



MICHIGAN RENEWABLE ENERGY STANDARD SUMMARY

A. SUMMARY: Michigan's renewable energy standard (RES), adopted by the legislature and signed into law in October 2008, requires all electric providers in the state to provide at least 10 percent of their electricity using renewable energy sources by the year 2015. In addition, the state's two largest investor-owned utilities—Detroit Edison and Consumers Energy—have an additional capacity requirement of 500 and 600 megawatts by 2015, respectively. RES implementation and rulemaking falls under the jurisdiction of the Michigan Public Service Commission (PSC). Renewable energy credits may be used for compliance, and the PSC must select a REC tracking and trading entity to administer the program. Penalties for non-compliance vary depending on the type of electric provider. A cost cap prevents retail rates from exceeding \$3.00 per month per residential customer meter, \$16.58 per month commercial customers, and \$187.50 per month for industrial customers.

B. APPLICABLE AUTHORIZING LEGISLATION/REGULATION

- 1. Part of Broader Energy Package?** The Michigan RES was adopted as part of legislation that also establishes an energy efficiency resource standard and net metering, as well as creating wind energy resource zones.
- 2. Legislative/Regulatory Intent:** “The purpose of this act is to promote the development of clean energy, renewable energy, and energy optimization through the implementation of a clean, renewable, and energy efficient standard that will cost-effectively do all of the following: (a) Diversify the resources used to reliably meet the energy needs of consumers in this state. (b) Provide greater energy security through the use of indigenous energy resources available within the state. (c) Encourage private investment in renewable energy and energy efficiency. (d) Provide improved air quality and other benefits to energy consumers and citizens of this state.”
- 3. Applicable Legislation:**
9/08 – Public Act 295 (2008), [Clean, Renewable, and Efficient Energy Act](#) (SB 213)
- 4. Date Enacted:**
October 6, 2008
- 5. Date Effective:**
October 6, 2008

C. RULEMAKING

- 1. Implementing/rulemaking Authority:** Michigan Public Service Commission (PSC)

2. Rulemaking Completed to Date:
None

D. TARGETS AND TIMETABLES

- 1. Overview:** Compliance with the RES begins in 2012 for all electric providers, and gradually ramps up to 10 percent by 2015. Each provider has a unique annual obligation based on the amount of its existing use of renewable energy in 2012, and the amount of generation that would be required to meet the full 10 percent target during the respective compliance year. The applicable percentage obligation for each electric provider begins at 20 percent of the total 2015 (10 percent) obligation in 2012. It then increases to 33 percent of the total 2015 obligation in 2013, 50 percent of the total 2015 obligation in 2014, and then 100 percent of the total obligation in 2015, and each year thereafter.

Subject to certain conditions and Public Service Commission approval, electric providers may use energy efficiency or advanced cleaner energy resources (gasification, industrial cogeneration, coal gasification with carbon capture and storage) to meet up to 10 percent of their annual requirement.

There is also a capacity requirement (additional to the generation requirement) for large-scales electric providers. An electric provider with more than 1,000,000 but less than 2,000,000 retail electric customers in Michigan on 1/1/08 must acquire 200 megawatts (MW) of renewable energy by 2013, and 500 MW by 2015. An electric provider with more than 2,000,000 retail electric customers must acquire 300 MW by 2013 and 600 MW by 2015.

2. Schedule:

| Year | Renewable Generation Requirement (for all electric providers) | Renewable Capacity Requirement |
|----------------------|--|---------------------------------------|
| 2012 | 20 percent of the total 2015 obligation (equal to 2 percent) | |
| 2013 | 33 percent of the total 2015 obligation (equal to 3.3 percent) | 200 MW* 300 MW** |
| 2014 | 50 percent of the total 2015 obligation (equal to 5 percent) | |
| 2015, and thereafter | 100 percent of the total 2015 obligation (equal to 10 percent) | 500 MW* 600 MW** |

* This capacity requirement is placed on an electric provider with more than 1,000,000 but less than 2,000,000 retail electric customers in Michigan on 1/1/08 (i.e., Consumers Energy).

