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Green Strategies Bulletin

SEPTEMBER 2008
Updated January 2014

Ohio Senate Bill 221: A Summary of Its Advanced Energy and Energy Efficiency Provisions

On August 29, 2007, Governor Ted Strickland announced his "Energy, Jobs, and Progress" plan for Ohio. He called upon the Legislature to both remake the regulatory structure under which utility companies operate as well as develop a policy to encourage the advanced and renewable energies to flourish in Ohio. The plan was introduced as Senate Bill 221. The State Senate passed S.B. 221 (with some modifications) by a vote of 32-0 on October 31, 2007. The House deliberated through the spring, made significant additional revisions, and passed the bill by a vote of 93-1 on April 22, 2008. The following day, the Senate voted unanimously to concur with the House changes.

Governor Strickland signed the bill May 1, 2008, which set its effective date as July 30, 2008. The Public Utilities Commission of Ohio ("PUCO") is working to promulgate administrative rules to implement the new law.

Key alternative energy provisions of S.B. 221[1] include:

I. Alternative Energy Portfolio Standard

II. Net Metering and Distributed Generation Reform

III. Energy Efficiency Standard

IV. "Solar- Ready" Schools

V. New State Policy Supportive of Alternative Energy

VI. Greenhouse Gas Emission Reporting Requirements

A copy of the bill can be found at www.bricker.com/legalservices/practice/energy/altenergy/sb221.asp.

I. Alternative Energy Portfolio Standard, O.R.C. 4928.64-.65

25 Percent by 2025: S.B. 221 requires 25 percent of all kilowatt hours of electricity sold by electric distribution utilities and electric services companies[2] to retail electric consumers under their standard service offers to be obtained from "alternative energy resources" by 2025. O.R.C. 4928.64(B).

"Alternative energy resource" is an umbrella term, encompassing both "advanced energy resources" and "renewable energy resources" that were placed in service after January 1, 1998. O.R.C. 4928.64(A)(1).

In addition, "alternative energy" includes new and existing mercantile customer-sited advanced and renewable energy resources that the customer commits to integrate into the utility's demand-response, energy efficiency, or peak demand reduction programs. O.R.C. 4928.64(A)(1). These resources include, but are but not limited to:

- A resource that has the effect of improving the relationship between real and reactive power
- A resource that makes efficient use of waste heat or other thermal capabilities
- Storage technology that allows a mercantile customer more flexibility to modify its demand or load and usage characteristics
- Electric generation equipment owned or controlled by a mercantile customer that uses an advanced or renewable energy resource
- Any advanced or renewable energy resource that can be utilized effectively as part of a utilities advanced energy resource plan and would otherwise qualify as an alternative energy resource if directly utilized by the utility

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Target and Benchmarks: Of the "25 percent by 2025" alternative energy requirement, at least half (12.5 percent or more) must be generated from, "renewable energy resources," including one-half of one percent from solar energy.

Technologies qualifying under this "renewable tier" of the portfolio standard include the following:

- solar photovoltaic or solar thermal energy
- wind energy
- hydroelectric power
- geothermal energy
- fuel derived from solid wastes through fractionation, biological decomposition, or other process not principally involving combustion
- biomass energy
- biologically derived methane gas
- energy derived from non-treated by-products of the pulping process or wood manufacturing process
- 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
- wind turbines located in territorial waters of Lake Erie
- storage facility that will promote the better utilization of renewable energy resources that primarily operates off peak
- distributed generation system used to generate electricity from any listed energy resource.

O.R.C. 4828.01(A)(35). "Hydroelectric facility" is further defined to mean a facility on a river within or bordering the state of Ohio, or within or bordering an adjoining state. The facility must also meet a number of specified environmental criteria. O.R.C. 4828.01(A)(35)(a)-(h).

The utility must meet these renewable energy requirements in accordance with the following benchmarks set forth in O.R.C. 4828.64(B)(2) *see chart*:

2009 – 2025: Renewable and Solar Energy Resource Benchmark

By end of year	Renewable Energy Resource	Solar Energy Resource
2009	0.25%	.004%
2010	0.50%	.010%
2011	1%	.030%
2012	1.5%	.060%
2013	2%	.090%
2014	2.5%	.12%
2015	3.5%	.15%
2016	4.5%	.18%
2017	5.5%	.22%
2018	6.5%	.26%
2019	7.5%	.3%
2020	8.5%	.34%
2021	9.5%	.38%
2022	10.5%	.42%
2023	11.5%	.46%
2024 +	12.5%	.5%

In-State Requirement: Of the renewable energy resources generated, one-half must be derived from facilities located in the state of Ohio. The remainder must be met with resources that can be shown to have been delivered into the state. O.R.C. 4828.64(B)(3).

