

SEP 14 2015

Municipal Report

Protect Lorrain Valley Coalition
Fall 2015

The LRP (Large Renewable Project) Applicants, WPD Canada and EDF-EN have been investigating this area for a few years now. In 2013 WPD had tested wind energy potential in the Lorrain Valley and Residents in the area were approached as potential Land Owner Partners for locations of wind turbines. Several residents, later that year, received email communications from employees of WPD Canada stating that there wasn't sufficient wind power to pursue turbines in the Lorrain Valley. Two of these people still have their emails and both have properties with ridges that are among the highest in the area.

In June 2014, after hastily changing key Legislation in several Ontario Ministries and after decimating the Environmental Protection Act, which had taken decades to craft, the Liberal government of Ontario opened up Crown Land for Wind Turbines. All of a sudden the areas that were previously 'without sufficient wind' but were near electricity hook ups to the grid were sought after by the two companies who's Applications were in by September 1, 2015.

Several concerned people in the Lorrain Valley, finding out about the renewed interest in the area, began researching Wind turbines and their part in so called 'renewables' and the Green Energy Act. Here is some of what we found:

Where are Wind Turbine Industrial Areas Sited:

Initial review of areas under consideration does not seem to include a geological study. Had this been part of the initial review the turbine builders would have found the following:

Arsenic Contamination:

The form of Arsenic found in our area is the "erythrite" and it is found throughout the Lorrain Valley, Silver Center area and South Lorrain Township. The "erythrite" and "crimson erythrite" is 25.03% Arsenic and contains 8 molecules of water of crystalization per 1 molecule of "erythrite". This means, in lay terms, that the form of Arsenic occurring in large amounts in our area, the "erythrite", is miscible with water and readily soluble.

One gram of erithrite ("cobalt bloom") will toxify (render poisonous) over one TRILLION litres of water (35,000,000 gallons of water). As late as the mid 1970's an old mine site (visible from Highway 567 today on the west side of the road just south of North Cobalt) was disturbed and, within a year, the George Blanchard family living across the road, were hospitalized. The entire family was extremely ill and spent many months detoxifying from their arsenic contaminated well water. Members of our Coalition had family members poisoned by the well and stream water at Bucke Park within the last 30 years and, as late as 2006, the Mass Spectrometer results from the "Maiden Lake" water showed it to contain six times the allowable level of Arsenic safe for human consumption.

(Document held by: C. W. E. Johnson, P. Eng. Ret'd.)

However, recovery is slowly improving the area lakes and ponds. Efforts are proving fruitful and, at this time, our area is a natural geological source of arsenical minerals. If any land, from the town of North Cobalt on to the regions south of the Matabitchuan Hydro Electric Generating Station, were disturbed our area would return it to it's previous state of massive contamination. The negative effects on area fish and game living in and around the lakes and the health damage to local residents and visitors drinking contaminated well water would be profound. The loss of property values for Land Owners, the loss of Tourism dollars in the region and the damage from arsenic laced water travelling into the Ottawa Valley Water System is incalculable.

Wind:

Wind corporations use the Canadian Wind Power Atlas and a formula to extrapolate the wind energy at the height turbines are to be raised. Data Collection Towers set up for one year create data further enhanced by the formula and estimated wind energy is calculated. 2013 calculations, as stated, were insufficient.

In an obvious conflict of interest the same companies vying for millions of dollars in funding and lucrative contracts are also collecting their own technical data. They are also not held accountable if less than promised wind energy is found to be the norm. Since these companies usually sell off the 'farms' as soon as they are built, they have no real incentive to be accurate about their estimates of potential wind power to be produced and several incentives to estimate, with their own formula, that the wind is "Sufficient".

Review of the Canadian Wind Power Atlas shows the Lorrain area in the lowest levels of wind power. 4.5 m/s or 10 miles/hour. European experience in 2014 shows the 'nameplate' megawatts actually created less than 20% of the promised energy. That is 20% of the 30% of the time the turbines are 'guestimated' to work when the turbine constructors' contracts are signed. (<http://www.windatlas.ca/en/index.php>) The taxpayers of Ontario must pay regardless of whether the IESO (Independent Electricity System Operator) can use the electricity or not and often it is the 5-6 cents/KwH hydroelectric power that is flooded over the top of our dams while we pay for the wind at 13.5 cents/KwH or even worse, we have to sell it off or give it away since we often don't need what is produced at all.

