	Sound Level at POR 2 (Lea), dBA	Distance (m)	Sound Level at POR 5 (Lea), dBA	Distance (m)	Sound Level at POR 10 (Leq), dBA	Distance (m)	Sound Level at POR 14 (Lea), dBA	
Sub	86	29.3	91	36	158	31.0	274	25.0	517	14.6	
Inv1	463	22.0	523	21	282	26.5	166	31.2	182	36.1	
Inv2	240	36.8	241	36.8	116	33.7	173	29.7	430	18.2	
Tran1	462	15.4	521	14.9	281	19.9	165	24.4	187	26.6	
Tran2	244	22.5	246	27.4	117	26.0	171	24.1	427	14.3	

Table 4.1 Point of Reception Noise Impact by Source (Day Time).

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Working Together

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RE Midhurst 3 ULC - RE Midhurst 3 Solar Project Noise Assessment Study Report

5. Impact Assessment

The purpose of the Acoustic Assessment Report is to demonstrate that the facility is in compliance with the noise performance limits. The RE Midhurst 3 Solar Project will be located in a Class 3 Area, based on the classification defined in Publication NPC-232 by the MOE. Class 3 area means a rural area with an acoustical environment that is dominated by natural sounds, having little or no traffic, such as an agricultural area.

Table 5.1 shows the Performance Limits set by the MOE for Class 3 Areas, according to Publication NPC-232.

	One Hour Leg (dBA)
Time of Day	Class 3 Area
07:00-19:00	45
19:00-23:00	40
23:00-07:00	40

Table 5.1	Performance Limits (One-Hou	our Leg) by Time of Day for Class 3 Areas
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The solar plant will be operating during the day hours, that is, before 19:00 during most of the year. However, in the summer months, the sun may shine until past 21:00, although the inverters will be well below 100% loading conditions. This means that during the summer the plant will be operating at the time the applicable performance limit changes from 45 dBA to 40 dBA. At night time, the transformer is still energized, so the resultant sound pressure levels were compared to the lower limit of 40 dBA. The frequency spectrum of the transformer used at night time includes the fan noise, even though the sound is only magnetostrictive.

For this study, the overall ground attenuation coefficient was estimated at 0.7, which is commonly used by the MOE for evaluating the noise impact of other renewable energy facilities.

5.1 Compliance With Performance Limits

Table 5.2 presents the predicted sound pressure levels for the representative POR. The complete set of results is included in Appendix C.

POR	POR Description	Sound Level at POR (Leq), dBA		Verified by Acoustic	Performance Limit (Leg), dBA		Compliance With Performance Limit	
		Day	Night	Audit (Yes/No)	Day	Night	(Yes/No)	
1	House - Southwest	37.8	30.2	No	45.0	40.0	Yes	
2	House – South	39.8	36.6	No	45.0	40.0	Yes	
5	House – West	36.6	32.4	No	45.0	40.0	Yes	
10	House - North	34.9	29.3	No	45.0	40.0	Yes	
14	House - Northwest	36.7	27.1	No	45.0	40.0	Yes	

Table 5.2	Acoustic Assessment	Summary (E	Day and	Night	Time)
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E HATCH"

