

Reversing Wind Spin: The Hard Realities of the Michigan Wind Experience

by
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www.iiccusa.org

Who is the IICC?

The IICC is a bi-partisan renewable energy citizen's watchdog group based in Blissfield, MI.

Our constituents are approximately 40% Democratic & 60% Republican. They range from self-identified liberal environmentalists to free-market libertarians.

Many of our supporters live on the front lines of industrial wind development in the State of Michigan.

We seek energy policy that is affordable, reliable and socially and environmentally responsible.

Please note:

Wind energy advocates use about a dozen misleading arguments to gain preferential access to Michigan ratepayers' wallets. It is impossible for me to rebut all of them in just one short hearing.

And as a volunteer ratepayer advocate, I simply cannot afford to spend the amount of time in Lansing as 100 paid energy lobbyists can.

It is my sincere hope that my testimony today opens the door for the IICC to become a trusted and independent source of information as you wade through the many claims made by wind energy advocates.

Looking back:

Michigan's wind energy experiment began in earnest in 2008 with the adoption of PA295 and it's 10% renewable energy mandate.

What have we learned in the past 9 years?

And was the 5% increase in the mandate warranted by the facts?

1. Land Use and Wind Energy:

Wind currents are fickle and diffuse.
Thus the devices to convert that
intermittent wind energy into
electricity are massive and intrusive.

VESTAS V-100

476' turbine
1,139' setback to home

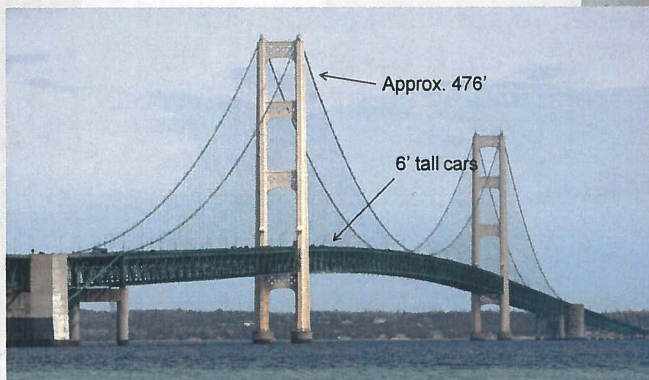
CMS Lakewinds Wind Plant
Near Ludington, MI

BTW: APEX now proposing
600' turbines in Berrien and
Shiawassee Counties at
similar setback distances.



Reference:

These towers are 552' above water



494' turbines in MI:



477' turbines in the Thumb:



390' turbines in Huron County:



Gratiot County:



Missaukee County:



And at night (Ocotillo, CA):

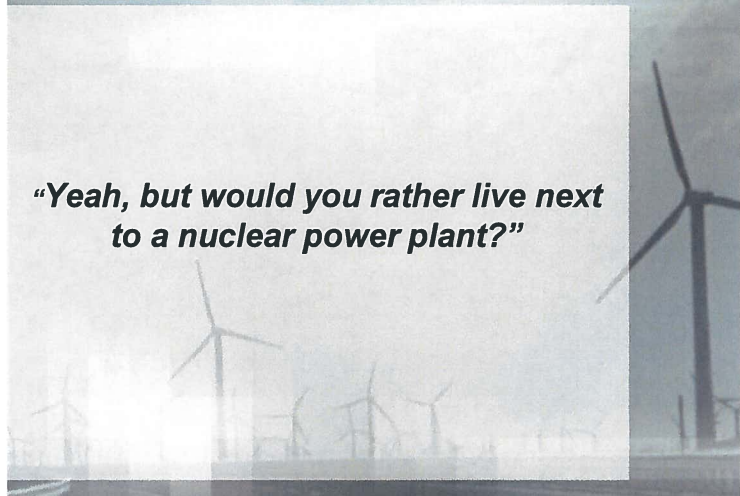


390' turbines at various setbacks:



You may be tempted to think:

"Yeah, but would you rather live next to a nuclear power plant?"



Wind vs. Nuclear impacts



Fermi II Reactor- ~1100 Mw

1100 MW from wind at 3.6 MW/sq mile w/30%CF



...and a couple of these for July, August, etc.



Or, 36 Square miles of this...



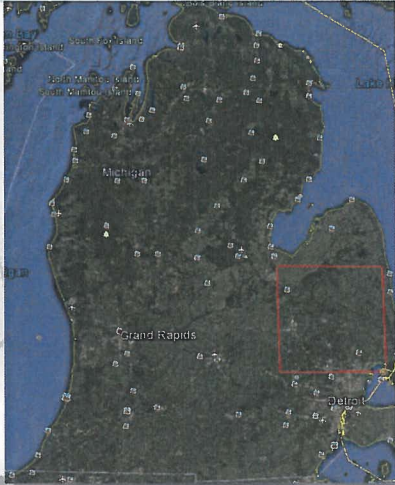
...could be equaled by 1 or 2 of these:



TM2500 Mobile Gas Turbine Generator

- Output: 21.6 MW @ 50 Hz; 22.8 MW @ 60 Hz (ISO)
- Dual Frequency - 50/60 Hz quick conversion (no reduction gear)
- Heat Rate: 9800 Btu/kWh @ 50 Hz; 9500 Btu/kWh @ 60 Hz (ISO)
- Voltage: 11.0kV (50Hz); 13.8 kV (60Hz)
- Liquid or natural gas fuel capability
- Brush Air-cooled 2-pole generator with brushless excitation
- Multiple units started/controlled through a single desktop PC
- Low emissions with demineralized water injection 25 ppm (gas); 42 ppm (liquid)
- Woodward Micronet® control system
- Inlet air heating/cooling provisions
- Electro-hydraulic starting system
- Single unit footprint ~110' x 70'
- Sound level at 3 ft. 90 dBA

40% wind in MI? (2-2.1MW@32%CF)



My point?

Every coal, gas and nuclear power plant in the State of Michigan would fit neatly in the footprint of only one or two townships.

While there are certainly neighbors who object to living next to conventional power plants, their numbers are relatively trivial compared to the hundreds of thousands of people in hundreds of townships who would have their neighborhoods transformed into 50 or 60 story intermittent power plants.

40% wind costs, "back of envelope":

40% wind would require 7,200 turbines covering 3600 square miles at a rate of 2 per square mile.