Electricity use is down yet more Turbines are going up. With approximately 6,700 wind turbines now in Ontario they are only producing 4-6% of the actual energy used. How many we would actually require to replace nuclear energy is irrelevant since we cannot ever depend on the wind to blow at dinner time nor are we able to store energy with such massive turbines.

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What is the Community Involvement in the Process:

The Liberal government, as part of the wholesale rewriting of Legislation also, as you likely know, removed the power of Municipalities to have ANY say in the placement of Wind Turbines.

In what used to be prime agricultural areas in the South of the Province there are reports of problems:

1. with summer 2015 observations of repairs and maintenance remaining undone in rural Ontario
2. with summer 2015 issues of oil leaking oil splattering on people out walking,
3. with property values dropping and staying low
4. with communities in rural Ontario heartsick about noise/light flickers/rumbling and unprovable health concerns (at this time)
5. with Environmental Tribunals and Injunctions being lost in community after community due to legislative changes and
6. with Appeals being funded by our own government lawyers working with the turbine companies

The news from down south is disturbing at best. The news from the Lorrain Valley is even worse.

Because the Crown Land access is a new venture the 'community' definition is unclear and must be clarified. Noise issues for rural areas down south just don't work for Land Owners next to Crown Land or long term Lease Holders within it. Southern Ontario experience will not work in any area with Crown Land being considered for Industrial use here in the north in terms of everything from noise levels to maintenance schedules. Much more time and effort is needed before the Legislators can make informed rules regarding this Industry on Crown Lands.

WPD has gone so far as to claim, in their reporting as part of this process, to have gone to extreme measures to include the "community" when, in fact they have not even contacted one of the area's largest agri-business abutting the Crown Land in question. Land Owners abutting or within the areas in question have also been, for the most part, ignored. EDF-EN had promised us all a lot of money to somehow make us comfortable with the destruction of our Crown Land and the Lorrain Valley area. We are the Community of the Lorrain Valley. We are not for rent.

Our area residents have experienced the following:

1. dishonest behaviour (community support stated in paper where none formally existed),
2. disrespectful treatment of posted, private land (and golly gee apologies when caught trespassing)
3. few locals were ever met yet many 'out of area' municipalities were addressed,
4. a professed land claim was arranged with an aboriginal reserve in Quebec
5. there have even been reports of promised financial support for area charities.
6. The community 'meetings' populated with 'experts' who had little or no experience of the area was held according to the requirements of the LRP Application. None of the 'experts' had experience other than computer generated information and showed a serious lack of basic info about the area; -didn't know it was a dead end road -didn't know there were duck migration ponds -didn't mention the contamination -didn't know about the farms abutting the areas in question etc.

In short, the area "community" has been defined by the turbine companies, as to be anyone far enough away to be convinced by promises of partnership, donations and temporary jobs and NOT the people who live in the area. We have not been seen. Many haven't received any information at all.

The true definition of community is this:

"a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage".

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The people of Lorrain Valley and South Lorrain are the "Community in the Area". We provide several million dollars a year to local businesses. We shop and work in Temiskaming Shores and area. We may live in an unorganized area but that doesn't make us irrelevant.

We also know there are enormous numbers of Tourists, Seasonal Cottagers and Outdoor Enthusiasts who travel the single, dead end road in the Valley and on up through it to the lakes beyond and, in relation to Crown Land Use, those people must also be considered 'COMMUNITY'.

What about Aboriginal & Métis Communities

This is yet another area that one of the project applicants has been working on for a long time. WPD Canada states that their Feasting and Contract Signing between with the Chief and Council of the Timiskaming First Nations of Notre Dame du Nord, Quebec meets the requirements. The Application phase requirement of the LRP has points awarded for Aboriginal involvement.