** This capacity requirement is placed on an electric provider with more than 1,000,000 but less than 2,000,000 retail electric customers in Michigan on 1/1/08 (i.e., Detroit Edison).

3. **Treatment of Existing Capacity:** Both new and existing renewable energy facilities are eligible to meet the generation requirement. However, for hydroelectric facilities, new generation is only eligible where the dam is a repair or replacement of one previously in existence (as of October 2008), or an upgrade of a previously existing dam that increases its energy efficiency. For municipal solid waste incineration, new generation is only eligible at existing facilities (as of October 2008) where energy efficiency is increased, or where an expansion of an incinerator under certain, limited conditions occurs.

Renewable energy facilities used to meet the large investor-owned utility capacity requirements must commence operation after the effective date of the renewable energy standard (October 2008).

4. **Sunset Clause:** None.

E. DEFINITION AND CERTIFICATION OF ELIGIBLE RESOURCES AND TECHNOLOGIES

1. **Eligible Resources:** “Renewable energy resource” means a resource that naturally replenishes over a human, not a geological, time frame and that is ultimately derived from solar power, water power, or wind power. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following:
 - a. Biomass, which means “any organic matter that is not derived from fossil fuels, that can be converted to usable fuel for the production of energy, and that replenishes over a human, not a geological, time frame, including, but not limited to, all of the following: (i) Agricultural crops and crop wastes. (ii) Short-rotation energy crops. (iii) Herbaceous plants. (iv) Trees and wood, but only if derived from sustainably managed forests or procurement systems, as defined in section 261c of the management and budget act, 1984 PA 431, MCL 18.1261c. (v) Paper and pulp products. (vi) Precommercial wood thinning waste, brush, or yard waste. (vii) Wood wastes and residues from the processing of wood products or paper. (viii) Animal wastes. (ix) Wastewater sludge or sewage. (x) Aquatic plants. (xi) Food production and processing waste. (xii) Organic by-products from the production of biofuels.”
 - b. Solar and solar thermal energy
 - c. Wind energy
 - d. Hydroelectric, defined as kinetic energy of moving water, including water released through a dam and waves, tides, or currents. Hydroelectric does not include pumped storage facilities or facilities that use a dam constructed after October 2008 unless the dam is a repair or replacement of a dam previously in existence or an upgrade of a dam previously in existence that increases its energy efficiency.
 - e. Geothermal energy

- f. Municipal solid waste (at facilities brought into service before October 2008)
- g. Landfill gas produced by municipal solid waste

If a renewable energy system uses both a renewable energy resource and a nonrenewable energy resource to generate electricity, eligibility shall be based on the percentage of the electricity generated from the renewable energy resource.

Up to 10 percent of an electric provider's obligation may be met using a combination of energy efficiency measures and advanced clean energy resources (gasification, industrial cogeneration, coal gasification with carbon capture and storage), and no more than 70 percent of the 10 percent limit may be met using advanced energy systems in existence on or before January 1, 2008. Energy efficiency credits may be substituted at a one to one ratio to renewable energy credits, while most advanced energy credits are substituted at a ratio of 10 to 1. Exceptions to this are industrial cogeneration and plasma arc gasification, which are credited at a one to one ratio.

2. **Special Incentives:** “Michigan incentive renewable energy credits (REC)” are available under the following conditions: (a) 2 RECs for each megawatt hour (MWh) from solar power. (b) 1/5 RECs for each MWh generated from a renewable energy system, other than wind, at peak demand time. (c) 1/5 RECs for each MWh generated from a renewable energy system during off-peak hours, stored using advanced electric storage technology or a hydroelectric pumped storage facility, and used during peak hours. (d) 1/10 RECs for each MWh generated from a renewable energy system constructed using equipment made in Michigan. This additional credit is available for the first three years after the renewable energy system first produces electricity on a commercial basis. (e) 1/10 RECs for each MWh from a renewable energy system constructed using a workforce composed of Michigan residents. This additional credit is available for the first three years after the renewable energy system first produces electricity on a commercial basis.
3. **Exclusions:** Petroleum, natural gas, coal, and nuclear power are explicitly excluded from the eligible definition of renewable energy resources.
4. **Treatment of Self Generation:** Distributed generation facilities are eligible to meet the annual renewable energy requirements.
5. **Rules governing Location of Generating Facilities:** Renewable energy systems used to satisfy the RES must be either located outside of Michigan in the retail electric customer service territory of any provider that is not an alternative electric supplier or located anywhere in Michigan. The PSC has the authority to expand a service territory if a lack of transmission lines limits the ability to obtain sufficient renewable energy resources.

