From: Puco ContactOPSB
To: Puco Docketing

Subject: public comment for 16-1871-EL-BGN

Date: Thursday, September 28, 2017 10:09:11 AM

Attachments: cover letter to Secretary Ross Wilbur.pdf

letter to NAM OPSB FINAL 2 NA-PAW March 29.pdf

image001.png image002.png

Please add the email below and attachments to the public comments in 16-1871-EL-BGN. Thanks.

**From:** Sherri Lange [mailto:kodaisl@rogers.com] **Sent:** Thursday, September 28, 2017 9:55 AM

**To:** Puco ContactOPSB <contactopsb@puco.ohio.gov>; Roak Parker

cticebreaker@ee.doe.gov>; Roak.Parker@ee.doe.gov

**Cc:** Liz Hartman < liz.hartman@ee.doe.gov>; Haque, Asim < Asim.Haque@puco.ohio.gov>; rep30@ohiohouse.gov; Joseph W. LRB Krawczyk < joseph.w.krawczyk@usace.army.mil>; kimberly1kaufman@gmail.com; Kenn Kaufman < kenn.kaufman@gmail.com>; the.secretary@hq.doe.gov; Michael Hutchins < mhutchins@abcbirds.org>

**Subject:** Kindly add this to the LEEDCo files.

# Good morning, Matt, and Mr. Parker,

Kindly add this as our partial comments, more to come, to the file for the LEEDCo demonstration project. Please also add the letters attached.

We have been going through the <u>USACE's profile of the EA for the LEEDCo project.</u>

Could you firstly, please send us to the link for the MOU's? Were these signed by the DNR, two officers, or approved formally also by the DNR from some other process? As we wish to communicate directly with those who have signed the MOUs, we would appreciate knowing their names and or contact info.

The Applicant has entered into two Memoranda of Understanding ("MOU") with the ODNR setting forth agreement on monitoring protocols for aquatic resources and fisheries, as well as for birds and bats, pre-, during, and post-construction to ensure that the project has no significant adverse impact on these fish and wildlife resources. These MOUs were submitted to the Ohio Power Siting Board in support of the Applicant's permit application on July 20, 2017.

I confess that portions that I have been perusing appear to be a very shallow cut. I would say, shockingly insufficient in research, even we would say, misleading, and it reads more as an apology for the project, a promotional piece.

Only speaking of six bird species? There are hundreds of species using that corner of the shores. ("On a single aerial survey done on November 16 of this year, 201,016 water birds were counted, including ducks, geese, swans, cormorants and eagles, all within the offshore waters of western Lake Erie."

Bats are actually attracted TO tall structures, on or off shore, as possible roosting places, nesting, after birthing. This is well known.

Birds | Lake Erie Waterkeeper

It is known that bats are losing ground at a critical rate, and that the first cause now known to impact mortality, is wind turbines, not white nose. So the assumption, as the authors say, that the impacts will be "negligible or minimal," is again quite incorrect.

## From the <u>Swedish analysis</u> of bat activity:

These methods resulted in a total of 12 354 observations of bats, 3 830 over the sea and 8 524 on land. Bats fly over the sea in winds up to about 10 m/s, a major part of the activity took place at wind speeds less than 5 m/s. Bats

of 10 species were observed on the open sea and all of them were foraging at suitable weather conditions, which means calm weather or light breeze. The bats did not avoid the turbines. On the contrary they stayed for shorter or longer periods hunting close to the windmills because of the accumulation of flying insects. Hunting close to the blades was observed, why the risk of colliding might be comparable to land-based turbines. Bats also used wind turbines for resting. Insects were collected at places and times when bats were observed feeding. Chironomids were dominating, but we also found many other flying species of other insect groups. Insects, but probably also crustaceans, were caught by bats in the water surface. Some terrestrial species occurred among the insects and spiders that were drifting in the air. At times we suppose that their origin was in the Baltic Republics or Russia. It was earlier completely unknown that many bat species, migratory and nonmigratory, regularly use this food resource on the open sea far from the coasts in the late summer and early autumn.

Other egregious misrepresentations in the USACE

### document:

On page 33, the document states that reductions in harmful emissions would be achieved by this LEEDCo project. This is completely false. There will be net zero improvement, and even from this smallish project, there will be harm added: more backup will be required, reliable and safe and secure. Windy as Lake Erie may be, we will need backup. **100% of the time.** 

<u>It is well noted internationally</u>, that emissions **rise** with the production, transportation, environmental degradation, and employment of wind turbine installations.



I am also deeply concerned that we cannot locate any vibrational studies, studies of impacts, because we know in many parts of the world, that the drilling, and operation, of wind turbines, causes impacts on water purity. Eight or nine wells are now contaminated in Chatham Kent, Ontario, wells that were historically pure for 30 years upwards. There seem to be slight references to moving sediment to the top of the MB after drilling, pumping and such with the cables as well. But where are the studies showing this will be safe for the drinking water of about 11 million users in Ohio?





# Mayor asks province for action on water well issue

Chatham-Kent Mayor Randy Hope today sent a letter to Ontario Minister of Environment and Climate Control (MOECC)...

In Scotland, large areas, pristine areas, are being contaminated.

"The problem first came to light when residents living near Europe's largest wind farm, the 215 turbine Whitelee farm in Ayrshire, began to suffer from diarrhoea and severe vomiting. Tipped off by an NHS report which mentioned that difficulties in treating the water supply may pose health risks, local resident Dr Rachel Connor, a retired clinical radiologist, started digging into the council's water testing results.

She found that, between May 2010 and April 2013, high readings of E.coli and other coliform bacteria had been recorded. In addition, readings of the chemical trihalomethane (THM), linked to various cancers, still births and miscarriages, were way beyond safe limits.

Scottish Power, who run the wind farm, denied causing the pollution but admitted that they hadn't warned residents that their water supplies may be contaminated."

We sincerely hope that you and the officers of the OPSB will carefully examine the flaws and omissions in this USACE promotional piece. We also hope LEEDCo and Fred Olsen of Norway, will advise its purchasers of power, that there could be, or likely will be, water contamination issues with the project's development. Additionally, the Vestas 3.45 MW are direct drive, and require constant replenishment of oils and lubricants. Some of these larger machines, require up to 800 gallons each. (Automatic pressure supply systems for grease and lubricants, gear boxes and bearings.)

Where is the information for the public about how much total oil, lubricants and grease will eventually be consumed, used, and dispersed into Lake Erie? Where is the decommissioning plan? Turbines only last 12-15 years before being compromised, or damaged, aging issues, etc., not the 20-25 as the industry purports. This LEEDCo is a demonstration project: demonstrating obsolescence, and waste. It has been pointed out to us that perhaps this project, begun under President Obama, should be immediately terminated, as

it clearly does not fit with the current President's plan for energy fairness, logic, and eliminating waste.

