



## OHIO RENEWABLE ELECTRICITY STANDARD SUMMARY

A. **SUMMARY:** Ohio's renewable electricity standard (RES), enacted on May 1, 2008, requires all electric distribution utilities and electric services companies in the state to provide at least 12.5 percent of their electricity using renewable energy sources by the year 2025. The standard also includes a solar energy set-aside requirement of 0.5 percent by 2025. RES implementation and rulemaking falls under the jurisdiction of the Public Utilities Commission of Ohio (PUCO). Renewable energy credits may be used for compliance, and the PUCO must select an existing REC tracking and trading entity to administer the program. The PUCO has the authority to levy a renewable energy compliance payment on electric distribution utilities or electric services companies that fail to comply with the annual requirements.

### B. AUTHORIZING LEGISLATION/REGULATION

1. **Part of Broader Energy Package?** Yes. Ohio's RES was adopted as part of legislation that among other things, addresses electric service rate structure, establishes an energy efficiency resource standard, and requires greenhouse gas emission reporting.

2. **Legislative/Regulatory Intent:** To “establish alternative energy benchmarks for electric distribution utilities and electric services companies, [and] provide for the use of renewable energy credits...”

3. **Applicable Legislation/Regulation:**

5/08 – [Substitute Senate Bill 221](#)

4. **Date Enacted:** 05/1/08

5. **Date Effective:** 7/31/08

### C. RULEMAKING

1. **Implementing/rulemaking Authority:** Public Utilities Commission of Ohio (PUCO).

2. **Rulemaking Completed to Date:** None

### D. TARGETS AND TIMETABLES

1. **Brief Overview:** The RES begins in 2009 by requiring that 0.25 percent of the retail electricity supply for electric distribution utilities and electric service companies comes from renewable energy sources. The target continues to grow annual to at least 12.5 percent by 2025. In addition, the RES includes a solar set-aside requirement (not

additive to the renewable energy target) that gradually increases from 0.004 percent in 2009 to 0.5 percent by 2025.

**2. Schedule:**

Compliance Year (June 1 – May 31)	Non-solar Renewable Energy Requirement	Solar Energy Requirement	Total Renewable Energy Requirement
2009	0.246%	0.004%	0.25%
2010	0.49%	0.010%	0.50%
2011	0.97%	0.030%	1.0%
2012	1.44%	0.060%	1.5%
2013	1.91%	0.090%	2.0%
2014	2.38%	0.12%	2.5%
2015	3.35%	0.15%	3.5%
2016	4.32%	0.18%	4.5%
2017	5.28%	0.22%	5.5%
2018	6.24%	0.26%	6.5%
2019	7.20%	0.30%	7.5%
2020	8.16%	0.34%	8.5%
2021	9.12%	0.38%	9.5%
2022	10.08%	0.42%	10.5%
2023	11.04%	0.46%	11.5%
2024 & thereafter	12%	0.50%	12.5%

**3. Treatment of Existing Capacity:** Renewable energy resources with a placed-in-service date of January 1, 1998, or after are eligible to meet the RES. In the case of a mercantile (commercial) customer-sited renewable energy resource where the mercantile customer commits to integration into the electric distribution utility's demand-response, both new and existing facilities are eligible.

**4. Sunset Clause:** None. The annual requirements for 2024 continue each year thereafter.

**E. DEFINITION OF ELIGIBLE RESOURCES AND TECHNOLOGIES**

**1. Eligible Resources:** Renewable energy resource is defined as:

- Solar photovoltaic
- Solar thermal energy
- Wind power, including wind turbines located in the state's territorial waters of Lake Erie
- Geothermal energy
- Biomass energy, biologically derived methane gas, or energy derived from nontreated by-products of the pulping process or wood manufacturing process,

- including bark, wood chips, sawdust, and lignin in spent pulping liquors.
- Power produced by a hydroelectric facility, which means “a hydroelectric generating facility that is located at a dam on a river, or on any water discharged to a river, that is within or bordering this state or within or bordering an adjoining state and meets all of the following standards:
    - (a) The facility provides for river flows that are not detrimental for fish, wildlife, and water quality, including seasonal flow fluctuations as defined by the applicable licensing agency for the facility.
    - (b) The facility demonstrates that it complies with the water quality standards of this state, which compliance may consist of certification under Section 401 of the "Clean Water Act of 1977," 91 Stat. 1598, 1599, 33 U.S.C. 1341, and demonstrates that it has not contributed to a finding by this state that the river has impaired water quality under Section 303(d) of the "Clean Water Act of 1977," 114 Stat. 870, 33 U.S.C. 1313.
    - (c) The facility complies with mandatory prescriptions regarding fish passage as required by the federal energy regulatory commission license issued for the project, regarding fish protection for riverine, anadromous, and catadromus fish.
    - (d) The facility complies with the recommendations of the Ohio environmental protection agency and with the terms of its federal energy regulatory commission license regarding watershed protection, mitigation, or enhancement, to the extent of each agency's respective jurisdiction over the facility.
    - (e) The facility complies with provisions of the "Endangered Species Act of 1973," 87 Stat. 884, 16 U.S.C. 1531 to 1544, as amended.
    - (f) The facility does not harm cultural resources of the area. This can be shown through compliance with the terms of its federal energy regulatory commission license or, if the facility is not regulated by that commission, through development of a plan approved by the Ohio historic preservation office, to the extent it has jurisdiction over the facility.
    - (g) The facility complies with the terms of its federal energy regulatory commission license or exemption that are related to recreational access, accommodation, and facilities or, if the facility is not regulated by that commission, the facility complies with similar requirements as are recommended by resource agencies, to the extent they have jurisdiction over the facility; and the facility provides access to water to the public without fee or charge.
    - (h) The facility is not recommended for removal by any federal agency or agency of any state, to the extent the particular agency has jurisdiction over the facility.”
  - Fuel derived from solid wastes, as defined in section 3734.01 of the Ohio Revised Code, through fractionation, biological decomposition, or other process that does not principally involve combustion
  - Any fuel cell used in the generation of electricity, including, but not limited to, a proton exchange membrane fuel cell, phosphoric acid fuel cell, molten carbonate fuel cell, or solid oxide fuel cell.
  - Storage facility that will promote the better utilization of a renewable energy

