#### **BEFORE**

#### THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Adoption of Rules for	)	
Alternative and Renewable Energy Technol-	)	-
ogy, Resources, and Climate Regulations, and	)	
Review of Chapters 4901:5-1, 4901:5-3, 4901:5-	)	Case No. 08-888-EL-ORD
5, and 4901:5-7 of the Ohio Administrative	)	
Code, Pursuant to Amended Substitute Senate	)	
Bill No. 221.	)	

#### **ENTRY ON REHEARING**

#### The Commission finds:

- (1) On July 31, 2008, Amended Substitute Senate Bill No. 221 (SB 221) was enacted to, among other things, substantially revise Chapter 4928 of the Revised Code, to address energy efficiency and alternative energy resources, renewable energy credits, clean coal technology, and environmental regulations.
- (2) On April 15, 2009, the Commission issued its opinion and order (April 15 Order), adopting three new chapters of the Ohio Administrative Code (O.A.C.): Chapter 4901:1-39: Energy Efficiency and Demand Reduction Benchmarks, Chapter 4901:1-40: Alternative Energy Portfolio Standard, and Chapter 4901:1-41: Greenhouse Gas Reporting and Carbon Dioxide Control Planning. The April 15 Order also modified relevant forecast rules contained in Chapters 4901:5-1, 4901:5-3, and 4901:5-5, O.A.C.
- (3) On May 15, 2009, applications for rehearing were filed pursuant to Section 4903.10, Revised Code, by 15 parties or groups. On June 10, 2009, the Commission issued an entry granting rehearing for further consideration of the matters specified. On June 17, 2009, the Commission issued a second entry on rehearing (June 17 Entry) addressing the substantive issues raised and modifying many of the rules adopted in the April 15 Order. On June 24, 2009, the Commission issued an

- entry correcting, nunc pro tunc, several errors in the June 17 Entry.<sup>1</sup>
- (4) Section 4903.10, Revised Code, provides that any party who has entered an appearance in a Commission proceeding may apply for rehearing with respect to any matters determined by filing an application within 30 days after the entry of the order upon the journal of the Commission.
- (5) On July 17, 2009, Ohio Edison Company, Cleveland Electric Illuminating Company, and Toledo Edison Company (collectively, FirstEnergy), and Nucor Steel Marion, Inc. (Nucor) filed applications for rehearing of the June 17 Entry. On August 12, 2009, the Commission issued an entry granting rehearing for further consideration of the matters specified therein.
- Nucor raises a single ground for rehearing, relating to (6) interruptible load, which is also included as FirstEnergy's fifth assignment of error. Nucor and FirstEnergy take issue with Finding 12 of the June 17 Entry, relating to the phrase "must achieve" in the definition of "peak-demand benchmark" in Rule 4901:1-39-01(R)<sup>2</sup> and "achieved ... demand reductions" with respect to compliance reporting in Rule 4901:1-39-05(C). Finding 12 responded to the electric utilities' arguments that SB 221 refers to "programs designed to achieve peak demand reductions" (emphasis added) as opposed to actually achieved demand reductions referenced in Rules 4901:1-39-01(R) and 4901:1-39-05(C). The electric utilities argued that the results from programs that are designed to meet the peak-demand reduction benchmarks should be counted regardless of whether or not peak demand is actually reduced. Commission first noted that while the language of Section 4928.66(A)(1)(b), Revised Code, refers to programs designed to achieve peak demand reductions, Section 4928.66(B), Revised Code, requires the Commission to measure compliance using actual peak-demand reductions. Accordingly, we held:

The rules adopted by the Commission in this proceeding, as modified by the June 17 Entry and the June 24, 2009 Entry, nunc pro tunc, are posted at <a href="www.puco.ohio.gov/puco/rules/">www.puco.ohio.gov/puco/rules/</a> via the link: <a href="Implementation of S.B. 221 - Green Rules: Energy Efficiency & Alternative Energy Portfolio Standard, and Modifications to Forecast">Modifications to Forecast</a>.

The definition of "peak-demand benchmark," which is referenced as Rule 4901:1-39-01(Q) in Finding 12 of the June 17 Entry, was subsequently renumbered as Rule 4901:1-39-01(R).

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The Commission believes that the benefits of SB 221 cannot be realized unless real peak-demand reductions are realized. The baselines and benchmarks will be known in advance. The dayahead forecast demand will dictate whether, and the degree to which, interruptions must be called or not called in order to achieve the benchmarks. If interruptible customers cannot accept the prospect of being interrupted, service should be sought under another tariff, supplier, operations so as to mitigate demand during peak hours. If the electric utilities cannot rely upon interruptible customers to reduce peak demand, they should seek to implement real peak-demand reductions through other means (June 17 Entry at 5-6),

**(7)** Nucor and FirstEnergy contend that interruptible load should not be required to actually be interrupted and reduce the measured demand at the system peak in order for interruptible load to count toward meeting the peak-demand reduction benchmarks of Section 4928.66(A)(1)(b), Revised Code. They argue that Rules 4901:1-39-01(R) and 4901:1-39-05(C) fail to recognize that interruptible load provides the same very real peak demand reduction benefits, regardless of whether the load is actually interrupted at the system peak. While Nucor does not object to necessary interruptions, they argue that these rules would cause both the electric utilities and interruptible customers to bear additional costs without creating any additional system benefit. Nucor contends that this requirement could serve as a disincentive to participation in interruptible programs, which would have a detrimental effect on system reliability as well as on Ohio's economic development and job creation efforts.

FirstEnergy asserts that requiring peak load reductions while capacity is available on the grid to meet customer demand serves no useful purpose. Rather, they contend, it is the ability to interrupt that lowers the amount of capacity that an electric utility must acquire to serve the resultant lower customer demand, not the actual interruption. Therefore, they argue, an actual requirement to reduce load while there is sufficient capacity on the system leads to an absurd result that disrupts

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customer operations without any furtherance of legislative objectives underlying the statutory mandates - an outcome that could not have been intended by the General Assembly. Moreover, FirstEnergy asserts that the legitimate public purpose intended to be served by Section 4928.66(A), Revised Code, is to conserve energy and postpone the need for additional capacity through peak reductions. FirstEnergy reasons, a requirement that interruption must occur is not rationally related to the legitimate governmental purpose because the ability to interrupt at times of peak demand fully accomplishes the intended purpose, regardless of whether actual interruption occurs. Therefore, FirstEnergy contends that the statute, as interpreted by the Commission, would needlessly disrupt customer operations and expose utilities to possible penal sanctions for no necessary reason or legitimate purpose, in violation of the Fourteenth Amendment of the US Constitution, and Section 16 of Article I of the Ohio Constitution.

- (8) Upon further consideration, we agree that no actual interruption must occur in order for a program to be counted toward compliance with the peak-demand benchmark. However, we find that improving asset utilization and system load factor are in the public interest such that utilities should undertake programs designed to achieve these objectives. We conclude that several changes to our rules are necessary to more accurately reflect the goals of SB 221 with respect to the use of interruptible loads in reducing an electric utility's system peak demand. First, we will add two new definitions to Rule 4901:1-39-01:
  - (D) "COINCIDENT PEAK-DEMAND SAVINGS" MEANS THE DEMAND SAVINGS FOR ENERGY EFFICIENCY MEASURES THAT ARE EXPECTED TO OCCUR DURING THE SUMMER ON-PEAK PERIOD WHICH IS DEFINED AS JUNE THROUGH AUGUST ON WEEKDAYS BETWEEN 3:00 P.M. AND 6:00 P.M.

and

(R) "PEAK DEMAND," WHEN MEASURING REDUCTION PROGRAMS, MEANS THE AVERAGE MAXIMUM HOURLY ELECTRICITY USAGE DURING THE HIGHEST 100 HOURS ON THE ELECTRIC UTILITY'S SYSTEM IN A CALENDAR YEAR.

In making the foregoing changes, we note that while the above definition of "peak demand" is not identical to that adopted in Rule 4901:5-5-01(T), we believe it is appropriate in determining measurements for peak-demand reduction programs in this chapter.

(9) Second, we will substantially revise Rule 4901:1-39-05 to address the foregoing concerns and more clearly organize the mercantile customer reporting requirements. The portfolio status report will now be due on March 15 of each year to allow sufficient time for review by the independent program evaluator. With respect to the compliance demonstration to be included in an electric utility's portfolio status report, we are revising Rule 4901:1-39-05(C)(1) to read as follows:

Compliance demonstration. Each electric utility shall include a section in its portfolio status report detailing its achieved energy savings, demand reductions, and THE EXPECTED REDUCTIONS THAT ITS PROGRAMS WERE REASONABLY DESIGNED TO ACHIEVE, relative to its corresponding baselines...

In addition to minor revisions to Rule 4901:1-39-05(C)(2)(b), we are adding the following new paragraph D to clarify the role of the independent program evaluator:

(D) INDEPENDENT PROGRAM EVALUATOR REPORT. SUBSEQUENT TO THE FILING OF THE ELECTRIC UTILITY'S **PORTFOLIO STATUS** REPORT, INDEPENDENT PROGRAM EVALUATOR WILL PREPARE AND FILE A REPORT OF THE INDEPENDENT PROGRAM EVALUATOR'S ACTIVITIES AND CONCLUSIONS IN MONITORING, VERIFYING, AND EVALUATING THE **ENERGY SAVINGS AND PEAK-DEMAND REDUCTIONS** RESULTING FROM THE ELECTRIC UTILITY PROGRAMS AND MERCANTILE CUSTOMER ACTIVITIES, REPORT SHALL ALSO INCLUDE THE VERIFICATION AND EVALUATION, THROUGH THE USE OF DUE-DILIGENCE TECHNIQUES INCLUDING PROJECT THE **ELECTRIC** INSPECTIONS, UTILITY'S EVALUATION, MEASUREMENT, AND VERIFICATION REPORT.