**One more question: where is the cost benefit analysis?** Forty million advanced so far, or partially, with the rest promised for benchmark performances, for six turbines, with double or triple promised? To our mind, not a great investment.

And the supply chain economics, purported to help create jobs in Ohio, often touted in the news, appear to be mythological in nature: Block Island's turbines are manufactured in Norway and Spain, predominately, with GE and other producers of parts often outsourcing production at again, offshore locations.

Please explain to us how this project will aid the Taxpayers, the US Economy, and the Environment?

Thank you,

Sincerely,

Sherri

Sherri Lange
CEO, NA-PAW, North American Platform Against Wind Power
Executive Director, Canada, Great Lakes Wind Truth
VP Canada, Save the Eagles International
Founding Member Toronto Wind Action
Founding Member Ontario Wind Action
416-567-5115**Error! Filename not specified.**kodaisl@rogers.com
www.na-paw.org

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### March 30, 2017

**Secretary Ross Wilbur** 

TheSec@doc.gov

C.c. jeannine.aversa@bea.gov
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#### DELIVERED BY EMAIL

## Dear Secretary Wilbur,

Congratulations on your appointment by Vice President, Pence.

We represent 370 plus groups in North America and work with and represent millions. We liaise with European and world groups, likely about 5,000, daily, for up to date information about the impacts of industrial wind. Unfortunately, as our letter outlines, the impacts world wide have proven disastrous for commerce and industry, and manufacturing. We have also hard copied this letter to the President, today. You will note it has also been directed as a copy to Mr. Rick Perry, Secretary of the DOE.

We are enclosing a letter of yesterday's date, outlining our request for a National Moratorium on industrial wind, and specifically asking you to protect 20% of the world's remaining fresh water, the Great Lakes, shared by the US and Canada with great pride.

There is a heinous project being developed by LEEDCo and Fred Olsen Renewables of Scandinavia, to place 6 massive turbines offshore of Cleveland, and there is widespread universal and world condemnation of this project. Please join us to protect these waters. Ontario Canada has had an offshore moratorium since 2011. Ideally, we are asking the President to protect more: a moratorium nationally, until such time as an independent cost/benefit analysis



has been undertaken, and until the environmental impacts are more fully understood, again, with **independent** overseers of any surveys or studies. The issue that may be of interest to your authority, is the devastation to the issue of jobs, net and long lasting jobs. The Wind Industry purports to offer clean and safe and job producing energy facilities; however, the facts are quite otherwise. Please read our letter.

The letter is to the NAM (National Association of Manufacturing), and conveys the negative world impacts, manufacturing and economic in general, via industrial wind.

Thank you for your receipt and consideration of these comments. We would appreciate your acknowledgement of receipt of this letter.

With best wishes and deep respect,

Sherri Lange

Sherri Lange CEO North American Platform Against Wind Power kodaisl@rogers.com 416 567 5115 www.na-paw.org

# Resources

http://www.nam.org/newsroom/facts-about-manufacturing/

http://www.nam.org/Data-and-Reports/Reports/Natural-Gas-Study/Energizing-Manufacturing/

http://www.nam.org/Data-and-Reports/Reports/Economic-Outcomes-of-a-U-S--Carbon-Tax/





http://www.nam.org/Data-and-Reports/Facts-About-Manufacturing/Jobs-for-America---Investments-and-Policies-for-Economic-Growth-and-Competitiveness-(Full-Report)/

http://www.huffingtonpost.com/mike-elk/ge-promotes-manufacturing\_b\_241944.html

GE Promotes Manufacturing Jobs in US, Then Ships 'em Overseas

(The author pleads to keep wind and solar manufacturing in the US, with faulty assumptions about other benefits of wind and solar. However, the main point is that GE and others are notorious for speaking and walking in different directions.)

## GE Promotes Manufacturing Jobs in US, Then Ships 'em Overseas

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2013/08/29/wind-farms-produce-enough-for-a-few-cups-of-tea/}$ 

http://www.cbn.com/cbnnews/finance/2011/november/spains-green-disaster-a-lesson-for-america/?mobile=false

https://stopthesethings.com/2014/04/22/wind-power-costs-send-germans-back-to-the-stone-age/

http://www.spiegel.de/international/germany/medium-sized-german-companies-criticize-energy-tax-breaks-for-industry-a-863430.html

https://stopthesethings.com/2016/03/26/germans-face-wind-powered-economic-nightmare-ebillions-squandered-on-subsidies-as-co2-emissions-rise/

 $\underline{http://www.economist.com/news/business/21564893-medium-sized-firms-are-unsung-heroes-america\%E2\%80\%99s-economy}$ 

https://www.usnews.com/news/blogs/data-mine/2014/12/11/outsourcing-to-china-cost-us-32-million-jobs-since-2001

http://money.cnn.com/2016/03/29/news/economy/us-manufacturing-jobs/

 $\underline{http://business.financialpost.com/fp-comment/terence-corcoran-ontarios-huge-green-energy-about-face-shows-renewables-arent-so-doable-after-all}$ 

 $\frac{http://business.financialpost.com/fp-comment/lawrence-solomon-ontario-is-headed-for-a-fatal-future-and-only-ending-the-renewable-deals-can-prevent-it}{}$ 

https://co2insanity.com/2011/06/12/broken-wind-turbine-blades-create-mountainous-waste-problem/

http://instituteforenergyresearch.org/analysis/big-winds-dirty-little-secret-rare-earth-minerals/

https://www.todaytonightadelaide.com.au/stories/poison-wind

http://www.telegraph.co.uk/news/earth/energy/windpower/9889882/Wind-farms-will-create-more-carbon-dioxide-say-scientists.html

http://www.chathamdailynews.ca/2016/07/15/we-want-the-water-sampled-ontario-ground-water-association

 $\frac{http://midwestenergynews.com/2016/07/26/restrictive-new-law-will-harm-polands-wind-industry-advocates-say/}{}$ 



 $\frac{https://stop the sethings.com/2015/10/29/britains-economic-nightmare-unfolds-wind-power-costs-killing-thousands-of-real-jobs/$ 

https://mothersagainstwindturbines.com/2014/09/07/wind-turbines-increase-the-amount-of-co2-being-produced-to-make-electricity/

 $\frac{http://greatlakeswindtruth.org/cleveland-leedco/letters-to-the-doe-and-opsb-re-leedco/napaw-writes-to-the-doe-opsb-and-usace-re-icebreaker/$ 

