

July 1, 2009

Executive Secretary Mary Jo Kunkle  
P.O. Box 30221  
Lansing, MI 48909

Re: Wolverine Power Supply Cooperative E-Docket U-16000

Dear Ms. Kunkle,

A major reason Wolverine wants to build the 600MW Rogers City plant is they fear little surplus capacity will be available for them to buy from other utilities. However, there are many reasons to believe electric demand will continue will decline in Michigan and there will be ample baseload capacity for Wolverine to purchase.

Substantial mandates and actions supporting energy efficiency, renewable energy, cap-n-trade, load management, interruptible, demand response will lessen the demand for coal bases capacity in Michigan and throughout the US.

Many of the trends Wolverine uses to support their high electric sales forecasts are changing. Population in their service area declined in 2008. Air conditioning saturation should mature soon and new units are up to 40% more efficient. Substantial energy efficiency improvements are expected to cut electric usage in all segments; residential, commercial and industrial.

The costs of this plant will put too much financial risk on Wolverine's 200,000+ co-op members. Declining electric sales in Michigan, escalating coal and coal plant costs, and under utilization of this plant could result in substantial member liability and rate increases.

**1. Electric Demand Forecasts are declining.**

According to DTE's forecast in U-15768 (Jan. 09), DTE's annual system output will drop 7% from 55,863 GWH in an already recessionary 2008 to 52,178 GWH in 2018. DTE's peak demand will drop 10% from 11,251 MW to 10,856 MW in 2018.

<http://efile.mpsc.cis.state.mi.us/efile/docs/15768/0014.pdf> P4)

This forecast was made before GM announced plans to close or put on

standby seven Michigan plants between now and the end of 2010. Chrysler, American Axle, Metaldyne and others are also planning Michigan plant closings. It would seem DTE will have considerable unused capacity to extend the PPA with Wolverine.

**Consumers** forecasts an 8% drop in summer peak demand from 9,459 MW in 2008 to 8,705 MW in 2018. (See Fig 2 in <http://efile.mpsc.cis.state.mi.us/efile/docs/15996/0050.pdf>)

The **EIA** has lowered their Low Macroeconomic Growth Case forecast for the “East North Central” (MI, WI, IL, IN and OH) to a growth rate of only .3% from 2007 thru 2030. See line 79 of: [http://www.eia.doe.gov/oiaf/aeo/supplement/lm/excel/sup\\_elec.xls](http://www.eia.doe.gov/oiaf/aeo/supplement/lm/excel/sup_elec.xls)

All of these forecasts need to be updated for the substantial energy efficiency and other load reducing actions in progress. (Details below)

*Before the EGAA process is complete, it might be prudent for Wolverine to meet with DTE, Consumers and others to determine if a new or extended PPA is possible and at what terms.*

## **2. The Economy in Wolverine’s Service Area may not be much different than the rest of Michigan.**

As a justification for this plant, Wolverine indicates the economy in their service area is doing much better than the rest of Michigan. This may no longer be the case, for example:

- Many counties in Wolverine’s service area lost population in 2008, and at a greater rate than the state average (-.5%). <http://www.census.gov/popest/counties/tables/CO-EST2008-03-26.xls> map [http://www.census.gov/popest/gallery/maps/pct\\_chng07\\_08.pdf](http://www.census.gov/popest/gallery/maps/pct_chng07_08.pdf) (It appears the CEDDF and REPS forecast data Wolverine uses simply project trends and don’t make adjustments for current demographic and economic changes.)
- Wolverine’s sales are two-thirds residential. Consumers Energy (which appears to overlap much of Wolverine’s service area) forecasts a decline in their residential electric sales 2008 – 2018. Reasons Consumers gives for this decline are: declining Michigan population through 2016, central A/C saturation is maturing, new air conditioners are more efficient, energy efficiency, load response and demand response at peak.

For the state as a whole, Michigan is experiencing a structural economic

and electric sales decline.