Furthermore, we are adding a new paragraph (E) to Rule 4901:1-39-05:

- (E) AN ELECTRIC UTILITY MAY SATISFY ITS PEAK REDUCTION BENCHMARKS THROUGH A COMBINATION OF ENERGY EFFICIENCY AND PEAK-DEMAND RESPONSE PROGRAMS IMPLEMENTED BY ELECTRIC UTILITIES AND/OR PROGRAMS IMPLEMENTED ON MERCANTILE CUSTOMER SITES WHERE THE MERCANTILE PROGRAM IS COMMITTED TO THE ELECTRIC UTILITY.
- (1) FOR ENERGY EFFICIENCY PROGRAMS, AN ELECTRIC UTILITY MAY COUNT THE PROGRAMS' EFFECTS RESULTING IN COINCIDENT PEAK DEMAND SAVINGS.
- (2) FOR DEMAND RESPONSE PROGRAMS, AN ELECTRIC UTILITY MAY COUNT DEMAND REDUCTIONS TOWARDS SATISFYING SOME OR ALL OF THE PEAK DEMAND REDUCTION BENCHMARKS BY DEMONSTRATING THAT EITHER THE ELECTRIC UTILITY HAS REDUCED ITS ACTUAL PEAK DEMAND, OR HAS THE CAPABILITY TO REDUCE ITS PEAK DEMAND AND SUCH CAPABILITY IS CREATED UNDER EITHER OF THE FOLLOWING CIRCUMSTANCES:
  - (A) A PEAK-DEMAND REDUCTION PROGRAM MEETS THE REQUIREMENTS TO BE COUNTED AS A CAPACITY RESOURCE UNDER THE TARIFF OF A REGIONAL TRANSMISSION ORGANIZATION APPROVED BY THE FEDERAL ENERGY REGULATORY COMMISSION.
  - (B) A PEAK-DEMAND REDUCTION PROGRAM EQUIVALENT TO A REGIONAL TRANSMISSION ORGANIZATION PROGRAM, WHICH HAS BEEN APPROVED BY THIS COMMISSION.

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(10) We are also revising Rule 4901:1-39-05 through the addition of new paragraphs F and G which address mercantile customer programs, much of which was previously contained in Rule 4901:1-39-08. These new provisions to Rule 4901:1-39-05 are as follows:

- **(F)** A MERCANTILE CUSTOMER'S ENERGY SAVINGS AND PEAK-DEMAND REDUCTIONS SHALL BE MEASURED BY INCLUDING THE EFFECTS OF ALL DEMAND-**PROGRAMS** FOR MERCANTILE RESPONSE CUSTOMERS AND ALL MERCANTILE CUSTOMER-SITED ENERGY EFFICIENCY AND PEAK-DEMAND REDUCTION PROGRAMS. A **MERCANTILE** CUSTOMER'S ENERGY SAVINGS AND PEAK-DEMAND REDUCTIONS SHALL BE PRESUMED TO BE THE EFFECT OF A DEMAND RESPONSE, ENERGY EFFICIENCY, OR PEAK-DEMAND REDUCTION PROGRAM TO THE EXTENT THEY INVOLVE THE EARLY RETIREMENT OF FUNCTIONING EQUIPMENT, WHICH IS NOT YET FULLY DEPRECIATED, OR THE INSTALLATION OF NEW EQUIPMENT THAT ACHIEVES REDUCTIONS IN ENERGY USE AND PEAK DEMAND THAT EXCEED THE REDUCTIONS THAT WOULD HAVE OCCURRED HAD THE CUSTOMER USED STANDARD NEW EQUIPMENT OR PRACTICES. ELECTRIC UTILITIES MAY MAKE AN ALTERNATIVE DEMONSTRATION THAT MERCANTILE CUSTOMER ENERGY SAVINGS OR PEAK DEMAND REDUCTIONS ARE EFFECTS OF SUCH A PROGRAM.
- (G) A MERCANTILE CUSTOMER MAY FILE, EITHER INDIVIDUALLY OR JOINTLY WITH AN ELECTRIC UTILITY, AN APPLICATION TO COMMIT THE CUSTOMER'S DEMAND REDUCTION, DEMAND RESPONSE, OR ENERGY EFFICIENCY PROGRAMS FOR INTEGRATION WITH THE ELECTRIC UTILITY'S DEMAND REDUCTION, DEMAND RESPONSE, AND ENERGY EFFICIENCY PROGRAMS, PURSUANT TO DIVISION (A)(2)(D) OF SECTION 4928.66 OF THE REVISED CODE. SUCH APPLICATION SHALL:
  - (1) ADDRESS COORDINATION REQUIREMENTS
    BETWEEN THE ELECTRIC UTILITY AND THE
    MERCANTILE CUSTOMER WITH REGARD TO
    VOLUNTARY REDUCTIONS IN LOAD BY THE

- MERCANTILE CUSTOMER, WHICH ARE NOT PART OF AN ELECTRIC UTILITY PROGRAM, INCLUDING SPECIFIC COMMUNICATION PROCEDURES.
- (2) GRANT PERMISSION TO THE ELECTRIC UTILITY AND STAFF TO MEASURE AND VERIFY ENERGY SAVINGS AND/OR PEAK-DEMAND REDUCTIONS RESULTING FROM CUSTOMERSITED PROJECTS AND RESOURCES.
- (3) IDENTIFY ALL CONSEQUENCES OF NONCOMPLIANCE BY THE CUSTOMER WITH THE TERMS OF THE COMMITMENT.
- (4) INCLUDE A COPY OF THE **FORMAL** DECLARATION OR **AGREEMENT** THAT COMMITS THE MERCANTILE CUSTOMER'S PROGRAMS FOR INTEGRATION, INCLUDING ANY REQUIREMENT THAT THE ELECTRIC UTILITY WILL TREAT THE CUSTOMER'S INFORMATION AS CONFIDENTIAL AND WILL NOT DISCLOSE SUCH INFORMATION EXCEPT UNDER AN APPROPRIATE PROTECTIVE AGREEMENT OR A PROTECTIVE ORDER ISSUED BY THE COMMISSION PURSUANT TO RULE 4901-1-24 OF THE ADMINISTRATIVE CODE.
- (5) INCLUDE A DESCRIPTION OF ALL METHODOLOGIES. PROTOCOLS. PRACTICES USED OR PROPOSED TO BE USED IN MEASURING AND VERIFYING PROGRAM RESULTS, AND IDENTIFY AND EXPLAIN ALL **DEVIATIONS** FROM ANY PROGRAM MEASUREMENT AND VERIFICATION **GUIDELINES THAT MAY BE PUBLISHED BY THE** COMMISSION.
- (11) Finally, Paragraph F of Rule 4901:1-39-05 will be renumbered and modified to allow an electric utility to seek a waiver when actual peak demand or peak prices are below expected levels due to factors outside the utility's control:

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(I) Benchmarks not reasonably achievable. If an electric utility determines that it is unable to meet a benchmark due to regulatory, economic, or technological reasons beyond its reasonable control, the electric utility may file an application to amend its benchmarks. TO THE EXTENT THAT FORECASTED PEAK DEMAND AND PEAK PRICES DO NOT MATERIALIZE FOR ECONOMIC REASONS, THE ELECTRIC UTILITY MAY BE GRANTED A WAIVER OF ITS BENCHMARK FOR THE DIFFERENCE BETWEEN ACTUAL **PERFORMANCE** AND EXPECTED PERFORMANCE OF DEMAND RESPONSE PROGRAMS. In any such application, the electric utility shall demonstrate that it has exhausted all reasonable compliance options.

- (12) In addition to the foregoing, FirstEnergy requests clarification on the reporting requirements for mercantile customers, and raises five additional grounds for rehearing:
  - (a) Chapter 4901:1-39<sup>3</sup> is unconstitutional in that it fails to provide meaningful standards as required by fundamental notions of due process.
  - (b) Chapter 4901:1-39 is unconstitutional in that it does not bear a rational relationship to the public welfare, and unreasonably and arbitrarily excludes certain energy efficiency and demand reduction measures and programs from the electric utility's compliance portfolio.
  - (c) Chapter 4901:1-39 violates Article II, Section 28 of the Ohio Constitution because it applies retroactively.
  - (d) Chapter 4901:1-40 is unconstitutional in that it (i) fails to provide meaningful standards as required by fundamental notions of due process; (ii) does not bear a rational relationship to public welfare and unreasonably and arbitrarily prohibits

FirstEnergy's application for rehearing generally refers to Rules 4901:1-39 and 4901:1-40, which we will assume to be an objection to the entire chapter unless a reference to a specific rule is noted.

- double counting for compliance purposes; and (iii) applies retroactively.
- (e) The Commission's clarification in the June 17 Entry that requires electric utilities to deploy all cost-effective energy efficiency measures is unconstitutional, unlawful, and unreasonable as being contrary to the plain meaning of Section 4928.66, Revised Code.
- (13)With respect to FirstEnergy's request for clarification on the reporting requirements for mercantile customers, FirstEnergy notes that Rule 4901:1-39-08(B)(6) requires a mercantile customer to include in its annual report an accounting of expenditures made for each program and its component energy savings and electric utility peak-demand reduction attributes. In the June 17 Entry, the Commission defended this rule by noting that disclosure of certain cost information by a mercantile customer would be necessary in order to establish that a measure met the total resource cost (TRC) test test (June 17 Entry at 19.) FirstEnergy now requests that the Commission clarify whether such cost information is necessary for all mercantile customer programs or simply those pursued on a going forward basis. FirstEnergy argues that electric utilities are permitted to include historic mercantile customer programs as part of their energy efficiency and demand reduction compliance strategy, and argues that sunk costs incurred for a historic project that have been borne by the customer are irrelevant for TRC purposes. FirstEnergy asserts that, given the sensitivity surrounding the disclosure of such information in general, the Commission should clarify whether historic mercantile customer program costs may be excluded from reporting requirements where such disclosure serves no useful purpose and could possibly create additional work for all involved if such information is deemed to be confidential.

FirstEnergy also complains that Rule 4901:1-39-08(B)(4) requires energy savings and peak demand reductions to be calculated by making an artificial, speculative comparison between energy use and peak demand associated with a customer's program to the estimated use and demand that would have occurred had the customer used "industry standard new equipment or practices," rather than making the

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logical and rational comparison between actual use and demand before and after a program is implemented. FirstEnergy contends that such comparison is artificial and speculative, and not mandated or even implied in the statute itself. FirstEnergy argues that this provision of the rule makes it more difficult for an electric utility to meet the desired goal of the statute by preventing the electric utility from recognizing and counting actual energy savings and demand reductions. FirstEnergy further criticizes the rule as being irrational because it ignores actual energy savings and demand reductions, and penalizes the electric utility by not allowing actual energy savings and demand reductions to be counted solely because the customer exercised its right to use its own business judgment to decide whether it was in the customer's best interests to install new industry standard equipment or implement new industry standard practices.

