

MICHIGAN: READY FOR ALTERNATIVE ENERGY

MICHIGAN: TOP LEVEL SUPPORT

In her State of the State address in 2009, Michigan Governor Jennifer M. Granholm announced new initiatives for green energy:

“By the year 2020, Michigan will reduce fossil fuel dependency for generating electricity by 45 percent (“45-by-20 goal”). This will be accomplished through increased renewable energy, gains in energy efficiency and other new technologies.”

In 2002, Michigan established a plan for alternative energy development. Since then, we have continued to improve our tools to encourage the development of this sector. In 2008, Michigan passed sweeping legislation that will provide additional benefits to the alternative energy sector.

MICHIGAN WILL LEAD BY EXAMPLE IN GREEN ENERGY

State government grid-based energy purchases will be reduced by 25% by 2015, compared to FY 2002. This goal will create opportunities for alternative energy generation and energy conservation at hundreds of state facilities all across Michigan.

Our state government has reduced electricity use by 23% and saved taxpayers some \$60 million over the past three years.

Over the next year, Michigan has set a goal of weatherizing more than 100,000 homes and installing energy efficiency and renewable energy technology in 1,000 buildings.

RENEWABLE ENERGY STANDARD (RES)

In 2008, Michigan enacted legislation that requires 10% of Michigan’s electricity sold by 2015 be produced from renewable sources, with at least that same quantity of renewable energy maintained in each provider’s portfolio for 2016 and after. The legislation requires providers to

make interim steps toward their 2015 renewable energy targets in 2012-13-14.

Renewable energy production and supply requirements have been established for Michigan’s two largest electricity suppliers, Detroit Edison (DTE) and Consumers Energy:

- Detroit Edison is required to have a renewable energy capacity portfolio of not less than 300 MW by the end of 2013, and 600 MW by the end of 2015.
- Consumers Energy is required to have 200 and 500 MW in the same timeframe.
- These providers must purchase at least 50% of their renewable energy credits from third party developers.
- Based on 2007 data, these utilities need to add a combined total of approximately 6,500,000 MWh to their renewable energy portfolios, opening a major opportunity for the in-state production of renewable energy.

RENEWABLE ENERGY CREDITS (RECS) AND ADVANCED CLEANER ENERGY CREDITS (ACECS)

Utilities earn RECS through generation from approved Renewable Energy Systems, including pre-existing capacity, new facilities owned by the utility, and power purchased from other Michigan producers. One REC is earned per MWh of electricity generated by the system.

Alternative Cleaner Energy Credits (ACECS) may be used to meet up to 10% of an electric provider’s RPS requirements, as long as the substitutions meet certain requirements and are pre-approved by the Michigan Public Service Commission (PSC). ACECS can be earned, for example, through generation from advanced cleaner energy systems such as industrial cogeneration and permanent geologic sequestration of greenhouse gas emissions. ACECS earned through energy optimization, plasma arc gasification and industrial cogeneration are



substituted 1 for 1 for RECS, while ACECS earned for other approved activities are substituted with 10 ACECS equal to 1 REC.

OPPORTUNITIES TO EARN MORE CREDIT THROUGH BONUS RECS

Solar generation earns two incentive RECS for each MWh generated, for a total of three per MWh.

On-peak, non-wind renewable generation earns an additional 20% REC for each MWh generated.

Renewable energy generated off-peak, stored, and then used on peak earns an additional 20% REC for each MWh:

- Consumers Energy's 1800 MW Ludington Pumped Storage Plant provides a means of turning off-peak wind generation into an even more valuable commodity.
- Advanced battery storage systems will also be eligible for this type of incentive.

Renewable energy generated from equipment made in Michigan earns an additional 10% REC for each MWh generated, for the first three years of production. The amount of incentive RECS is prorated based on the cost of equipment made in Michigan compared with the total equipment cost. Projects using more than 50% Michigan-made equipment will receive 100% of these incentive RECS.

Renewable energy generated from systems constructed by a Michigan work force earns an additional 10% REC for each MWh generated, for the first three years of production. The amount of incentive RECS is prorated based on the labor-hours attributed to Michigan residents compared with the total construction labor hours. Projects with a commercial operation date of October 6, 2008, through December 31, 2012, using more than 60% Michigan labor will receive 100% of these incentive RECS. The threshold requirement to receive 100% of these incentive RECS increases to 65% Michigan labor in 2013 and 70% in 2015.

ENERGY EFFICIENCY ASSISTANCE AND ENERGY OPTIMIZATION CREDITS (EOCS)

Michigan electric and natural gas utilities are required to help reduce the future costs of utility service. These utilities are in the process now of rolling out programs to provide energy efficiency assistance to all customer classes.

By 2010 and thereafter, Michigan utilities will be spending an estimated \$225 million annually on these programs. The overall goal is for each electric provider's programs to grow until they achieve 1% savings each year by 2012 and maintain that level each year thereafter. For natural gas utilities, that goal is 0.75%.