The other half of the "25 percent by 2025" requirement may be generated from "advanced energy resources." (O.R.C. 4828.64(B)(1). Technologies qualifying as "advanced energy resources" include the following:

- Any method or device that increases output of an electric generating facility without additional carbon dioxide emissions
- A distributed generation system consisting of customer cogeneration and thermal output primarily to meet the needs of the customer's facilities
- Clean coal technology that includes the design capability to control or prevent the emission of carbon dioxide
- Advanced nuclear technology consisting of Nuclear Regulatory Commission generation III technology, other later technology, or significant improvements to existing facilities
- Any fuel cell used in the generation of electricity
- Advanced solid waste or construction debris conversion technology
- Demand-side management and energy efficiency improvement. O.R.C. 4928.01(A)(34).

Unlike the renewable tier of the portfolio standard, the utilities need not meet interim benchmarks regarding advanced energy. The standard is simply 12.5% by 2025.

New Technologies: As new technologies come online, the PUCO may classify each as an advanced or a renewable resource. O.R.C. 4928.64(A)(2).

Baseline: To assess compliance with the alternative energy standard, the PUCO will derive a baseline from the average of the total kilowatt hours sold during the past three years. However, the PUCO may choose to adjust downward a utility or company's baseline due to new economic growth in the service area. O.R.C. 4928.64(B). This baseline will be used to calculate how much renewable power is required under each benchmark.

RPS Enforcement: Alternative Compliance Payments ("ACP"): The PUCO will annually review a utility's compliance with the applicable benchmark and shall identify any "undercompliance." The PUCO then determines whether the deficiency is weather-related, related to equipment or resource shortages, or is otherwise outside the utility's control. O.R.C. 4928.64(C)(1).

If, after notice and opportunity for hearing, the PUCO determines that undercompliance was avoidable, it is to impose a monetary penalty upon the utility that may not be passed through to ratepayers. The ACP is deposited in the "renewable energy development and investment fund" to finance alternative energy projects. O.R.C. 4928.64(C)(2).

Amount of ACP: Compliance payments pertaining to the renewable energy resource benchmarks are equal the number of additional renewable energy credits that the utility would have needed to comply with the applicable benchmark multiplied by an amount that shall begin at $45, adjusted annually to reflect any change in the Consumer Price Index, but shall not be less than $45. O.R.C. 4928.64(C)(2)(b).

Compliance payments pertaining to the solar resource benchmarks are $450 per megawatt hour of non-compliance in 2009, $400 per megawatt hour in 2010 and 2011, and similarly reduced by $50 every two years thereafter to a minimum of $50. O.R.C. 4928.64(C)(2)(a).

Alternative Energy Annual Review: The PUCO will annually review utility compliance and may adjust upward the amount of the compliance payment so as to ensure utilities do not utilize compliance payments in lieu of developing renewable resources O.R.C. 4928.64(C)(5).

Renewable Energy Credits ("RECs"): The bill sets out a system of credits used to verify and track the amount of renewable energy a utility generates or purchases in a given year. Utilities and other generators of power can presumably buy, sell, and trade these RECs, with one credit equal to one megawatt of power. O.R.C. 4928.65.

Excess RECs: Should a utility acquire more RECs than required to meet a given year's benchmark, the excess RECs are valid in any of the five following calendar years. O.R.C. 4928.65. The law also states that the PUCO's administrative rules regarding RECs must allow a hydroelectric facility to be eligible to obtain RECs and "allow customer-sited projects…the broadest opportunities to be eligible" for obtaining RECs. O.R.C. 4928.65.

Bypassability: All costs incurred by a utility in complying with the alternative energy portfolio standard are bypassable by consumers who exercise "choice of supplier." O.R.C. 4928.64(E). Therefore, consumers selecting alternate electricity suppliers do not pay costs associated with the portfolio standard to both the incumbent utility and their supplier; they only would pay these costs to their actual supplier.

Annual Renewable Energy Compliance Report: The PUCO will submit a yearly report to the General Assembly describing utility compliance with the benchmarks and strategies to further encourage the use of alternative energy. O.R.C. 4928.64(D)(1).

Cost Control Mechanisms: Aside from the compliance payments discussed above, S.B. 221 sets out two separate but related mechanisms by which the costs associated with the alternative energy portfolio standard are monitored and controlled: the three percent "hard cost cap" and the "force majeure" provision.

Three Percent Cost Cap: In response to concerns about the potential high cost of renewable energy, the Legislature included cost cap language that states a utility need not comply with a benchmark with respect to the advanced or renewable tier of the portfolio standard, "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 percent or more." O.R.C. 4928.64(C)(3).