While FirstEnergy's first ground for rehearing apparently (14)references all of the rules in Chapter 4901:1-39 as failing to provide meaningful standards, they specifically reference Rule 4901:1-39-05(D), which excludes any measure that is otherwise required to comply with energy performance standards set by law or regulation toward achieving the statutory energy efficiency benchmarks under Section 4928.66(A)(1)(b), Revised Code. FirstEnergy asserts that the chapter is unconstitutional in that it fails to provide meaningful standards as required by fundamental notions of due process under the void-forvagueness doctrine. FirstEnergy complains that the rule does not define all exclusions, does not give examples of "energy performance standards," nor does it suggest where the electric utility might look to identify those laws or regulations that set forth disqualifying energy performance standards. FirstEnergy argues that the reference to "the Energy Independence and Security Act of 2007, or any applicable building code" suggests that the exclusion is all-encompassing and puts the electric utility to the task of correctly identifying, at the peril of significant forfeitures, all federal, state, or local regulations that might be considered at some point after-the-fact to impose a disqualifying energy performance standard that results in excluding a measure or project from being counted toward the statutory benchmarks.

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These arguments were considered and rejected in Findings 19 and 20 of the June 17 Entry at 11. We note that the prohibition against counting energy efficiency savings, which might result from measures that become mandatory due to changes in federal regulations or building codes, will not be applied retroactively; and that programs contemplated under Rule 4901:1-39-05(D) are first vetted under the portfolio plan review process set forth in Rule 4901:1-39-04. We also observe that staff has already begun the process of establishing measurement and verification standards in Case Nos. 09-512-GE-UNC and 09-714-EL-UNC, which will allow stakeholders to participate in the determination of the appropriate selection and measurement of program savings. It is not this Commission's intention to unfairly or retroactively apply regulatory or building code changes to established, approved programs. We will not, however, continue to allow prospective credit for measures that a federal mandate or building code would require to be made regardless of an existing approved program. We believe such matters may be appropriately noticed and vetted in the forums that will determine prospective measurement and verification standard modifications, or in the context of an electric utility's portfolio plan review.

- (15) In its first argument for rehearing, First Energy also suggests that the rules unreasonably exclude energy efficiency and demand reduction measures implemented by mercantile customers. To ensure that savings from mercantile customer sited programs are treated reasonably and comparably to savings from electric utility efficiency and demand reduction programs, we are modifying how mercantile customer energy savings and peak-demand reductions will be measured for purposes of utility compliance with Sections 4928.66(1)(a) and (b), Revised Code. The revised rules make measurement and verification of energy savings and peak demand reductions from mercantile customer sited programs consistent with measurement and verification for electric utility programs.
- (16) Given First Energy's argument, we find it necessary to clarify Rule 4901:1-39-05 to specifically follow statutory requirements. Section 4938.66(2)(c), Revised Code, provides that utility compliance with the energy efficiency and peak demand reduction standards shall be measured by including "the

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effects of" all "demand response programs" for mercantile customers ... and all such mercantile customer-sited "energy efficiency and peak demand reduction programs...." Thus, the Commission is permitted by statute to consider only effects that are the result of electric utility and mercantile customer-sited programs. And, we are required to distinguish program effects from impacts of other activities such as the normal replacement of aging equipment with equipment that would be purchased in the absence of any efficiency program. To facilitate qualification of mercantile customer-sited programs, revised Rule 4901:1-39-05(F) creates a presumption that mercantile customer projects are part of a demand response, energy efficiency, or peak-demand reduction program to the extent the project either provides for the early retirement of functioning equipment which is not yet fully depreciated, or achieves reductions in energy use and peak demand that exceed the reductions that would have occurred had the customer used standard new equipment or practices. The Commission is developing a Technical Reference Manual that will provide guidance regarding standard new equipment and practices. Furthermore, electric utilities may make an alternative demonstration that mercantile customer energy savings or peak demand reductions are effects of such a program.

(17)Rule 4901:1-39-08 governs a mercantile customer's application for exemption from a program cost recovery mechanism. It does not govern measurement of energy savings for purposes of utility compliance with benchmarks. To be clear, we are moving the provisions related to utility compliance to Rule 4901:1-39-05. To qualify for ratepayer funded support through an exemption from an otherwise applicable program cost recovery mechanism, a mercantile customer will need to demonstrate that energy savings and peak-demand reductions associated with the customer's programs are the result of investments that meet the TRC test, as defined in Rule 4901:1-39-01(Y), in order for the mercantile customer to be granted an exemption from the cost recovery mechanism under Rule 4901:1-39-07. We recognize that with respect to historical programs implemented prior to the adoption of these rules, there may be a need for greater flexibility and the consideration of waivers. In all cases, a mercantile customer must demonstrate why ratepayer funded support for its historical investment decision is appropriate. The Commission expects

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exemptions, where appropriate, will buy down the cost of costeffective mercantile customer efficiency programs to a simple
two-year payback. Thus, the filing of cost data is appropriate
both to ensure that cost-effective investments are being
supported by ratepayer funded exemptions and to determine
whether the exemption may be full or partial or may continue
for more than one year. We have deleted from the rule,
requirements for mercantile customer baseline energy use and
peak demand because we do not anticipate basing exemptions
on whether a particular mercantile customer has or has not
achieved a percentage of energy savings equivalent to the
electric utility's annual benchmark.

(18) When applying the TRC test on a going forward basis, on an interim basis and to the extent that forecasts of avoided capacity, energy, and ancillary service costs are not available to a mercantile customer applicant, the applicant may use the utility's applicable POLR tariff generation rate as a proxy for avoided capacity, energy, and ancillary service costs. The Commission will seek to make avoided cost data publicly available through its development of measurement and verification protocols in Case No. 09-512-GE-UNC.

The order we are issuing today in Case No. 09-512-GE-UNC also touches on this topic. In that order, we observe that while an electric utility's compliance with Section 4928.66(A)(2)(c), Revised Code, will be measured by including the effects of the electric utility's programs for mercantile customers and the effects of mercantile customer-sited programs, compliance with energy efficiency and demand reduction standards does not equate to general ratepayer support for program costs. Savings attributed to an electric utility are not necessarily the same as the savings that will be recognized by the Commission as appropriate for recovery from ratepayer-funded support, whether that support is extended through an electric utility's program or as a mercantile customer exemption from any mechanism designed to recover the cost of electric utility programs. The Commission will closely scrutinize the use of ratepayer funds to ensure that any ratepayer-funded programs are truly cost-effective energy efficiency or peak demand reduction investments which pass the TRC test.

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(19)As a third prong of its first assignment of error, FirstEnergy contends that the Commission's intent to make an upward adjustment to the electric utility's statutory baseline for periods of negative economic growth is a completely arbitrary and unreasonable administrative alteration of the statute not rationally related to its purpose. FirstEnergy argues that the purpose of the statute is to encourage electric utilities to implement energy efficiency and demand reduction programs, and that the electric utilities have been given this obligatory burden because they are in a position to affect energy usage and demand reductions as service providers with a unique relationship with their customers. FirstEnergy points out that the electric utilities, however, have no unique power or position to stave off the negative economic conditions affecting the Midwest region in general and certain areas of Ohio in particular. FirstEnergy asserts that there is no rational basis for penalizing the electric utilities by increasing their statutory obligations and exposing them to potentially significant forfeitures, for conditions over which the electric utilities have no control. FirstEnergy further argues that the rule penalizes the electric utility's customers by causing them to bear even higher costs, associated with additional energy efficiency and demand reduction programs, at a point in time when a declining economy is already straining their budgets.

This argument appears to relate to a discussion in the Commission's April 15 Order, rather than the June 17 Entry, in which we noted that Section 4928.66(A)(2)(a), Revised Code, allows the Commission to reduce either energy efficiency or peak-demand reduction baselines to adjust for new economic growth in the electric utility's service territory. We further observed in the April 15 Order, at 18, that:

We expect that any baseline adjustments made to account for economic growth typically will be temporary, and will address circumstances in which unanticipated increases in the overall rate of growth have made full compliance infeasible. We also expect that any adjustments will account not only for positive economic growth, but also negative economic growth.

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Notwithstanding the decision in the April 15 Order, we recognize that no adjustment for negative economic growth is mandated by Rule 4901:1-39-05 and, therefore, it is not necessary to modify the rule at this time.

(20)For its second assignment of error, FirstEnergy contends that Chapter 4901:1-39 is unconstitutional because it does not bear a rational relationship to the public welfare, and unreasonably and arbitrarily excludes certain energy efficiency and peakdemand reduction measures and programs from the electric utility's compliance portfolio. FirstEnergy again cites the prohibition in Rule 4901:1-39-05(D) from counting any measure that is otherwise required to comply with energy performance standards set by law or regulation, and complains that rule does not specify any particular energy performance standards. FirstEnergy repeats its previous arguments, asserting that this provision puts the electric utility to the task of correctly identifying, at the peril of significant forfeitures, all federal, state, municipal, county, and township regulations that might be considered at some point after-the-fact to impose a disqualifying energy performance standard that results in excluding a measure or project from being counted toward the statutory benchmarks.

As discussed above, it is this Commission's intention to apply this provision prospectively and not revisit already-approved programs that were selected and vetted through the Commission review process. We certainly do not foresee an occasion where a program or measure would be retroactively invalidated due to a regulatory or building code change.

(21) As its third ground for rehearing, FirstEnergy asserts that Chapter 4901:1-39 violates Article II, Section 28 of the Ohio Constitution because it applies retroactively. Specifically, FirstEnergy complains that Rules 4901:1-39-05(D) and 4901:1-39-08(B)(4) significantly increase the burdens that the electric utilities must bear to comply with the statute by reducing the types of measures that can be counted toward achieving energy savings and demand reductions, and by discounting actual savings and reductions associated with mercantile customer projects. FirstEnergy also references the threat of an increased baseline in the event of negative economic growth in the electric utility's certified territory and the use of a rolling three

year average to calculate the statutory baseline that increases compliance requirements beyond those contemplated in the statute. FirstEnergy asserts that the Commission has no authority to rewrite the requirements of Section 4928.66, Revised Code, either by rule or order, and has compounded its error by seeking to apply the unlawfully rewritten law retroactively, given that Section 4928.66, Revised Code, took effect in July 2008, and the obligation to implement energy efficiency and demand reduction programs began in 2009.

