

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Commission's Review of )  
the Rules Concerning Long-Term Forecast )  
Reports Contained in Chapters 4901:5-1; ) Case No. 10-2912-GE-ORD  
4901:5-3; 4901:5-5; and 4901:5-7, Ohio )  
Administrative Code. )

FINDING AND ORDER

The Commission finds:

- (1) Sections 111.15 and 119.032, Revised Code, require the Commission to conduct a review, every five years, of its rules and to determine whether to continue its rules without change, amend its rules, or rescind its rules. The rules in Chapter 4901:5-1, Ohio Administrative Code (O.A.C.), address long-term forecast reports (LTFRs) generally, while the rules in Chapter 4901:5-3, O.A.C., discuss the filing of LTFRs and the fees that electric transmission owners, electric distribution utilities, and gas and natural gas distribution companies must submit annually to the Commission. Chapters 4901:5-5 and 4901:5-7, O.A.C., address electric utility forecast reports and gas and natural gas forecast reports, respectively.
- (2) Section 119.032(C), Revised Code, requires the Commission to determine all of the following:
  - (a) Whether the rules should be continued without amendment, be amended, or be rescinded, taking into consideration the purpose, scope, and intent of the statute(s) under which the rules were adopted.
  - (b) Whether the rules need amendment or rescission to give more flexibility at the local level.
  - (c) Whether the rules need amendment or rescission to eliminate unnecessary paperwork.
  - (d) Whether the rules duplicate, overlap with, or conflict with other rules.

- (3) In making its review, an agency is required to consider the continued need for the rules, the nature of any complaints or comments received concerning the rules, and any factors that have changed in the subject matter area affected by the rules.
- (4) In addition, on January 10, 2011, the governor of the state of Ohio issued Executive Order 2011-01K, entitled "Establishing the Common Sense Initiative," which sets forth several factors to be considered in the promulgation of rules and the review of existing rules. Among other things, the Commission must review its rules to determine the impact that a rule has on small businesses; attempt to balance properly the critical objectives of regulation and the cost of compliance by the regulated parties; and amend or rescind rules that are unnecessary, ineffective, contradictory, redundant, inefficient, or needlessly burdensome, or that have had negative unintended consequences, or unnecessarily impede business growth.
- (5) By entry issued December 15, 2010, the Commission issued Staff-proposed revisions and suggestions for comment for Chapters 4901:5-1, 4901:5-3, 4901:5-5, and 4901:5-7, O.A.C. Staff recommended only one minor change, changing the definition of one term in Chapter 4901:5-5, O.A.C., to make the use of that term consistent throughout that chapter.
- (6) Initial comments were filed in this docket by: Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, FirstEnergy); the Ohio Consumers' Counsel (OCC); and Columbia Gas of Ohio, Inc. (Columbia). Reply comments were filed on February 1, 2011, by: Duke Energy Ohio, Inc. (Duke), Columbia, and OCC, along with the Natural Resources Defense Council (NRDC), filed joint reply comments.
- (7) By entry issued June 22, 2011, the Commission issued additional Staff-proposed revisions and suggestions for comment for Chapter 4901:5-7. The proposed additional changes to these rules correspond with the amendments the Commission made to the electric forecast rules in Chapter 4901:5-5, O.A.C., in *In the Matter of the Adoption of Rules for Alternative and Renewable Energy Technology, Resources, and Climate Regulations, and Review of Chapters 4901:5-1; 4901:5-3; 4901:5-5, and 4901:5-7 of the Ohio Administrative Code, Pursuant to*

*Amended Substitute Senate Bill No. 221, Case No. 08-888-EL-ORD.*

- (8) The Commission will address the more relevant comments below. The Commission notes that some minor, noncontroversial changes have been incorporated into the amended rules without Commission comment. Any recommended change that is not discussed below or incorporated into the amended rules should be considered denied.