"Force Majeure": The force majeure provision of S.B. 221 provides the PUCO with discretion to determine whether the renewable energy benchmarks are reasonably attainable based on the available supply of renewable energy products in the mar-

ketplace, such as wind turbines and solar panels. O.R.C. 4928.64(C)(4)(c).

A utility may request the PUCO to make a determination regarding all or part of a utility's compliance with a minimum benchmark. Within 90 days of such a request, the PUCO reviews whether, "renewable resources are reasonably available… in sufficient quantities," for the utility to meet their obligations. In making this decision, the PUCO must consider whether the utility has made a good faith effort to acquire sufficient renewable energy to comply with their obligations. These efforts include but are not limited to:

- Banking RECs
- Seeking renewable resources through competitive solicitations
- Seeking to procure RECs or renewable resources through long-term contracts
- Availability of renewable energy resources in Ohio and in other jurisdictions in the PJM Interconnection Regional Transmission Organization or the Midwest System Operator
- Utility's solicitation for RECs as part of default service before requests of force majeure can be made

If the PUCO finds that renewable energy resources are not reasonably available in quantities sufficient to allow compliance with the benchmark, it must modify the utility's obligation for that reporting period as appropriate. Modification would not automatically reduce obligations in future years. In addition, the PUCO could require the utility to acquire additional renewable energy resource credits in subsequent years equivalent to the modified obligation.

II. Net Metering, O.R.C. 4928.67, 4905.31, 4928.01

Elimination of One Percent Cap on Net Metering: Under old section 4928.67, utilities were required to develop a standard contract or tariff providing for net metering. However, the utility only needed to make this contract or tariff available to customer generators when "the total generating capacity used by customer generators is less than one percent of the provider's aggregate customer peak demand in this state." This limitation essentially amounted to a one percent cap on distributed generation.

S.B. 221 eliminates this entire provision, thus removing the cap on net metering/distributed generation.

Hospitals: Utilities must develop a separate contract or tariff providing for net energy metering for hospitals based upon the rate structure, rate components, and any charges to which the hospitals would otherwise be assigned if not a customer-generator, and upon the market value of the customer generated electricity at the time it was generated. Hospitals will have the ability to operate their generating facilities either individually or collectively without any wattage limitations on size. R.C. 4928.67(A)(2).

Advanced Metering: In section 4905.31(E), S.B. 221 provides that a utility may establish a "reasonable arrangement" with another utility or with one or more of its customers that provides for, "a financial device that may be…advantageous to the parties interested." Such a device may include, "any acquisition and deployment of advanced metering, including the costs of any meters prematurely retired as a result of advanced metering implementation."

Self-Generator: In section 4928.01(A)(32), in order to facilitate distributed generation projects, S.B. 221 amends the definition of "self-generator" to include not only those entities that own electric generation facilities for their own use, but also those that "host" such systems on their premises. Thus, a customer need not purchase a system outright to be qualified as a self-generator; a leaseback arrangement would also appear to be included in the definition. In addition, customers who obtain electricity from systems hosted on their premises are exempt from the definition of, "electric light company," such that they will generally be exempt from provisions otherwise applicable to utilities. R.C. 4928.01(A)(7).

III. Energy Efficiency Standard O.R.C. 4928.66

Energy Efficiency Standard: S.B. 221 requires utilities to implement energy efficiency programs to achieve reductions in energy usage from 2009 to 2025 on the following schedule as set forth in O.R.C. 4928.66(A)(1)(a):

Year(s)	Efficiency-based Energy Reduction
2009	.3%
2010	.5%
2011	.7%
2012	.8%
2013	.9%
2014 – 2018	1% each year
2019 – 2024	2% each year
2025	Cumulatively 22+%

Peak Demand: Similarly, beginning in 2009, electric distribution utilities must implement peak demand reduction programs designed to achieve reductions in peak demand on the following schedule as set forth in O.R.C. 4928.66(A)(1)(b):

Year(s)	Peak Demand Energy Reduction
2009	1%
2010 – 2018	Additional .75% each year
2018	Legislate Future Reductions

In 2018, standing committees in the House and Senate must make recommendations to the General Assembly regarding future peak demand reduction targets. 4928.66(A)(1)(b).

Baseline: The baseline for energy savings is the average of total kilowatt hours utilities sold during the preceding three years. The baseline for peak demand reduction is the average peak demand on the utility in the preceding three years. However, the PUCO may reduce either baseline to adjust for new economic growth. 4928.66(A)(2)(a).

Adjustments: The PUCO may amend the efficiency benchmarks if it determines the utility cannot comply due to regulatory, economic, or technological reasons beyond its control. 4928.66(A)(2)(b).