RE Midhurst 3 ULC - RE Midhurst 3 Solar Project Noise Assessment Study

	Lev	el Lr Limit. Value		Noise		Coordinates			
ID	Day (dBA)	Night (dBA)	Day (dBA)	Night (dBA)	Туре	Height (m)	X (m)	Y (m)	Z (m)
1	37.8	30.2	45.0	40.0	Total	4.5	613708	4925267	304.0
2	39.8	36.6	45.0	40.0	Total	4.5	613837	4925241	299.2
3	36.6	28.1	45.0	40.0	Total	4.5	613688	4925247	304.4
4	37.1	32.8	45.0	40.0	Total	4.5	613860	4925192	298.4
5	36.6	32.4	45.0	40.0	Total	4.5	613705	4925451	307.3
6	31.7	25.6	45.0	40.0	Total	4.5	613620	4925270	308.8
7	34.1	25.2	45.0	40.0	Total	4.5	613651	4925203	305.7
8	35.6	30.7	45.0	40.0	Total	4.5	613888	4925157	297.6
9	30.3	24.0	45.0	40.0	Total	4.5	613587	4925246	309.5
10	34.9	29.3	45.0	40.0	Total	4.5	613664	4925561	309.5
11	31.7	22.5	45.0	40.0	Total	4.5	613653	4925066	304.5
12	30.5	24.8	45.0	40.0	Total	4.5	613928	4924948	296.4
13	30.1	24.5	45.0	40.0	Total	4.5	613958	4924934	295.3
14	36.7	27.1	45.0	40.0	Total	4.5	613457	4925716	304.5
15	28.1	22.8	45.0	40.0	Total	4.5	614021	4924817	294.5
16	26.2	20.2	45.0	40.0	Total	4.5	613948	4924686	294.5
17	26.6	21.2	45.0	40.0	Total	4.5	614068	4924729	- 294.5
18	25.7	18.3	45.0	40.0	Total	4.5	613904	4924672	294.5
19	25.6	18.0	45.0	40.0	Total	4.5	613864	4924665	294.5
20	26.5	21.2	45.0	40.0	Total	4.5	614050	4924715	294.5
21	21.8	15.5	45.0	40.0	Total	4.5	613833	4924650	294.5
22	29.0	21.4	45.0	40.0	Total	4.5	614286	4924875	294.5
23	21.8	16.8	45.0	40.0	Total	4.5	613792	4924632	294.8
24	26.3	20.9	45.0	40.0	Total	4.5	614136	4924730	294.5
25	28.6	21.1	45.0	40.0	Total	4.5	614262	4924818	294.5
26	28.8	21.1	45.0	40.0	Total	4.5	614338	4924896	294.5
27	21.5	16.3	45.0	40.0	Total	4.5	613767	4924611	295.3
28	25.9	20.5	45.0	40.0	Total	4.5	614210	4924735	294.5
29	25.8	20.4	45.0	40.0	Total	4.5	614179	4924713	294.5
30	28.1	20.6	45.0	40.0	Total	4.5	614274	4924786	294.5
31	25.4	19.5	45.0	40.0	Total	4.5	614019	4924630	294.5
32	28.1	20.6	45.0	40.0	Total	4.5	614303	4924804	294.5
33	25.7	20.3	45.0	40.0	Total	4.5	614174	4924698	294.5
34	28.3	20.7	45.0	40.0	Total	4.5	614366	4924877	294.5
35	20.5	15.5	45.0	40.0	Total	4.5	613732	4924585	295.3
36	25.2	19.1	45.0	40.0	Total	4.5	614000	4924615	294.5
37	28.1	20.6	45.0	40.0	Total	4.5	614321	4924818	294.5
38	25.6	20.2	45.0	40.0	Total	4.5	614115	4924661	294.5
39	25.2	19.4	45.0	40.0	Total	4.5	614049	4924628	294.5
40	25.1	19.0	45.0	40.0	Total	4.5	613979	4924603	294.5
41	20.1	14.9	45.0	40.0	Total	4.5	613694	4924567	295.4
42	24.7	18.7	45.0	40.0	Total	4.5	613924	4924564	294.1
43	24.0	16.4	45.0	40.0	Total	4.5	613888	4924538	293.5
44	19.3	13.2	45.0	40.0	Total	4.5	613659	4924538	294.5

Table C1 Sound Pressure Levels for POR (shaded rows correspond to representative POR)

H334680-0000-07-124-0253, Rev. 2, Page C1

E HATCH"

RE Midhurst 3 ULC - RE Midhurst 3 Solar Project Noise Assessment Study Report



Figure B1 Location and ID of Proposed Sound Barriers

Table B4	Coordinates of Barriers as Modeled in CADNA-A. Note that the true length of the barrier may
	slightly vary from the modeled length.

ID	Height			Coordinates	, UTM NAD83	
	[m]	n] [m]	X1	Y1	X2	Y2
Barrier1_1	3.0	9.5	613636.81	4925723.81	613646.34	4925723.81
Barrier2_1	3.0	9.5	613815.99	4925488.19	613815.99	4925478.66
BarrierS_1	3.6	5.0	613779.04	4925314.29	613781.85	4925310.13

Appendix J

Page 10, Noise Guidelines for Wind Farms, Ministry of the Environment, 2008

6.3.1 Wind Farm Does Not Include Transformer Substation

- a) Single Storey Dwelling
 - 4.5 m above grade at the centre of the dwelling; or
 - 1.5 m above grade and 30 m horizontally from the façade of the dwelling in the direction of each wind turbine location. If the 30 m radius spans beyond the property line of the dwelling then the receptor location is at the property line.

Either of the two locations is acceptable for assessment⁴.

- b) Two Storey Dwelling (or Raised Bungalow)
 - 4.5 m above grade at the centre of the dwelling.
- c) Three Storey or Higher Dwelling
 - at the centre of the highest storey of the dwelling.

