



Advanced Energy Policy Priorities

How the Next Governor Can Make Michigan's Energy System More Secure, Clean, and Affordable—and Drive Economic Development

Our energy system is going through a dramatic evolution – attention to consumer preferences, dynamic new technologies, and the need to replace aging infrastructure are all contributing to a rapidly changing energy landscape. And with this transformation, comes opportunity. As of 2017, clean energy jobs exceed fossil fuel and nuclear generated electricity combined. In addition to supporting over 122,200 jobs in Michigan and 3.3 million jobs across the United States, the advanced energy industry is poised to provide the technology and know-how to accelerate the transition to a new era of secure, clean, robust, and affordable energy.

Michigan's next Governor can harness the economic power of the advanced energy industry, support Michigan's economy, solidify the state's leadership in mobility, and put quality jobs at the heart of a vision for a forward-looking energy future. This document outlines six key priorities that the next Governor should focus on to pursue an economic development agenda that takes full advantage of the potential of advanced energy.

Priorities to Grow Michigan's Advanced Energy Economy

1. BUILD UPON THE SUCCESS OF MICHIGAN'S 2016 ENERGY LEGISLATION TO FURTHER DEVELOP THE RUNWAY FOR ADVANCED ENERGY IN MICHIGAN

Clean energy in Michigan drives job growth. Michigan's advanced energy businesses already support more than 122,200 jobs.¹ Advanced energy is also the cheapest form of new energy for businesses and ratepayers.²

TECHNOLOGY SECTOR	NUMBER OF JOBS
Energy Efficiency	84,000
Advanced Transportation	21,000
Renewable Energy	11,000

Table 1: Number of jobs in clean energy sectors in Michigan.³

In December 2016, Governor Snyder signed sweeping energy legislation into law (Public Acts 341 and 342). This legislation increased the state's renewable portfolio standard from 10% in

¹ Clean Jobs Midwest, 2018. <https://www.cleanjobsmidwest.com/state/michigan>.

² Lazard. "Levelized Cost of Energy Analysis 11.0." 2017. <https://www.lazard.com/media/450337/lazard-levelized-cost-of-energy-version-110.pdf>

³ Clean Jobs Midwest, 2018. <https://www.cleanjobsmidwest.com/state/michigan>.



2015 to at least 12.5% in both 2019 and 2020 with a final requirement of at least 15% in 2021. It also established a goal of meeting not less than 35% of the state's electric needs through a combination of energy efficiency and renewable energy by 2025. In addition, the legislation required the Michigan Public Service Commission (MPSC) to establish several new regulations that will affect advanced energy businesses and ratepayers alike, including requiring the establishment of utility programs for large customers to purchase renewable energy, replacing net energy metering with a new equitable tariff, and establishing a new Integrated Resource Planning (IRP) process for long-term utility planning.

It is essential that we build upon the successes in the 2016 legislation to ensure that the laws are implemented as intended by the legislature and to create additional opportunities for Michigan businesses to provide affordable, advanced energy to customers, companies, cities, and universities that are demanding it.

2. MAXIMIZE ENERGY EFFICIENCY AND DEMAND RESPONSE TO CREATE JOBS, PROVIDE SAVINGS FOR RATEPAYERS AND BUSINESSES, AND PROTECT LOW-INCOME RESIDENTS

Energy efficiency and demand response remain the cheapest means of meeting Michigan's energy needs. A recent report by the MPSC found that every dollar spent on energy efficiency programs in 2016 could be expected to yield \$4.29 in benefits to ratepayers, and that energy efficiency resources cost 1.607 cents per kWh, which is significantly lower than the cost of other energy options.⁴ Demand response programs can help defer the construction of costly new generation plants and lower costs for Michigan industries and commercial buildings. This increases the competitiveness of Michigan businesses and helps retain and grow jobs.

The 2016 energy laws maintained energy efficiency standards at 1 percent per year for all investor owned utilities through 2021. In addition, the laws lifted the caps on the amount of money utilities can spend on energy efficiency programs, provided enhanced incentives to utilities for these investments, and established the minimum standards that a utility must meet to achieve a given level of incentive. However, the MPSC can set additional criteria and benchmarks for utility energy efficiency programs. It is especially important that the laws are implemented in such a way to enhance the benefits of energy efficiency and demand response programs for low-income customers.