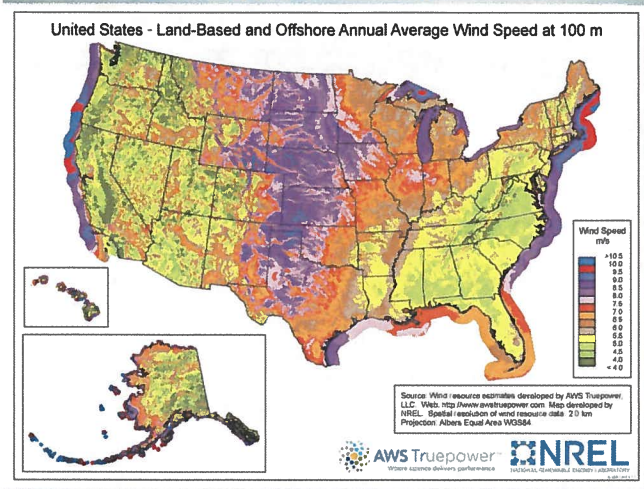
The installed costs for the turbines alone would exceed \$30 billion and that expenditure would need to be repeated on a 20 year rolling cycle because wind turbines only last about 20 years.

There would be massive additional transmission costs as well as billions in new gas-fired generation costs to balance and backup so much intermittent wind energy.

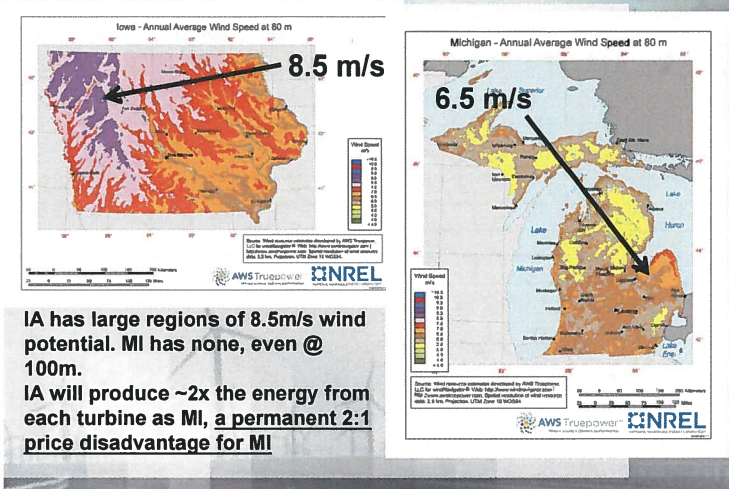
2: MI instate wind mandate problematic

Despite my best efforts over the past two years, at the last minute language that requires qualifying renewable energy projects to be located only in Michigan was reinstated and signed into law.

1st. problem: MI wind noncompetitive



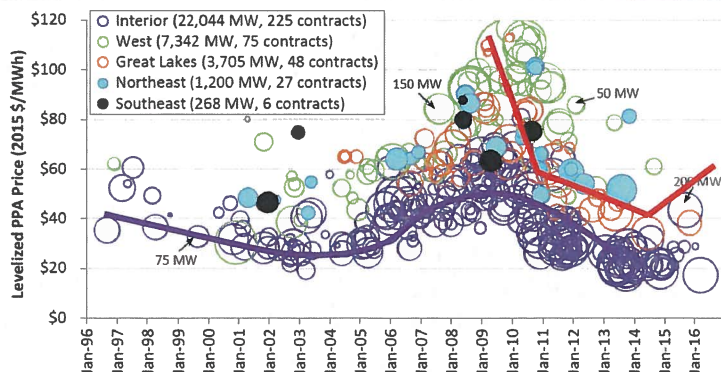
Regional comparison:



Point of reference for next slides:

The wholesale value of electricity in MISO (our grid region) is only ~\$25/MWh.

Red: Michigan
Purple: MISO Peers



MI wind remains very expensive relative to peers.

MI PPA prices vs. the Prairie States

Weighted Average Cost Comparison		
Commission Approval	Company Owned	Power Purchase
2015	\$50.00	\$45.00
2014	N/A	N/A
2013	\$55.95	\$50.04
2012	\$52.50	\$49.25
2011	\$67.16	\$60.90
2010	\$104.00	\$97.33
2009	N/A	\$115.00
Total	\$74.49	\$73.58

MPSC boasts about MI wind contracts dropping in price since 2009.

https://www.michigan.gov/documents/mpsc/PA_295_Renewable_Energy_Report_2-12-16_514511_7.pdf

MI PPA prices vs. the Prairie State

Figure 3: Bidders for the Missouri Utilities Latest Wind RFP – Who are the Players?

Bid/Wind Project	MW Bid	Price (\$/MWh)	Price Fixed or Escalating	Location
Apex - Grant Plains	50	\$ 21.95	Fixed	Grant County, OK
AV3 - Green Hills	64	\$ 50.00	Esc - 1.0%	MO
Duke - Fronties City	200	\$ 17.20	Esc - 2.5%	Kay County, OK
Duke - Fronties City	150	\$ 17.35	Esc - 2.5%	Kay County, OK
Duke - Fronties City	100	\$ 17.50	Esc - 2.5%	Kay County, OK
Duke - Fronties City	200	\$ 20.99	Fixed	Kay County, OK
Duke - Fronties City	150	\$ 21.24	Fixed	Kay County, OK
Duke - Fronties City	100	\$ 21.49	Fixed	Kay County, OK

<https://neo.ubs.com/shared/d1C/2S2L8AK/>

Yet our cheapest contracts are **TRIPLE** the price of contracts offered in Missouri. Michigan wind offers no advantage to ratepayers.

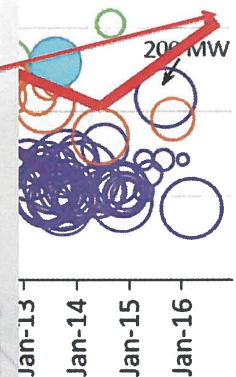


“Prices for renewable energy like solar and wind have **consistently plummeted** in recent years....”