6.3.2 Wind Farm Includes Transformer Substation

- a) Dwellings up to Two Storey High
 - 4.5 m above grade at the centre of the dwelling; or
 - 1.5 m above grade and 30 m horizontally from the façade of the dwelling in the direction of each wind turbine location. If the 30 m radius spans beyond the property line of the dwelling then the receptor location is at the property line.

The location that results in the higher noise impact must be selected⁵.

- b) Three Storey or Higher Dwelling
 - at the centre of the highest storey of the dwelling; or
 - 1.5 m above grade and 30 m horizontally from the façade of the dwelling in the direction of each wind turbine location. If the 30 m radius spans beyond the property line of the dwelling then the receptor location is at the property line.

The location that results in the higher noise impact must be selected.

6.3.3 Vacant Lots

Receptors include vacant lots that have been zoned by the local municipality to permit residential or similar noise-sensitive uses, as described in the definition of a Point of Reception in Section 3.

The receptor location, if unknown at the time of the proposal, shall be based on a 1 hectare (10,000 m²) building envelope within the vacant lot property that would reasonably be expected to

⁴ Assessment at the centre of the dwelling is simpler. The sound level at 4.5 m above grade at the centre of the dwelling is generally higher.

⁵ Assessment at the centre of the dwelling is simpler. The sound level at 4.5 m above grade at the centre of the dwelling is generally higher except where transformer substation noise is a factor.

⁶ Assessment at the centre of the dwelling is simpler. The sound level at the highest storey at the centre of the dwelling is generally higher except where transformer substation noise is a factor.

Appendix K

Page 1, Project Description Report, Version 2.1

Project Description information for Midhurst 3, Project Listing, Renewable Energy Projects, Ministry of the Environment (website)

1.0 Introduction

This document is provided to advise provincial agencies, local government, local agencies, the public, and First Nation/Aboriginal communities of the following proposed solar facility (the "Project").

Project:	RE Midhurst 3
Proponent:	RE Midhurst 3 ULC (the "Company")
Site:	The site consists of approximately 30 acres of land located about 14 km northeast of Barrie, in the Township of Oro-Medonte.
FIT Project(s):	RE Midhurst 3 (FIT-FFH48CH)
System:	Class 3 solar facility up to 3.5 MW AC will be located within the boundaries of the Property (see Figure 1).

The Project design will be finalized and documented in the subsequent reports required as part of the MOE and MNR Renewable Energy Approval (REA) process. Based on the Company's experience constructing and operating solar projects in the United States, participation in meetings and conversations with Ontario's various ministries (MOE, MNR, MEI), involvement in the stakeholder feedback process over the previous year, and work with Canadian-based environmental and zoning consultants, the company is confident that it fully understands Ontario's permitting processes for renewable energy projects.

Moreover, the company is keenly aware that the passing of the *Green Energy and Green Economy Act* and Ontario Regulation 359/09, transfers the responsibility of reviewing the building of solar projects to the Ministry of the Environment. This Project is subject to the Renewable Energy Approval (REA) process, and must adhere to the requirements of Regulation 359/09 of the *Environmental Protection Act*. Under Regulation 359/09, the applicant will be required to submit an application for and receive approvals for the Project from the Director of Environmental Assessment and Approval Branch for the Ministry of the Environment.

A map depicting the Project boundary including at least 300 meters of surrounding area is provided in Figure 1. This site will allow for flexibility in the site layout in consideration of environmental constraints.

Projects - Ministry of the Environment

RE Midhurst 3



Project Description:

Project Type: Proponent Name: Location: DE Region: Application Status: EBR Number: 3.5 MW solar project. Site consists of approximately 32 acres Solar Recurrent Energy (<u>Website</u>) Simcoe County Central Under Technical Review 011-5211 (<u>Website</u>) Appendix L

E-mail from Dr. Stewart Sweeney, Environmental Management Branch, Ontario Ministry of Agriculture, Food and Rural Affairs

-

Galloway PS@CFSTG Tech Svcs CE@Borden

 From:
 LIO (MNR) [lio@ontario.ca]

 Sent:
 Wednesday, 27, July, 2011 14:49

 To:
 Galloway PS@CFSTG Tech Svcs CE@Borden

 Subject:
 FW: Information pertaining to CLI land class map in Simcoe County

Hi Peter,

I apologize for the delayed reply. I got this reply from the Ministry of Agriculture and Food:

Thanks for passing this inquiry along to us. The questions posed by Mr. Galloway are not uncommon regarding the CLI GIS resource and its spatial resolution. Here are some response points to share with Mr. Galloway....