- Electric generation in Michigan dropped a substantial 15% in the first quarter of 2009 vs. 2008. [http://www.eia.doe.gov/cneaf/electricity/epm/table1\\_6\\_b.html](http://www.eia.doe.gov/cneaf/electricity/epm/table1_6_b.html) (March decline was 21% alone.) While the entire US is in a recession, national electric generation declined only 5%. The magnitude of the decline in Michigan strongly suggests a structural change. The economy will recover; however, Michigan will be left with a smaller manufacturing base, less population and therefore, less demand for electricity.
- Manufacturing plants are being permanently closed all over the state. Michigan has lost nearly half its manufacturing jobs since they hit a peak in mid-2000, a loss of 438,000 positions. <http://www.manufacturing.net/News-Michigan-Gets-Hit-With-GM-Plant-Closings-060109.aspx>
- MSU economist, Charles Ballard calls this a “fundamental structural transformation of our economy.”
- The poor economic health of the entire state has an impact on C&I and residential development in Wolverine’s service area. It is probable many people wanting to move “up-north” no longer have the income, savings or home equity to do so.

*Wolverine needs to substantiate why their economy will do so much better than the rest of the state.*

### **3. Is Wolverine’s Air Conditioning Saturation Forecast Level too high?**

Wolverine states: “In 2007, the saturation levels had grown to 34.8 percent for central A/C and 33.2 percent for room A/C units. The data also shows the likelihood of continued growth in A/C-related sales as average U.S. saturations are realized over time.”

<http://efile.mpsc.cis.state.mi.us/efile/docs/16000/0023.pdf>

The U.S. (50 state) A/C saturation average of 85%, this includes Arizona, Texas and Florida. Wolverine already has 68% A/C saturation and it would be unlikely that they will ever reach the total U.S level given Wolverine’s northern, rural, lake and less affluent service area (26% are below the poverty line.).

According to Consumers Reports, “New central air conditioning systems are 20 to 40 percent more efficient than those made 10 years ago, and now, the federal government is offering a tax credit of 30 percent, up to

\$1,500, for replacing or adding central-air-conditioning systems.”  
<http://pressroom.consumerreports.org/pressroom/2009/06/consumer-reports-latest-tests-reveal-six-recommended-window-air-conditioners-for-260-or-less.html> Overall, the accelerated replacement of new, efficient A/C units will more than off-set additional units.

*Wolverines A/C saturation level and A/C electric usage forecast need to be examined.*

#### **4. Substantial Energy Efficiency, Demand and Load Reduction Efforts are starting to be made.**

Wolverine’s assumption of continually increasing “use of energy per end-use customer, and increased use by C&I customers” may no longer be the case:

Wolverine references the January 2009 EPRI Energy Efficiency (EE) study as reason why only .2% EE improvements will take place after 2015. Wolverine states in the EGAA “The assumption for years 2016 through 2021 was arrived at by assuming an equal allocation of the difference between the cumulative reductions achieved by the end of 2015 (5.55 percent) and the amount indicated as the Realistic Achievable Potential (8.2 percent by 2030) by the Electric Power Research Institute (EPRI) energy efficiency study entitled “*Potential U.S. Energy Efficiency Savings – 2008 to 2030*”.

Actually, 8% is EPRI’s estimate for annual electric savings. EPRI’s estimate for summer peak demand reduction is 14% to 20%. According to EPRI, “EPRI estimates that the combination of demand response and energy efficiency programs has the potential to reduce non-coincident *summer peak demand* by 157 GW to 218 GW. This represents a range of achievable potential reduction in summer peak demand in 2030 of 14% to 20%.” See P7 of <http://mydocs.epri.com/docs/public/000000000001018363.pdf>

However, the EPRI report was written before the current wave of EE actions and assumes only EE mandates in place in 2008. The EPRI report states; “There are several factors that could have a **significant impact** on the potential for energy efficiency savings. These factors include higher electricity prices, regulatory incentives to encourage greater investment in energy efficiency, carbon policy, the future level of codes and standards, and accelerated R&D and commercialization of advanced efficient technologies.” All of this is starting to happen since January 2009.