-Larry Ward, MCEF

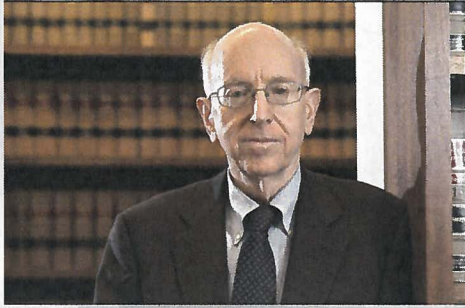
Red: Michigan
Purple: MISO Peers

At \$60/MWh, DTE's Pine River project in Gratiot County is the most expensive 2016 published wind contract in the United States.



2nd. Problem: Instate Mandates Unconstitutional

"Michigan cannot, without violating the commerce clause of Article I of the Constitution, discriminate against out-of-state renewable energy." –Hon. Richard Posner, 7th Circuit



Ohio concurs:

Not only did Ohio freeze both their EE and RE mandates in order to review the policies, they have **permanently eliminated the instate requirement for renewable energy.**

Result:

Instate renewable energy mandates deprive MI utilities, cooperatives (and thus ratepayers) of their constitutional right to acquire (subsidized) \$17-22/MWh* Iowa wind and forcing them to buy \$50/MWh (\$75/MWh fleet average) MI wind instead.

*http://emp.lbl.gov/sites/all/files/2013_Wind_Technologies_Market_Report_Final3.pdf

3: Comparing cost of wind to coal

"Wind is cheaper than coal!"

MPSC PA295 Report:

Support for the idea that wind energy is cheaper than coal power comes from the annual Report on PA295 prepared by MPSC.

By statute, each year the report compares the Levelized Cost of Energy (LCOE) from wind turbines with the LCOE of a new coal plant (advanced coal with CCS in practice).

PA295 Annual Report

“By comparing the levelized cost of \$133 per MWh for a new conventional coal-fired power facility with the combined weighted average levelized contract prices in Table 1, **the cost of all renewable energy projects using multiple renewable energy technologies is less than the coal guidepost rate...**” MPSC Report on PA295

Consequence:

As a result of this annual report, people are led to believe that wind energy is a cheap alternative to coal plants:



GREEN TECHNOLOGY, SOLAR POWER, WIND ENERGY

REPORT SHOWS MICHIGAN WIND POWER NOW CHEAPER THAN COAL

© FEBRUARY 13, 2015 | ESDMATTROUSH | LEAVE A COMMENT

LANSING — Renewable wind energy is now cheaper than electricity from coal, according to the Michigan Public Service Commission's fifth annual report on the state's renewable energy standard and its cost effectiveness.

The report shows the weighted average price of existing renewable energy contracts is \$76.55 per megawatt-hour, which the report noted was "significantly lower than the cost of coal-fired generation plants."

Economically, this comparison is meaningless:

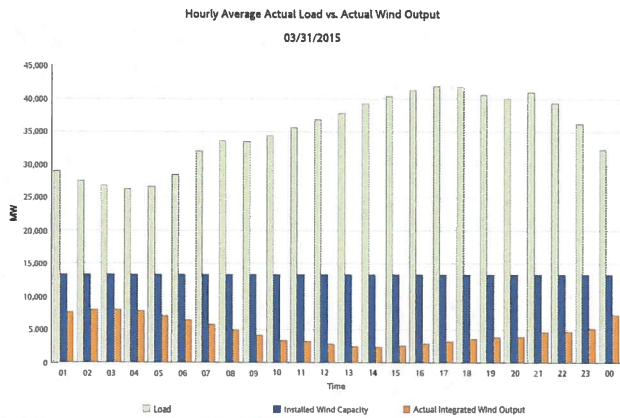
“...the production profiles for intermittent and dispatchable generation and the value of the electricity they produce are likely to be **very different**, making comparisons based on levelized cost alone meaningless”

Dr. Paul Joskow, MIT

COMPARING THE COSTS OF INTERMITTENT AND DISPATCHABLE ELECTRICITY GENERATING TECHNOLOGIES

.- http://cadmus.eui.eu/bitstream/handle/1814/18239/RSCAS_2011_45.pdf?sequence=1

ERCOT:



Wind output is lowest when energy is most valuable, and conversely.

MPSC PA 295 reports now note:

“While the Commission is required to make a determination about the cost effectiveness of the renewable energy standard as compared to the life-cycle cost of electricity of coal-fired generation, it should be noted that **renewable energy wind resources are not equivalent on a capacity basis when compared to coal-fired or other base load generation.**”

Better answer:

But it would make far more sense to just eliminate the bogus construct completely.

Accurate way to compare wind \$ with fossil \$:

Wind turbines are not a replacement for fossil fuel plants. Wind turbines are merely a *fuel saving accessory* that can be added to existing fossil-fueled plants.

Michigan's average subsidized wind price is **\$75/MWh**. Adding subsidies and tax credits to this PPA price easily raises the unsubsidized average wind price to over **\$100/MWh**.

But the value of the fuel saved by adding wind to our portfolio is only **~\$25/MWh** for coal or **~\$35/MWh** for natural gas.

That is a poor value.

4: Wind vs. Gas

“Wind energy is an effective hedge against natural gas price volatility.”

Basic misunderstanding:

Promoters of wind energy like us to believe that the choice before us is “wind or gas”.

But that is false.

Wind energy is largely dependent upon gas-fired generators for grid integration.

GE Explains:

“... if flexible generation assets, such as gas turbines, are not available, ...*renewable technologies will not be deployed. In other words, gas turbines are an essential component of renewable energy sources' ability to penetrate the market.*”

-AWEA board member GE to White House

http://www.whitehouse.gov/sites/default/files/omb/assets/oira_2060/2060_07232013-1.pdf

AWEA:

“A combination of a large amount of renewable energy, combined with *flexible natural gas plants* and demand-response and efficiency, can ensure that our electric system has sufficient energy, capacity, and flexibility, and operates reliably....”

http://web.archive.org/web/20130511225107/http://www.awea.org/learnabout/publications/upload/Baseload_Factsheet.pdf

What's my point?

Unlike coal and nuclear power, wind energy is almost wholly dependent upon gas fired generation *if* substantial penetrations of wind are being deployed.