1) Yes, the Simcoe County Soil Survey Report, dated 1962, provided the original paper map product at 1:63,360 scale. This map was manually crafted in its day following the protocol for the mapping unit size threshold and the spatial extent of each soil unit was based on the interpretation of the pedologist - drawing upon the available test pit data density.

2) Yes, the digitization of that "legacy" soil map gives the impression of greater accuracy (example 1:10,000 as suggested) but it, in fact is not the case. The soil polygon digitizing process to create the current digital product was only as good as the control point tie-down used in that process. Simple overlays of these polygons onto the current digital elevation model (DEM) for the Simcoe County area show that the original concept landscape position for the soil polygon is not reflected in the current digital polygon position relative to the 3-D landscape rendered with the DEM. Furthermore, this overlay also reveals the oversimplification of the soil polygon boundaries relative to the enhanced landscape rendering available with the high resolution DEM.

3) The Canada Land Inventory (CLI) was not instituted until the late 1960's - so it postdates the soil mapping of Simcoe County. The Simcoe County CLI map that is currently in circulation is a "retrofit" product using the 1962 soil map and the CLI mapping criteria. The same story as was the case with the original soil map can be told of the move from paper to the current digital version of the CLI map. The "rubbersheeting" issues resulted in inaccuracies in CLI polygon locations in that product as well.

4) Neither GIS nor high-resolution DEM's existed in the era of either soil or CLI initial map product development for Simcoe County. Today's digital products, available through the Land Information Ontario warehouse, are the products of attempts to "modernize" the original paper map products. Unfortunately, the map digitizing pre-dated the DEM development and the rationalization of the soil and CLI polygons into their proper landscape positions was overlooked - until now.

5) The precision of landscape rendering - as performed by an Ontario Land Surveyor - far exceeds the current spatial resolution and accuracy of the soil maps and derivative products - like the CLI layer. The new Greater Toronto Area (GTA) DEM has sub-metre vertical accuracy. It is superior to the current provincial DEM. Neither of these DEM's approaches the accuracy of products that an Ontario Land Surveyor should produce for landscape location of boundaries and features. The problem is that the perception of scale and accuracy of the soil map products does not meet the reality of their application - except by people such as yourself who saw through this issue immediately. We have started down a road of renewal of the soil map resources of the Lake Simcoe watershed (and will then move to the extent of high-resolution DEM availability in the rest of the GTA DEM coverage). We are also acquiring LiDAR data clouds, creating LiDAR-derived highresolution DEM's and moving to much more detailed predictive soil mapping in selected areas of the province. At present, however, we have not completed this work for the C.F.B. Borden area of Simcoe County.

6) An estimate of the margin of error associated with these current soil map (and derivative) products may be derived, somewhat at least, from the input data density

requirement to create the original 1:63,360 map product. However, we can find no metadata records of how rigorously this mapping protocol would have been applied on any individual acreage of the map area. I am very sorry, but this remains a major weakness in the current Ontario soil map products across the province.

On behalf of OMAFRA and the current Soil Resource Information Team, thanks very much for your inquiry and interest in the Simcoe County soil and CLI map products. If you have a project in mind for adding value and precision to the soil mapping in the area, please contact me directly. We would be pleased to discuss options and opportunities for soil information data improvements with you.

Sincerely,

Stewart

Stewart J. Sweeney, Ph.D. Environmental Management Branch, Ontario Ministry of Agriculture, Food and Rural Affairs, 3rd Floor SE, 1 Stone Road West, Guelph, Ontario, Canada NIG 4Y2

P: (519) 826-4478
F: (519) 826-3109
E: stewart.sweeney@ontario.ca

----Original Message----From: PETER.GALLOWAY@forces.gc.ca [mailto:PETER.GALLOWAY@forces.gc.ca] Sent: July 4, 2011 10:29 AM To: NRIC, MNR (MNR) Subject: Information pertaining to CLI land class map in Simcoe County

To whom it may concern,

The MNR mapping and geography section has enabled me to access the geographic data base for Simcoe County with reference to the Canada Land Inventory land classification. It is my understanding that the data for the CLI mapping in Simcoe County was based on the Soil Survey of Simcoe County (1962) which has since been digitalized to its present format. The scale of the original soil map was one inch to one mile, or 1:63,360. My concern pertains to the degree of spatial accuracy of that land map information. As a topograhical type of map, I would like to know what the degree of spatial accuracy is for the CLI land class delineations. For example, would the contour line marking, or delineating, class 2 and class 3 land, be accurate to a 1% margin of error (52.8 ft or 16m)? Is there a general "rule of thumb" that describes the spatial accuracy of those land class delineations? What would be the degree of accuracy of the same contouring information in the present digitalized format which I believe is scaled at 1:10,000? I would appreciate very much if you could provide me with a reference source that stands as the accepted geographical authority with respect to the degree of spatial accuracy, or margin of error, of the CLI land class data for Simcoe County. A corollary to the above query would be how accurate is the CLI land class data in comparison to a land survey done by an Ontario surveyor.