- (22) We believe the foregoing discussions of Rules 4901:1-39-05(D) and 4901:1-39-08(B)(4) need not be repeated here. We do note, however, that the electric utilities' obligations to comply with Section 4928.66, Revised Code, is not affected by the Commission's promulgation of these rules. To the extent that an electric utility believes that a requirement of the rules in Chapters 4901:1-39 or 4901:1-40 would result in an unfair or unreasonable retroactive burden, the electric utility may request a waiver of such rule.
- (23) FirstEnergy also contends that Chapter 4901:1-40 is unconstitutional because it (1) fails to provide meaningful standards as required by fundamental notions of due process; (2) does not bear a rational relationship to public welfare and unreasonably and arbitrarily prohibits double counting for compliance purposes; and (3) applies retroactively. With respect to this ground for rehearing, FirstEnergy does not specify any particular rules but merely states that the objections made in its initial application for rehearing should be incorporated herein by reference.

Absent any specific rule citations upon which FirstEnergy bases its request for rehearing, we deem it appropriate to reference the foregoing discussion of these issues in denying this request for rehearing. We will, however, take this opportunity to address an issue with a definition in Rule 4901:1-40-01.

(24) Finding 48 of the June 17 Entry noted a potential issue regarding renewable energy credits (RECs) and carbon offsets which relate to the definition of "fully aggregated" adopted by the June 17 Entry in Rule 4901:1-40-01(T). In that entry, we noted that Section 4928.65, Revised Code, does not expressly

address the issue of REC aggregation, and that several parties had sought to reverse our conclusion that RECs be fully aggregated. They argued that disaggregated RECs could result in lower compliance costs, and requested that the portion of a REC associated with greenhouse gas destruction (i.e., via flaring or other combustion) and nitrogen oxide (NOx) setaside allowances associated with a renewable facility be recognized separately from the REC. In the June 17 Entry, we expressly reserved ruling on the merits of allowing NOx setaside allowances allocated to renewable facilities as part of the state's NOx Budget Trading Program to be separated from the REC. Furthermore, we stated that any party could seek a waiver of this rule, on a case-by-case basis; and that we would further consider disaggregating potential carbon offsets from a REC if state or federal carbon mandates are enacted (June 17 Entry at 24–25).

Upon further consideration of this issue, we will modify Rule 4901:1-40-01 by deleting the definition of "fully aggregated" previously adopted under paragraph T, and modifying paragraph M to read as follows:

- (M) "Double-counting" means utilizing renewable energy, renewable energy credits, or energy efficiency savings to:
- (1) satisfy MULTIPLE OHIO STATE RENEWABLE ENERGY REQUIREMENTS OR SUCH REQUIREMENTS FOR MORE THAN ONE STATE, multiple regulatory requirements,
- (2) COMPLY WITH BOTH THE ENERGY EFFICIENCY AND ADVANCED ENERGY STATUTORY BENCHMARKS,
- (23) support multiple voluntary product offerings,
- (34) substantiate multiple marketing claims, or
- (45) some combination of these.

Double counting includes the utilization of acquired, committed, utility owned renewable

energy resources if renewable energy credits for the generation of such resources can be separately transferred.

We believe this change should clarify our position on this topic. A single measure should be able to count for both energy efficiency and peak-demand reduction compliance, but should not be able to count toward both energy efficiency and advanced energy statutory requirements. For facilities that the Commission recognizes as eligible renewable energy facilities, such facilities are not precluded from pursuing carbon offsets in addition to RECs. The Commission would not perceive the receipt of carbon offsets as diminishing the value of any associated RECs. The Commission may revisit this position in the future if carbon regulations and related markets develop, but facilities recognized under this current position would not be subjected to any retroactive policy revisions.

(25) As a result of our elimination of the definition of "fully aggregated" previously adopted under Rule 4901:1-40-01(T), two other modifications are necessary. This term will also be deleted from the definition of "renewable energy credit" in what has now been renumbered as Rule 4901:1-40-01(BB), and the provision in Rule 4901:1-40-04(B)(5), which required RECs to remain fully aggregated to be applied towards compliance, will be deleted. We will also take this opportunity to clarify paragraph (D)(1) of this same rule to include the requirement of a utility-grade meter. Rule 4901:1-40-04(D)(1) will be modified to read as follows:

To be eligible for use towards satisfying a benchmark, a REC must originate from a facility that meets the definition of a renewable energy resource, including solar energy resources, AND BE MEASURED BY A UTILITY-GRADE METER IN COMPLIANCE WITH RULE PARAGRAPH B OF 4901:1-10-05 OF THE ADMINISTRATIVE CODE, FOR FACILITIES WITH GENERATING CAPACITY OF MORE THAN SIX KILOWATTS. Such facilities could include a mercantile customer-sited resource that is not committed for integration into an electric utility's demand-response, energy efficiency, or peak-demand reduction program pursuant to rule

4901:1-39-08 of the Administrative Code but that otherwise qualifies under the terms of paragraph (A) of this rule.

(26) As its final assignment of error, FirstEnergy again argues that the Commission's clarification in the June 17 Entry that requires electric utilities to deploy all cost-effective energy efficiency measures is unconstitutional, unlawful, and unreasonable as being contrary to the plain meaning of Section 4928.66, Revised Code.

FirstEnergy is confusing the minimum statutory requirements for energy efficiency savings and peak-demand reductions with this Commission's obligation to ensure that Ohio electric utilities will pursue all cost-effective measures. Clearly, an electric utility will not be subject to a forfeiture assessment if it meets the statutory benchmarks established in Section 4928.66, Revised Code.

With respect to Rule 4901:5-5-06, we are reorganizing and (27)substantially revising this rule to clarify that the resource plan filing contemplated under this new rule is to be included as part of the electric utility's long-term forecast report (LTFR) annual April 15 filing, pursuant to Section 4935.04(D)(3), Revised Code. Under Rule 4901:5-3-01(A), the resource plan would only require a forms filing for the years in which no hearing is required under Section 4935.04(D)(3), Revised Code, so long as the forecast does not show a substantial change, or no good cause is shown. Additionally, the Commission notes that the new resource plan required by this rule is not simply a resurrection of the pre-2000 integrated resource planning requirements. Instead, the pre-2000 rule was rewritten to reflect the statutory mandates of SB 221, and streamlined to limit the amount and type of information required from the electric utilities to that which is necessary for the Commission to fulfill its obligations under SB 221. We believe that the new, abbreviated resource plan, as amended by this entry, satisfies those goals.

Moreover, the Commission is aware of the concerns regarding the timing, workload, and requisite hearings for the initial resource plan filings, and we direct staff to work with the electric utilities and other stakeholders in establishing a 08-888-EL-ORD -21-

staggered procedural schedule for these initial filings where appropriate. To avoid confusion with the pre-2000 rules, we will revise Rule 4901:5-5-06 to eliminate references to the term "integrated" where applicable. Due to the extensive revisions we will not attempt to compare the attached rule with the version originally filed with JCARR. We do, however, note that paragraph A of the rule now lists only the analysis and electronic forms required for the annual filing, whereas paragraph B lists the additional requirements that must be filed in the forecast year prior to any filing for an allowance under Sections 4928.143(B)(2)(b) and (c), Revised Code.

With respect to Rule 4901:5-5-06, we also note that the chapters containing the forecast rules are scheduled to be reviewed by December 1, 2010, pursuant to Section 119.032, Revised Code, and further refinements to this rule may be warranted at that time.

- (28) Finally, as discussed above with respect to the new provision in Rule 4901:1-39-05(D), the Commission has determined that certain modifications are warranted to the definition and scope of duties to be performed by the independent program evaluator in Rules 4901:1-39-01(L), 4901:1-39-04(C)(5)(l), and 4901:1-39-05(C)(2)(b), as adopted in the June 15 Entry. The definition of independent program evaluator will be renumbered and revised to read as follows:
  - (LM) "Independent program evaluator" means the person(s) or firm-hired by ONE OR MORE OF the electric utility utilities at the direction of the commission—staff, to complete the following activities:
  - (1) measure and verify the energy savings and/or electric utility peak-demand reduction resulting from each approved program and to conduct a program process evaluation Monitor, Verify, Evaluate, and Report on the electric energy savings and peak-demand reductions resulting from utility program and Mercantile Customer activities.

- (2) DETERMINE PROGRAM AND PORTFOLIO COST-EFFECTIVENESS.
- (3) CONDUCT PROGRAM PROCESS EVALUATIONS.
- (4) PERFORM DUE-DILIGENCE REVIEWS OF EVALUATIONS OR DOCUMENTATION PROVIDED BY AN ELECTRIC UTILITY OR MERCANTILE CUSTOMER, as directed by the commission.

Such person shall work at the sole direction of the commission staff.

Similarly, Rule 4901:1-39-04(C)(5)(l), which describes the proposed programs to be listed in the electric utility's program portfolio plan filing, will be revised to read as follows:

A description of the plan, prepared by the independent program evaluator, to measure and verify ELECTRIC UTILITY'S EVALUATION, MEASUREMENT, AND VERIFICATION of the energy savings and/or peak-demand reduction resulting from each program and to conduct process and impact evaluations of each program THE PROCESS EVALUATIONS CONDUCTED BY THE ELECTRIC UTILITY.

Finally, Rule 4901:1-39-05(C)(2)(b), which specifies the topics to be included in the program performance assessment section of the electric utility's annual portfolio status report, will be modified to read as follows:

A—AN EVALUATION, measurement, and verification report from the independent program evaluator to verify THAT DOCUMENTS the energy savings and peak-demand reduction projections utilized in the evaluation of VALUES AND the cost-effectiveness of each energy efficiency and demand-side management program reported in the electric utility's portfolio status report. Such report shall include documentation of ANY PROCESS EVALUATIONS

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AND expenditures, measured and verified savings, and cost-effectiveness of each program. Measurement and verification processes shall confirm that the measures were actually installed, the installation meets reasonable quality standards, and the measures are operating correctly and are expected to generate the predicted savings. Upon commission order, the staff may publish guidelines for program measurement and verification.

#### **CONCLUSION:**

The Commission finds that Rules 4901:1-39-01, 4901:1-39-04, 4901:1-39-05, 4901:1-39-08, 4901:1-40-01, 4901:1-40-04, and 4901:5-5-06, as modified herein, be adopted. The rules adopted by this Commission are attached to this entry for filing in this docket but, as in prior rules proceedings, will not be included in the hard-copy distribution of this entry that will be served upon all parties of record. Instead, we find it more prudent and efficient to publish the adopted rules on the Commission's website at <a href="https://www.puco.chio.gov/puco/rules/">www.puco.chio.gov/puco/rules/</a> via the link titled "Implementation of S.B. 221 - Green Rules: Proposed Rules for Energy Efficiency & Alternative Energy Portfolio Standard, and Modifications to Forecast Rules" or by searching for the Commission's Docketing Information System under Case No. 08-888. Members of the public without internet access may request a paper copy by contacting the Commission's Docketing Division at (614) 466-4095.