 $\frac{https://www.forbes.com/sites/christopherhelman/2016/04/20/is-americas-first-offshore-wind-farm-a-real-revolution-or-just-another-green-boondoggle/\#3a0b6b793a21}{}$ 

 $\frac{http://instituteforenergyresearch.org/wp-content/uploads/2014/11/The-Case-Against-the-PTC-Nov-2014.pdf}{}$ 

http://dailycaller.com/2016/07/10/germany-votes-to-abandon-most-green-energy-subsidies/

http://www.washingtontimes.com/news/2017/mar/28/paris-climate-agreement-should-be-nixed/

http://www.thegwpf.com/germanys-green-party-booted-out-of-govt-in-state-election/

https://www.masterresource.org/canadian-wind-issues/letter-to-auditor-general-for-ontario-from-north-american-platform-against-windpower/

http://www.torontosun.com/2015/08/12/ontario-taxpayers-spend-200-million-on-exported-electricity-in-june

http://www.theenergycollective.com/willem-post/169521/wind-turbine-energy-capacity-less-estimated

 $\underline{http://www.breitbart.com/big-government/2017/02/26/study-wind-turbines-make-endangered-species-\underline{bats-go-extinct/}}$ 

https://www.cleveland.com/business/index.ssf/2016/05/cleveland\_wind\_project\_awarded.html

http://www.cleveland.com/business/index.ssf/2017/02/leedcos six-turbine lake wind.html





March 29, 2017

President and CEO, NAM, National Association of Manufacturing, Jay Timmons

C.c. Andrea Defelice, Officer Assistant to CEO Timmons, NAM <a href="mailto:adefelice@nam.org">adefelice@nam.org</a>

We kindly request distribution to the Board and Executive; please confirm

Ross Eisenberg VP Energy and Resources Policy, NAM reisenberg@nam.org

C.c. Greg Bertelsen Senior Director, Energy and Resources Policy, NAM gbertelsen@nam.org

C.c. Rachel Jones Director, Energy and Resources, NAM rjones@nam.org

National Association of Manufacturing (NAM) 733 10th Street NW, Suite 700 Washington, DC 20001

Fax 202-637-3182

## **ALSO TO:**

Ohio Power Siting Board, LEEDCo Icebreaker Project, Case No. 13-2033-EL-BGN and 16-1871-EL-BGN Icebreaker Windpower

Mr. Matt Butler

contactOPSB@puc.state.oh.us

(Mr. Butler, kindly distribute to Chair, Commissioners and Board)

Asim Z. Haque, Chairman, OPSB

asim.haque@puc.state.oh.us



180 East Broad Street Columbus, Ohio 43215

C.c. Rick Perry, Secretary of Energy
The.Secretary@hq.doe.gov
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

C.c. Interested parties

#### DELIVERED ELECTRONICALLY AND BY HARD COPY

# Dear NAM CEO Mr. Timmons, NAM VP Energy and Resources Policy, Mr. Eisenberg, Chair of OPSB, Mr. Haque, and OPSB Officer, Mr. Matt Butler,

We are writing to respectfully ask that you consider our comments and information in this letter as constructive to your policies around "renewables" and sustainability, and hopefully the comments may at some point positively mitigate the regulatory capture we have all until now experienced with industrial wind and all of its environmental and human health costs, and also on the cost of power, the cost of "doing business." The North American Platform Against Wind Power is a collection of researchers, experts and writers, concerned consumers, who continuously reflect on the negative impacts of industrial wind everywhere. We have a commitment to bring up to date information to our membership and the public, and to those with authority to effect energy policy. We number about 370 groups, and several million persons. Our platform liaises daily with Europe and all other sister platforms and groups, experts, who are involved deeply in the dissection of a now widely recognized as chaotic, rent seeking system.

As the NAM (National Association of Manufacturing) has already noted, the Obama years have not been kind to manufacturing: and as is already well known, the cost of power in manufacturing can range between 10 to 30% of total manufacturing costs and even higher in some primary industries such as steel making. Increases in the cost of power have an alarming amplified effect in determining the price of goods. For example, in the case of steel making, this cost must be passed on to their customers who are the stamping and roll-forming manufacturers, who in turn must pass this on to the product manufacturers, who in turn have to pass this on to wholesalers, who in turn have to pass this on to the retailers and ultimately which are passed on and absorbed by consumers, often making business prohibitive. Many of these manufacturers have financing in place in order to provide working capital to operate their businesses and in

Page 3

many cases, have margin percentage covenants that they must maintain. This covenant maintenance forces each of these manufacturers to further markup their pricing over and above the increase that they have received amplifying the harmful effects of power pricing increases. Considering the added multiple effect of a cost of power increase to each level of the manufacturing chain, you render manufacturing in North America uncompetitive. (This information was provided to NA-PAW by Michael Spencley, CEO of Power One Solutions Inc., a manufacturer of energy efficiency products.)

The NAM writes in its Affordable Energy Campaign:

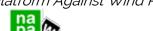
Energy and natural resources are the lifeblood of manufacturing. Manufacturers need adequate, secure and affordable energy and raw materials to compete in the global marketplace

The NAM Senior Director of Energy and Resources Policy, Greg Bertelsen, further indicates that

"Manufacturers are leading the way in minimizing environmental footprints, reducing emissions, conserving critical resources, protecting biodiversity, limiting waste and providing safe products and solutions so others in the economy can do the same. At the same time, we are providing good-paying, high-quality and safe jobs that allow for a high standard of living and build strong communities. Manufacturers have a great sustainability story to tell, and we are excited to help share it."

The NAM promotes policies for manufacturing that are logical and reasonable with clear steps for conserving, protecting, limiting waste and providing solutions. In this statement, there is also clarity about high quality, good-paying and safe jobs...and building communities.

It is the sad reality that industrial wind has no such clear and positive path. The promises of domestic, long term and efficient jobs from building out wind, are hollow. This is one of the five BIG promises (clean, green, safe, free, jobs) that are "fake news." In fact, the costs of electricity and *attendant job losses* are disastrous when pinned to wind power (an oxymoron). The world is presently dismantling these rather fantastical ideas, many experts, for some time. Rolling back to the ultimate question, we ask: How much does wind even produce world wide: Net zero in 2014 (some will say 3%, and the <u>US Energy Information Administration, uses 10%</u>). Breaking it down to wind's participation is tricky business. Likely most now agree, the result for wind's general ability to contribute world wide, several years' with various reporting, is under 1%. (Solar is faring little better: less than 1% in the first half of 2016, US.) There are also parasitic costs to factor, which no one to date, in our view, has efficiently been able to detangle from other sources of energy entering the grid. Wind turbines must always be heated and cooled, articulate, and consume we don't know how much, reliable base load power to do this. Some in the UK suggest that a project may eventually provide enough electricity to heat a few pots of tea.