This information is important to me. I look forward to hearing from the ministry on this matter.

Thank you,

Peter Galloway

Peter Galloway Contract Inspector Base Construction Engineering CFB Borden P. (705) 424-1200 Ext 1035 F. (705) 423-7243

Appendix M

Report from Mr. Brent Rowe, RhoEng Technical Services, concerning the potential noise impacts of the proposed substation to my property at 175 Line 5 North, Oro-Medonte Township

Inspector:	Brent Rowe, A.Sc.T. (OACETT #809635)					
Date:	2011-12-16					
Address:	175 Line 5 North, Oro-Medonte Township					
Client:	Peter Galloway					
Introduction:	RhoEng Technical Services was hired by Peter Galloway to investigate the potential noise impacts to his property by the proposed development of a solar power generation facility adjacent to his property. Client has concerns that proposed construction of solar generation site adjacent to his property may exceed noise limits and interfere with his right to peaceful enjoyment and free disposition of his property.					
Summary:	The results of the analysis indicate that it is feasible to achieve the MOE sound level guideline limits with respect to the transformer substation. Unmitigated sound levels are anticipated to be in excess of the noise criteria but feasible means of mitigation are capable of reducing the noise.					
Analysis:	Developer has stated that the transformer substation will generate 86.2dB maximum. The client has provided a topographic map showing property lines and locations of the substation and house.					
	The client's property is 66.385m (217.8 ft) deep by 60.960m (200 ft) frontage. The house is located centrally on the frontage with 16.764m (55 ft) either side of the house. The substation is located 51m (167.3 ft) from the property line. For modelling we will use a sound source that is near the ground, hence close to a reflecting plane with a directivity index (DI) equal to 6db (Handbook of noise and vibration control, Malcolm J. Crocker, Table 2, pg. 27):					
	First we will consider sound pressure at the property line:					
	Where Lw=86.2dB, r=51m:					
	Lp=Lw-20(log r)-11+DI (Environmental Engineering, Davis/Cornwell, eq 7-20)					
	Lp=86.2-20(log 51)-11+6					
	Lp=47.0dBA					
	Next we will consider sound pressure at the closest edge of the house:					
	Where Lw=86.2dB, r=67.764m:					
	Lp=86.2-20(log 67.764)-11+6					
	Lp=44.6dBA					

Lastly we will consider sound pressure 3m from building façade as considered an Outdoor Living Area.

Where Lw=86.2cB, r=64.764m

Lp=86.2-20(log 64.764)-11+6

Lp=45.0dBA

Conclusions:

Responsibility of developer: In MOE publication NPC-232 the noise limits in Class 3 areas are limited to 45dBA 700-1900, and 40dBA 1900-700. Feasibility as well as detailed noise studies are generally required whenever the proposed lands are within the influence area of a stationary noise source. The extent of the influence area is case specific, depending on factors such as the type and scale of the stationary source, intervening topography and intervening land uses. In general, it is in the interest of the proponent to perform a feasibility study.

Mitigation: Noise Barriers may reduce the impact, and it's height must be such that the line of sight between the source and the receiver is obstructed. It is required that the surface density of the noise barrier be a minimum of 20kg/m2. It is further required that the barrier be designed and constructed without cracks or gaps. Any gaps under the noise barrier that are necessary for drainage purposes must be minimized and localized, and must not deteriorate the acoustical performance.

When control measures are required, they are expected to reduce the sound level to the applicable criteria at all the points of reception within the proposed development. The noise impact may be controlled at the source or at the receptor; typically, the available control measures consist of noise barriers, erected on the property of the sensitive land use, or at the source control measures such as silencers, mufflers, or enclosures. Preferably, the control should be implemented at the source in order to reduce the noise emissions.

The result of the analysis indicates that the noise reception is above the MOE limit at the property line during the day, and above the limit at the property line, house and outdoor living area during the night. It is assumed the station will be operational emitting noise at the transformer of 86.2dB during daylight hours and in the summer that time will extend past 1900.