#### ORDER:

It is, therefore,

ORDERED, That Rules 4901:1-39-01, 4901:1-39-04, 4901:1-39-05, 4901:1-39-08, 4901:1-40-01, 4901:1-40-04, and 4901:5-5-06, as modified herein, are adopted. It is, further,

ORDERED, That Chapters 4901:1-39 and 4901:1-40, and Rule 4901:5-5-06, as modified by this Entry on Rehearing, be refiled with the Joint Committee on Agency Rule Review, the Secretary of State, and the Legislative Service Commission in accordance with divisions (D) and (E) of Section 111.15, Revised Code. It is, further,

ORDERED, That the final rules become effective on the earliest date permitted by law. Unless otherwise ordered by the Commission, the review date for Chapters 4901:1-39, and 4901:1-40 shall be September 30, 2013. It is, further,

ORDERED, That a copy of this Entry on Rehearing, without the rule attachment, be served upon all parties filing comments in this docket and all interested parties of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Alan R. Schriber, Chairman

Paul A. Centolella

Valerie A. Lemmie

Ronda Hartman Fergus

Chervl L. Roberto

RMB:dh

Entered in the Journal

OCT 1 5 2009

Reneé J. Jenkins

Secretary

#### 4901:1-39-01 **Definitions.**

- (A) "Achievable potential" means the reduction in energy usage or peak demand that would likely result from the expected adoption by homes and businesses of the most efficient, cost-effective measures, given effective program design, taking into account remaining barriers to customer adoption of those measures. Barriers may include market, financial, political, regulatory, or attitudinal barriers, or the lack of commercially available product. "Achievable potential" is a subset of "economic potential."
- (B) "Anticipated savings" means the reduction in energy usage or peak demand that will accrue from contractual commitments for program participation made in the reporting period, which measures in such programs are scheduled for installation in the subsequent reporting periods.
- (C) "Capital stock" means all devices, equipment, and processes that use or convert energy.
- (D) "Coincident peak-demand savings" means the demand savings for energy efficiency measures that are expected to occur during the summer on-peak period which is defined as June through August on weekdays between 3:00 p.m. and 6:00 p.m.
- (E) "Commission" means the public utilities commission of Ohio.
- (F) "Cost effective" means the measure, program, or portfolio being evaluated that satisfies the total resource cost test.
- (G) "Demand response" means a change in customer behavior or a change in customerowned or operated assets that affects the demand for electricity as a result of price signals or other incentives.
- (H) "Economic potential" means the reduction in energy usage or peak demand that would result if all homes and businesses adopted the most efficient and cost-effective measures. Economic potential is a subset of the "technical potential."
- (I) "Electric utility" has the meaning set forth in division (A)(11) of section 4928.01 of the Revised Code.
- (J) "Energy baseline" means the average total kilowatt-hours of distribution service sold to retail customers of the electric utility in the preceding three calendar years as reported in the electric utility's most recent long-term forecast report, pursuant to division (A)(2)(a) of section 4928.66 of the Revised Code. The total kilowatt-hours sold shall equal the total kilowatt-hours delivered by the electric utility.

- (K) "Energy benchmark" means the annual level of energy savings that an electric utility must achieve as provided in division (A)(1)(a) of section 4928.66 of the Revised Code.
- (L) "Energy efficiency" means reducing the consumption of energy while maintaining or improving the end-use customer's existing level of functionality, or while maintaining or improving the utility system functionality.
- (M) "Independent program evaluator" means the person(s) hired by one or more of the electric utilities, at the direction of the commission, to complete the following activities:
  - (1) Monitor, verify, evaluate, and report on the electric energy savings and peakdemand reductions resulting from utility program and mercantile customer activities.
  - (2) Determine program and portfolio cost-effectiveness.
  - (3) Conduct program process evaluations.
  - (4) Perform due-diligence reviews of evaluations or documentation provided by an electric utility or mercantile customer, as directed by the commission.

Such person shall work at the sole direction of the commission.

- (N) "Market transformation" means a lasting structural or behavioral change in the marketplace that increases customer adoption of energy efficiency or peak reduction measures that will be sustained after any program promoting such behavior ceases.
- (O) "Measure" means any material, device, technology, operational practice, or educational program that makes it possible to deliver a comparable level and quality of end-use energy service while using less energy or less capacity than would otherwise be required.
- (P) "Mercantile customer" has the meaning set forth in division (A)(19) of section 4928.01 of the Revised Code.
- (Q) "Nonenergy benefits" mean societal benefits that do not affect the calculation of program cost-effectiveness pursuant to the total resource cost test including but not limited to benefits of low-income customer participation in utility programs; reductions in greenhouse gas emissions, regulated air emissions, water consumption, natural resource depletion to the extent the benefit of such reductions are not fully reflected in cost savings; enhanced system reliability; or advancement of any other state policy enumerated in section 4928.02 of the Revised Code.

- (R) "Peak demand," when measuring reduction programs, means the average maximum hourly electricity usage during the highest 100 hours on the electric utility's system in a calendar year.
- (S) "Peak-demand baseline" means the average peak demand on the electric utility's system in the preceding three calendar years as reported in the electric utility's most recent long-term forecast report, pursuant to division (A)(2)(a) of section 4928.66 of the Revised Code.
- (T) "Peak-demand benchmark" means the reduction in peak demand an electric utility's system must achieve as provided in division (A)(1)(b) of section 4928.66 of the Revised Code.
- (U) "Person" shall have the meaning set forth in division (A)(24) of section 4928.01 of the Revised Code.
- (V) "Program" means a single offering of one or more measures provided to consumers.

  For example, a weatherization program may include insulation replacement, weather stripping, and window replacement measures.
- (W) "Staff" means the staff or authorized representative of the public utilities commission.
- (X) "Technical potential" means the reduction in energy usage or peak demand that would result if all homes and businesses adopted the most efficient measures, regardless of cost.
- (Y) "Total resource cost test" means an analysis to determine if, for an investment in energy efficiency or peak-demand reduction measure or program, on a life-cycle basis, the present value of the avoided supply costs for the periods of load reduction, valued at marginal cost, are greater than the present value of the monetary costs of the demand-side measure or program borne by both the electric utility and the participants, plus the increase in supply costs for any periods of increased load resulting directly from the measure or program adoption. Supply costs are those costs of supplying energy and/or capacity that are avoided by the investment, including generation, transmission, and distribution to customers. Demand-side measure or program costs include, but are not limited to, the costs for equipment, installation, operation and maintenance, removal of replaced equipment, and program administration, net of any residual benefits and avoided expenses such as the comparable costs for devices that would otherwise have been installed, the salvage value of removed equipment, and any tax credits.
- (Z) "Verified savings" means an annual reduction of energy usage or peak demand from an energy efficiency or peak-demand reduction program directly measured or calculated using reasonable statistical and/or engineering methods consistent with approved measurement and verification guidelines.

4901:1-39-04 Program portfolio plan and filing requirements.

- (A) Each electric utility shall design and propose a comprehensive energy efficiency and peak-demand reduction program portfolio, including a range of programs that encourage innovation and market access for cost-effective energy efficiency and peak-demand reduction for all customer classes, which will achieve the statutory benchmarks for peak-demand reduction, and meet or exceed the statutory benchmarks for energy efficiency. An electric utility's first program portfolio plan filed pursuant to this rule, shall be filed with supporting testimony prior to January 1, 2010. Each electric utility shall file an updated program portfolio plan by April 15, 2013, and by the fifteenth of April every third year thereafter, unless otherwise directed by the commission.
- (B) Each electric utility shall demonstrate that its program portfolio plan is cost-effective on a portfolio basis. In general, each program proposed within a program portfolio plan must also be cost-effective, although each measure within a program need not be cost-effective. However, an electric utility may include a program within its program portfolio plan that is not cost-effective when that program provides substantial nonenergy benefits.
- (C) Content of filing. An electric utility's program portfolio plan shall include, but not be limited to, the following:
  - (1) An executive summary and its assessment of potential pursuant to paragraph (A) of rule 4901:1-39-03 of the Administrative Code.
  - (2) A description of stakeholder participation in program planning efforts and program portfolio development.
  - (3) A description of attempts to align and coordinate programs with other public utilities' programs.
  - (4) A description of existing programs. The electric utility shall provide a summary of existing programs with a recommendation for whether the program should continue and, if so, a description of its relationship to any proposed programs. If a program has previously been approved and is unchanged, the electric utility may reference the program description currently in effect. If the electric utility is proposing to modify an existing program, the electric utility shall provide a description of the proposed modification and the basis for proposed changes.
  - (5) A description of proposed programs. An electric utility shall describe each program proposed to be included within its program portfolio plan with at least the following information:

- (a) A narrative describing why the program is recommended pursuant to the program design criteria in this chapter.
- (b) Program objectives, including projections and basis for calculating energy savings and/or peak-demand reduction resulting from the program.
- (c) The targeted customer sector.
- (d) The proposed duration of the program.
- (e) An estimate of the level of program participation.
- (f) Program participation requirements, if any.
- (g) A description of the marketing approach to be employed, including rebates or incentives offered through each program, and how it is expected to influence consumer choice or behavior.
- (h) A description of the program implementation approach to be employed.
- (i) A program budget with projected expenditures, identifying program costs to be borne by the electric utility and collected from its customers, with customer class allocation, if appropriate.
- (i) Participant costs, if any.
- (k) Proposed market transformation activities, if any, which have been identified and proposed to be included in the program portfolio plan.
- (1) A description of the electric utility's evaluation, measurement, and verification of the energy savings and/or peak-demand reduction resulting from each program and the process evaluations to be conducted by the electric utility.
- (D) Unless otherwise ordered by the commission, any person may file objections within sixty days after the filing of an electric utility's program portfolio plan. Any person filing objections shall specify the basis for all objections, including any proposed additional or alternative programs, or modifications to the electric utility's proposed program portfolio plan.
- (E) The commission shall set the matter for hearing and shall cause notice of the hearing to be published one time in a newspaper of general circulation in each county in the electric utility's certified territory. At such hearing, the electric utility shall have the burden to prove that the proposed program portfolio plan is consistent with the policy of the state of Ohio as set forth in section 4928.02 of the Revised Code, and meets the requirements of section 4928.66 of the Revised Code.