Rule 4901:5-5-03 Forecast Report Requirements for Electric Utilities and Transmission Owners

- (9) Paragraph (C)(4)(b) - This paragraph provides that energy-price relationships should specify a demand function that can identify the relationship between any dynamic retail price and peak load, depicting the impact of price responsive demand.
- (10) FirstEnergy requests removal of this rule, as it is not derived directly from the requirements of the Revised Code. Alternatively, FirstEnergy requests that a definition of "demand function," as well as guidelines about how to apply that demand function to the forecast, be provided. (FirstEnergy at 1-2.) In its reply comments, Duke states that it does not oppose removal or clarification of the rule (Duke reply at 1-2).
- (11) In their joint reply comments, OCC and NRDC oppose FirstEnergy's proposed removal of the rule. OCC and NRDC assert that specifying a demand function, as required under the rule, is essential in determining the future benefits of Smart Grid deployments (OCC/NRDC reply at 3).
- (12) Upon consideration of the proposal made by FirstEnergy for removal or clarification of Rule 4901:5-5-03(C)(4)(b), O.A.C., the Commission agrees that a demand function capturing the impact of price responsive demand is necessary in determining the effectiveness of Smart Grid deployments. Therefore, FirstEnergy's request for removal of this rule should be denied.

Rule 4901:5-5-04 Forecasts for Electric Transmission Owners

- (13) Paragraphs (D)(1) and (D)(2) - Paragraph (D)(1) requires electric transmission owners to provide specifications of

planned transmission lines in form FE-T9. Paragraph (D)(2) requires a listing of all proposed substations in form FE-T10.

- (14) FirstEnergy requests that forms FE-T9 and FE-T10, along with the supporting text, be removed from the rule. FirstEnergy notes that the information provided in these forms is readily available to the Commission through the Midwest Independent Transmission System Operator (MISO) and PJM Interconnection, LLC (PJM) websites. In the alternative, FirstEnergy suggests that a company be able to comply with the rule by referencing the MISO and PJM websites. (FirstEnergy at 2.) In its reply comments, Duke states that it does not oppose the omission of these forms as part of the company's LTFR (Duke reply at 2).
- (15) OCC and NRDC oppose FirstEnergy's proposal, stating the public regulatory review process would become not only less transparent, but also inefficient, by forcing the Commission and interested parties to navigate through complex websites (OCC/NRDC reply at 4).
- (16) The Commission finds that it would be inefficient to require Staff and interested parties to retrieve information contained in Forms FE3-T9 and FE3-T10. Further, the Commission finds that a reference to MISO's or PJM's website is an insufficient alternative to the rule, as the information obtained from the forms does not always appear on MISO's or PJM's website. In addition, it creates an additional burden to parties seeking access to the data. Therefore, FirstEnergy's request for removal of Forms FE3-T9 and FE3-T10, along with the supporting text, should be denied.
- (17) Paragraph (E)(1) - This paragraph mandates that the reporting electric transmission owner submit substantiation of transmission development plans, including description and transcription diagrams of the base case load flow studies, and provide the base case load flow studies on computer disks along with the transcription diagrams.
- (18) FirstEnergy requests that the rule be amended to allow the utilities to submit only the description and transcription diagrams, as the base case load flow studies are readily available online to MISO and PJM members. In support of the

change, FirstEnergy provides that utilizing on-line models provided by MISO and PJM would create one standard source for models, thus, avoiding the risk of different model versions being submitted by individual companies (FirstEnergy at 2.) Duke agrees with FirstEnergy's recommendation to submit only the description and transcription diagrams, and believes this will avoid the chance that different versions of the models would be submitted by individual companies (Duke reply at 2).

- (19) As with our previous ruling, the Commission believes that it would be an insufficient alternative to allow companies to submit on-line models from websites. Information contained within the description and transcription diagrams of the base case load flow studies may not be available on the MISO or PJM websites, nor is there a guarantee that the information required in the forms would ever appear on the websites. Therefore, FirstEnergy's request for the rule to be amended should be denied.

Rule 4901:5-5-06 Resource Plans

- (20) Paragraph (A) - This paragraph provides that an electric utility shall include a resource plan containing a narrative discussion and analysis of the specified items.
- (21) FirstEnergy requests that this rule be clarified to permit an electric utility that purchases all of the power required to supply standard service offer (SSO) to its nonshopping retail generation customers be exempt from submitting forms required by this rule that relate to interruptibles, reserve margins, available reserve, and available capacity (FirstEnergy at 3).
- (22) OCC and NRDC assert that FirstEnergy's comment is unclear in that FirstEnergy seeks an exemption from providing information, but does not specify which forms it seeks an exemption from. Further, OCC and NRDC state that, if a utility is not required to provide such information, the utility should have to indicate how the information is to be obtained in the future. OCC and NRDC recommend that the Commission reject this rule change. (OCC/NRDC reply at 4-5.)