This means that the more wind generation in a given region the more gas generation that is required. More gas generation means *more* exposure to the gas market, not less.
That is not a hedge!

http://www.nerc.com/pa/RAPA/reliability/20Assessments/20DL/NERC-CA/DO_V9_Assessment_Final.pdf

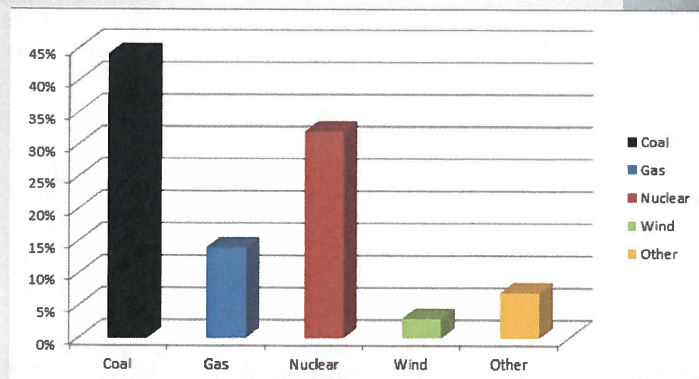
Caveat:

The slides I am about to show you assume a MI ratio of 2 parts gas to 1 part wind. This ratio can vary with available transmission and the generation mix in nearby grid regions.

But the general theme is correct: for every unit of wind energy we mandate, we commit ratepayers to deploying and maintaining two units of gas fired generation *somewhere*.

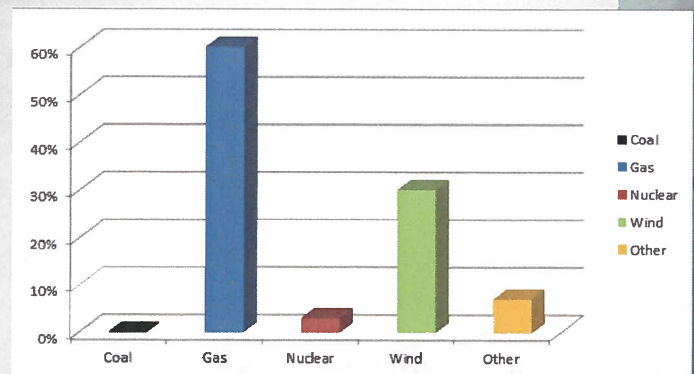
Thus a wind mandate is an even larger gas mandate.

MI 2014 Generation Profile:



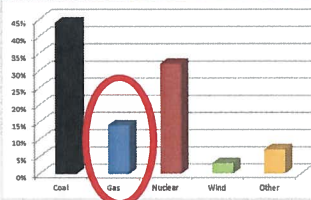
44% coal, 14% gas, 32% nuke, 3% wind, 7% other

30% wind:



0% coal, 60% gas, 3% nuke, 30% wind, 7% other

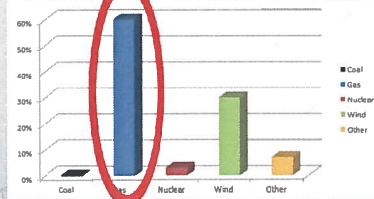
BAU versus 30% wind:



30% wind could essentially quadruple our exposure to the gas market.

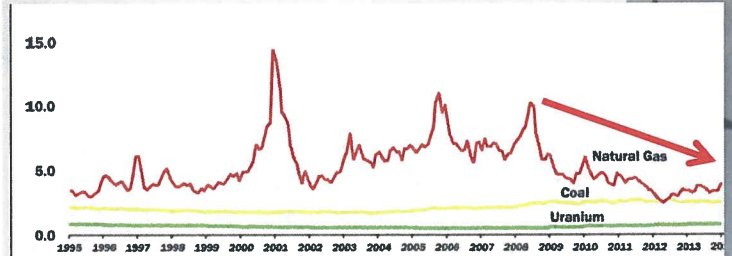
That is not a hedge.

Our current profile...



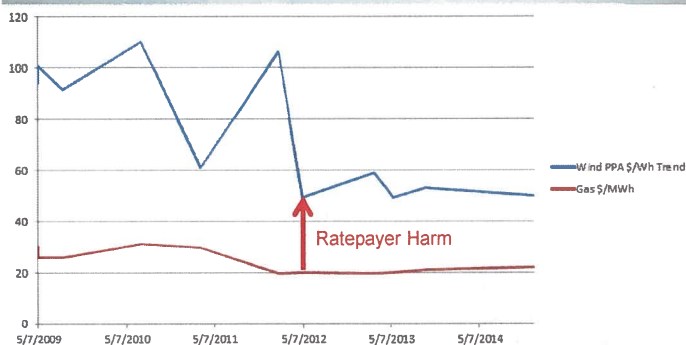
...or 30% wind?

Fuel price trends:



Since 1995 natural gas prices have been volatile but trending downward, particularly since 2008 when PA295 was enacted.

Looking back, was wind a hedge?



At no point since 2008 has a subsidized MI wind PPA cost less than the gas fuel it has saved. In fact wind has cost ratepayers 2.5-5x the value of the gas fuel saved.

What about the PTC?

President Trump appears likely to end the federal PTC for Wind Energy.

The 2015 Report on PA295 states that the *DTE Energy Meade* wind plant would have had a PPA price of \$47-53/MWh.

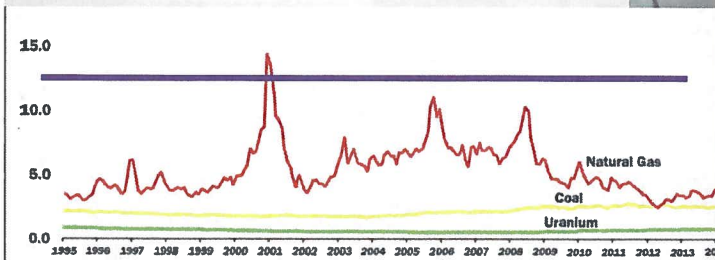
(The project was stopped by Meade Township voters.)

But they also report that if the project did not qualify for the PTC the price would rise to \$80/MWh.

Thus DTE values the PTC at roughly \$30/MWh over 20 years.*

*This strikes us as too high but it is in the report.

\$80 Wind PPA a gas price hedge?

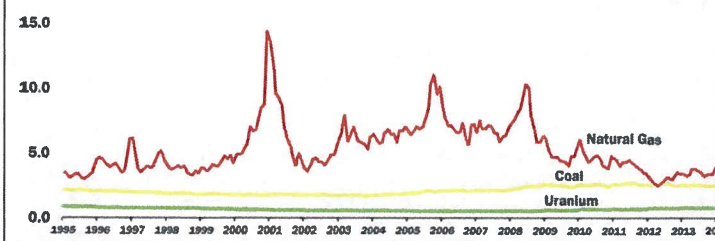


Gas would need to permanently remain above ~\$12/MCF for unsubsidized MI wind to be of any value as a hedge.