Interesting research on Capacity Factor and the wind's variability can be found <u>here.</u> As one example of problems with wind, Willem Post explains:

Sometimes California wind speeds suddenly decrease to near zero, or a cloud bank passes over solar arrays in the desert. The result is a rapid decrease in wind or solar energy that could cause instabilities and blackouts in the grid.

To prevent such instabilities and blackouts, quick-ramping OCGTs are kept in synchronous spinning mode (3,600 rpm), i.e., consuming fuel at about 6 to 8 percent of consumption at rated output, but not sending energy to the grid, to instantly make up for the missing energy.

The net result of the deeply variable, unpredictable, highly-subsidized wind industry: net LOSSES of jobs, manufacturing jobs especially. Here is a snapshot of the disastrous impact of wind and solar subsidies on manufacturing and jobs.

# Spain:

The ugly lessons learned about wind power and job losses in Spain are called, "Colossal."

While President Obama was telling America to "get on board" with renewables, the accidental lessons of Europe were clearly not being observed. The Spanish spent billions, only to get an unemployment rate of 22%, and a "Solyndra style business debacle."

What Spain achieved with its aggressive foray into wind and solar, was a massive "job rinsing." Dr Gabriel Calzada Alvarez with King Juan Carlos University in Madrid, found (at a cost of about \$15 billion per year), "each green job created in Spain cost Spanish taxpayers \$770,000." With heady numbers to reach the ears of even the most eco devoted, the cost of each wind industry job: \$1.3 million to create. And on the backs of the high costs, an exodus of real, long term, meaningful employment.

"Dr. Gabriel Calzada released his paper on the situation in Spain and testified before Congress. He found that Spain's "green jobs" agenda resulted in job losses elsewhere in the country's economy. For each "green" megawatt installed, 5.28 jobs on average were lost in the Spanish economy; for each megawatt of wind energy installed, 4.27 jobs were lost; and for each megawatt of solar installed, 12.7 jobs were lost. Although solar energy may appear to employ many workers in the plant's construction, in reality it consumes a large amount of capital that

would have created many more jobs in other parts of the economy. **The study also found that 9 out of 10 jobs in the renewable industry were temporary**." (Bold is our emphasis)

Italy lost 5.4 jobs, and the UK, 4 for every so called "green" job. Another writer explaining the job drain in the UK says: "Make no mistake, with its 50% Renewable Energy Target, Labor is determined to kill mining, manufacturing, and industry, stone dead." (October, 2015) In lock step with the massive European donations to "green," Obama's 2007 stimulus plan for green jobs: \$70 Billion.

# Germany:

It is safe to say that now in Germany, electricity is a "luxury" item. The Energy Revolution is now referred to variously as: disastrous, calamitous, dangerous, regressive, a job killer. It has recently voted to abandon most of its "green" subsidies. It also admits that the green energy revolution has not slowed CO2, nor done anything at all to help "global warming." (Please note that "global warming" is now generally called "weather", and that this additional "fake news" story as it relates to wind (and solar) proliferation, has done much to harm global economic balance and vitality.)

While "Former Environment Minister Jürgen Tritten of the Green Party once claimed that switching Germany to renewable energy wasn't going to cost citizens more than one scoop of ice cream, Today his successor Altmaier admits consumers are paying enough to "eat everything on the ice cream menu."" The reality of the escalation of the cost of electricity: people cutting down trees in sacred forests to heat, or being variously disconnected, 600,000 to 800,000 per year, with dire consequences for health.

Merkel's rush to wind continues to have repercussions on grid instability, and the cost of manufacturing:

"A survey of members of the Association of German Industrial Energy Companies (VIK) revealed that the number of short interruptions to the German electricity grid has grown by 29 percent in the past three years. Over the same time period, the number of service failures has grown 31 percent, and almost half of those failures have led to production stoppages. Damages have ranged between &10,000 and hundreds of thousands of euros, according to company information."

. . . . .

"Even August Wagner, head of a textile firm with roughly 180 employees in Bavaria, is taking precautions against feared power interruptions. A stop in production would be catastrophic for







him. "When we dye our materials, there are thousands of meters in the dye factory," he said. "If the power goes out, all of the goods are lost, and we have huge losses."

In an article titled, <u>Germany: "Green Jobs do not always make "Good Jobs</u>," the author, Charlotte Noblet, analyses the shift in jobs from one sector to another, with the overall conclusion that temp jobs, and the instability of the political climate with respect to changing gears in the "green" energy revolution, are not always "good jobs." ENERCON is one of the leading wind turbine sector producers, employing about 13,000 people.

"You generally have to start off as a temp for a year and then work under successive one-year fixed-term contracts for the next two years before being able to hope for a permanent contract," says Gerald Lindner, chairman of the WC set up in August 2014 at an ENERCON production facility in Magdeburg.

"And the management does everything in its power to intimidate you!"

Sector by sector, hidden in the hypnotic gloss of a "green" propaganda machine, the pieces of energy chaos emerge: one farmer now grows "sunshine," but admits that his highly-subsidized farm with solar arrays, topping up his comparatively meagre crop of asparagus, is not good for the economy in general.

<u>Medium sized manufacturing</u> is getting whacked, and resentful. Norsk Hydro may get tax benefits and preferred perks, but not so medium sized manufacturing. The *Mittelstand*, the term used to describe middle sized companies, although a "very significant portion of the German economy, don't qualify for these generous exemptions." Some say, they are being "played for the fool."

Comparative to the German Mittelstand, is the American "Mighty Middle," the small to midsized companies that are truly the engine of growth. The US has about 197,000 medium sized companies, with annual revenues between 10 and \$1 billion. According to the Economist in 2012, these companies survived economic downturns mostly, and actually increased employment by 3.8%, "compared with growth of 2.5% by small firms and 0.8% by big business." No one knows the value of middle and small sized business more than the NAM. Imagine then, the increased cost of power to those companies, which employ about 40 million people, or "one third of the private sector GDP." As noted, average estimates are that the cost of electricity to its bottom line, can be up to 30% or amplified even more down the line of manufacturing. Add onto this, regulatory pressures, brought heavily to bear on manufacturing, of meeting Renewable Energy Standards. Some of these mandated RES's are increased pressure points for business and consumers, while experts underscore that wind (and solar) are costly, and negligible contributors to overall electrical needs. More than likely, all points considered, birth to decommissioning, wind turbines are a net drain. The economic pressures brought to mid and small sized manufacturing, is intensified exponentially.