Compliance measurements include the effects of mercantile customer-sited efficiency and peak demand programs. Any mechanism designed to recover the cost of energy efficiency programs may exempt mercantile customers that commit their demand-response or other customer-sited capabilities (whether existing or new) for integration into the utilities' demand response, energy efficiency, or peak demand reductions programs. However, this adjustment only occurs if the PUCO determines that an exemption "reasonably encourages customers to commit capabilities" to those programs. If a mercantile customer implements such measures, the utility's baseline is adjusted to exclude the effects of such programs that may have existed during the period used to establish the baseline. 4928.66(A)(2)(c).

Baselines must also be "normalized" for changes in numbers of customers, sales, weather, peak demand, and other appropriate factors so that factors outside the utilities' control do not unduly influence compliance. 4928.66(A)(2)(c).

Efficiency Programs: Programs implemented by a utility to comply with this standard may include demand-response programs and transmission and distribution infrastructure improvements that reduce line loss. 4928.66(A)(2)(d).

Verification: The PUCO must draft and docket an annual report verifying the energy usage and peak demand reductions achieved by each utility. O.R.C. 4928.66(B).

Penalty for Under-Compliance: If the PUCO determines, after notice and an opportunity for hearing, that a utility has failed to comply with the mandated energy usage or peak demand reductions, it must assess a forfeiture upon the utility equal to either:

- An amount per day of under-compliance for the period of the annual report not greater than $10,000 per day under O.R.C. § 4905.54; or
- An amount equal to the then existing market value of one renewable energy credit per megawatt hour of under-compliance or non-compliance.

Revenue from forfeiture is deposited into the state's Advanced Energy Fund. O.R.C. 4928.66(C).

Decoupling: Presumably to allow the utility to recover costs of energy efficiency measures, the PUCO may establish rules regarding the content of an application for approval of a "revenue decoupling mechanism." O.R.C. 4928.66(D). A revenue decoupling mechanism is defined as a rate design or other cost recovery mechanism that provides recovery of the fixed costs of service and a fair and reasonable rate of return, irrespective of system throughput or volumetric sales. O.R.C. 4929.01(O). This mechanism is not to be considered an application to increase rates.

The PUCO may approve the decoupling mechanism if it provides for the recovery of revenue that otherwise may be foregone by the utility as a result of energy efficiency or energy conservation programs and reasonably aligns the interests of the utility and its customers in favor of the program. O.R.C. 4928.66(D).

Consumption Data: The PUCO shall also adopt rules to require a utility to provide a customer, upon request, two years' consumption data in an acceptable form. O.R.C. 4928.66(E).

IV. Solar Ready Schools, O.R.C. 3318.112

Ohio is spending billions annually on school construction over the next several years. The Ohio School Facilities Commission ("OSFC") administers the program. S.B. 221 requires the OSFC to adopt rules prescribing "standards for solar ready equipment" for school buildings. The rules must include standards regarding roof space limitations, shading and obstructions, building orientation, roof loading capacity, and electric systems. However, a school

district may seek a waiver from these standards at the discretion of the OSFC.

V. State Policy Supporting Advanced Energy, O.R.C. 4928.02, 4928.02

S.B. 221 amends Ohio's state energy policy as broadly defined in the Revised Code. While not necessarily determinative of any outcomes, this section can provide the PUCO with guidance when promulgating administrative rules. In addition, these state policies can assist the courts in resolving statutory ambiguities. New policies articulated in S.B. 221 include the following:

- Encourage innovation and market access for cost-effective supply- and demand-side retail electric service including, but not limited to, demand-side management, time differentiated pricing, and implementation of advanced metering infrastructure.
- Encourage access to customer information "written in plain language."
- Ensure that an electric utility's transmission and distribution systems are available to a customer-generator or owner of distributed generation so that the customer-generator or owner can market and deliver the electricity it produces.
- Provide coherent, transparent means of giving appropriate incentives to technologies that can adapt successfully to potential environmental mandates.
- Encourage implementation of distributed generation across customer classes through regular review and updating of administrative rules governing critical issues such as (but not limited to) interconnection standards, standby charges, and net metering.
- Educate and encourage small business owners to use energy efficiency programs and alternative energy resources in their businesses.

VI. Greenhouse Gas Emission Reporting, O.R.C. 4928.68

S.B. 221 requires the PUCO to adopt rules establishing greenhouse gas emission reporting requirements, including participation in the climate registry, and carbon dioxide control planning requirements. These rules will apply to each generating facility in the state emitting greenhouse gases, including existing facilities.

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(Endnotes)

[1] As indicated, the bill also contains sweeping changes to the state's electric utility regulatory framework beyond the scope of this summary.

[2] The bill's alternative energy provisions generally apply to regulated utilities and "electric services companies" in competitive markets. Unless otherwise stated, references to "utilities" generally also include such competitors.

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