The RES statute provides several exceptions to this geographic eligibility criteria, including, among other things, wind facilities under a contract to an electric service provider in effect on January 1, 2008; wind facilities under construction or operational

and owned by an electric provider (other than an alternative electric supplier) on January 1, 2008; wind facilities that includes multiple turbines, at least one of which meets the location requirements, and the remaining turbines are within 15 miles of a wind turbine that is part of that facility.

6. **Eligibility of Green Pricing Programs:** A REC shall not be granted for renewable energy the renewable attributes of which are used by an electric provider in a PSC-approved voluntary renewable energy program.

F. COVERED UTILITIES

1. **Covered utilities:** The renewable energy generation requirements apply to all electric providers in the state. However, the renewable energy capacity requirements apply only to large investor-owned utilities (with 1,000,000 or more retail customers on 1/1/08).
2. **Share of state sales/capacity/delivered power covered:** 100 percent of total retail electric sales
3. **Apportionment of obligation among utilities:** The RES is applied separately to each electric service provider. In its initial compliance plan, each electric service provider must decide whether the calculation for determining their respective generation requirement will be based on (a) the number of weather-normalized megawatt hours (MWh) of electricity sold to retail customers during the previous year, (b) the average number of MWh of electricity sold annually to retail customers during the previous three years.
4. **Exemptions by Customer Class:** None.

G. COST PROVISIONS

1. **Cost Cap for Retailers/Consumers:** An electric provider does not have to comply with the RES to the extent that, as determined by the PSC, recovery of the incremental cost of compliance will have a retail rate impact that exceeds any of the following:
 - (a) \$3.00 per month per residential customer meter.
 - (b) \$16.58 per month per commercial secondary customer meter.
 - (c) \$187.50 per month per commercial primary or industrial customer meter.

These retail rate impact limits apply only to the incremental costs of compliance, which is explicitly defined in Sec 47 (2) of Public Act 295 (2008). Electric providers may begin collecting the customer surcharge as soon as the PSC approves their RES compliance plan.

2. **Cost Recovery Mechanisms:** Subject to retail rate impact limits, the PSC is required to consider all actual costs reasonably and prudently incurred in good faith to implement an approved renewable energy plan by an electric provider whose rates are

regulated by the PSC to be a cost of service to be recovered by the electric provider. An electric provider whose rates are regulated by the PSC shall recover through its retail electric rates all of the electric provider's incremental costs of compliance during the 20-year period beginning when the electric provider's plan is approved by the PSC and all reasonable and prudent ongoing costs of compliance during and after that period. The recovery shall include, but is not limited to, the electric provider's authorized rate of return on equity for approved costs, which shall remain fixed at the rate of return and debt to equity ratio that was in effect in the electric provider's base rates when the electric provider's renewable energy plan was approved.

- 3. Supply Contract Requirements:** If, after October 2008, an electric provider whose rates are regulated by the PSC enters a renewable energy contract or a contract to purchase RECs without the associated renewable energy, the PSC shall determine whether the contract provides reasonable and prudent terms and conditions and complies with the standard's retail rate impact limits. In making this determination, the PSC shall consider the contract price and term. If the contract is a renewable energy contract, the commission shall also consider at least all of the following: (a) The cost to the electric provider and its customers of the impacts of accounting treatment of debt and associated equity requirements imputed by credit rating agencies and lenders attributable to the renewable energy contract. The PSC shall use standard rating agency, lender, and accounting practices for electric utilities in determining these costs, unless the impacts for the electric provider are known. (b) Subject to rate impact limits, the life-cycle cost of the renewable energy contract to the electric provider and customers including costs, after expiration of the renewable energy contract, of maintaining the same renewable energy output in megawatt hours, whether by purchases from the marketplace, by extension or renewal of the renewable energy contract, or by the electric provider purchasing the renewable energy system and continuing its operation. (c) Electric provider and customer price and cost risks if the renewable energy systems supporting the renewable energy contract move from contracted pricing to market-based pricing after expiration of the renewable energy contract.