Additional to the actual cost of manufacturing, the power of outsourcing to weaken this sector cannot be overemphasized. Some parts are manufactured in China, or DK, for example, and assembled variously, and finally at the site of the energy facility. Parts may eventually arrive from as many as 8 to 20 locations. Producer Vestas operates in and sells to 73 countries. German producer Enercon, forecast several years ago, that it would aim to export total deliveries of 50-70%. While you may argue that this is a feature of modern business models, horizontal production, it is most certainly an advantageous position for the manufacturers of wind turbine components. These producers can fulfil orders worldwide, large firms merging with each other for bulk and heft in the marketplace, and yet provide products that might not be in assembled mode, the most perfectly blended with other internationally produced components, or with faults to be discerned at later, and often with tragic consequences. (Vestas and Gamesa four years ago reported a blade component failure on their 660kW turbines. Says one interior analyst: "My company have (sic) been inspecting a number of these turbines with respect to this problem. The result we have gathered place the percentage of turbines affected at well in excess of the 20% figure.")

What is clear, is that turbine manufacture is largely NOT providing local employment, save for temporary part time construction jobs, and perhaps a few, very few permanent jobs, and that economic advantage to the industry is located elsewhere. As we have learned from Denmark, mother and host of turbine factory birthing world wide, the prime source of economic gain is exports. Wind turbine production promotions, while touting local long term good jobs, do not materialize.

GE CEO, Jeffrey Immelt, speaking in Detroit, surprised his audience, indicating that GE would be changing from foreign outsourcing to rebuilding local manufacturing to reduce national debt and build the economy. However, looking more closely, we see that at the "same time (GE was) shipping manufacturing jobs overseas by canceling an order with an American-based wind turbine maker, ATI Casting Service in LaPorte, Ind., so that GE could instead buy the parts from a factory in China." The pattern of wind turbine outsourcing and exporting is unlikely to be politely relinquished by larger Spanish and Danish and German building interests, some of whom are now in the act of consolidating.

Think GE: Think Light Bulbs. Think also, Cleveland. Think also, in the last ten years, the closing of 15 factories in Ohio, and downsizing of others. Employment at GE lighting is down 68%, a large part having gone to China. "....and now GE plans to send even more to China in the wake of new clean energy policies. By 2014, Americans will only be able to purchase more energy efficient CFL light bulbs. However, GE has located all of its facilities for high-efficiency light bulbs to China and has told the union representing the workers that they have no intention to locate compact fluorescent facilities in the United States." (Italics, our emphasis)

## Ontario, Canada:

If there could be a poster child for manufacturing job losses, waste of a mythical scale, and regulatory capture at its finest, that location might be Ontario, Canada.



Ontario now with a debt load excelling that of any State or Province in North America, twice the debt load of California, has negatively captured environmental laws, captured municipal law, and captured the pocket book of every living person who pays a hydro bill or purchases goods, with escalated super subsidy, FEED IN TARIFF regimes. Don't try to complain: there is no law to protect you, your family, your farm, your community. The FIT program is apparently designed to give preferred access to the grid for wind and solar producers, guaranteed profits, whether the wind is blowing or not, and provide enrichment to developers who appear to be granted favor by the Premier, in the landscape of preferred "renewables" under the "Green Energy Act." (This legislation is now widely termed, "back breaking.") Ontario's legislation is not dissimilar to other world efforts and policies to streamline green energy, using the aim of diluting the negative impacts of fossil fuels, (welcome the continued demonizing of coal); but somehow in Ontario, the waste is so egregious that one immediately thinks, "poster child." Could not be another jurisdiction of this level of "capture", grabbing profits from consumers' hydro bills. Taking candy from babies, on energy bills, as well as trickled down, every single consumed good, as in Germany, prohibitive and punitive.

At the same time, electrical needs in Ontario have dropped by 6.5 per cent, mostly as we all know, due to the shrinking and sinking manufacturing sector (recall the high cost of power, now climbing still), while "installed capacity soared by more than 25 per cent, mostly a function of the government's expensive wind and solar schemes." Energy Guru and author, journalist, Lawrence Solomon writes that Ontario's energy mess must come to an end, and ending "renewables" is the only way to do this. The future is "fatal" unless this turnaround occurs. Ontario has lost about 300,000 jobs in 8 or 9 years, mostly due to the high cost of power, manufacturing hit the hardest.

#### Lawrence Solomon:

Ontario was once the engine of the Canadian economy, a Triple-A-rated powerhouse commanding more than 40 per cent of the country's GDP. Today this once-proud place is a havenot province whose credit rating is near the bottom of the pack, a loser that collects subsidies from the rest of the country.

Ontario lost its lustrous Triple-A credit rating when Ontario Hydro went out of control, ending the province's low-price advantage, making industry uncompetitive and sinking the province in a morass of debt.

Ontario's credit rating then continued to sink, in tandem with continuing boundoggles in the energy sector that now leave Ontario the world's most indebted sub-national jurisdiction. According to a 2012 MacDonald-Laurier Institute study by Marc Joffe, a former senior director at Moody's Analytics, the province's likelihood of defaulting over the next two decades is 43 per cent.

This is the "Mighty Middle" crippled; we would say, amputated. There are many other manufacturing impacts and failures we might outline and those in the rush to renewables have seen it all. Sadly,



industrial wind's failures are also documented in the lives of people who abandon toxic farms, homes, lose jobs, and suffer the "pocketing" of their community vibrancy and cohesiveness as well.

# SNAP SHOT OF NOT CLEAN, NOT GREEN, NOT FREE, NOT SAFE

Industrial wind is not clean, not "green." Turbine parts, about 800 per turbine, plus coatings, resins, plastics, carbon fibre, aluminum, tubular steel, concrete, rare earth elements, pitch drives, hydraulic parking brakes, the list goes on, come from around the world, manufactured using fossil fuels, transported with fossil fuels, containing lubricants and oil, up to 600 or 1000 gallons of oil and lubricants, which need to be replenished. Remember, they are large electrically charged machines, sitting high up, sometimes 40 stories now, sunk into a nacelle, weighing up to 56 tons for a 1.5 MW GE turbine. Also in this model, the "blade assembly weighs more than 36 tons," and the tower itself weighs about 71 tons — a total weight of 164 tons."

The blades are carbon fiber, non-recyclable. Please see the evidence of mounting piles of industrial eco junk world wide, that no one knows what to do with. Experts and observers warn, "As the wind becomes a central part of energy supply, a huge waste problem is growing with similar speed."

The magnets in the gear boxes contain highly toxic rare earth elements, mined in China, where the <u>environmental pollution</u> is a hell of its own; toxic lakes and radioactive landscapes. The dependence of industrial wind on neodymium and dysprosium, and the accelerated demand for these, is growing daily, while, as the Daily Mail says: "The more wind turbines pop up in America, the more people in China are likely to suffer due to China's policies. Or.... every turbine we erect contributes to "a vast man-made lake of poison in northern China."