The area Metis have advised us that they are busy documenting their position in regards to Land Use for their group in our area. They are a part of the community but, to the best of our knowledge, had not been approached when they attended our meeting a couple of weeks ago.

After some serious digging we found that there is an Aboriginal Renewable Energy Fund (<http://www.aboriginalenergy.ca/>) that, just after Crown Land was opened for 'Renewables', received another quarter of a billion dollars for programs that made Aboriginal involvement a real bonus for the turbine companies. It was reported in the global wind turbine community in fact.

However. After careful searching we have found out that the Timiskaming First Nations appear to have absolutely NO claim on the area in question and, so, had NO right to sign an agreement concerning Lorrain Valley. There is only one case ever awarding title to lands outside a reserve.

On June 26, 2014, the Supreme Court of Canada rendered a historic judgment in the TSILQUOOTEN Nation's Aboriginal title case. All 8 judges agreed with this decision.

Aboriginal title was declared for approximately 1900 square kilometers of British Columbia.

This is the precedent setting case and unless and until the Timiskaming First Nations receives the same sort of Supreme Court Decision they have absolutely no rights to the Lorrain Valley and South Lorrain Township proposals.

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Surrounding Communities as 'Partners'

Employment

"Partners" with these companies are not likely to benefit by the name except in unskilled labour jobs in the communities nearby and accommodations/meals and such for short terms. In fact IESO claims, on its website, a total of just 5 jobs for locals will come of this enormous project. Likely counting dead birds....

Tourism

It is also VERY unlikely that the years of ongoing construction, blasting, habitat destruction & disruption and lack of road access would do the areas Hunting, Fishing, Hiking and Tourism Profile.

In fact, one of the areas in direct conflict with these projects in Lorrain Valley and South Lorrain is the **panoramic viewscape rating** that will decline terribly. People come here to experience the unspoiled wilderness and beauty of our Lakes and will not travel to see just another bunch of wind turbines.

When we add HUNTER'S concern about flyways, The Temsikaming Shores area boating and fishing community is invested in these unspoiled vistas, the Devil's Rock and lake area subjected to the noise pollution if a turbine goes up near the Old Mission and, ultimately, the lack of continuous travel to go from one area of Historical importance to another if turbines are there.

Wind Turbines will destroy the very Spirit of the area.

In the long term, it is more likely that temporary funds will be of little consequence when compared to losses in the other areas of Income. The loss of income in the Tourism sector alone will be felt in all surrounding communities, small businesses and large alike.

Partners in Liability

Partners of Turbine Assembly Corporations, who want to turn Crown Land into Industrial Parks face several new areas of Liability because of the other Land Use ongoing throughout the areas in question. The new land use caused many changes in Legislation but many areas are still untested in the law. Here are a few concerns we have.

Hunting & Fishing: There are several famous fishing lakes and prime hunting areas that will be heavily impacted by the giant industrial project application being prepared for the IESO. The noise, inability to get in and out of the area in a timely manner and the disruption of roads and trails will all discourage our huge numbers of outdoors enthusiasts.

Noise and Pollution: The sound of movement in the forest bears absolutely NO relevance when it is, as is the case in the documents on 'sound' available from the industry, compared to 'average traffic noise'. Area animals will run as far away as they can get. Stress will cause birth problems as wild animals are completely unused to the 'average traffic noise' of a 102 decibel level turbine which, to clarify it as stated in the Environmental Protection Act, is the same ambient level as an edger in a saw mill.

Industrial Effects on Crown Forests, in regard to issues involved in raising this so called 'green' energy machine, have not been investigated. Noise, Flicker, Infrasound, Animals impacted, Erosion, Habitat destruction, Topsoil destruction, Fire risk, Tourism loss, Property value reduced and Liability issues pertaining to Emergency vehicles access when the dead end road is monopolized during the construction period, Maintenance concerns, Decommissioning responsibilities . . .the list goes on and on. By the time we can prove most of this it will be too late.