3. ENHANCE OPPORTUNITIES FOR CORPORATIONS, UNIVERSITIES, AND CITIES TO ACCESS RENEWABLE ENERGY

⁴ Michigan Public Service Commission, 2018, *Report on the Implementation of PA 295 As Amended by PA 342 2016 Utility Energy Waste Reduction Programs*.

http://www.michigan.gov/documents/mpsc/MPSC_Energy_Waste_Reduction_2016_Report_with_Appendices_Feb_15_2018_614120_7.pdf.



Enabling customers to purchase renewable energy is critical to attracting and keeping companies in Michigan. A number of companies with a large presence in Michigan – including Amazon, the Dow Chemical Company, Ford Motor Company, General Motors, Steelcase, Whirlpool, and others – have ambitious renewable energy commitments and are already powering their operations with renewable energy in other states. Based on a limited screen of companies with stated renewable energy goals, Michigan EIBC found corporate demand of more than 2.6 million annual MWh of renewable energy in Michigan. Michigan cities including Ann Arbor, Dearborn, Detroit, Grand Rapids, Hazel Park, Kalamazoo, Southgate, Traverse City, Ypsilanti, and Northport have also set carbon reduction and/or renewable energy goals. And Michigan universities including University of Michigan, Michigan State University, Western Michigan University, and Wayne State University have established carbon reduction goals.

Because Michigan’s electricity market is 90 percent regulated, it is critical that the state’s investor owned utilities establish attractive programs that allow large users to secure access to renewable energy to meet this growing demand.

4. EXPAND OPPORTUNITIES FOR CUSTOMERS TO GENERATE THEIR OWN ELECTRICITY

Consumers can generate their own energy using a variety of advanced energy technologies including wind, solar, and biomass. This energy supports the grid, increases our energy independence and resilience, and improves self-reliability. For example, numerous studies have found that residential solar panels provide measurable benefits to the power system by generating power at times of the day when the demand for energy is at its peak.

It is critical that Michigan’s policies recognize the benefits of customer-owned energy generation by eliminating regulatory barriers, accurately valuing the produced energy, and ensuring that charges are fair and reasonable.

5. ELECTRIFY MICHIGAN’S TRANSPORTATION SECTOR

Mobility, technology, and energy are increasingly interwoven as the transportation sector becomes more connected, more autonomous, and more electrified. Electrification makes this automation, advanced computing, and sharing possible. Michigan, as the automobile capital of the country and as an early investor in advanced batteries, stands to play a key role in this transition. Electric vehicles are crucial to keeping and growing the automobile industry and jobs in this sector in Michigan. Michigan’s automakers are making impressive steps in vehicle technology. Battery storage companies are cutting costs and investing in infrastructure. As costs come down and vehicle technology integration gets smarter, faster, and cheaper, customer demand will grow even further.

We need a Governor and legislature that will help Michigan build and maintain a leadership position in this transformation. To enable this future, Michigan’s policy and regulatory



framework needs to be aligned around automated, electric, and shared vehicles. Governor Snyder's creation of the Council on Future Mobility in 2016 was a key step toward this alignment. Michigan's utilities can also play a pivotal role in developing electric vehicle charging infrastructure and making it easier for customers to recharge electric vehicles. The current lack of sufficient charging infrastructure for electric vehicles has become a bottleneck that frustrates the deployment of electrified vehicles. Solutions to these challenges must support competitive markets for vehicle charging.

6. MODERNIZE AND IMPROVE MICHIGAN'S ELECTRICAL GRID

In 2016, Governor Snyder released his 21st Century Infrastructure Plan, which included goals for strengthening, improving, and modernizing Michigan's electrical grid. The plan seeks to reduce the frequency and duration of electric outages and increase the percent of the state's electricity that is generated by renewable sources. These are laudable goals, but there is more that we can do to ensure that our grid is reliable, resilient, and delivers cost effective energy to Michiganders.

Michigan's investor owned utilities are in the process of updating their long-term plans to update their distribution systems. It is critical that these plans are forward-thinking and enable updates to the grid so that the state is able to take advantage of an increasing amount of distributed energy, advanced energy storage technologies, and electric vehicles acting as grid assets. As the costs of renewable energy and storage continue to fall dramatically, and energy generation shifts from centralized power plants to distributed generation, it is critical that our electricity grid can keep pace.

If planned for properly, this expansion of advanced energy technologies can create a more adaptable, resilient grid. A forward-looking strategy is critical to ensure the dependability of the electric grid.