### 4901:1-39-05 Benchmark and annual status reports.

- (A) Initial benchmark report. Within sixty days of the effective date of this rule, each electric utility shall file an initial benchmark report with the commission that identifies the following information:
  - (1) The energy and demand baselines for kilowatt-hour sales and kilowatt demand for the reporting year; including a description of the method of calculating the baseline, with supporting data.
  - (2) The applicable statutory benchmarks for energy savings and electric utility peakdemand reduction.
- (B) An electric utility may file an application to adjust its sales and/or demand baseline.

  The baseline shall be normalized for weather and for changes in numbers of customers, sales, and peak demand to the extent such changes are outside the control of the electric utility. The electric utility shall include in its application all assumptions, rationales, and calculations, and shall propose methodologies and practices to be used in any proposed adjustments or normalizations. To the extent approved by the commission, normalizations for weather, changes in numbers of customers, sales, and peak demand shall be consistently applied from year to year.
- (C) Portfolio status report. By March fifteenth of each year, each electric utility shall file a portfolio status report addressing the performance of all approved energy efficiency and peak-demand reduction programs in its program portfolio plan over the previous calendar year which includes, at a minimum, the following information:
  - (1) Compliance demonstration. Each electric utility shall include a section in its portfolio status report detailing its achieved energy savings, demand reductions, and the expected reductions that its programs were reasonably designed to achieve, relative to its corresponding baselines. At a minimum, this section of the portfolio status report shall include each of the following:
    - (a) An update to its benchmark report.
    - (b) A comparison with the applicable benchmark of actual energy savings and peak-demand reductions achieved by electric utility programs.
    - (c) An affidavit as to whether the reported performance complies with the statutory benchmarks.
  - (2) Program performance assessment. Each electric utility shall include a section in its portfolio status report demonstrating whether it has successfully implemented the energy efficiency and demand-reduction programs approved in its program

portfolio plan. At a minimum, this section of the annual portfolio status report shall include each of the following:

- (a) A description of each approved energy efficiency or peak-demand reduction program implemented in the previous calendar year including:
  - (i) The key activities undertaken in each program, the number and type of participants, a comparison of the forecasted savings to the verified savings achieved by such program, the magnitude of anticipated savings, and a trend analysis of how anticipated savings will be realized over the life of the program.
  - (ii) All energy savings counted toward the applicable benchmark as a result of energy efficiency improvements implemented by mercantile customers and committed to the electric utility.
  - (iii) All peak-demand reductions counted toward the applicable benchmark as a result of energy efficiency improvements, demand response, or demand reduction improvements implemented by mercantile customers and committed to the electric utility.
  - (iv) A description of all transmission and distribution infrastructure improvements made by the electric utility that reduce line losses to the extent the reduction in line losses has been applied to meet the applicable benchmarks with a calculation and description of the net impact of such improvements on losses.
- (b) An evaluation, measurement, and verification report that documents the energy savings and peak-demand reduction values and the cost-effectiveness of each energy efficiency and demand-side management program reported in the electric utility's portfolio status report. Such report shall include documentation of any process evaluations and expenditures, measured and verified savings, and cost-effectiveness of each program. Measurement and verification processes shall confirm that the measures were actually installed, the installation meets reasonable quality standards, and the measures are operating correctly and are expected to generate the predicted savings. Upon commission order, the staff may publish guidelines for program measurement and verification.
- (c) A recommendation for whether each program should be continued, modified, or eliminated. The electric utility may propose alternative programs to replace eliminated programs, taking into account the overall balance of programming in its program portfolio plan. The electric utility shall describe any alternate program or program modification by providing at least the information required for proposed programs in its program portfolio plan pursuant to this chapter. An electric utility may seek written

staff approval to reallocate funds between programs serving the same customer class at any time, provided that the reallocation supports the goals of its approved program portfolio plan and is limited to no more than twenty-five per cent of the funds available for programs serving that customer class. In addition, an electric utility may change its program mix or budget allocations at any time, as long as it provides notice to all parties in the proceeding in which the program portfolio plan was approved.

- (D) Independent program evaluator report. Subsequent to the filing of the electric utility's portfolio status report, the independent program evaluator will prepare and file a report of the independent program evaluator's activities and conclusions in monitoring, verifying, and evaluating the energy savings and peak-demand reductions resulting from the electric utility programs and mercantile customer activities. The report shall also include the verification and evaluation, through the use of due-diligence techniques including project inspections, of the electric utility's evaluation, measurement, and verification report.
- (E) An electric utility may satisfy its peak-demand reduction benchmarks through a combination of energy efficiency and peak-demand response programs implemented by electric utilities and/or programs implemented on mercantile customer sites where the mercantile program is committed to the electric utility.
  - (1) For energy efficiency programs, an electric utility may count the programs' effects resulting in coincident peak-demand savings.
  - (2) For demand response programs, an electric utility may count demand reductions towards satisfying some or all of the peak-demand reduction benchmarks by demonstrating that either the electric utility has reduced its actual peak demand, or has the capability to reduce its peak demand and such capability is created under either of the following circumstances.
    - (a) A peak-demand reduction program meets the requirements to be counted as a capacity resource under the tariff of a regional transmission organization approved by the Federal Energy Regulatory Commission.
    - (b) A peak-demand reduction program equivalent to a regional transmission organization program, which has been approved by this commission.
- (F) A mercantile customer's energy savings and peak-demand reductions shall be measured by including the effects of all demand-response programs for mercantile customers and all mercantile customer-sited energy efficiency and peak-demand reduction programs. A mercantile customer's energy savings and peak-demand reductions shall be presumed to be the effect of a demand response, energy efficiency, or peak-demand reduction program to the extent they involve the early retirement of functioning equipment, which is not yet fully depreciated, or the installation of new equipment that achieves reductions in energy use and peak

demand that exceed the reductions that would have occurred had the customer used standard new equipment or practices. Electric utilities may make an alternative demonstration that mercantile customer energy savings or peak demand reductions are effects of such a program.

- (G) A mercantile customer may file, either individually or jointly with an electric utility, an application to commit the customer's demand reduction, demand response, or energy efficiency programs for integration with the electric utility's demand reduction, demand response, and energy efficiency programs, pursuant to division (A)(2)(d) of section 4928.66 of the Revised Code. Such application shall:
  - (1) Address coordination requirements between the electric utility and the mercantile customer with regard to voluntary reductions in load by the mercantile customer, which are not part of an electric utility program, including specific communication procedures.
  - (2) Grant permission to the electric utility and staff to measure and verify energy savings and/or peak-demand reductions resulting from customer-sited projects and resources.
  - (3) Identify all consequences of noncompliance by the customer with the terms of the commitment.
  - (4) Include a copy of the formal declaration or agreement that commits the mercantile customer's programs for integration, including any requirement that the electric utility will treat the customer's information as confidential and will not disclose such information except under an appropriate protective agreement or a protective order issued by the commission pursuant to rule 4901-1-24 of the Administrative Code.
  - (5) Include a description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results, and identify and explain all deviations from any program measurement and verification guidelines that may be published by the commission.
- (H) An electric utility shall not count in meeting any statutory benchmark the adoption of measures that are required to comply with energy performance standards set by law or regulation, including but not limited to, those embodied in the Energy Independence and Security Act of 2007, or an applicable building code.
- (I) Banking surplus energy savings. To the extent that an electric utility's actual energy savings exceeds its energy efficiency benchmark for any year, the electric utility may apply such surplus energy savings to either its energy efficiency benchmarks for a subsequent year or toward meeting its advanced energy requirement, but not both. In order to exercise this option, the electric utility shall indicate in the annual portfolio status report for the year in which the surplus occurs whether the surplus will be

directed to a subsequent year's energy efficiency benchmark or its advanced energy requirement.

(J) Benchmarks not reasonably achievable. If an electric utility determines that it is unable to meet a benchmark due to regulatory, economic, or technological reasons beyond its reasonable control, the electric utility may file an application to amend its benchmarks. To the extent that forecasted peak demand and peak prices do not materialize for economic reasons, the electric utility may be granted a waiver of its benchmark for the difference between the actual and expected performance of demand response programs. In any such application, the electric utility shall demonstrate that it has exhausted all reasonable compliance options.

4901:1-39-08 Mercantile customer exemptions.

An application to commit a mercantile customer program for integration filed pursuant to paragraph G of rule 4901:1-39-05 of the Administrative Code, may include a request for an exemption from the cost recovery mechanism set forth in rule 4901:1-39-07 of the Administrative Code. To be eligible for such exemption, the mercantile customer must consent to providing an annual report on the energy savings and electric utility peakdemand reductions achieved in the customer's facilities in the most recent year. The report shall include the following:

- (A) A demonstration that energy savings and peak-demand reductions associated with the customer's program are the result of investments that meet the total resource cost test.
  - (1) Address coordination requirements between the electric utility and the mercantile customer with regard to voluntary reductions in load by the mercantile customer, which are not part of an electric utility program or tariff, including specific communication procedures.
  - (2) Specify the qualifying circumstances under which demand reductions may be effectuated by the customer.
  - (3) Grant permission to the electric utility and staff to measure and verify energy savings and/or peak-demand reductions resulting from customer-sited projects and resources.
  - (4) Identify all consequences of noncompliance by the customer with the terms of the commitment.
- (B) A statement distinguishing programs implemented before and after January 1, 2009, or in future reports filed for years subsequent to 2009, before and after the most recent year.
- (C) A quantification of the energy savings or peak-demand reductions for programs initiated prior to 2009 in the baseline period, recognizing that programs may have diminishing effects over time as technology evolves or equipment degrades.
- (D) A recognition that the energy saving and demand reduction effects during the electric utility's baseline period of any mercantile customer-sited energy efficiency or peak-demand reduction programs that are integrated into an electric utility's programs are excluded from the electric utility's baselines by increasing its baseline for energy savings and baseline for peak-demand reductions by the amount of mercantile customer energy savings and demand reductions.

- (E) A listing and description of the customer programs implemented, including measures taken, devices or equipment installed, processes modified, or other actions taken to increase energy efficiency and reduce peak demand, including specific details such as the number, type, and efficiency levels both of the installed equipment and the old equipment that is being replaced, if applicable.
- (F) An accounting of expenditures made by the mercantile customer for each program and its component energy savings and electric utility peak-demand reduction attributes.
- (G) The timeline showing when each program went into effect, and when the energy savings and peak-demand reductions occurred.
- (H) Any request for an exemption may be combined with any other reasonable arrangement, approved pursuant to Chapter 4901:1-38 of the Administrative Code, if such reasonable arrangement contains appropriate measurements and verification of program results.