For large investor-owned utilities, up to but no more than 50 percent of the RECs used to comply with the renewable energy standard shall be from either: (i) Renewable energy systems that were developed by and are owned by the electric provider. An electric provider shall competitively bid any contract for engineering, procurement, or construction of any new renewable energy systems. However, an electric provider may consider unsolicited proposals presented to it by a renewable energy system developer outside of a competitive bid process. If the provider determines that such an unsolicited proposal provides opportunities that may not otherwise be available or commercially practical, the provider may enter into a contract with the developer. (ii) Renewable energy systems that were developed by 1 or more third parties pursuant to a contract with the electric provider under which the ownership of the renewable energy system may be transferred to the electric provider, but only after the renewable energy system begins commercial operation. Any such contract shall be executed after a competitive bidding process conducted pursuant to guidelines issued by the

4. Special Funds: None specified.

H. COMPLIANCE AND ENFORCEMENT

- 1. Certification, Tracking and Trading Requirements:** Compliance with the RES can be met by purchasing RECs with or without the associated renewable energy. A REC represents one megawatt hour of generated renewable energy, and may be traded, sold, or otherwise transferred, but cannot be counted more than once. The PSC is responsible for establishing a REC certification and tracking program, which may be contracted to and performed by a third party, such as the Midwest Renewable Energy Tracking System (M-RETS).

One REC shall be granted to the owner of a renewable energy system for each megawatt hour of electricity generated from the renewable energy system. However, if an electric provider obtains renewable energy for resale to retail or wholesale customers under an agreement under PURPA, ownership of the associated RECs shall be as provided by the PURPA agreement. If the PURPA agreement does not provide for REC ownership, then: (a) Except to the extent that a separate agreement exists, for the duration of the PURPA agreement, for every five RECs associated with the renewable energy, ownership of four of the RECs is transferred to the electric provider with the renewable energy, and ownership of one REC remains with the qualifying small power production facility. If a separate agreement in effect on January 1, 2008 provides for the ownership of the renewable attributes of the generated electricity, the separate agreement shall govern until January 1, 2013 or until expiration of the separate agreement, whichever occurs first.

If an investor-owned electric utility with less than 20,000 customers, a municipally-owned electric utility, or cooperative electric utility obtains all or substantially all of its electricity for resale under a power purchase agreement or agreements in existence on the effective date of this act, ownership of any associated RECs shall be considered to be transferred to the electric provider purchasing the electricity.

2. **Flexibility Mechanisms: REC Banking** – If unused, a renewable energy credit expires three years after the end of the month in which the renewable energy credit was generated.

True-up period – A REC associated with renewable energy generated within 120 days after the start of a calendar year may be used to satisfy the prior year's RES target.

3. **Penalties, Procedures, Powers, and Sanctions:** If an electric provider whose rates are regulated by the PSC fails to meet the RES, subject to any approved extensions, both of the following apply: (a) The electric provider shall purchase sufficient RECs necessary to meet the standard. (b) The electric provider shall not recover from its ratepayers the cost of purchasing RECs if the PSC finds that the electric provider did not make a good faith effort to meet the RES.

The attorney general or any customer of a cooperative electric utility that has elected to become member-regulated, may commence a civil action for injunctive relief against such a cooperative electric utility if the electric provider fails to meet the applicable renewable energy requirements. In issuing a final order, the court may award costs of litigation, including reasonable attorney and expert witness fees, to the prevailing or substantially prevailing party.