The development will have several point sources of noise that have not been addressed in this report, only the closest point source was considered. The resultant combination of sources may increase the predicted sound pressure predicted at the reception point. In my opinion the developer should consider relocating the transformer further from potential reception points (ie into the centre of the developer's property). Another option is to enclose the transformer equipment to silence it. Lastly, physical barriers, such as berms or acoustic walls may limit noise travel toward adjacent property.

My client also indicated there was some ambiguity in the mapping and distance data that the developer submitted for permitting. Any topographic measurements should reference documents certified by a Licensed Ontario Land Surveyor, not Google maps.

This report was prepared by:

Brent Rowe, A.Sc.T. (OACETT #809635) Report dated: 2011-12-16



6 -Letter from Township of Severn- November 14, 2012



TOWNSHIP OF SEVERN

THE CORPORATION OF THE TOWNSHIP OF SEVERN

P.O. Box 159, Orillia, Ontario, L3V 6J3

November 14, 2012

Bernard Pope Bernard@ontariofarmlandpreservation.org

Dear Mr. Pope:

RE: Orillia 3 - Oro-Medonte

This will acknowledge your correspondence, dated November 12, 2012, with respect to the above-noted matter.

As requested, the following is a copy of a resolution enacted by Severn Township Council with respect to Solar Energy Projects:

WHEREAS the Province of Ontario through the Ontario Power Authority has granted approval for the two solar farms known as Waubaushene 4 and Waubaushene 5 which are to be located in the Township of Severn; AND WHEREAS the Green Energy Act was enacted to facilitate the installation of Solar Generation Facility Projects and has eliminated municipal planning approvals;

AND WHEREAS the Township of Severn remains concerned about the rehabilitation and ensuring the proper decommissioning of the solar farms to return the properties to their former condition;

AND WHEREAS the Township of Severn wants to ensure that the municipal Council of the day incurs no financial impact or burden as the result of the Provincial decision to located two solar farms within this municipality; NOW THEREFORE BE IT RESOLVED THAT the Township of Severn respectfully requests confirmation from the Province of Ontario that the Township of Severn will not bear any of the costs with respect to the decommissioning of the solar farms known as Waubaushene 4 and Waubaushene 5 or any future solar farms located within this municipality.

CARRIED "

As well as the above-noted concern, the Township of Severn has experienced challenges with the Waubaushene 4 & 5 Solar Farm Projects as follows:

- Inability to obtain copies of the required studies indicating the Soil Class for the farms
- While visiting the site, the inspections required under agreements and understandings for the installation of the roadwork within the development have not been completed by the Provincial agencies.

I trust this will be of some assistance to you.

Yours tru Mike Burket

Mayor

MB/sg



7 -Brochure on Stray Voltage Workshop- Current



Uncontrolled Electricity/ Ground Current Livestock Impacts Seminar

Trillium Mutual Insurance Company 495 Mitchell Road South, Listowel ON Thursday, November 29, 2012 9:45 AM – 3:00 PM

The Perth Federation of Agriculture announces a Seminar to have a discussion on health and safety matters impacting negatively on livestock and humans alike. It will be of interest to all classes of livestock producers and their respective organizations, lenders, agri-business, media, veterinarians and government officials.

Uncontrolled electricity/ground current issues are not a figment of someone's imagination, are not isolated, but are real and have been around for decades. Rural areas with livestock and poultry operations are increasing their demands of an aging rural electrical grid, which can result in increased uncontrolled electricity. The issues are not limited to any particular type of producer management and housing.

Undesirable electricity does cause economic hardship and in many cases disaster for producers trying to deal with this environmental pollution – it should not be acceptable!

Now is the time to take action on the mounting anecdotal evidence based on good science. There is a need for more environmental risk management to make a difference. Applied investigative on-farm peer-reviewed university research along with more use of well-trained independent third-party assessors are both long overdue to deal with the identified profitability challenges on Ontario's livestock operations.

Speakers will include:

- Dr. Magda Havas Trent University, Peterborough ON "Effects of Electrical Shocks on Livestock -A Researcher's Perspective"
- Lorne Lantz Wellesley, ON "On-farm Unseen/ Uncontrolled Electricity A Practitioner's Perspective"
- Barry Fraser Chatham ON Agricultural Advisor Chair of panel discussion featuring livestock producers and an agri-services representative.
- Dr. Jim Morris Retired, University of Guelph, Ridgetown, ON "Seminar Summary and Future Directions"

We hope to see you at this Seminar!