We do know that if a single turbine runs its full 20 years making energy a full 30% of the time it still won't fill up its OWN carbon footprint. Rebar in a standard pad expends 1,500 tons of CO2.

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Partners in Blasting

The blasting areas are within a giant fault line easily located by following the ridge. It is called the Lake Temiskaming Rift Valley. It is famously unstable and, if blasting of such significant nature as that required for over 30 three acre areas for turbine pads is done no one can know if it will be safe.

The same ridge that is about to be considered for blasting follows the line right down to the hydro electric plant at the end of the road. When the dam was being considered the Rift was discussed at length and it was felt that the area could handle smaller bursts of blasting. No way of knowing what would happen, or who would be liable in the event of a triggered seismic event.

Partners in Liability in Personal Injuries

Financial liability if hikers, campers, hunters or fishers are injured by blasting since there is no way to tell them or control all the camps leased on the Crown Land.

Financial liability if residents or tourists are injured or ill and can't get out of the Valley due to road monopolized by giant equipment trains.

And all sorts of other untested areas of potential liability await.

The Concerns Unassailable in Application Stage

which only covers a host of rudimentary explorations using existing online mapping, technical extrapolations and reports by companies from 'away' who specialize in turning out reports for various governmental and quasi-non governmental bodies.

Having reviewed the LRP documents, we verified that changes to Legislation of long standing makes it almost impossible to address many of these very worrying issues at this stage of the process

- destruction of habitat,
- loss of income from travel tourism here and in Quebec
- hunting and fishing damaged for years
- health and wellbeing concerns for residents when road is monopolized and impassable
- difficulty accessing the area for tourism, cottagers, outdoor enthusiasts and residents
- erosion of ridges and resulting contamination and water problems
- concern about fire risks with dry areas and lightning strikes on turbines
- concern about insurance coverage for community residents in Lorrain Valley
- additional dangers for protected and endangered birds along migration paths,
- raptor and bat mortality proving to be much greater than originally estimated
- death and distress of local wildlife during and after construction
- noise, flicker and rumble that common sense tells us would be a bother in the peace of a forest
- no fire suppression equipment on Crown Lands wind turbines
- road access through Crown Forest roads for maintenance and repair in winter
- conflicting legislation between Living Legacy Program and LRP on Crown Land
- visual destruction of panoramic viewscape of entire region
- inevitable continuation of turbines covering the areas Crown Land due to three hydro tie ins to grid
- no trust account for decommissioning and evidence that turbines are usually sold to others
- carbon footprint of manufacturing and erecting turbines is HUGE and not green at all

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There are many more, we are sure, but there is nothing we can do about them all until the process in December culminates in an "Offer to Contract" by the IESO for whomever has completed the applications process successfully. We hope to affect the process now and prevent this first volley into our area.

This year's LRP process has been changed in a couple of key areas. Most relevant in this case is the fact that the 'community participation' aspect has been given considerably more importance after last year's outraged reaction from rural Ontario. We hope our small numbers can still be heard for this uniquely beautiful and important historical area for so many.
(See Appendix A for LRP Guidelines for 'Community')

We have been informed that the EDF-EN Canada application was pulled at the last minute and a spokesman for the company informed our Chairperson that they did not feel the community support and other factors made the area a good fit for them at present. Letters to that effect will be received in the short term by those on the EDF-EN list. We want to thank our community and coalition members for their efforts so far!

Areas of the Lorrain Valley are being taken as isolated structures on a divided landscape instead of the complex and delicate symbiotic orchestration of nature that we hold dear.

The LRP Application process is flawed by conflicts of interest, insufficient study of the effects on our Crown Forests and is in direct contravention of our own Living Legacy Legislation from 1999.

We are still appalled at the cavalier changes to the Environmental Protection Act and the legislation changed in Ministries like the MNR, MOE, MECC and more, many of which destroyed with a keystroke the decisions that took decades to get right. We have plans to address this issue with application for removal from the Ontario Crown Land Use Atlas as a site for "Renewable" industries.

It is of special concern to the Temiskaming Tourist Region and the special place this area holds in the hearts of so many who come here every summer to enjoy what we have.