Wind turbines always need reliable backup from so called base load sources: gas, nuclear, hydro, coal, yes, coal, and do not reduce CO2, which also has been demonized, as CO2 is not a pollutant. Despite this lack of factual background, the reduction in CO2 has not abated, despite the turbine industry predictions. As backup is always required, even more GHGs and CO2 is the state of affairs. Others ask: What is the GHG and CO2 effect from the CONSTRUCTION and development and transportation, of wind turbines? This is one of the cruel "fictions," endlessly repeated. There is zero reduction, but only more. Clean air? Think again.

Environmental impacts of industrial wind are of such a magnitude, that the devastation will include complete wipeouts of certain species of birds, soon a species (or two) of bats. (<u>A recent study</u> "predicts that construction of wind turbines…threatens the existence of migratory bats in North America.")

There are no lessons in "broken eggs" to make future omelettes, as there are no omelettes, today or tomorrow, just devastation. No "tomorrow saved for our children;" just immeasurable losses to habitat, human and wildlife. For hundreds of years. See these sample sites: turbinesonfire.org, windturbinewildlifehell.org, savetheeaglesinternational.org, wind-watch.org. Lists of many North American groups opposed to the environmental and human health impacts can be found at <a href="https://www.na-paw.org">www.na-paw.org</a>.

Please see AWEA and the writing of NA-PAW's President, Eric Rosenbloom.

"Even so, why have I given thousands of hours of my life over the last several years on this cause? Because there is still much to be done to help people learn more about industrial wind. It is also an interesting issue in that it spans the political spectrum and a host of issues.

"The evidence is clear that giant wind energy facilities in rural and wild areas have serious negative impacts -- on people, wildlife, birds and bats, the landscape itself -- and the lack of significant benefit is also glaring. And so it is appalling that so many environmentalists and progressives deny these facts or their importance. I began my research simply to learn what a wind project would entail. I was not opposed to it or doubtful of its benefits in any way. I quickly saw that wind power was not all that it was presented to be. Faced with such a finding, most environmentalists and progressives who support wind instead lash out and beat the drums of denial, much to the delight of the developers eating up our last open spaces and wild lands."

## NOT FREE:

The losses, net job losses, and fragmentation of communities, really a substantial relocation of persons who can no longer subsist or live in residences, at farms, is a world level phenomenon. Health impacts, with those corollary pressures on health care systems, are also real, noted and universal. Universal gouging of the public purse is well under way, well beyond the scope of nineteenth century serial confidence trickster, <u>Gregor MacGregor</u>, who in one scheme, scams hundreds out of life savings, with devastating consequences, via sale of a territory that turned out to be raw jungle. These "turbine scammed" are not in the hundreds, but world wide in the millions or now, billions. Literally every consumer of subsidized "renewables," making toast or drying a shirt, or purchasing food, is covertly and inadvertently and often reluctantly, paying for the scam.

## **NOT SAFE:**

<u>Caithness</u> (*www.caithnesswindfarms.co.uk*) (has documented the fatal accidents, other industrial accidents, the separation of components, as developers sometimes call it, blade failure, turbine shaft failures, excluding fires, in electrifying columns of detail. Detailed UK numbers of accidents, the authors



suggest, only record about 9% of actual events. "Indeed on 11 December 2011 the <u>Daily</u> <u>Telegraph</u> reported that RenewableUK confirmed that there had been 1500 wind turbine accidents and incidents in the UK alone in the previous 5 years." Underreporting is notorious. Water contamination issues in Scotland (and mirrored in <u>Ontario reports</u>) are listed in the equally important list of site reference documents.

#### A DOCTOR blames Scotland's biggest windfarm for contaminating the public water supply.

Test results obtained by Rachel Connor over a four-year period showed high levels of potentially cancer-causing chemical trihalomethane (THM).

At one point, samples taken near her home, close to the Whitelee windfarm on Eaglesham Moor, were almost 70 per cent above the recommended UK maximum.

Impacts to human health are well noted world wide, with similar reporting of symptoms. Many call this a "pandemic." So called, "safe" <u>setbacks are noted by experts to be now at least 10 km.</u> Dr. Sarah Laurie of the Waubra Foundation, AU, additionally says:

"I caution, however, that even 10 km may not be enough to prevent adverse health effects, sleep disturbance, and progressive sensitisation, even with 3 MW wind turbines, over the lifetime of these wind power projects. We do not know and cannot guarantee that 10km will be safe for long term chronic exposure, especially for children."

# DEEPWATER WIND, Rhode Island, ICEBREAKER, Ohio, offshore upstarts, and "our" demystification

We can imagine what Representative Marci Kaptur, Ninth Congressional District, envisions: thousands of wind turbines in Lake Erie, a Saudi Arabia of wind, she calls it, and what the impacts will be on water quality, leaking lubricants and oils, vibration, impacts on avian and bat life. It is to most, completely *unimaginable*. Ironically, Representative Kaptur's favorite caption is: "Fiscal responsibility belongs in one's own back yard." The offer of jobs? Look to Block Island, the US's first offshore wind project, recently on line, Deepwater Wind: This project also has the vision, of thousands more. Developer Grybowski indicates that scaling down the project, demystifies it, and makes it "deconflicted." We suggest that on receiving multiple energy bill lifts, the public may lose its favor. The developer claims about 300 part time construction workers, others quote much reduced numbers from this, 30-60, now presumably expired, and about 11 permanent jobs, at what eventual cost, with projected final costs now at between \$400 and \$900 million. Current spending on the project is about \$300 million. Chris Helman explains:



Deepwater Wind is also free riding on Rhode Island's ratepayers, who will end up paying vastly more than market rate for their wind power. Grybowski's real accomplishment here is not the building of the wind farm, but rather that he got Rhode Islanders to pay so much for its output. Under the company's 20-year agreement with Rhode Island's regulated utility, National Grid, Deepwater Wind will receive 24.4 cents per kwh for all the power those turbines can generate. That's more than twice the wholesale price that National Grid pays for electricity now. And a lot even for New Englanders used to paying 17 cents per kwh. The average American pays 10 cents.

Many call this project a "sweetheart deal," and to us, very recognizable across many developments globally.

The Public Utilities Commission rejected it in 2009 for not being "commercially reasonable." Undaunted, Governor Carcieri and the General Assembly passed a statute that instructed the commission to take a second look and stop considering whether the project made economic sense for Rhode Island. It passed, 2-1. Rhode Island Attorney General Patrick C. Lynch was stunned. He called it an "inside deal" that would force ratepayers "to buy grossly overpriced electricity for the next 20 years to specifically guarantee one company's revenues and profits."