#### 4901:1-40-01 **Definitions.**

- (A) "Advanced energy fund" has the meaning set forth in section 4928.61 of the Revised Code.
- (B) "Advanced energy resource" has the meaning set forth in division (A)(34) of section 4928.01 of the Revised Code.
- (C) "Alternative energy resource" has the meaning set forth in division (A)(1) of section 4928.64 of the Revised Code.
- (D) "Biologically derived methane gas" means landfill methane gas; or gas from the anaerobic digestion of organic materials, including animal waste, municipal wastewater, institutional and industrial organic waste, food waste, yard waste, and agricultural crops and residues.
- (E) "Biomass energy" means energy produced from organic material derived from plants or animals and available on a renewable basis, including but not limited to: agricultural crops, tree crops, crop by-products and residues; wood and paper manufacturing waste, including nontreated by-products of the wood manufacturing or pulping process, such as bark, wood chips, sawdust, and lignin in spent pulping liquors; forestry waste and residues; other vegetation waste, including landscape or right-of-way trimmings; algae; food waste; animal wastes and by-products (including fats, oils, greases and manure); biodegradable solid waste; and biologically derived methane gas.
- (F) "Clean coal technology" means any technology that removes or has the design capability to remove criteria pollutants and carbon dioxide from an electric generating facility that uses coal as a fuel or feedstock as identified in the control plan requirements in paragraph (C) of rule 4901:1-41-03 of the Administrative Code.
- (G) "Co-firing" means simultaneously using multiple fuels in the generation of electricity. In the event of co-firing, the proportion of energy input comprised of a renewable energy resource shall dictate the proportion of electricity output from the facility that can be considered a renewable energy resource.
- (H) "Commission" means the public utilities commission of Ohio.
- (I) "Deliverable into this state" means that the electricity originates from a facility within a state contiguous to Ohio. It may also include electricity originating from other locations, pending a demonstration that the electricity could be physically delivered to the state.
- (J) "Demand response" has the meaning set forth in rule 4901:1-39-01 of the Administrative Code.

- (K) "Demand-side management" has the meaning set forth in paragraph (F) of rule 4901:5-5-01 of the Administrative Code.
- (L) "Distributed generation" means electricity production that is on-site and is connected to the electricity grid.
- (M) "Double-counting" means utilizing renewable energy, renewable energy credits, or energy efficiency savings to do any of the following:
  - (1) Satisfy multiple Ohio state renewable energy requirements or such requirements for more than one state.
  - (2) Comply with both the energy efficiency and advanced energy statutory benchmarks.
  - (3) Support multiple voluntary product offerings.
  - (4) Substantiate multiple marketing claims.
  - (5) Some combination of these.
- (N) "Electric generating facility" means a power plant or other facility where electricity is produced.
- (O) "Electric services company" has the meaning set forth in division (A)(9) of section 4928.01 of the Revised Code.
- (P) "Electric utility" has the meaning set forth in division (A)(11) of section 4928.01 of the Revised Code.
- (O) "Energy efficiency" has the meaning set forth in rule 4901:1-39-01 of the Administrative Code.
- (R) "Energy storage" means a facility or technology that permits the storage of energy for future use as electricity.
- (S) "Fuel cell" means a device that uses an electrochemical energy conversion process to produce electricity.
- (T) "Geothermal energy" means hot water or steam extracted from geothermal reservoirs in the earth's crust and used for electricity generation...
- (U) "Hydroelectric energy" means electricity generated by a hydroelectric facility as defined in division (A)(35) of section 4928.01 of the Revised Code.

- (V) "Hydroelectric facility" has the meaning set forth in division (A)(35) of section 4928.01 of the Revised Code.
- (W) "Mercantile customer" has the meaning set forth in division (A)(19) of section 4928.01 of the Revised Code.
- (X) "MISO" means "Midwest Independent Transmission System Operator, Inc." or any successor regional transmission organization.
- (Y) "Person" shall have the meaning set forth in division (A)(24) of section 4928.01 of the Revised Code.
- (Z) "PJM" means "PJM Interconnection, LLC" or any successor regional transmission organization.
- (AA) "Placed-in-service" means when a facility or technology becomes operational.
- (BB) "Renewable energy credit" means the environmental attributes associated with one megawatt-hour of electricity generated by a renewable energy resource, except for electricity generated by facilities as described in paragraph (E) of rule 4901:1-40-04 of the Administrative Code.
- (CC) "Renewable energy resource" has the meaning set forth in division (A)(35) of section 4928.01 of the Revised Code.
- (DD) "Solar energy resources" means solar photovoltaic and/or solar thermal resources.
- (EE) "Solar photovoltaic" means energy from devices which generate electricity directly from sunlight through the movement of electrons.
- (FF) "Solar thermal" means the concentration of the sun's energy, typically through the use of lenses or mirrors, to drive a generator or engine to produce electricity.
- (GG) "Solid wastes" has the meaning set forth in section 3734.01 of the Revised Code.
- (HH) "Staff" means the commission staff or its authorized representative.
- (II) "Standard service offer" means an electric utility offer to provide consumers, on a comparable and nondiscriminatory basis within its certified territory, all competitive retail electric services necessary to maintain essential electric service to consumers, including a firm supply of electric generation service.
- (JJ) "Wind energy" means electricity generated from wind turbines, windmills, or other technology that converts wind into electricity.

#### 4901:1-40-04 **Qualified resources.**

- (A) The following resources or technologies, if they have a placed-in-service date of January 1, 1998, or after, are qualified resources for meeting the renewable energy resource benchmarks:
  - (1) Solar photovoltaic or solar thermal energy.
  - (2) Wind energy.
  - (3) Hydroelectric energy.
  - (4) Geothermal energy.
  - (5) Solid waste energy derived from fractionalization, biological decomposition, or other process that does not principally involve combustion.
  - (6) Biomass energy.
  - (7) Energy from a fuel cell.
  - (8) Storage facility, if it complies with the following requirements:
    - (a) The electricity used to pump the resource into a storage reservoir must qualify as a renewable energy resource.
    - (b) The amount of energy that may qualify from a storage facility is the amount of electricity dispatched from the storage facility and shall exclude the amount of energy required to initially pump the resource into the storage reservoir.
  - (9) Distributed generation system used by a customer to generate electricity from one of the resources or technologies listed in paragraphs (A)(1) to (A)(8) of this rule.
  - (10) A renewable energy resource created on or after January 1, 1998, by the modification or retrofit of any facility placed in service prior to January 1, 1998.
- (B) The following resources or technologies, if they have a placed-in-service date of January 1, 1998, or after, are qualified resources for meeting the advanced energy resource benchmarks:
  - (1) Any modification to an electric generating facility that increases its generation output without increasing the facility's carbon dioxide emissions (tons per year) in comparison to its actual annual carbon dioxide emissions preceding the modification. In such an instance, it is the incremental increase in generation

- output that may be quantified and applied toward an advanced energy requirement.
- (2) Any distributed generation system, designed primarily to meet the energy needs of the customer's facility that utilizes co-generation of electricity and thermal output simultaneously.
- (3) Clean coal technology.
- (4) Advanced nuclear energy technology, from:
  - (a) Advanced nuclear energy technology consisting of generation III technology as defined by the nuclear regulatory commission or other later technology.
  - (b) Significant improvements to existing facilities. In such an instance, it is the incremental increase in generation attributable to the improvement that may be quantified and applied toward an advanced energy requirement. Extension of the life of existing nuclear generation capacity shall not qualify as advanced nuclear energy technology.
- (5) Energy from a fuel cell.
- (6) Advanced solid waste or construction and demolition debris conversion technology that results in measurable greenhouse gas emission reductions.
- (7) Demand-side management and energy efficiency, above and beyond that used to comply with any other regulatory standard or programs.
- (C) The following new or existing mercantile customer-sited resources may be qualified resources for meeting electric utilities' annual, renewable- or advanced-energy resource benchmarks, as applicable, provided that it does not constitute double-counting for any other regulatory requirement and that the mercantile customer has committed the resource for integration into the electric utility's demand-response, energy efficiency, or peak-demand reduction programs pursuant to rule 4901:1-39-08 of the Administrative Code.
  - (1) Renewable energy resources from mercantile customers include the following:
    - (a) Electric generation equipment that uses a renewable energy resource and is owned or controlled by a mercantile customer.
    - (b) Any renewable energy resource of the mercantile customer that can be utilized effectively as part of an alternative energy resource plan of an electric utility and would otherwise qualify as a renewable energy resource if it were utilized directly by an electric utility.

- (2) Advanced energy resources from mercantile customers include the following:
  - (a) A resource that improves the relationship between real and reactive power.
  - (b) A mercantile customer-owned or controlled resource that makes efficient use of waste heat or other thermal capabilities.
  - (c) Storage technology that allows a mercantile customer more flexibility to modify its demand or load and usage characteristics.
  - (d) Electric generation equipment owned or controlled by a mercantile customer that uses an advanced energy resource.
  - (e) Any advanced energy resource of the mercantile customer that can be utilized effectively as part of an advanced energy resource plan of an electric utility and would otherwise qualify as an advanced energy resource if it were utilized directly by an electric utility.
- (D) An electric utility or electric services company may use renewable energy credits (REC) to satisfy all or part of a renewable energy resource benchmark, including a solar energy resource benchmark.
  - (1) To be eligible for use towards satisfying a benchmark, a REC must originate from a facility that meets the definition of a renewable energy resource, including solar energy resources, and be measured by a utility-grade meter in compliance with paragraph B of rule 4901:1-10-05 of the Administrative Code, for facilities with generating capacity of more than six kilowatts. Such facilities could include a mercantile customer-sited resource that is not committed for integration into an electric utility's demand-response, energy efficiency, or peak-demand reduction program pursuant to rule 4901:1-39-08 of the Administrative Code but that otherwise qualifies under the terms of paragraph (A) of this rule.
  - (2) To use RECs as a means of achieving partial or complete compliance, an electric utility or electric services company must be a registered member in good standing of at least one of the following:
    - (a) The PJM's generation attributes tracking system.
    - (b) The MISO's renewable energy tracking system.
    - (c) Another credible tracking system approved for use by the commission.
  - (3) A REC may be used for compliance any time in the five calendar years following the date of its initial purchase or acquisition.
  - (4) Double counting is prohibited.