Let us not allow corporations and industry to **again** try to destroy our grandchildren's' Heritage and in the process of trying to find so called 'renewable energy, destroy one of our most powerful tools for a Green Ontario, Our Crown Forests.

Thank you for your time!

APPENDIX A
LETTER

"Effect of Disturbing Local Arsenical Deposits on Ground, Well and Lake Waters",
C. W. E. Johnson, P. Eng. Ret'd.

August 24th 2015

To Whom it May Concern,

The Chairperson of the Protect Lorrain Valley Coalition has asked me to assess the likely contamination of ground waters by Arsenic should the terrain of the Lorrain Valley and South Lorrain Township be disturbed by the installation of wind turbines.

Distribution of Arsenical Minerals in the Lorrain Valley.

This is well known. The most potent is ERITHRITE, $\text{Co}_3\text{As}_2\text{O}_8 \cdot (8 \text{ H}_2\text{O})$, known locally as "Cobalt Bloom." It is the oxidation product of several arsenical-cobaltic-nickelliferous minerals and is easily recognised in the field by its matte pink colour. It contains 25% Arsenic by weight. It is present in every spoil pile of every one of the many disused mine sites in the Lorrain/Cobalt area, being impossible to miss on a field trip. The high waters-of-crystallisation (8) indicates to me that it is highly water-soluble and contaminates the groundwaters of the area with Arsenic.

Area of Planned Rock Disturbance To Install Wind Turbines.

I understand the areas currently planned for blasting the foundations for the wind turbines in the Lorrain Valley and South Lorrain Township are in the areas south west of the Montreal River to the north west boundary of South Lorrain Township, in South Lorrain Township to the southern edge of Coleman Township and the northern portion touches on the old Cobalt Mining Camp with its associated arsenic contamination.

Each turbine requires a foundation hole some 6 to 30 feet deep and thirty to fifty feet across. Excavations of this size in these areas cannot fail to expose hitherto quiescent arsenical deposits which will oxidise on exposure to air, allowing the now water-soluble pollutant to flow downstream and further poison the groundwater and well water, eventually draining into the Ottawa River.

Toxicity of Arsenic in Drinking Water.

I have discovered the Government-approved range of acceptable levels of Arsenic in drinking water is 0.010mg per litre in the Canadian Standards. In Ontario, the Safe Drinking Water Regulations call for a maximum of 0.025mg per litre. This can be expressed as 0.025 parts per million or 25 parts per trillion. In other words, one gramme of free arsenic will contaminate 35 million gallons of drinking water. Simply put: Arsenic is extremely toxic and should be handled with great respect.

Conclusion.

I strongly recommend that this site is highly unsuitable for wind turbines of the size now being proposed on the basis of the extreme dangers presented by the presence of arsenical mineralisation that cannot avoid being disturbed during construction.

Yours truly,

C.W.E. Johnson, P.Eng., Ret'd

RL 482, Mining Claim, Hwy. 567,
South Lorrain Twp. Ontario
705-622-2059

APPENDIX B
LRP COMMUNITY APPROVAL DEFINED FOR APPLICATION PROCESS

Community engagement minimum requirements/rated criteria – the following may be included as either community engagement minimum requirements or community engagement rated criteria. References to local municipality or First Nation mean the local jurisdiction where the project and connection line is proposed to be located. If the project or connection line crosses jurisdictional boundaries, community engagement evidence would be required from all jurisdictions. For clarity, community engagement requirements would apply to both the project site and the connection line.