- The house just passed H.R. 2454 which calls for even more efficient appliances, buildings, commercial and industrial improvements, investment in a smart grid, improved transmission infrastructure and efficiency research. The ACEEE and EPA estimate this will lower electric demand by an additional 5% through 2020 and 12% through 2030. The renewable energy target is 20% by 2030 with energy efficiency offsets. <http://aceee.org/energy/national/index.htm>
- The EPA is raising efficiency standards for practically all lighting, appliances, A/C, heating, industrial motors, vending machines and other.
- In addition to Michigan utility energy efficiency (EE) programs, over \$300 million of Federal stimulus funds will be spent on EE and weatherization in Michigan over the next three years. Weatherization will reduce Wolverine's peak A/C and winter heating electric demand.
- Demand Response, Load Management and Interruptible progress should continue to increase thru 2030. FERC, in their new study, A National Assessment of Demand Response Potential, indicates Michigan has a demand response potential of 14.4% by 2019. <http://www.ferc.gov/legal/staff-reports/06-09-demand-response.pdf>

*Wolverine needs to incorporate in their forecast at least a 1% annual EE improvement assumption thru 2030 and a higher level of demand/load management, adaptation, technological advancements and new mandates.*

### **5. Wolverine's Electric Demand Forecasts seem much overstated**

The above mandates and trends will lower the demand for electricity. In spite of this, Wolverine has raised their demand load forecasts substantially in the past few months. Previously, they quoted the 21<sup>st</sup> Century Energy Plan (+1.2%) and CNA (+2.1%) forecasts. In the Feb. 18, 2009 Renewable Energy Plan filing for the four Wolverine co-ops indicated their annual sales growth would averaged 1.6% per year before EE. <http://efile.mpsc.cis.state.mi.us/efile/docs/15822/0007.pdf>

In the EGAA, the February composite forecast now appears to be their Low Growth forecast and an aggressive Base Case and really aggressive High Growth forecast have been developed.

<http://efile.mpsc.cis.state.mi.us/efile/docs/16000/0023.pdf>

Wolverine seems to rely on dated information and simple projection of past trends. Just projecting past trends is no longer a useful tool in this dynamic environment.

*Wolverine needs to incorporate into their forecasts current data and the substantial and unprecedented changes happening in Michigan, namely: population loss, manufacturing decline, plus new, and probable energy efficiency and renewable energy actions.*

## **6. The Price of Coal Could Rise Substantially**

- A recent USGS report suggests PRB coal reserves are way overstated. <http://climateprogress.org/2009/06/08/peak-coal/>
- Considerable PRB rail congestion is expected to remain. (And EIA thinks PRB output will increase 50% in the next few decades!)
- There are estimates that US “peak coal” could occur within 25 years - less than 20 years into the life of this proposed coal plant. [http://en.wikipedia.org/wiki/Peak\\_coal#World\\_peak\\_coal](http://en.wikipedia.org/wiki/Peak_coal#World_peak_coal) (Near and after the peak, coal prices are expected to increase at a significant rate.)
- Appalachian coal fields are in decline.
- Peak coal has already occurred in Canada and Europe and these and many other countries are importing US coal at an increasing rate. <http://www.eia.doe.gov/cneaf/coal/quarterly/html/t7p01p1.html>
- The cost of diesel fuel is a large part of delivered PRB coal price. EIA forecasts the price of imported crude oil to increase 254% from 2010 to 2030. <http://www.eia.doe.gov/oiaf/servicerpt/stimulus/pdf/stimulus.pdf>

Given the above, it is hard to understand why Wolverine assumes the price of PRB coal will increase only 4% from 2010 to 2030 (\$1.90 to \$1.98 \$/MMBtu). Transportation costs need to be added to the fuel calculation.