- (5) The RECs must be associated with electricity that was generated no earlier than July 31, 2008.
- (E) For a generating facility of seventy-five megawatts or greater that is situated within this state and has committed by December 31, 2009, to modify or retrofit its generating unit or units to enable the facility to generate principally from biomass energy by June 30, 2013, the number of RECs produced by each megawatt-hour of electricity generated principally from biomass energy shall equal the actual percentage of biomass feedstock heat input used to generate such megawatt-hour multiplied by the quotient obtained by dividing the then existing unit dollar amount used to determine a renewable energy compliance payment as provided under division (C)(2)(b) of section 4928.64 of the Revised Code, by the then existing market value of one REC, but such megawatt-hour shall not equal less than one credit.
- (F) An entity seeking resource qualification shall file an application for certification of its resources or technologies, upon such forms as may be prescribed by the commission. The application shall include a determination of deliverability to the state in accordance with paragraph (I) of rule 4901:1-40-01 of the Administrative Code.
  - (1) Any interested person may file a motion to intervene and file comments and objections to any application filed under this rule within twenty days of the date of the filing of the application.
  - (2) The commission may approve, suspend, or deny an application within sixty days of it being filed. If the commission does not act within sixty days, the application is deemed automatically approved on the sixty-first day after the date filed.
  - (3) If the commission suspends the application, the applicant shall be notified of the reasons for such suspension and may be directed to furnish additional information. The commission may act to approve or deny a suspended application within ninety days of the date that the application was suspended.
  - (4) Upon commission approval, the applicant shall receive notification of approval and a numbered certificate where applicable. The commission shall provide this certificate number to the appropriate attribute tracking system.
  - (5) Representatives of certified facilities must notify the commission within thirty days of any material changes in information previously submitted to the commission during the certification process. Failure to do so may result in revocation of certification status.

- (6) Certification of a resource or technology shall not predetermine compliance with annual benchmarks, and does not constitute any commission position regarding cost recovery.
- (G) At its discretion, the commission may classify any new technology or additional resource as an advanced- or renewable-energy resource. Any interested person may request a hearing on such classification.

4901:5-5-06 Resource plans.

- (A) As part of the long-term forecast report filed pursuant to rule 4901:5-3-01 of the Administrative Code, an electric utility shall include a resource plan as defined in rule 4901:5-5-01 of the Administrative Code, which shall contain a narrative discussion and analysis of the following:
  - (1) Anticipated technological changes which may be expected to influence the reporting person's generation mix, use of energy efficiency and peak-demand reduction programs, availability of fuels, type of generation, use of alternative energy resources pursuant to section 4928.64 of the Revised Code or techniques used to store energy for peak use.
  - (2) The availability and potential development of alternative energy resources pursuant to section 4928.64 of the Revised Code for generating electricity.
  - (3) Research, development, and demonstration efforts relating to alternative energy resources, including expenditure information and description of specific investigations, and the nature and timing of anticipated results of these investigations.
  - (4) The impact of environmental regulations on generating capacity, cost, and reliability, including precise quantitative estimates and/or historical data pursuant to division (B)(2)(b) and/or (B)(2)(c) of section 4928.143 of the Revised Code.
  - (5) Textual material not specifically required but of importance to the resource forecast of the reporting utility may be included in the appropriate section.
  - (6) Electricity resource forecast forms. In addition to the foregoing discussion and analysis, an electric utility shall include the following forms as published by the commission:
    - (a) Form FE-R1, "Monthly Forecast of Electric Utility's Ohio Service Area Peak
      Load and Resources Dedicated to Meet Ohio Service Area Peak Load."
      Forecast information concerning monthly loads and resources shall be provided for two years on form FE-R1.
    - (b) Form FE-R2, "Monthly Forecast of System Peak Load and Resources Dedicated to Meet System Peak Load." Forecast information concerning monthly loads and resources shall be provided for two years on form FE-R2.
    - (c) Existing system description. The reporting person shall provide the existing electric system generating capability both inside and outside Ohio in

- summary form as indicated in form FE-R3: "Summary of Existing Electric Generation Facilities for the System."
- (d) Long-term forecast requirements. The reporting person shall provide a tenyear forecast which shall identify the electricity resource options (including purchased power) expected to be needed to meet forecast system load levels, as identified in the peak load demand forecast, on the following forms:
  - (i) Form FE-R4: "Actual Generating Capability Dedicated to Meet Ohio Peak Load."
  - (ii) Form FE-R5: "Projected Generating Capability Changes To Meet Ohio Peak Load." A summary and reconciliation of the information given in form FE-R10 shall be provided by the completion of form FE-R5.
  - (iii) Form FE-R6: "Electric Utility's Actual and Forecast Ohio Peak Load and Resources Dedicated to Meet Ohio Peak Load." Actual and forecast information concerning summer seasonal loads and resources shall be provided for years minus five through ten on form FE-R6.
  - (iv) Form FE-R7: "Actual and Forecast System Peak Load and Resources Dedicated to Meet System Peak Load." Actual and forecast information concerning summer seasonal loads and resources shall be provided for years minus five through ten on form FE-R7.
  - (v) Form FE-R8: "Electric Utility's Actual and Forecast Ohio Peak Load and Resources Dedicated to Meet Ohio Peak Load." Actual and forecast information concerning winter seasonal loads and resources shall be provided for years minus five through ten on form FE-R8.
  - (vi) Form FE-R9: "Actual and Forecast System Peak Load and Resources Dedicated to Meet System Peak Load," Actual and forecast information concerning winter seasonal loads and resources shall be provided for years minus five through ten on form FE-R9.
- (e) Plans for development of facilities in the forecast period. Information regarding new generating capacity shall be provided for each planned facility on form FE-R10: "Specifications of Planned Electric Generation Facilities."
  - (i) All information on facilities which will commence operating during the forecast period and facilities on which construction will commence during the forecast period shall be displayed.

- (ii) Each applicable facility shall be keyed to the capacity increases summarized in form FE-R5, indicating the amount and timing of additional generating capability provided.
- (B) In the long-term forecast report filed pursuant to rule 4901:5-3-01 of the Administrative Code, the following must be filed in the forecast year prior to any filing for an allowance under sections 4928.143(B)(2)(b) and (c) of the Revised Code:
  - (1) Existing generating system description.
    - (a) The reporting person shall provide a brief summary narrative of the existing electric generating system. If a hearing is to be held on the forecast in the current year, the reporting person shall submit to the commission with its long-term forecast report, the anticipated operating, maintenance, and fuel expense of each unit for each year of the forecast period. The commission may make exceptions to this paragraph for good cause.
    - (b) A summary of the pooling, mutual assistance, and all agreements for purchasing from and selling power and energy to other utilities or nonutility generators, including costs and amounts, shall be provided.
  - (2) Need for additional electricity resource options. The reporting person shall describe the procedure followed in determining the need for additional electricity resource options. All major factors shall be discussed, including but not limited to:
    - (a) System load profile.
    - (b) Maintenance requirements of existing and planned units.
    - (c) Number of units, unit size, and availability of existing and planned units.
    - (d) Forecast uncertainty.
    - (e) Electricity resource option uncertainty with respect to cost, availability, commercial in-service dates, and performance.
    - (f) Lead times for construction or implementation of planned electricity resource options.
    - (g) Power interchange with other electric systems, including consideration of the ability to buy and sell power.
    - (h) Price-responsive demand and price elasticity due to the implementation of time-differentiated pricing options and assessments of the value of lost load.

- (i) Regulatory climate.
- (j) Reliability criteria, including a discussion and analysis of the reporting person's reliability criteria and factors influencing their selection, including, but not limited to:
  - (i) Reliability measures used and factors including the selection.
  - (ii) Engineering analysis performed.
  - (iii) Economic analysis performed.
  - (iv) Any judgments applied.

#### (3) Resource plan.

- (a) This paragraph shall include the electric utility's projected mix of resource options to meet the base case projection of peak demand and total energy requirements.
- (b) A discussion of the electric utility's projected system reliability shall be presented. It shall include:
  - (i) A discussion of the future adequacy of the electric utility's projected system in both the short- and long-term.
  - (ii) A discussion of the future adequacy of fuel supplies in both the shortand long-term. Additionally, the reporting person shall provide, for the forecast period, a description of its overall fuel procurement policies and procedures. A description of the system's fuel requirements, the system's geographic source of fuel supply, and the percentage of fuel supply under contract shall be included.
- (c) The electric utility shall demonstrate the cost-effectiveness of the plan through a comparison over the ten-year forecast horizon of the revenue requirement and rate impacts of the selected plan and alternative plans evaluated. The selection of the plan shall demonstrate adequate consideration of the risks, reliability, and uncertainties associated with the person's selected plan and alternative plans, and of other factors the electric utility deems appropriate.
- (d) The methodology for arriving at the plan must be fully explained and described. The description must be sufficiently explicit, detailed and complete to allow the commission and other knowledgeable parties to

understand how the assessment was conducted. This description shall also include:

- (i) A general discussion of the decision-making process, criteria, and standards employed by the electric utility as it relates to the development of the resource plan.
- (ii) A discussion of how the plan is consistent with the overall planning objectives of paragraph (A) of rule 4901:5-5-03 of the Administrative Code.
- (iii) A discussion of key assumptions and judgments used in development of the resource plan.
- (e) The reporting person shall provide information sufficient for the commission to determine the reasonableness of the resource plan, including:
  - (i) The adequacy, reliability, and cost-effectiveness of the plan.
  - (ii) Whether the methodology used to develop the plan evaluates demandside management programs and nonelectric utility generation on both sides of the meter in a manner consistent with electric utility's generation and other electricity resource options. At a minimum, the total resource cost test as defined in rule 4901:1-39-01 of the Administrative Code, should be used to determine the costeffectiveness of demand-side management programs.
  - (iii) Whether the plan gives adequate consideration to the following factors:
    - (a) Potential rate and customer bill impacts of the plan.
    - (b) Environmental impacts of the plan and their associated costs.
    - (c) Other significant economic impacts and their associated costs.
    - (d) Impacts of the plan on the financial status of the company.
    - (e) Other strategic considerations including flexibility, diversity, the size and lead time of commitments, and lost opportunities for investment.
    - (f) Equity among customer classes.
    - (g) The impacts of the plan over time.
    - (h) Such other matters the commission considers appropriate.