1. An initial proposed community engagement plan for the overall development process provided to the local municipality/Aboriginal community
2. At least one meeting held with officials from the local municipality
3. At least one public community meeting held (following similar meeting notification procedures as found in environmental approval guidelines), and a **meeting summary report provided to the local municipality**
4. **Individual meetings held with all adjacent private land owners and residents**
5. **Local municipality council support resolution**
6. **First Nation band council support resolution (for lands/property over which First Nations have control, i.e., possibly similar to the definition of First Nation Land found in the FIT 3 program)**
7. **Métis community support resolution (for lands/property over which Métis communities have control, i.e., possibly similar to the definition of Métis Land found in the FIT 3 program)**
8. **Binding community benefit agreement with local municipality (can be conditional upon the execution of an LRP Contract, but cannot supersede other governing regulations, such as environmental approval requirements)**
9. Binding agreement for the qualified applicant to locate the project on lands agreed to with the local municipality or on reserve lands agreed to with the First Nation (can be conditional upon the execution of an LRP contract, but cannot supersede other governing regulations, such as **environmental approval requirements or the Provincial Policy Statement, 2014**)
10. Binding agreement for the qualified applicant to follow a development process or implement **project impact mitigation measures agreed to with the local municipality (can be conditional upon the execution of an LRP contract, and must be in addition to the requirements of other governing regulations, such as environmental approval requirements)**
11. **Letters of support from all non-Crown land owners adjacent to the project site**
12. Collaborative/land pooling lease arrangement for entire project area and on **private land portions of the connection line**

APPENDIX C

AN OVERVIEW OF JULY 2015 STATISTICS ON OUR POORLY MANAGED ELECTRICITY SECTOR

ELECTRICITY AND MANUFACTURING FOR TEMISKAMING SHORES AND AREA

Ontario is cursed with probably the most complex electricity system in the world even though 80% of our electricity is generated by nuclear and hydro. Both of those generation sources produce power at an average of about 6-7 cents per kilowatt hour (kWh), yet Ontario's delivered electricity prices are among the highest in North America.

Why? Most of the reasons relate to the Global Adjustment Mechanism (The GA was originally established to capture the difference between the contracted rates for power and the actual market value given via the hourly Ontario electricity price (HOEP) but has become the dumping ground for anything that doesn't fit elsewhere) which has increased every year since its creation in 2005. The GA absorbs a plethora of ratepayer costs that are billed out via the "electricity" line on our bill.

In the first six months of the current year, the GA accumulation is \$4.6 billion versus only \$2.2 billion in the comparable six month-period of 2014. Taxpayers Here are some of the reasons for the increasing cost of electricity to Ontario's ratepayers. Note that many have nothing to do with generating electricity.

Some current ratepayer costs:

1. Moving two gas plants (Oakville and Mississauga) at a cost of \$1.1 billion
2. Smart meters costing \$2 billion to enable time of use (TOU) billing with no benefit
3. The shift in costs (estimated at \$422 million for 2012 by the C.D. Howe Institute) from Class A ratepayers to residential and small commercial enterprises
4. Cost overruns on the Niagara tunnel ("Big Becky") of \$500 million
5. Supporting the employee pensions of Hydro One and OPG pensions by contributing \$4. for every \$1 contributed by the employees **NB 2:**
6. The \$200 million cost of Hydro One's messed up billing system
7. The costs for the 1.2 million letters and postage (\$600K) for the CEO of Hydro One to apologize to their rate paying customers for messing up their billing system
8. The \$120 million annual cost of the Northern Industrial Electricity Rate Program to reduce electricity rates by 2 cents/kWh for industry in Northern Ontario
9. The \$35-40 million annual cost of the Northern Ontario Energy Credit to assist single and family households with their electricity bills
10. The \$2.6 billion it cost for the Lower Mattagami run of river project to principally produce expensive hydro electric power in the Spring when Ontario's demand is at its lowest level
11. The Low-income Energy Assistance Program with an annual cost of \$4 million to assist households living in Energy Poverty **NB: 2**
12. The annual costs (currently estimated at \$40 million annually) associated with the development of a "smart grid" (smart grid entity charge) estimated in 2010 to cost \$1.5 billion
13. The costs of the Net Revenue Requirement (NRR) for gas plants estimated to be a minimum of \$650 million annually for them to sit idling so they can back up wind and solar generation
14. The annual costs of \$30 million for the recovery of OPG's expenses related to the conversion of one unit of Thunder Bay to biomass from coal
15. The \$170 million costs of converting Atitokan from a coal generation unit to biomass together with the annual operating