Upon receipt of a complaint by an alternative electric supplier's customer or on the PSC's own motion, the PSC may conduct a contested case to review allegations that the alternative electric supplier has violated this subpart or an order issued or rule promulgated under this subpart. If the PSC finds after notice and hearing that an alternative electric supplier has violated the RES, the PSC shall do one or more of the following: (a) Revoke the license of the alternative electric supplier. (b) Issue a cease and desist order. (c) Order the alternative electric supplier to pay a civil fine of not less than \$5,000 or more than \$50,000 for each violation.

Upon receipt of a complaint by any customer of a municipally-owned electric utility or upon the PSC's own motion, the PSC may review allegations that the municipally-owned electric utility has violated the RES. If the PSC finds, after notice and hearing, that a municipally-owned electric utility has violated RES, the PSC shall advise the attorney general. The attorney general may commence a civil action for injunctive relief against the municipally-owned electric utility in the circuit court for the circuit in which the principal office of the municipally-owned electric utility is located. In issuing a final order in an action brought under subsection (6), the court may award costs of litigation, including reasonable attorney and expert witness fees, to the prevailing or substantially prevailing party.

4. **Escape Clauses:** Upon petition by an electric provider, the PSC may for good cause grant two extensions of the 2015 RES deadline. Each extension shall be for up to one year. If two extensions of the 2015 RES deadline have been granted to an electric provider, upon subsequent petition by the electric provider at least three months before the expiration of the second extended deadline, the PSC shall, after consideration of

prior extension requests and for good cause, establish a revised RES attainable by the electric provider. In addition, an electric provider that makes a good faith effort to spend the full amount of incremental costs of compliance as outlined in its approved renewable energy plan and that complies with its approved plan, subject to any approved extensions or revisions, shall be considered to be in compliance.

“Good cause” includes, but is not limited to, the electric provider’s inability, as determined by the PSC, to meet the RES because of a renewable energy system feasibility limitation including, but not limited to, any of the following: (a) renewable energy system site requirements, zoning, siting, land use issues, permits, including environmental permits, any certificate of need process under section 6s of 1939 PA 3, MCL 460.6s, or any other necessary governmental approvals that effectively limit availability of renewable energy systems, if the electric provider exercised reasonable diligence in attempting to secure the necessary governmental approvals. “Reasonable diligence” includes, but is not limited to, submitting timely applications for the necessary governmental approvals and making good faith efforts to ensure that the applications are administratively complete and technically sufficient. (b) Equipment cost or availability issues including electrical equipment or renewable energy system component shortages or high costs that effectively limit availability of renewable energy systems. (c) Cost, availability, or time requirements for electric transmission and interconnection. (d) Projected or actual unfavorable electric system reliability or operational impacts. (e) Labor shortages that effectively limit availability of renewable energy systems. (f) An order of a court of competent jurisdiction that effectively limits the availability of renewable energy systems.

I. ADMINISTRATION

Administering Entities, Duties, Powers, and Contact Information: The Michigan Public Service Commission administers the renewable energy standard.

Michigan Public Service Commission
6545 Mercantile Way, Suite 7
Lansing, MI 48911
Phone: (517) 241-6180
Fax: (517) 241-6181
Web site: <http://www.michigan.gov/mpsc>

J. REPORTING REQUIREMENTS and PROGRAM STATUS

1. Reporting Requirements:

Retailers: Each electric provider shall submit to the PSC an annual report that provides information relating to the actions taken by the electric provider to comply with the RES. A municipally-owned electric utility shall submit a copy of the report to the governing body of the municipally-owned electric utility, and a cooperative electric utility shall submit a copy of the report to its board of directors.

Administrative Entities: By February 15, 2011 and each year thereafter, the PSC shall submit to the standing committees of the senate and house of representatives with primary responsibility for energy and environmental issues a report that, among other things, discusses the status of renewable energy and advanced cleaner energy in Michigan and their effect on electricity prices; for each of the different types of renewable energy sold at retail in Michigan, specifies the difference between the cost of the renewable energy and the cost of electricity generated from new conventional coal-fired electric generating facilities; evaluates whether the standard has been cost-effective; and describes the impact of the RES on Michigan employment.

- 2. Cost Information:** Since the first year of compliance is not until 2012, no comprehensive study on the actual costs of the RPS has been completed to date.