- resource that primarily generates off peak.
- The PUCO has the authority to classify any new technology as a renewable energy resource.

- 2. Specific Incentives:** Generation from solar energy resource is given a separate set-aside requirement, which ramps up annually to 0.5 percent by 2025.
- 3. Exclusions:** Combustion of fuel derived from solid waste is not eligible to meet the RES.
- 4. Treatment of Self Generation:** Self generation is eligible under the RES.
- 5. Rules governing Location of Generating Facilities:** At least one-half of the renewable energy resources used to meet the annual targets must come from facilities located in Ohio. The remainder of the resources must come from facilities that can be shown to be deliverable into Ohio.

Eligible hydroelectric facilities must be located at a dam on a river, or on any water discharged to a river, that is within or bordering Ohio or within or bordering an adjoining state.

- 6. Eligibility of Green Pricing Programs:** Not specified in statute

## F. COVERED UTILITIES

- 1. Covered utilities:** The RES applies to both electric distribution utilities and electric services companies. Electric cooperatives and municipal utilities are exempt.
- 1. Share of State Sales/capacity/Delivered Power Covered:** Approximately 89 percent of the state's total electric sales are covered by the RES requirements.
- 2. Apportionment of obligation among utilities:** The annual requirements are applied separately to each electric distribution utility and electric services company. The baseline that an obligated utility or company must use to establish its annual requirement is the average of the total kilowatt hours it sold in the preceding three calendar years, except that the PUCO may reduce a utility's or company's baseline to adjust for new economic growth in the utility's certified territory or, in the case of an electric services company, in the company's service area in Ohio.
- 3. Exemptions by customer class:** None

## G. COST PROVISIONS

- 1. Cost Cap for retailers:** An electric distribution utility or an electric services company does not have to comply with the annual requirements to the extent that its reasonably expected cost of compliance exceeds its reasonably expected cost of

otherwise producing or acquiring the requisite electricity by three per cent or more. In addition, a renewable energy compliance payment, administered by PUCO for non-compliance, serves as de facto cost cap for retailers.

2. **Cost Cap for Consumers:** None specified
3. **Cost Recovery Mechanisms:** The costs of complying with the RES can be recovered through customer rates. However, all compliance costs incurred by an electric distribution utility can be bypassable by any consumer that has exercised choice of supplier under section 4928.03 of the Ohio Revised Code.

In addition, renewable energy compliance payments—if administered by PUCO—are not permitted to be passed through to consumers by the electric distribution utility or electric services company.

4. **Supply Contract Requirements:** There are no explicit supply contract requirements stated in the RES statute. However, in order to be granted a force majeure determination by PUCO, an electric distribution utility or electric services company must demonstrate that it has made a good faith effort to acquire sufficient renewable energy through—among other means—seeking the resources via long-term contracts. Long-term contracts are not defined in the statute.
5. **Special Funds:** An Advanced Energy Fund that provides support for renewable energy and other clean energy technologies was created in 1999 as part of electric-industry restructuring legislation. The fund is supported by a temporary surcharge on ratepayers' utility bills, which was recently extended through 2017.

Furthermore, any monies collected through the renewable energy compliance payment mechanism are to be deposited into the Advanced Energy Fund.

## H. COMPLIANCE AND ENFORCEMENT

1. **Certification, tracking, and trading mechanism[s]:** Compliance with the renewable energy requirements is tracked and verified through the use of tradable renewable energy credits (REC). The PUCO is responsible for establishing a REC tracking system by specifying one of the existing registries (presumably the Midwest Renewable Energy Tracking System or the PJM Generation Attributes Tracking System).

One credit equals one megawatt-hour of electricity derived from renewable energy resources.