*The alternatives analysis needs to consider that coal prices could rise much faster than inflation.*

## **7. A Fluidized Bed Coal Plant is not the best Alternative.**

If Wolverine still desires their own baseload, there are better alternatives after they first maximize their efficiency and renewable efforts.

The 21<sup>st</sup> Century Energy Plan indicated a fluidized bed coal plant is more expensive to build and operate than other coal plants. In fact, the 21CEP recommends against this type of plant saying “[On the basis of this \(cost\) screening curve, the following resources were screened out of the Central Station Base Case Scenario analyses: Fluidized Bed Coal, IGCC and](#)

nuclear.”

The 21CEP screening curve also indicated that combined cycle gas generation is less expensive up to 90% of CFB plant capacity. This is especially true if there is a carbon tax in effect. See pages 34, 35 and 39 of the 21CEP Appendix II.

[http://www.michigan.gov/documents/mpsc/energyplan\\_appendix2\\_185279\\_7.pdf](http://www.michigan.gov/documents/mpsc/energyplan_appendix2_185279_7.pdf)

Wolverine’s service area contains some of the best wind potential in the US (particularly off-shore). It seems logical to combining this potential with Wolverine’s considerable natural gas electric generation capacity (200 MW?). According to a new report, “[Thanks to new drilling technologies...,the nation’s estimated gas reserves have surged by 35 percent.](#)” Note in the map, northern Michigan appears to have even more natural gas reserves.

[http://www.nytimes.com/2009/06/18/business/energy-environment/18gas.html?\\_r=1](http://www.nytimes.com/2009/06/18/business/energy-environment/18gas.html?_r=1)

The book, *Small is Profitable*, challenges the long-standing notion that large, centralized electricity generation facilities are economically sound, and shows through example how small, distributed generation facilities placed close to end users provide cheaper and more reliable electricity.

[http://www.smallisprofitable.org/pdfs/SIP\\_ExecutiveSummary.pdf](http://www.smallisprofitable.org/pdfs/SIP_ExecutiveSummary.pdf)

To take advantage of the biomass resources near Rogers City, Wolverine may want to consider this example. Traverse City Light & Power has reevaluated their generation and has proposed five wood chip-burning power plants. [http://www.record-eagle.com/local/local\\_story\\_014094028.html](http://www.record-eagle.com/local/local_story_014094028.html)

*It is good the MPSC is conducting a thorough EGAA process.*

### **8. A Multi-Billion Dollar Coal Plant could pose substantial Financial and Legal Risks for Wolverine’s Small Co-op Membership Base and their Directors.**

Given the prospect of negative load growth in Michigan, it is probable the proposed Wolverine coal plant would seldom run at an economically favorable capacity level. Adding to this escalating coal prices and a CO2 tax, it has been estimated that electric rates will double for Wolverine’s 200,000 co-op members. Co-ops around the country are getting burnt.

<http://www.co-opconversations.org/>

Member's liability for this plant could approach \$8 billion dollars including interest and all other direct costs. This is an average of \$40,000 per member.

Wolverine and co-op board members appear not to have given members any information regarding liability or impact on the monthly electric bill. Directors and officers could be personally liable for non-disclosure.

According to a recent article about two Colorado co-ops:

["Rural electric co-ops that gamble on low-cost coal while largely keeping their member-owners in the dark about future financial risks may be playing with federal regulatory fire in the form of the Sarbanes-Oxley Act of 2002"](#) According to a former chairman of the Colorado Public Utilities Commission.

He added ["board members of rural electric co-ops need to go to great lengths to divulge to their members the potential risks of investing in coal-fired power plants with a possible federal carbon tax or cap-and-trade policy looming."](#)

["If you don't make any reasonable disclosure of risks attendant on your business, as a director and officer, if that risk turns out to hurt shareholders and shareholders find cause of action and bring it and are successful, then the directors and officers might be personally liable,"](#)

In a survey, these co-op members expressed a willingness to put environmental impacts before cost when it comes to their power supply.