For the record:

The current Henry Hub spot price for Natural Gas is only **\$3.00/MCF**.

Remember:



We have 2 price stable fuels now, **coal** and **uranium**. The special interests who wish to increase MI's wind penetration as a **gas** price hedge also want to deny us access to our 2 most price stable fuels, leaving us dependent upon only renewables and volatile gas.

5: Fossil utilities vs. wind deployment?

Front Groups ▾ Coal ▾ Utilities ▾ Oil and Gas ▾ Clean Power Plan

Renewable Energy ▾ Energy Efficiency

Attacks on Renewable Energy Policies in 2015

Front groups, fossil fuel interests, and utility companies attacked net metering and renewable energy standards in states across the country in 2015, in an effort to delay the growth of competition in the marketplace.

“Front groups, fossil fuel interests, and utility companies attacked net metering and renewable energy standards in states across the country in 2015, in an effort to delay the growth of competition in the marketplace.”

How the utilities REALLY feel:

"....utilities are not, and never have been, opposed to renewables mandates. Indeed, their recent filing at the PUCO promises to buy and develop more renewables as long as they get non-bypassable charges so they can stick people who are not even their customers with the excess charges. Sir, let me be clear: the utilities would make electricity through boy scout troops rubbing sticks together to make fire so long as they could pass the costs on to ratepayers."



-Sen. Bill Seitz, Chair, OH Senate Public Utilities Committee

But WHY do the utilities not oppose RE ?

All dollar amounts in millions			
	yr 19	yr 20	totals
Generic Windfarm	220	220	
Nameplate Capacity(MW)	100	209	220
Cost (\$M)	\$ 220.00	11	0
Capacity Factor	40%	\$ 0.94	\$ 0.31
			\$ 125.33

According to calculations performed for me by MPSC, a generic 100MW wind plant of 100MW nameplate capacity would yield a ratepayer-guaranteed profit of \$120 million over the 20 year life of the plant.

Add to this another \$80 million in the federal PTC bringing the total to \$200 million.

And of course the entire construction cost is borne by the ratepayers so this is a "no risk" endeavor.

Extended across all installed projects

Our example was based upon a theoretical 100MW wind plant.

But DTE has 907 MW of wind installed.

Using the previous chart, the total profit/tax credits for DTE over 20 years approaches \$1.8 billion, depending upon the capacity factor of the wind plant.

And CMS currently owns 255 MW of installed wind which adds roughly another \$500 million profits over 20 years.

Thus the total profits on the regulated utilities operating wind plants is approximately \$2.3 billion over 20 years.

So deploying wind energy under our current mandate has been very good to our incumbent utilities indeed.

Are you saying profits bad?

Certainly not. Profits are the reward for risk.

But these profits are a risk-free reward for building generating capacity that was simply not needed, particularly in 2008.

Worse, since wind turbines cannot replace our now-closing coal-fired power plants without the assistance of gas-fired generators, our ratepayers are being forced under our current energy law to push two shopping carts down the aisle-one filled with turbines and another with new gas-fired power plants-when only the cart with gas generators is necessary to guarantee economical supply.

And since turbines only last twenty years instead of 30-60 years like coal, gas and nuclear power plants do, wind turbines are the gift that keeps on giving for regulated utilities.

6: Jobs, jobs, jobs

“Wind mandates create jobs in a new economy.”

Wind mandates ≠ turbine jobs

AWEA reports that Ohio has more wind related manufacturing facilities than any other state in the nation despite having only a few hundred megawatts of installed wind capacity-far less than MI.

If installed wind turbines equal wind manufacturing facilities Texas and Iowa would lead that list, not Ohio.

Wind-Related Manufacturing

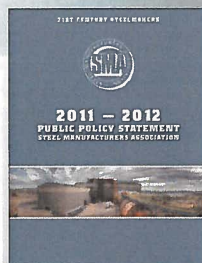
The wind industry has over 550 manufacturing facilities producing products for the wind industry that range from blade, tower and turbine nacelle assembly facilities to raw component suppliers including fiberglass and steel

- Number of manufacturing facilities in Ohio: 62 facilities. State Rank: Ohio is the top state in the nation based on the number of wind-related manufacturing facilities

Cost side of ledger?

EAF-based steel production is an energy intensive process that requires reliable and economically competitive energy supplies. The US steel industry spends over \$18 billion annually for electricity, and energy constitutes up to 15 percent of the cost of steelmaking. At the same time, this process is exceptionally energy efficient compared to other steel-making methods employed world-wide.

Just a 10% increase in electricity rates adds \$1.8 billion in costs to US steel industry alone. With 100,000 steel workers in the US, that is \$18,000.00/yr per employee no longer available for employee wages and benefits. Our wind contracts at \$75/MWh are **3 times** the 2016 MISO average wholesale price for electricity.



“Green jobs” debunked in one sentence:

Since energy costs are an overhead cost for all human activity, the most desirable source of energy would require only **one employee** to operate the on/off switch.

Further:



If we are serious about mandating energy sources for **job creation**, then we should be mandating 25% energy from people riding **bicycle generators**.

7: Wind and CO2

“Wind energy is a cost effective method of reducing coal plant emissions.”

MISO analysis of draft Clean Power Plan:

Reference case & Phase 1 scenarios

Scenario	EPA Assumptions and Methodology	Cost per ton of CO ₂ reduction (\$/ton) *
Reference Case	MISO's MTEP-15 Business As Usual future assumptions**	-
Building Block 1	In 2020, apply a 6% heat rate improvement to all the coal-fired units at a capital cost of \$100/kW (amortized over 10 years).	5
Building Block 2	Calculate and enforce, starting in 2020, a minimum fuel burn for existing CC units to yield an annual 70% capacity factor.	53
Building Block 3	Calculate and add the equivalent amount of wind MWs to meet the incremental regional non-hydro renewable target.	237 <small>Present value calculation for costs to the driver for the higher cost.</small>
Building Block 4	Calculate the amount of energy savings for the MISO footprint and incorporate it as a 20-year EE program in the model.	70
All Building Blocks	Application of all building blocks.	60
CO ₂ Constraint	Application of a mass-based CO ₂ reduction target, allowing the model to optimize.	38

* The cost per ton of CO₂ reduction is indicative – actual values may vary depending on different input assumptions, etc.