Energy Optimization Credits, similar to RECS and ACECS, will be generated for each megawatt hour saved through an eligible utility sponsored program. With Michigan PSC approval, these tradable certificates may be counted towards a supplier's RPS goals.

Certain residents, depending on income levels, will also be eligible for state income tax credits from 10%–25% of the costs of weatherization and energy efficient HVAC and appliances.

NET METERING FOR COMMERCIAL, AGRICULTURAL AND RESIDENTIAL INSTALLATIONS

Michigan net metering is available for renewable generator systems for methane digester systems up to 550kW and renewable energy systems up to 150kW that are sized to meet the customer's annual electricity needs. Credits are authorized on a first-come, first-served basis up to a total of 1% of each electricity provider's in-state peak load. Net metering credit will be given monthly for excess generation, and excess credits will roll over indefinitely.

20kW and under systems will benefit from true net metering: users will be billed on their net kWh usage and receive a credit equal to the full retail rate for



any net excess generation. Total net metering and interconnection application costs for 20kW and under systems is being set through formal rules at a maximum of \$100.

Modified net metering will be available for systems greater than 20kW and up to 150kW. The customer will pay the full retail rate for all kWh delivered by the utility while kWh delivered to the utility will be credited at the generation component of the full retail rate or a wholesale market-based energy rate. In addition to the net metering and interconnection application fee up to \$100, these systems will also pay all interconnection costs, including any required engineering studies and necessary system upgrades, and will use a generator meter.

Methane digester systems up to 550kW are eligible for modified net metering, regardless of the customer's annual electricity needs. The rules define methane digesters in a broad enough context to also include certain gasification systems. Systems greater than 150kW will pay full distribution charges for all usage, including what is generated and used on-site. These systems will pay all interconnection costs and will employ a separate generator meter.

For customers with systems that do not fit within these limits, net metering is not available. Other types of tariffed or contractual arrangements may be offered to these systems, in lieu of net metering credits.

For more information, see:

www.michigan.gov/netmetering

www.michigan.gov/customergeneration

TRANSMISSION CAPACITY WITH MORE TO COME

Most of Michigan's transmission assets in the Lower Peninsula are owned and operated by International Transmission Company (ITC; www.itctransco.com). ITC is the nation's first fully independent transmission

business, and currently is the nation's largest independent electric transmission company. ITC focuses solely on electric transmission, and actively invests in electric transmission to enhance reliability and relieve electric transmission congestion, and connect renewable energy resources to customers.

For the Upper Peninsula, American Transmission Company (ATC; www.atcllc.com) fulfills this function.

Both ATC and ITC have received Federal Energy Regulatory Commission (FERC) approval to reimburse qualifying generators for 100% of the costs of transmission system network upgrades required for interconnection. Reimbursement to the generator is made within 90 days of commercial operation.

This full reimbursement of costs differs from the tariff used in the rest of the MISO network, which requires generators to pay 50% of the cost of network upgrades associated with their interconnections.

WIND ENERGY RESOURCE ZONES

The Michigan Wind Energy Resource Zone Board is presently in the process of identifying the best regions in the state for wind farms, based on wind potential.

Utilities and transmission companies will determine existing or new transmission infrastructure needed to serve each region identified by the Wind Energy Resource Zone Board. The PSC will identify one or more Wind Energy Resource Zones in a hearing process scheduled for completion in 2010. This special Zone designation may then be used to expedite transmission planning, siting and construction.

INTERCONNECTION STANDARDS

Michigan's Interconnection Standards are being updated to make them more generator friendly.



OTHER INCENTIVES FOR ALTERNATIVE ENERGY

Renewable Energy Renaissance Zones® (RERZ)

The State of Michigan has many incentives to encourage the alternative energy industry's growth. In addition to tax abatements, training assistance, and other incentive programs, large investments in the state may be eligible for the Renewable Energy Renaissance Zone® (RERZ) program. Major projects that will manufacture or develop renewable energy systems or generate power from renewable sources may be eligible. Award of an RERZ makes the operation of the renewable energy facility virtually free of state and local operating and property taxes.

Michigan NextEnergy Authority (MNEA)

The Michigan NextEnergy Authority (MNEA) was created to promote the development of alternative energy technologies and to provide tax incentives for business activities and property related to the research, development and manufacturing of those technologies. Taxpayers engaged in research, development or manufacturing of alternative energy may be eligible for a nonrefundable credit against their MBT liability. Personal property that is certified by the MNEA is exempt from the collection of personal property taxes. The exemption applies only to personal property that is new to Michigan. Benefits under the MNEA program expire January 1, 2013.

Alternative Fuels Delivery Systems Tax Credits

State tax credits are available to service station owners who convert existing fuel delivery systems and/or install new systems to provide ethanol (E85) and/or biodiesel (B5 or higher) fuels to the public. The credits are for 30% of the eligible costs of an installed or converted fuel delivery system with a maximum tax credit of \$20,000 per applicant.

The tax credits will be available for work completed during a three-year period beginning January 1, 2009, and ending December 31, 2012. There is \$1 million available to fund these tax credits in each year of the program.

For more information, see www.michigan.gov/energyoffice.