- (23) The Commission is unclear on what FirstEnergy seeks clarification of in this rule and which specific forms it seeks exemption from. Regardless of whether or not an electric utility purchases power to supply its nonshopping retail generation customers, the electric utility is still required to tabulate peak loads and reserve margins, as is required for all load-serving entities. The Commission believes that the current format for the resource plan is an efficient method, thus, FirstEnergy's request should be denied.

Chapter 4901:5-7 Gas and Natural Gas Forecast Reports

- (24) General Comments - Columbia requests that the rule be changed to reflect certain companies' transition to an SSO program. Columbia explains that language should be added to exempt gas distribution companies serving more than one hundred thousand customers that have implemented a wholesale or retail auction for the purpose of acquiring gas supply be exempt from this rule requirement. (Columbia at 1-2.)
- (25) In their joint comments, OCC and NRDC oppose Columbia's request, stating the language is overbroad. OCC and NRDC assert that the bulk of the information required by the rule relates to demand forecast, regardless of how the gas is procured. (OCC/NRDC reply at 2-3.)
- (26) Initially, the Commission notes that Section 4935.04, Revised Code, which was recently amended, governs which companies must file LTFRs, and there is no exception for companies that have transitioned to an SSO program. Accordingly, the Commission finds that Columbia's request should be denied.

Rule 4901:5-7-03<sup>1</sup> Gas and Natural Gas Demand Forecasts

- (27) This rule provides guidelines to be utilized in the preparation of the demand forecast by gas and natural gas distribution companies.

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<sup>1</sup> In its initial comments, OCC proposed this language would be added to the gas and natural gas supply forecast requirements set forth in Rule 4901:5-7-02(I), O.A.C. Subsequently, the Commission's proposed amended rules by entry dated June 22, 2011, moved the gas and natural gas demand forecasts from Rule 4901:5-7-02, O.A.C., to Rule 4901:5-7-03, O.A.C.; therefore, for purposes of our consideration of OCC's comment, the Commission will consider it under Rule 4901:5-7-03, O.A.C.

- (28) OCC recommends that an analysis requirement be added to this rule that requires utilities to compare the cost and amount of energy conservation resources with the cost and amount of supply resources, in order to ensure the utility is procuring the lowest cost resource. In support of this recommendation, OCC explains that Ohio's statutes encourage cost-effective demand-side natural gas conservation, and an analysis requirement will assist the Commission in promoting and encouraging the conservation of energy. OCC also believes that a systematic assessment of conservation resources in gas utility forecast filings may increase the amount of conservation resources deployed. OCC notes the analysis is further justified by the benefits Ohio customers receive from the conservation programs currently employed by Ohio gas utilities. (OCC at 4-10.)
- (29) In its reply comments, Columbia opposes OCC's proposed analysis requirement. Columbia asserts that the proposed language does not amplify the LTFR statute and should not be adopted. Columbia also provides that the language would add little value to customers and OCC fails to justify how the analysis would enhance economic efficiency. (Columbia reply at 2-3.)
- (30) The Commission believes the language proposed by Staff in Rule 4901:5-7-03(B)(3), O.A.C., which provides "[e]nergy efficiency, demand reduction, and demand response programs and policies of the reporting utility, which support energy conservation and load modification, shall be described along with an estimates of their impacts on energy and peak demand and supply resources," appropriately addresses the concerns raised by OCC in its comments. Accordingly, we find that OCC's request should be denied and the language proposed by Staff should be adopted.
- (31) Upon considering staff's proposal and the initial and reply comments, the Commission concludes that existing Chapters 4901:5-1, 4901:5-3, 4901:5-5, and 4901:5-7, O.A.C., should be amended; therefore, the attached rules, that have been amended to reflect the Commission's determinations herein, should be adopted.