** Assumptions matrix is available at <https://www.misoenergy.org/Events/Pages/PAC20140820.aspx>



MISO: wind component is most \$... by far

Reference case & Phase 1 scenarios

Scenario	EPA Assumptions and Methodology	Cost per ton of CO ₂ reduction (\$/ton) *
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Observation:

Reference case & Phase 1 scenarios

Scenario	EPA Assumptions and Methodology	Cost per ton of CO ₂ reduction (\$/ton) *
Reference Case	MISO's MTEP-15 Business As Usual future assumptions**	-
Building Block 1	In 2020, apply a 6% heat rate improvement to all the coal-fired units at a capital cost of \$100/kW (amortized over 10 years).	5
Building Block 2	Calculate and enforce, starting in 2020, a minimum fuel burn for existing CC units to yield an annual 70% capacity factor.	53
Building Block 3	Calculate and add the equivalent amount of wind MWs to meet the incremental regional non-hydro renewable target.	227 <small>Present-day estimates for wind in the Midwest are higher than this.</small>
Building Block 4	Calculate the amount of energy savings for the MISO footprint and incorporate it as a 20-year EE program in the model.	70
All Building Blocks	Application of all building blocks.	60
CO ₂ Constraint	Application of a mass-based CO ₂ reduction target, allowing the model to optimize.	38

* The cost per ton of CO₂ reduction is indicative - actual values may vary depending on different input assumptions, etc.

** Assumptions matrix is available at <https://www.misoenergy.org/Content/Reports/PA295.aspx>



The most expensive parts of the CPP building blocks mirror our own "CPP" - PA295.

And what about health impacts from emissions?

Michigan has constructed \$3 billion worth of wind turbines which roughly function as a 450MW intermittent generator.

Assuming this wind generation only displaced MI coal generation, that expenditure would reduce coal plant emissions by ~7%- but probably much less as wind more often displaces gas generation.

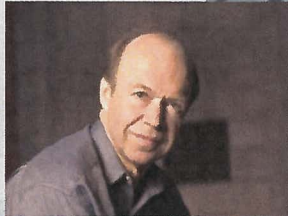
\$3 billion worth of new CC Gas power plants would have cut statewide HG and PM2.5 emissions by 50% and CO2 emission by 25%.

People who are serious about reducing coal plant emissions do not promote wind energy to do so.

Hansen on RE:

"Suggesting that renewables will let us phase rapidly off fossil fuels in the United States, China, India, or the world as a whole is almost the equivalent of believing in the Easter Bunny and Tooth Fairy."

-Climate Scientist James Hansen



8: Social sustainability of wind

"Wind Energy is popular in our rural communities and the our best wind regions in the Thumb can accommodate 2,800 turbines."

Unfair labeling:

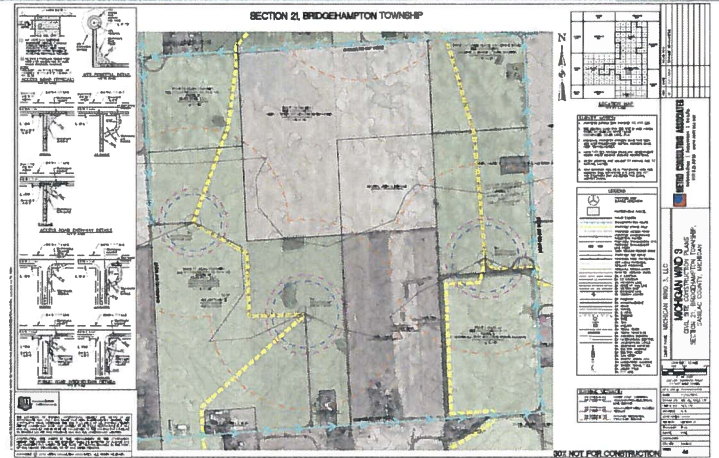
Opponents to wind are often crudely caricatured as NIMBYs.

But in truth, due to the diffuse nature of wind, makes demands of local land use policy that no other land use demands.

The land use regulations demanded by wind companies grants them a de facto uncompensated nuisance and noise easement.

I call this "trespass zoning".

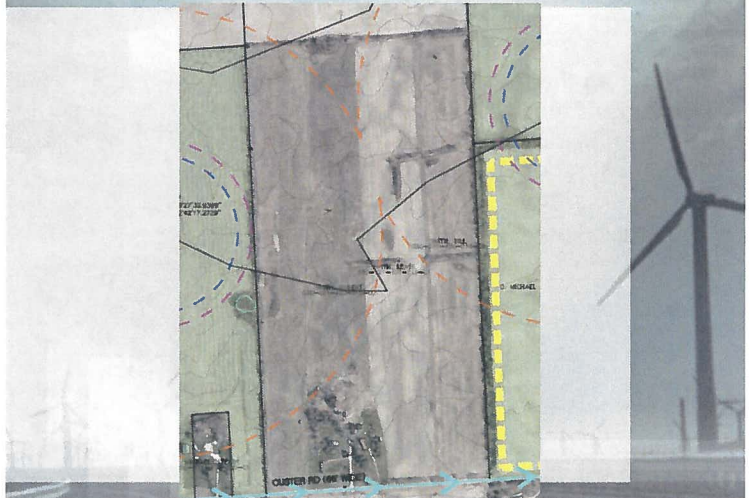
"Trespass Zoning":



Green is leased, gray is not:



Nearly 50% of unleased land impacted:

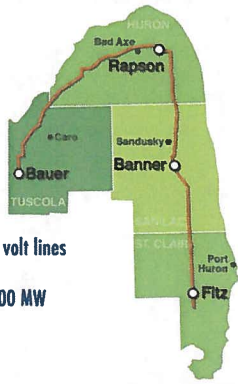


At the macro level:



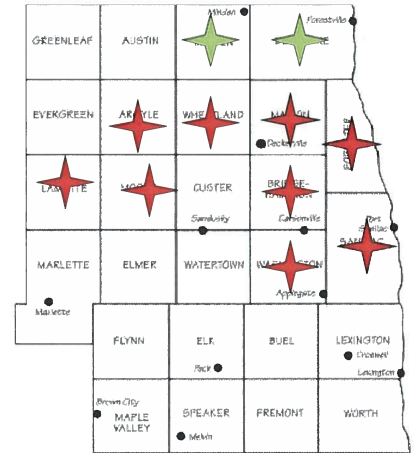
Michigan Thumb Loop Project

- Approx. 140 miles of double-circuit 345,000 volt lines
- Four new substations
- Capable of supporting capacity of about 5,000 MW
- Targeted for completion by 2015



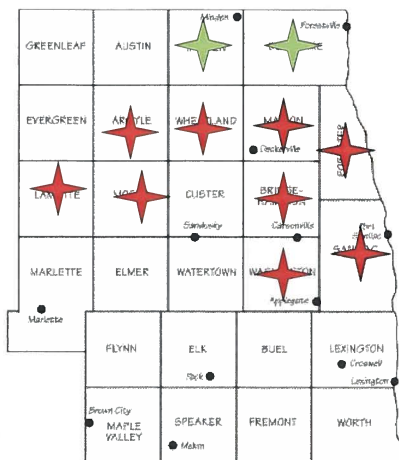
Sanilac County:

Due to intense political resistance by the residents, *Invenergy* and *Exelon* have canceled projects in Argyle, Wheatland, Lamotte, Moore, Marion, Washington and Bridgehampton.



Sanilac County:

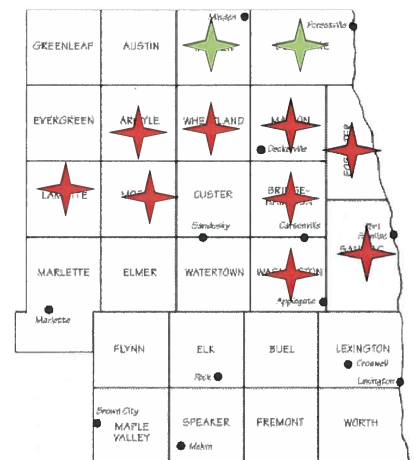
Exelon brought suit against Bridgehampton Township last year. They lost quickly. The citizens there, like neighboring Marion Township, ousted their board last year. A, W and M townships defeated permissive wind ordinances at the ballot box.



Sanilac County:

Invenergy spent \$164,000 on PR in just Argyle Township alone. The people spent \$2,500.

Nonetheless, the people defeated that PR blitz handily at the ballot box.



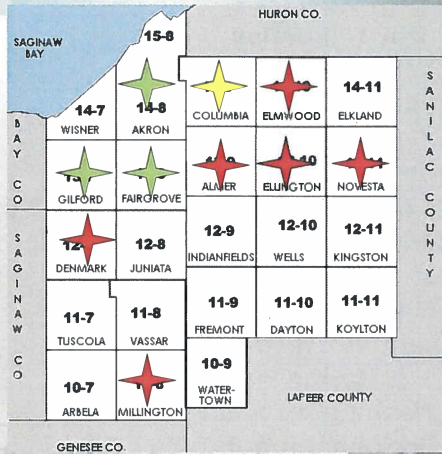
Tuscola County:

Invenenergy lost Denmark Township in 2013.

NextEra has operating turbines in A, G and F.

They are being rejected in Almer and Ellington so they are now suing.

CMS is building in Colombia where they own the board.



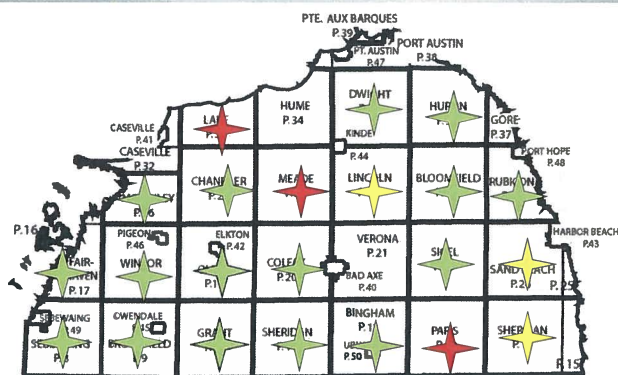
Tuscola County:

Big 'Green' and Mean: A Wind-Energy Giant Attacks Small-Town America



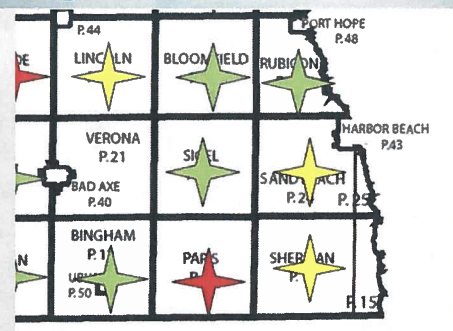
NextEra's litigious nature is now receiving national attention.

Huron County:



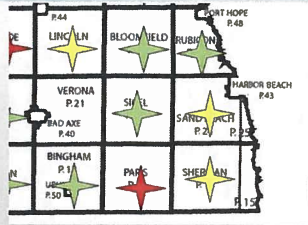
Huron County has been a free-for-all for wind development.

Huron County:



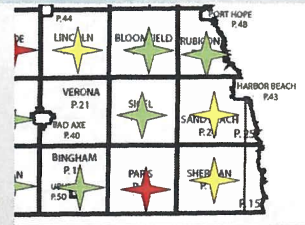
Three HC townships faced more wind development in 2016. Lincoln Township by DTE and Sand Beach and Sherman by NextEra

Huron County:



Curiously, although 4 of 5 Lincoln Township trustees had DTE wind leases, they took action remove themselves from county zoning in order to enact restrictive zoning of their own.

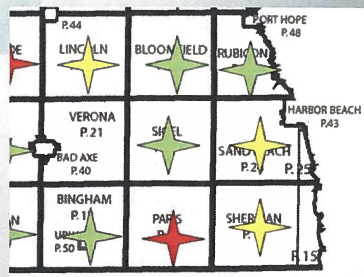
Huron County:



Sherman Township took a similar action.

Sand Beach already controlled zoning locally so they strengthened their zoning to add further protections from turbine noise and safety impacts.

Huron County:



Without going into the details, the net effect of these two proposed projects was to engender 2 countywide zoning referenda and two township level referenda on the May 2nd ballot.

HC Campaign intense. From the absurd...