2. **Flexibility Mechanisms:** Banked Compliance – An electric distribution utility or electric services company may use RECs any time in the five calendar years

following the date of their purchase or acquisition from any entity.

3. **Penalties, Procedures, Powers, and Sanctions:** If the PUCO determines, after notice and opportunity for hearing, and based upon its findings in that review regarding avoidable under compliance or noncompliance, that an electric distribution utility or electric services company has failed to comply with an annual requirement, the PUCO shall impose a renewable energy compliance payment on the utility or company.

The compliance payment pertaining to the (non-solar) renewable energy resource targets shall equal the number of additional RECs that the electric distribution utility or electric services company would have needed to comply with the applicable target times an amount that shall begin at \$45 and shall be adjusted annually by the PUCO to reflect any change in the consumer price index, but shall not be less than \$45.

For the solar energy resource requirement, the compliance payment begins at \$450 per megawatt-hour (MWh) of under compliance or noncompliance for 2009, decreases to \$400/MWh for 2010 and 2011, and similarly decreases every two years thereafter through 2024 by \$50, to a minimum of \$50/MWh.

At its discretion, the PUCO may increase the amount of the compliance payment to ensure that it is not used to achieve compliance in lieu of actually acquiring or realizing energy derived from renewable energy resources. However, legislative enactment is required to make any other changes to the compliance payment.

Renewable energy compliance payments are not permitted to be passed through to consumers, and must be deposited into the Ohio Advanced Energy Fund. Payment of the compliance payment shall be subject to the collection and enforcement procedures that apply to the collection of forfeiture under sections 4905.55 to 4905.60 and 4905.64 of the Ohio Revised Code.

4. **Treatment of emission allowance or reduction credits:** None specified
5. **Escape Clauses: Force Majeure** – An electric distribution utility or electric services company may request the PUCO to make a force majeure determination regarding all or part of the utility's or company's compliance obligation during any year. PUCO may require the utility or company to make REC solicitations as part of its default service before the request of force majeure can be made.

PUCO shall determine if renewable energy resources are reasonably available in the marketplace in sufficient quantities for the utility or company to comply with the respective annual requirement. In making its determination, PUCO must consider whether the utility or company has made a good faith effort to acquire sufficient renewable energy or, as applicable, solar energy resources to so comply, including, but not limited to, by banking or seeking renewable energy resource credits or by seeking the resources through long-term contracts. PUCO must also consider the

availability of renewable energy or solar energy resources in Ohio and other jurisdictions in the PJM interconnection regional transmission organization or its successor, and the Midwest system operator or its successor.

If it is determined that renewable energy or solar energy resources are not reasonably available to permit the utility or company to comply with the requirements during the period of review, PUCO shall modify that compliance obligation of the utility or company as it determines appropriate. A modification of the annual requirement is for that compliance period only. PUCO also has the authority to require the utility or company to make up the difference in the reduced target during subsequent years, if sufficient RECs exist in the marketplace.

*Cost* – In addition, an electric distribution utility or an electric services company does not have to comply with the annual requirements to the extent that its reasonably expected cost of compliance exceeds its reasonably expected cost of otherwise producing or acquiring the requisite electricity by three per cent or more.

## I. ADMINISTRATION

- 1. Administering Entities, Duties, Powers, and Contact Information:** The Public Utilities Commission of Ohio is responsible for developing regulations, and administering and enforcing the RES. Contact information is:

Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, OH 43215  
Phone: (800) 686-7826  
Website: <http://www.puco.ohio.gov>

In addition, the governor, in consultation with the PUCO chairperson, shall appoint an alternative energy advisory committee. The committee is required to examine available technology for and related timetables, goals, and costs of the alternative energy resource requirements and must submit a semiannual report of its recommendations to the PUCO.

- 2. Source and Amount of Administrative Funding:** Not specified

## J. REPORTING REQUIREMENTS

- 1. Reporting Requirement for Retailers:** None specified
- 2. Reporting Requirements for Administrating Entities:** The PUCO annually is required to submit to the general assembly a report describing the compliance of electric distribution utilities and electric services companies with the RES and any strategy for utility and company compliance or for encouraging the use of alternative energy resources in supplying Ohio's electricity needs in a manner that considers

available technology, costs, job creation, and economic impacts.

The alternative energy advisory committee is required to examine available technology for and related timetables, goals, and costs of the alternative energy resource requirements, and submit a semiannual report of its recommendations to the PUCO.

The PUCO is required to establish a process to provide for at least an annual review of the alternative energy resource market in Ohio and in the service territories of the regional transmission organizations that manage transmission systems located in Ohio. The PUCO shall use the results of this study to identify any needed changes to the amount of the renewable energy compliance payment.

3. **Cost Information:** No actual cost data is available as the RES does not begin until 2009. However, The Cleveland Foundation released a report (prepared by ICF International) on the potential costs and benefits of a proposed version of the RES (not Substitute Senate Bill 221 as passed) in May 2007. The report is entitled, [Analysis of the Potential Impacts of an Advanced Energy Portfolio Standard \(AEPS\) in Ohio.](#)