It is, therefore,

ORDERED, That the attached amended rules be adopted. It is, further,

ORDERED, That the attached amended rules contained in Chapters 4901:5-1, 4901:5-3, 4901:5-5, and 4901:5-7, O.A.C., be filed with the Joint Committee on Agency Rule Review, the Legislative Service Commission, and the Secretary of State in accordance with divisions (D) and (E) of Section 111.15, Revised Code. It is, further,

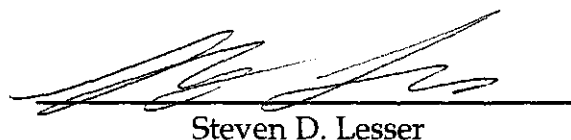
ORDERED, That the final rules be effective on the earliest day permitted by law. Unless otherwise ordered by the Commission, the review date for these rules shall be November 30, 2016. It is, further,

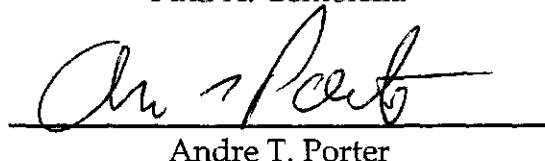
ORDERED, That a copy of this finding and order and the attachment be served upon all electric distribution companies, gas and natural gas companies, certified competitive retail electric service providers and certified competitive retail natural gas service suppliers, OCC, NRDC, and all interested persons of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

  
Todd A. Snitchler, Chairman

  
Paul A. Centolella

  
Steven D. Lesser

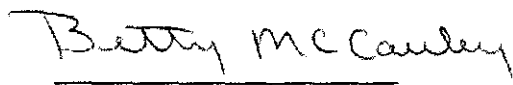
  
Andre T. Porter

  
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Entered in the Journal

**NOV 09 2011**



Betty McCauley  
Secretary



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**4901:5-1-01 Definitions.**

As used in Chapters 4901:5-1 to 4901:5-7 of the Administrative Code:

- (A) "Business office" means any office maintained by the reporting person where bills issued by the reporting person may be paid and discussed with its representatives.
- (B) "Commission" means the public utilities commission of Ohio.
- (C) "Electric utility" has the meaning set forth in division (A)(11) of section 4928.01 of the Revised Code.
- (D) "Electric transmission owner" means the owner of a major utility facility as defined in division (A)(1)(a) of section 4935.04 of the Revised Code.
- (E) "Gas distribution line and associated facility" means a pipeline and associated facilities other than gathering or transmission line in a distribution area.
- (F) "Gas gathering line and associated facility" means a pipeline and associated facilities which transport gas from a current production facility to a transmission line or main.
- (G) "Gas or natural gas transmission line and associated facilities" has the meaning set forth in rule 4906-1-01 of the Administrative Code.
- (H) "Long-term forecast report" has the meaning set forth in section 4935.04 of the Revised Code.
- (I) "Major utility facility"; has the meaning set forth in division (A)(1) of section 4935.04 of the Revised Code.
- (J) "Person" has the meaning set forth in section 4906.01 of the Revised Code.
- (K) "Reporting person" means any person required to file a long-term forecast report under section 4935.04 of the Revised Code.
- (L) "Substantial change" includes, but is not limited to:
  - (1) A change in forecasted peak loads or energy consumption over the forecast period of greater than an average of one-half of one per cent per year as calculated in rule 4901:5-3-03 of the Administrative Code.
  - (2) Demonstration of good cause to the commission by an interested party.
- (M) "Electric generating facility" means an electric generating plant and associated facilities capable of producing electricity.

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4901:5-1-02      **Form of long-term forecast report filing required.**

Except for electric services companies exempted pursuant to division (A)(1) of section 4928.05 of the Revised Code, each person owning or operating a major utility facility within this state, or furnishing gas, natural gas, or electricity directly to more than fifteen thousand customers within this state shall annually furnish a long-term forecast report to the commission for its review, in compliance with the rules set forth in this chapter.