For more information, call the Huron-Perth OFA Area Office at 1-800-511-1135

Sponsorship for this meeting provided by







8 -Petitions to Minister of Energy (copies)- Current

Farmland Preservation

TO: Legislative Assembly of Ontario

Whereas: The Green Energy Act - O. Reg 359/09 and

The Environmental Protection Act - O.Reg 521/10

were developed to advance the development of renewable energy in the Province of Ontario, and,

Whereas: The proposals for the development of renewable energy have been proponent driven, with questionable engineering and unverified by authorities, and,

Whereas: The destruction of food producing farmland is being allowed in favour of large solar facilities because of now apparent flaws in the two referenced Acts, and,

Whereas: The practice of paying elevated subsidy rates to the developer of solar facilities, while paying for other jurisdictions to take oversupply, and

Whereas: There clearly appears to be no net benefit, in the construction of the large solar facilities on agricultural land, to the customers who use electricity in their homes.

Therefore be it resolved that The Ontario Energy Board refuse to issue licences to generate electricity for solar facilities proposed for placement on food producing agricultural land.

We, the undersigned, choose to Petition The Ontario Energy Board, through the Minister of Energy, in the Legislative Assembly of Ontario.

Name (printed)	Address	Signature
LYNON JOHNSTON Homono LOOKE	RRY Coldwater Lo Kite 25 Sacenus prover DROSTN	And Johnt
Ann multon	RRI Shanty Ray Lolzo	And day

Farmland Preservation

TO: Legislative Assembly of Ontario

Whereas: The Green Energy Act - O. Reg 359/09 and

The Environmental Protection Act - O.Reg 521/10

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Whereas: The destruction of food producing farmland is being allowed in favour of large solar facilities because of now apparent flaws in the two referenced Acts, and,

Whereas: The practice of paying elevated subsidy rates to the developer of solar facilities, while paying for other jurisdictions to take oversupply, and

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We, the undersigned, choose to Petition The Ontario Energy Board, through the Minister of Energy, in the Legislative Assembly of Ontario.

Name (printed)	Address	Signature
SANDY AGNEW	13055 CARLETTLINE, RR3, ELMUALE	5Az
SHEILA CRAIG	3638 Penetanguishere RO KRI Barri	e Aline
ALLANEANER	638 HOREE HES VIL RE	
	PR#4, COLDIOSTER	Stat Beller
asaThe Dawiels	LIWE 4 ROISHAWTS	140
End Hilland	RR#1 Coldenter at	Cint Filla
CINDY HILLARD		T.
Guenther Wellnholes	1315 Line Z. Horth. RRZ Stanty Bay, ON	G. Wellylides
Sur ROGANIER	12700 BARRIERO OROSTATION	Maur
GOTO ROENDER	127 OLD. PARTIE Rol OGO State	a Bachuer
Louise Martin	927 Linean, RRZ Shanty Bay	Louse Whatin
PETER GAL OWAY	175 LINE SN PRI ON STA	the Collows
/	LULZEO	Jacob (
Farmland Preservation

TO: Legislative Assembly of Ontario

Whereas: The Green Energy Act - O. Reg 359/09 and

The Environmental Protection Act - O.Reg 521/10

were developed to advance the development of renewable energy in the Province of Ontario, and,

Whereas: The proposals for the development of renewable energy have been proponent driven, with questionable engineering and unverified by authorities, and,

Whereas: The destruction of food producing farmland is being allowed in favour of large solar facilities because of now apparent flaws in the two referenced Acts, and,

Whereas: The practice of paying elevated subsidy rates to the developer of solar facilities, while paying for other jurisdictions to take oversupply, and

Whereas: There clearly appears to be no net benefit, in the construction of the large solar facilities on agricultural land, to the customers who use electricity in their homes.

Therefore be it resolved that The Ontario Energy Board refuse to issue licences to generate electricity for solar facilities proposed for placement on food producing agricultural land.

We, the undersigned, choose to Petition The Ontario Energy Board, through the Minister of Energy, in the Legislative Assembly of Ontario.

Name (printed)	Address	Signature
LINDA BAKÉR	638 HORSESHOE VALLET ROE	Sunda Baker
Halen Wellnhofer	2315 Line 2N KR2 Shanty By	X/ entrally
Nancepolainson	1656 Sitk Line Coldwarden	272
MASS/E SINCLAIR	2033 LING 2 N STANTY BAY	He.
PATRICIA BRE	1968 Line 2 N Shanky Bay	RBes
Edmart	937 Ine IN, RA. Shark Ba	CE Mail
John Dunsmore	3240 Ridge Rd. W. R.R. #12 1/2	ey John Dunsmore
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Bernard Pope

From: Cindy Hillard

Sent: November-25-12 8:12 AM

To: Bernard

Subject: solar Fit projects and Recurrent energy as neighbours

Dear Mr. Pope,

I am writing first of all to let you know that I support your efforts to preserve farmland. FIT solar projects do not belong on farmland or food producing land.