DTE Electric's CEO Trevor Lauer came to Huron County to campaign for the project.

He promised that if HC voters would just allow one more wind project, they would never build another in Huron County.

Dear Huron County Residents,
We know that some of you may be concerned about the number of wind turbines in Huron County, and DTE Energy is committed to addressing those concerns. I'd like to assure you that we will not ask for new wind development in the County. Voting yes on the County Proposals just means completing the plan already approved by your local government. We hope we can count on your support.

Please vote YES on the County Proposals on May 2.

Sincerely,
Trevor F. Lauer
President, DTE Energy Electric

DTE Energy
Keep Your Own Power

Learn more at huronwind.dteenergy.com

...to the menacing:

Why is this lawyer smiling?

Vote **NO** on May 2



On May 2, vote **NO to protect Sand Beach Township from costly lawsuits.**



The drastic restrictions that were passed by our local elected officials' with little public input are jeopardizing our private property. If we don't vote NO, we could lose Sand Beach Township millions of dollars.

A PAC in the NextEra project footprint threatened people of Sand Beach Township with expensive litigation if they voted for stronger wind zoning. With NextEra's ongoing suits in Tuscola County, it was no idle threat.

HC residents fought back:



Countywide Results?

Huron Wind LLC's Overlay District Propo	(0)	0/16	0.00%
YES		1,120	36.67%
NO		1,934	63.33%
Total ...		3,054	100.00%
DTE's Overlay District Proposal	(0)	0/16	0.00%
YES		1,110	36.60%
NO		1,923	63.40%
Total ...		3,033	100.00%

Lincoln Township Results?

Lincoln Twp Ordinance Referendum	(0)	0/1	0.00%
YES		174	58.39%
NO		124	41.61%
Total ...		298	100.00%

And Sand Beach?

**Why is this
lawyer
smiling?**

**Vote NO on
May 2**



And Sand Beach?

**Why is this
lawyer
smiling?**

**Vote NO on
May 2**



Sand Beach Twp Zoning Ordinance Ref	(0)	0/1	0.00%
YES		413	83.77%
NO		80	16.23%
Total ...		493	100.00%

How much \$\$ was spent?

We believe that NextEra and DTE spent somewhere between \$500,000 and \$1 million on this campaign, maybe more.

The HC residents spent around \$3,500.00

(Not all campaign disclosure have been released.)

Nevertheless, they defeated two Fortune 500 companies by 2:1 at the ballot box across and entire county.

So how did the folks prevail?



"God's bigger than it all. God's got a bigger checkbook," [Robert] Gaffke said.

Observation:



The most effective “anti-wind” sign is a 50 story turbine in the township next door.

Observation:

Wind has never won at the ballot box since 2009.

Nearly 40 townships and multiple counties have enacted restrictive zoning to halt irresponsible and disruptive wind development in Michigan.

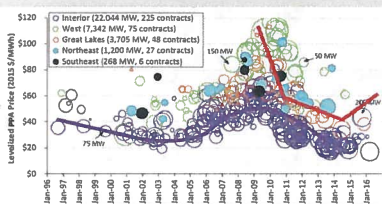
And no amount of campaign spending has ever reversed that tide.

Meade	60	40
Lake	62	38
Paris	64	36
Riga	64	36
Palmyra	55	45
Seneca	51	49
Reading	71	29
Wheatland	63	37
Moore	57	43
Argyle	53	47

Cont'd:

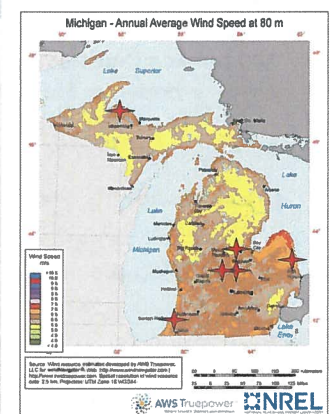
Michigan’s best wind resource-the Thumb-is now closed to further wind development.

As developers are pushed into the interior of the state, wind contracts are now rising substantially in price.



Cont'd:

And as DTE, APEX and others move into poorer wind resource regions, they are being confronted with fierce and determined opposition as they attempt to exploit ever-more marginal wind resources.



Cont'd:

And with the blessing of local control of zoning, I predict these folks will be successful in resisting this poor state policy and that our utilities will not meet the new 15% mandate.

Sand Beach Twp Zoning Ordinance Ref		(0)	Q/1	0.00%
YES	413	83.77%		
NO	80	16.23%		
Total --		493	100.00%	

Huron Wind LLC's Overlay District Propo		(0)	Q/16	0.00%
YES	1,120	38.97%		
NO	1,534	83.33%		
Total --		3,054	100.00%	

DTE's Overlay District Proposal		(0)	Q/16	0.00%
YES	1,110	38.66%		
NO	1,833	83.49%		
Total --		3,033	100.00%	

Lincoln Twp Ordinance Referendum		(0)	Q/1	0.00%
YES	174	88.39%		
NO	124	41.61%		
Total --		298	100.00%	

Wrapping up:

Michigan's wind mandate has been a harsh teacher.

1. Wind's low energy density has radically altered people's rural communities in a negative fashion.
2. MI's instate RE mandate harms ratepayers and is unconstitutional
3. Claims of "Wind cheaper than coal" are both false and deceptive
4. MI wind contracts have never been cheap enough to serve as a gas price hedge

Wrapping up cont'd:

5. Far from shunning wind, Big Fossil profits substantially from the wind mandate
6. Green jobs claims ignore the substantial cost to other employers
7. Wind reduces CO2 emissions but at an absurd cost
8. Wind energy is not socially sustainable. And all the money on earth has not been able to change that.

Observation:

Our current energy law has placed too irresistible forces against each other:

A 15% RE mandate versus the clearly expressed will of the people to stop any further wind development.

Only one real solution:

**It is time to end the renewable energy
mandate.**

**As the folks in Huron County said
during their campaign:**

“Enough is enough”.

IICC supporters bring a simple message:



...from bad energy policy.

Questions:

Mr. Kevon Martis

**BA-University of MI-1989
Lenawee County Rural Land Use
Committee-vice-chairman-2007-09
Riga Township Planning
Commission-Vice-chairman 2005-
2011**

**Interstate Informed Citizen's
Coalition, Inc. Founding Director
2011-present**

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