Often developers move more experienced construction crews around, leaving little for local employment. Christopher Helman again writes that a few local jobs at Rhode Island may be in place, but not much else. And of course, the benefits are "modest," despite a price tag eventually of around \$900 million. The title of his piece implies that America's first offshore wind is a "boondoggle."

"The islanders' <u>new price</u> for power will be on the order of 30 cents per kwh. They will save about \$2 million a year on power, displace a million gallons of diesel and eliminate about 40,000 tons a year of carbon emissions. Extremely modest benefits, given the roughly \$900 million in costs.

Another thing this project won't do much of is create jobs for Rhode Island. Sure, a few dozen laborers from Rhode Island's unions are working to install the turbines and cables, but manufacturing the pieces is an international effort. The steel bases were built in Louisiana. The towers are coming from Spain. The 240-foot-long blades from Denmark. The nacelles, which hold the gears and engines, from France. The cable from South Korea. (Our emphasis)

General Electric hopes this is just the beginning. It has long been in the onshore wind business, but entered the offshore last year via its \$11 billion acquisition of French power giant <u>Alstom's</u> power-and-grid business. "It is the beginning of a new market," says Jerome Pecresse, CEO of GE Renewable Energy."

We question here stated, "the modest benefits of carbon emissions displacements," given the short life span of turbines, <u>about 10-15 years</u> (not the 20-25 as the industry purports), and welcome the addition of the emissions cost of construction and delivery and lifetime history of consumption of oil and lubricants. We also question the use of public money, loans, guarantees, and lucrative subsidies, to create so few permanent jobs. Or we might paraphrase CEO Jerome Pecresse, GE Renewable Energy, in our own manner, "the beginning of a new phase of rent seeking and profit taking."

Can we expect European experiences, and fast emerging reversals, to color our energy policies? How can we be so slow to understand a 40 year European experience, already a seriously cautionary tale? Many countries having plunged headlong into on and offshore wind are now reversing gears: Damages to grids, to manufacturing that relies on stable supplies at a reasonable price, precipitous net job losses, are prevailing, and offshore especially, is being noted as massively **expensive.** Offshore wind, as many have learned, is a roadmap for unreliability and unaffordability. While Europe is admitting that offshore may be a hard lesson learned, the US appears to be opportunistically and aggressively pursuing it.

Spain is cutting subsidies retroactively. Denmark has advised of an onshore moratorium. Germany announces that it is abandoning its \$1.1 Trillion wind turbine program by 2019. Very recently, the German people voted: the Green Party lost every single seat in the regional legislature, in what people are calling a "crushing" defeat. Rolling blackouts this January, 2017, under a tremendously strained system, have necessitated the recommissioning of coal power plants, "just to keep the lights on." UK papers announce that the UK is simply not windy enough. Others ask repeatedly, when will wind turbine factories begin to "break even"? Poland enacts prohibitive siting laws. Universal signs of wind doldrums. Same in Bavaria. The AU Senate has high level special hearings on industrial wind, with clear and unavoidable conclusions.

The shift is here, too:

Even the U.S. government recognizes that wind power is a bad idea. The Daily Caller reports: "The U.S. Federal Energy Regulatory Commission (FERC) is currently investigating how green energy undermines the reliability of the electrical grid. FERC believe there is a 'significant risk' of electricity in the United States becoming unreliable because 'wind and solar don't offer the services the shuttered coal plants provided.'"

We are respectfully asking that the NAM join us in asking for a National Moratorium on all new and pending wind projects, on and offshore, that independent cost/benefit studies be performed immediately, and that this information be disseminated regarding the negative impacts of wind power on jobs and manufacturing, to all associates of NAM and interested, affected parties. We would be honored to assist with any materials or efforts as needed, and congratulate you on your already careful and critical thinking in these matters. Please also convey your concerns to the Secretary of the Department of Energy.



We direct your attention again to the proposed offshore project at Cleveland, clearly an accident waiting to happen, but with clear headed thinking and logical policy adoption, it will be aborted.

The LEEDCo project, (Lake Erie Energy Development Corporation), a six-turbine project proposed for off shore, Cleveland, OH, merged with Scandinavian developer Fred Olsen Renewables, now named Icebreaker Windpower, already having received \$10.3 million, has been pledged an additional \$40 million (to be delivered in three installments) from the DOE (Department of Energy). Developers and promoters tout the all too similar promotional materials: asking consumers to "take the Power Pledge," and pay more for "cleaner" power (and ironically make domestic manufacturing more uncompetitive). There is time to ensure this project does not see the light of day. Demonstration projects, or even so called mature energy generating projects, such as how GE Deepwater Wind is being promoted, are simply not viable and are utterly wasteful. We know how these stories end. It is easy enough to hear the Deepwater Block Island \$400 to \$900 million, slowly draining the pockets of the US taxpayer. The money tap for LEEDCo, or now Icebreaker Windpower, estimated to cost ultimately \$126 million or more, should be turned off immediately. Indeed, all federal money for loans, guarantees, tax breaks, PTC advantages, as described, should immediately stop everywhere. (The PTC is a massive expenditure, billions; estimated by the Senate Finance Committee re a two year extension at \$13.35 billion, to be a transfer of wealth, in reality, from the average "taxpayers directly to the wind industry and its interests and partners over ten years. For scale, that's enough to pay 124 million Americans' average monthly electricity bill for a whole month.")

We are respectfully asking the Ohio Power Siting Board (OPSB) to deny the "new" application by LEEDCo, now umbrellaed and promoted by Scandinavian Fred Olsen Renewables, for six industrial wind turbines offshore at Cleveland. We also ask the OPSB to study the negative impacts of wind projects on energy costs to industry and consumers in general, as well as the cost of this massively expensive LEEDCo project, which clearly has zero net public gain. It is not a project that can at any time, be "deconflicted," merely because of its relatively small scale. (Again, the "Icebreaker," is a well-placed descriptor: the intention is to proliferate the Lake with thousands.) We encourage the NAM to write the OPSB and express any concerns it may have about this "incubator" project in 20% of the world's remaining fresh water reserves. The cost to taxpayers, and to bottom line jobs in Ohio, will eventually prove prohibitive, the environmental damage as large as any we can imagine.

We applaud the Ohio Power Siting Board's denial of this permit's advancement in 2014. It is the same project with international pockets now as well. The failed terms of engagement for the developer on environmental grounds prescribed by the OPSB have, to our understanding, not changed. The project should be expeditiously disallowed in order that even more DOE funds are not allocated to this "boondoggle in the making." Unlike <u>Governor Donald Carcieri</u>, who was "undaunted" in forging ahead with the Block Island offshore project, let's be daunted, very daunted. As FERC indicates, wind does not offer the same "services."