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4901:5-1-03      **Form of long-term forecast reports additional requirements.**

- (A) All long-term forecast reports shall be submitted pursuant to the requirements set forth in Chapter 4901:5-3 of the Administrative Code.
- (B) All hard copies of long-term forecast reports must be bound. The binding may include either a hard or soft cover so long as it adequately secures the pages.
- (C) All long-term forecast reports shall contain a listing of the libraries to which a letter of notification has been mailed, stating where available copies may be obtained.
- (D) Each long-term forecast report shall include a statement, signed by the person responsible for the filing, that the document is true and correct to the best of his or her knowledge and belief.
- (E) All long-term forecast reports shall contain a certificate of service, signed by the person responsible for its filing, stating that the requirements of paragraphs (F) to (I) of this rule will be met.
- (F) On the same date a long-term forecast report is filed with the commission, the reporting person shall deliver or mail a copy of the long-term forecast report to the office of the consumers' counsel at their offices in Columbus, Ohio.
- (G) Within three days of filing with the commission, a letter of notification shall be delivered or sent by first class mail by the reporting person to:
  - (1) The main public library of each county in Ohio which the reporting person services.
  - (2) The main public library of each county in Ohio in the area in which any portion of a major utility facility is to be located during the forecast period.
- (H) The reporting person shall keep at least one copy of the person's current long-term forecast report at the person's principal business office in Ohio for public inspection during office hours.
- (I) The reporting person shall provide or cause to be provided a copy of the person's long-term forecast report to any person upon request at cost to cover the expenses incurred.

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4901:5-1-04      **Notice of substantial change.**

- (A) If the long-term forecast report to be furnished under division (C) of section 4935.04 of the Revised Code will contain a "substantial change" as defined in division (D)(3)(c) of section 4935.04 of the Revised Code, the reporting person shall file a notice of substantial change with the commission forty-five days prior to the filing date of the long-term forecast report or as soon thereafter as the reporting person knows of the substantial change.
- (B) Notice of substantial change shall consist of a letter, signed by the person responsible for filing the long-term forecast report, stating that a substantial change will be reflected in the forthcoming long-term forecast report and identifying the provision of division (D)(3)(c) of section 4935.04 of the Revised Code which is applicable.

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**4901:5-3-01      Long-term forecast report due dates.**

- (A) All electric transmission owners or electric utilities required by section 4935.04 of the Revised Code to file a long-term forecast report must file annually on or before April fifteenth. For years in which their forecast does not show substantial change, the electric transmission owner or the electric utility may file only the forms specified in Chapter 4901:5-5 of the Administrative Code in satisfying the requirements of this rule. In any year that a hearing is required under division (D)(3) of section 4935.04 of the Revised Code, the electric transmission owner or electric utility must file a complete long-term forecast report.
- (B) All gas and natural gas distribution companies required by section 4935.04 of the Revised Code to file a long-term forecast report must file annually on or before June first. On alternating years, each gas utility may file only the forms specified in Chapter 4901:5-7 of the Administrative Code in satisfying the requirements of this rule. In any year that a hearing is required under division (D)(3) of section 4935.04 of the Revised Code, the reporting utility must file a complete long-term forecast report.
- (C) On or before December thirty-first of each year, the commission shall notify each electric transmission owner or electric utility of the number of copies of its long-term forecast report it shall be required to submit at the next filing. On or before February fifteenth of each year, the commission shall notify each gas or natural gas distribution company of the number of copies of its long-term forecast report it shall be required to submit at the next filing. In the event that no notice is sent by the commission, the company shall submit the same number of copies of the long-term forecast report submitted with the previous year's filing.
- (D) Notwithstanding the requirements of paragraphs (A) and (B) of this rule, the commission may grant an extension of the filing deadline for good cause shown.