There are many alternatives for solar energy.

I became aware of these projects when my neighbour decided to lease his land to Recurrent Energy for a solar FIT project. I have been doing my best to educate people about the pitfalls of this initiative by our government. Less than 13% of Ontario is farmland and there are now 7 billion people on earth. We must preserve food producing land for future generations. Farmland is threatened by development and "progress". Last summer my neighbour grew a very healthy crop of soy beans on the property while Recurrent Energy awaited approval from the MOE.

My neighbour's farmland has been improved over the past 50 years since the Land Inventory Maps were created in 1962. According to these maps the land is mostly class 3. It is very likely that with the upgrading of the soil over these past years, the land classification is now 1 or 2.

My efforts to oppose this project across the road from our home have been ignored and the project is currently under construction.

I have had numerous difficulties since the project began. Recurrent energy began by using an unapproved access to the property at the foot of my driveway. Large machinery was entering the property causing a danger to my family.

Recurrent Energy finally gained approved access to the property underhandedly. Our Mayor, Mike Burkett, asked the company for the site-specific soil studies required to ensure the land is classified properly before construction and Recurrent's Engineer, Donald Ling, assured him the studies were included in their report. The Mayor granted the access and discovered later that the studies were not provided. Recurrent's lawyer, apologized for Mr. Ling's statement and Recurrent went ahead with the project without ever supplying the Mayor with those studies. To this day we are still asking for the studies.

Recurrent Energy advised us they would carry out well testing monthly during construction. They came and tested our well in March 2012 and I did not hear from them again until the end of August when I emailed them asking when they would be testing again. Only then did they begin sending some one monthly. I am also concerned that when they begin taking water for washing the panels that my well may go dry. Our family has a 16 foot dug well that is spring fed. We know our limits for water usage.

Construction is continuing 7 days a week. At first our family adjusted to the constant beeping sound of backing up machinery and we requested they at least start work after 8am when we were on our way to school and work.

More recently they have been drilling into the bedrock below the topsoil. This drilling resonates through our heads every day and causes anxiety for my family and pets. It was only when I finally emailed them for some relief on Rememberance Day that they informed me they would stop drilling on weekends. However, the very next weekend they were drilling again, and I had to again ask them to stop. Bob Leah then explained to me that his crew did not get the message he had relayed the week before and apologized.

Recurrent Energy told us in their public information meetings that they would remove the topsoil and preserve it before starting construction. This never happenned. They are building on the topsoil.

Recurrent's own employees, recently informed me that a strip of land adjacent to the road in front of my home

would be returned to the landowner because the municipality required a setback from the road. He then told me the landowner intends to grow hay on it. A representative of Recurrent then pointed at the site of the unapproved access they had been using and asked me how the landowner would grow hay on "that rock"? The so-called rock he referred to was a hill that Recurrent Energy poured gravel all over and turned in to a driveway. The landowner and his father had previously grown hay on it for 50 years. Perhaps Recurrent Energy should decomission that "rock" so the landowner can indeed grow hay again.

There is a continual throbbing humming sound coming from the construction site all night. I do not know what the sound is. I can only surmise possibly a generator? Again this is a constant aggrivation to our family.

I am concerned about the noise from invertors and generators once the project is operational. I am concerned about the possibility of stray voltage.

Severn Township is soon to become a solar industrial wasteland. Seven FIT solar sites are proposed within a 10km radius of our farm.

These large scale solar FIT projects are tearing our farming communities apart. It is a fine line between agriculture and agribusiness. The first promotes local small scale farming and their communities, and the second exists for money alone.

We must think 7 generations ahead to preserve food producing land for our grandchildren and greatgrandchildren. I am a single mom with 4 children. I own farmland which I lease out for pasture. I too was approached by these solar companies to lease my land for our government, and I turned that offer down. There are more important things than money. My children and I live comfortably, and we are healthy and happy.

Thank-you Mr. Pope for your efforts to put a stop to this unlimited madness. Municipalities need to have input into their location, and site-specific soil studies need to be done on each property to protect good farmland.

Cindy Hillard and family