We include in this letter, the list of signatories to a previous Letter of Concern addressed to the OPSB.



#### Groups who signed onto the anti-LEEDCo "Icebreaker" letter are:

Great Lakes Wind Truth; North American Platform Against Wind Power; Save the Eagles International; Save Our Skyline, Ohio; Great Lakes Sports Fishing Council (Tom Marks); Charter Boats Association of Lake Erie (Rick Unger); Jim Wiegand, Wildlife Biologist; Partnership for the Preservation of the Downeast Lakes Watershed; Protect Our Lakes; Officers of Erie County Federation of Sportsmen's Clubs and Western New York Environmental Federation; Whitley County Concerned Citizens; Laurel Mountain Preservation Association; Port Crescent Hawk Watch Ontario Regional Wind Turbine Working Group; Preserve the Wellfleet; Members of the Presque Isle Audubon Chapter in Erie, PA; Green Acres Sportsman's Club; Save Our Allegheny Ridges; Deputy Mayor Cavan Monaghan, Ontario; Deputy Mayor of Leamington, Ontario; IICCUSA (Interstate Informed Citizens Coalition USA); NO WIND ALABAMA MEMBERS; Huntington County Concerned Citizens; Manvers Wind Concerns City of Kawartha Lakes, Ontario; Auglaize Neighbors United; Members of Concerned Citizens of DeKalb County IN; Synergy Energy Inc.; Ohioans for Affordable Electricity;

Approximately 100 individuals; HMANA (Hawk Migration Association of North America) sent its own letter asking refusal of the permit).

With sincere appreciation,

Sherri Lange

Sherri Lange CEO North American Platform Against Wind Power kodaisl@rogers.com 416 567 5115 www.na-paw.org

# Resources

http://www.nam.org/newsroom/facts-about-manufacturing/

http://www.nam.org/Data-and-Reports/Reports/Natural-Gas-Study/Energizing-Manufacturing/

http://www.nam.org/Data-and-Reports/Reports/Economic-Outcomes-of-a-U-S--Carbon-Tax/



http://www.nam.org/Data-and-Reports/Facts-About-Manufacturing/Jobs-for-America---Investments-and-Policies-for-Economic-Growth-and-Competitiveness-(Full-Report)/

http://www.huffingtonpost.com/mike-elk/ge-promotes-manufacturing\_b\_241944.html

GE Promotes Manufacturing Jobs in US, Then Ships 'em Overseas

(The author pleads to keep wind and solar manufacturing in the US, with faulty assumptions about other benefits of wind and solar. However, the main point is that GE and others are notorious for speaking and walking in different directions.)

### GE Promotes Manufacturing Jobs in US, Then Ships 'em Overseas

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2013/08/29/wind-farms-produce-enough-for-a-few-cups-of-tea/}$ 

http://www.cbn.com/cbnnews/finance/2011/november/spains-green-disaster-a-lesson-for-america/?mobile=false

https://stopthesethings.com/2014/04/22/wind-power-costs-send-germans-back-to-the-stone-age/

http://www.spiegel.de/international/germany/medium-sized-german-companies-criticize-energy-tax-breaks-for-industry-a-863430.html

https://stopthesethings.com/2016/03/26/germans-face-wind-powered-economic-nightmare-ebillions-squandered-on-subsidies-as-co2-emissions-rise/

 $\underline{http://www.economist.com/news/business/21564893-medium-sized-firms-are-unsung-heroes-america\%E2\%80\%99s-economy}$ 

https://www.usnews.com/news/blogs/data-mine/2014/12/11/outsourcing-to-china-cost-us-32-million-jobs-since-2001

http://money.cnn.com/2016/03/29/news/economy/us-manufacturing-jobs/

 $\underline{http://business.financialpost.com/fp-comment/terence-corcoran-ontarios-huge-green-energy-about-face-shows-renewables-arent-so-doable-after-all}$ 

http://business.financialpost.com/fp-comment/lawrence-solomon-ontario-is-headed-for-a-fatal-future-and-only-ending-the-renewable-deals-can-prevent-it

https://co2insanity.com/2011/06/12/broken-wind-turbine-blades-create-mountainous-waste-problem/

http://instituteforenergyresearch.org/analysis/big-winds-dirty-little-secret-rare-earth-minerals/

https://www.todaytonightadelaide.com.au/stories/poison-wind

http://www.telegraph.co.uk/news/earth/energy/windpower/9889882/Wind-farms-will-create-more-carbon-dioxide-say-scientists.html

 $\underline{http://www.chathamdailynews.ca/2016/07/15/we-want-the-water-sampled-ontario-ground-water-association}$ 

http://midwestenergynews.com/2016/07/26/restrictive-new-law-will-harm-polands-wind-industry-advocates-say/



 $\frac{https://stop the sethings.com/2015/10/29/britains-economic-nightmare-unfolds-wind-power-costs-killing-thousands-of-real-jobs/$ 

https://mothersagainstwindturbines.com/2014/09/07/wind-turbines-increase-the-amount-of-co2-being-produced-to-make-electricity/

 $\frac{http://greatlakeswindtruth.org/cleveland-leedco/letters-to-the-doe-and-opsb-re-leedco/napaw-writes-to-the-doe-opsb-and-usace-re-icebreaker/$ 

 $\frac{https://www.forbes.com/sites/christopherhelman/2016/04/20/is-americas-first-offshore-wind-farm-a-real-revolution-or-just-another-green-boondoggle/\#3a0b6b793a21}{}$ 

 $\frac{http://instituteforenergyresearch.org/wp-content/uploads/2014/11/The-Case-Against-the-PTC-Nov-2014.pdf}{}$ 

http://dailycaller.com/2016/07/10/germany-votes-to-abandon-most-green-energy-subsidies/

http://www.washingtontimes.com/news/2017/mar/28/paris-climate-agreement-should-be-nixed/

http://www.thegwpf.com/germanys-green-party-booted-out-of-govt-in-state-election/

https://www.masterresource.org/canadian-wind-issues/letter-to-auditor-general-for-ontario-from-north-american-platform-against-windpower/

http://www.torontosun.com/2015/08/12/ontario-taxpayers-spend-200-million-on-exported-electricity-in-june

http://www.theenergycollective.com/willem-post/169521/wind-turbine-energy-capacity-less-estimated

 $\underline{http://www.breitbart.com/big-government/2017/02/26/study-wind-turbines-make-endangered-species-\underline{bats-go-extinct/}}$ 

https://www.cleveland.com/business/index.ssf/2016/05/cleveland wind project awarded.html

http://www.cleveland.com/business/index.ssf/2017/02/leedcos six-turbine lake wind.html

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