



**Before the House Energy Policy Committee  
Testimony on Michigan's Renewable Energy Future  
Prepared by Lead Midwest Energy Analyst Sam Gomberg  
on behalf of the Union of Concerned Scientists**

May 7, 2015

Chairman Nesbitt and Members of the House Energy Policy Committee  
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My name is Sam Gomberg. I am the Lead Midwest Energy Analyst for The Union of Concerned Scientists - a science-based nonprofit organization with over 13,000 supporters in Michigan, including hundreds of scientists, economists, engineers and public health experts.

We've been engaged in the discussion about Michigan's energy future for several years. In addition to actively participating in the Governor's Energy Plan process in 2013, we've also published multiple analyses over the past few years that are relevant to this discussion. For example, last year, we released an analysis titled *Charting Michigan's Renewable Energy Future* that looked at the costs and benefits of ramping up Michigan's use of renewable energy to 30 percent or more by 2030.

In the interest of time, I have included additional information in the packets that we provided. In sum, our findings are consistent with the wealth of other information published by the MPSC, independent consultants, and public interest organizations that show (1) the current renewable energy standard has successfully driven investment in the state's renewable energy resources, (2) that there remains a vast untapped potential for Michigan to further develop its renewable energy resources, and (3) that renewable energy is a cost-effective, low-risk, and economically beneficial choice for Michigan consumers.

Based on this strong track record of success, the question now is: what is the best path forward to continue taking advantage of the state's renewable energy potential? I would agree with several of the people testifying today that while the proposed IRP process can be a great compliment to an RES, it will not be as effective at driving investments in Michigan's renewable energy resources or ensuring Michigan consumers realize a truly diverse, cleaner, lower-risk and more sustainable energy future.

Therefore, I would encourage you to not rely only on an IRP process but that you extend and strengthen Michigan's renewable energy standard. The MPSC, our analysis, and multiple other sources have all found that a 30 percent by 2030 renewable energy target is technically achievable, is affordable, and will drive significant economic, environmental and public health benefits throughout the state.

Our analysis found that Michigan can achieve 30 percent renewable energy by 2030 reliably and with virtually no additional cost to consumers. Further, achieving 30 percent renewable energy drives billions of dollars in new capital investment into the state. Michigan would add an average of about 550 megawatts of new renewable energy capacity each year through 2030 -representing an estimated net present value of \$9.5 billion dollars in new capital investment. And these facilities would provide more than \$520 million dollars annually from operation and maintenance costs and lease payments to landowners. They would also provide more than \$100 million dollars to local governments in new property tax revenue over the life of these facilities.

We also cannot overlook the risk-mitigating benefits of diversifying the state's electricity portfolio with renewable energy. I strongly agree with previous statements made by the MPSC and others that a more diverse electricity portfolio is a less risky portfolio. An overreliance on fossil fuels for electricity comes with a variety of risks, and these risks are not mitigated by switching from coal to natural gas. These risks include fuel price volatility, fuel availability, and increasing regulatory compliance costs, not to mention the public health, environmental and climate change risks that accompany the burning of fossil fuels. Diversifying with renewable energy helps reduce Michigan's exposure to these risks and increases the reliability, affordability and sustainability of Michigan's electricity supply. But because the vast majority of these risks fall on consumers and not the utilities, diversification won't happen unless policies are enacted to continue driving Michigan's renewable energy development.

Finally, I would like to quickly address one misconception that I've heard several times while meeting with legislators and other stakeholders over the past several months. Achieving 30 percent renewable energy does not mean covering the state in wind turbines or solar panels, or cutting down Michigan's forests for bioenergy. In fact, even this level of renewable energy only begins to scratch the surface of Michigan's potential.

For example, even if we were to meet a full 30 percent of Michigan's energy demand with wind turbines alone, only 5 percent of Michigan's farmland would need to host wind farms. And 98 percent of that land would still be available for farming. Further, just tapping into the solar potential of Michigan's urban areas -- meaning rooftops and rural lands not



suitable for other development, such as brownfields -- could provide about 25 percent of Michigan's energy demand.

With the costs of wind and solar technologies declining by 60% over the past five years, and with Michigan's potential for sustainable biomass, strengthening the RES can help stimulate a diversity of technologies that will be developed in the communities that most want them.

I would strongly encourage this committee to strengthen the RES and enact an IRP process to compliment the strengthened standard. I would also recommend strengthening the current proposed IRP process to ensure fair valuation of renewable energy, including specific legislative language that requires utilities to report comprehensively on their current and future situation, that gives the MPSC broad authority to deny, amend, or approve with conditions a utility IRP submittal, and that allows for robust and meaningful stakeholder participation throughout the process. Finally, the IRP process should specifically seek to minimize the cost and risk *to consumers and not the utilities*.

Crafting a robust and meaningful IRP process is no easy task, and I am not aware of a single IRP process in any state that fully achieves this and that has successfully driven cost-effective renewable energy investments at the level that a strengthened RES will.

That's why an RES is so critical -- it is a simple, market driven policy that provides certainty to utilities, businesses and consumers about their energy future. And the evidence to date shows that these policies are a success not just in Michigan, but across the country. They are driving investments in cost-effective renewable energy resources, they are driving investments in homegrown energy and local communities, and they are reducing our current over-reliance on fossil fuels, meaning a more sustainable, lower-risk, and cleaner electricity system. I believe that failing to take this opportunity to extend and strengthen the renewable energy standards will leave important benefits unrealized in Michigan.

Thank you for the opportunity to provide this testimony. I am happy to answer any questions.

Sincerely,

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Documents accompanying this testimony:

- 1) *Charting Michigan's Renewable Energy Future: Accelerating the transition to clean, affordable, and reliable power*
- 2) *Michigan's Dependence on Imported Coal. Burning Coal Burning Cash: 2014 Update*
- 3) *Ripe for Retirement: The Case for Closing Michigan's Costliest Coal Plants*
- 4) *The Natural Gas Gamble: A Risky Bet on America's Clean Energy Future*