<http://coloradoindependent.com/30146/attorney-electric-co-ops-legally-need-to-disclose-carbon-risks-of-coal>

Wolverine has to reveal all costs associated with this plant including; long term financing, transmission upgrades, rail expansion, slurry ponds, harbor dredging, etc. Even costs not directly paid for by Wolverine members need to be revealed. Port expansion is an unnecessary "tax" on the community if this plant is not needed. Building a new 230 kV loop is a burden on all Michigan ratepayers if this plant is not needed.

*Before the EGAA analysis is complete, Wolverine and the MPSC must make all plant costs public, especially the impact on the average monthly residential electric bill.*

### **9. Jobs created throughout the State should be a Consideration in Alternatives Planning.**

Rogers City is pushing hard for a local coal plant because they need jobs. However, all Michigan cities and counties need jobs. Permanent green

jobs can be created in every Michigan county. "Michigan's economy could be substantially buoyed by 60,000 or more green jobs in response to renewable energy production, increased energy-efficiency measures and other climate-change solutions, according to Michigan and national experts....." [http://www.michiganpolicy.com/index.php?option=com\\_content&view=article&id=231:energy-jobs&catid=76:energy-and-environment-blog&Itemid=153](http://www.michiganpolicy.com/index.php?option=com_content&view=article&id=231:energy-jobs&catid=76:energy-and-environment-blog&Itemid=153)

Some renewable energy job estimates by county: Kent 3,575, Wayne 3,431, Macomb 3,227, Oakland 3,063, Grand 2,999 and Saginaw 1,197 jobs.

## **10. The MPSC and DEQ Have a Mandate to Lower GHG Emissions in Michigan**

The following is a list of the overwhelming support to lower GHG in Michigan:

- The **Michigan Climate Action Committee (MCAC)** "proposed GHG reduction goals for Michigan are to achieve a 20% reduction of GHGs below 2005 levels by 2020 and an 80% reduction below 2005 levels by 2050." A traditional coal plant such as Rogers City is not in the top 10 MCAC Energy Supply recommendations.  
<http://www.miclimatchange.us/ewebeditpro/items/O46F21183.pdf>
- The intent of **PA 295**, the Clean Renewable and Energy Efficient Act of 2008, is to reduce GHG.
- The purpose of **Governor Granholm's** announced goal of a 45 percent reduction in coal and gas-fired electricity by 2020 is to reduce GHG.
- **Michigan citizens** want action to cut CO2. A 2008 poll "found that 69% of [Michigan] voters support an executive order from the Governor that would establish protections against the amount of carbon dioxide pollution that can be released from coal plants before any more coal-burning facilities are built in the state."  
<http://progressmichigan.org/press/260/poll-strong-public-support-for-granholm-crackdown-on-coal-plant-pollution>
- The intent of the **Midwest Governors Association (MGA)** Midwestern Greenhouse Gas Accord is to reduce CO2 emissions.  
<http://www.midwesternaccord.org/>
- **President Obama** has set a goal of reducing CO2 80% by 2050. (Even the **Pope** said the world has to address global warming.)
- FERC Chairman's (Jon Wellinghoff) comments are more applicable to Michigan than to any other State: "No new nuclear or coal plants may ever be needed in the United States."

<http://www.nytimes.com/gwire/2009/04/22/22greenwire-no-need-to-build-new-us-coal-or-nuclear-plants-10630.html>

*A coal plant flies in the face of all these mandates. We have to maximize all non GHG producing alternatives first.*

### **Conclusion**

It appears there will be ample electric capacity in Michigan for Wolverine to continue purchasing electricity. Michigan does not need another coal plant. Mandates and the need to reduce GHG emissions dictate that every effort be made by the State to first, maximize all non-polluting load reduction and electric generation alternatives.

Thank you, frank

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I am a concerned citizen, a former auto executive (with sales forecasting an econometric experience), and member of the 21<sup>st</sup> Century Energy Plan Energy Efficiency Work Group, Michigan Climate Action Committee RCI TWG and the Midwest Governor's Association Renewable Energy Advisory Group.