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**4901:5-3-02 Fees.**

- (A) Fees for electric transmission owners or electric utilities shall be submitted annually to the commission on or before May first.
- (B) Fees for gas and natural gas distribution companies shall be submitted annually to the commission on or before September fifteenth.
- (C) All fee payments shall be made by check, payable to "the public utilities commission of Ohio."
- (D) The commission shall annually determine the fee each utility must pay, and shall notify each utility as to that amount at least thirty days prior to the date payment is due.
- (E) Fees for electric transmission owners or electric utilities will be based on:
  - (1) For electric transmission owners, the fee shall be two and one-half mills per megawatt hour delivery based upon the energy deliveries for loads connected to the system inside Ohio for the most recent year for which actual data is reported on the most recently filed form FE-T1 column twelve.
  - (2) For electric utilities, the fee shall be two and one-half mills per ~~megawatt-hour~~ megawatt-hour delivery based upon the net energy for load for the most recent year for which actual data is reported on the most recently filed form FE-D1 column eight.
- (F) Fees for gas and natural gas distribution companies will be based on two factors:
  - (1) In-state total number of meters in December of the preceding year, as reported to the commission on form SG-1.
  - (2) Total in-state sales for the most recent calendar year for which actual data are reported to the commission on the most recently filed form SG-1.
- (G) Annual fees for gas and natural gas distribution companies shall be the sum of the following charges:
  - (1) One hundred mills per meter.
  - (2) Two hundred ninety-seven mills per million cubic feet.

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4901:5-3-03      **Calculation of forecast rates of change.**

- (A) For the purposes of division (D)(3)(c)(i) of section 4935.04 of the Revised Code, the change in the average annual rate of change in the forecasted electric peak loads or energy delivery shall be calculated by comparing the average annual compound rate of change of the previous year's long-term forecast with the average annual rate of change of the current year's long-term forecast. The average annual compound rate of change shall be calculated as the rate of change occurring between year zero and year ten.
- (B) The average annual compound rate of change in electric energy delivery for a given forecast shall be calculated as the rate of change occurring between year zero and year ten. For electric utilities, the rate of change shall be calculated based upon the net energy for load on form FE-D1, column eight.
- (C) The average annual compound rate of change in electric peak loads for a given forecast shall be calculated as the rate of change occurring between year zero and year ten. The greater of winter or summer internal load shall be used to determine average annual compound rate of change. For electric utilities, the rate of change shall be based upon the electric utility's forecast of its seasonal peak load demand in Ohio as reported on form FE-D3.
- (D) For the purposes of division (D)(3)(c)(i) of section 4935.04 of the Revised Code, the change in the average annual rate of change in the forecasted gas consumption shall be calculated by comparing the average annual compound rate of change of the previous year's long-term forecast with the average annual compound rate of change of the current year's long-term forecast. The average annual compound rate of change shall be calculated as the rate of change occurring between year zero and year ten.
- (E) The average annual compound rate of change in gas consumption for a given forecast shall be calculated as the rate of change occurring between year zero and year ten, as reported in the sum of column ten, total consumption, of form FG1-1 plus column four, total volumes transported by respondent for on-system customers, of form FG1-6.

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**4901:5-5-01 Definitions.**

- (A) "ATC" means available transfer capability as defined by the regional reliability organization standards.
- (B) "Alternative energy resource" has the meaning set forth in division (A)(1) of section 4928.64 of the Revised Code.
- (C) "Available system capability" means the installed capability of all generating units on the utility system plus firm purchases.
- (D) "Capability" means the net seasonal demonstrated rating of generating equipment, as defined by the regional reliability organization reliability standards.
- (E) "Certified territory" means the service area established for an electric supplier under sections 4933.81 to 4933.90 of the Revised Code.
- (F) "Demand-side management" means those programs or activities that are designed to modify the magnitude and/or patterns of electricity consumption in a utility's service area by means of equipment installed or actions taken on the customer's premises.
- (G) "Electric transmission owner" means the owner of a major utility facility as defined in section 4935.04 of the Revised Code.
- (H) "Energy-price relationships" means the calculated or observed effect on peak load, load shape, or energy consumption resulting from changes in the retail price of electricity or other fuels.
- (I) "Forecast year," "year of the forecast," or "year zero" means the year in which the forecast is filed.
- (J) "Forecast period" means year zero through year ten.
- (K) "Integrated operating system" means a group of electric transmission owners or electric utilities who are members of a jointly or commonly operated system as a single entity.
- (L) "Integrated resource plan" means that plan or program, established by a person subject to the requirements of this chapter, to furnish electric energy services in a cost-effective and reasonable manner consistent with the provision of adequate and reliable service, which gives appropriate consideration to supply- and demand-side resources and transmission or distribution investments for meeting the person's projected demand and energy requirements.
- (M) "Internal load" of a system means the summation of the net output of its generators plus the net of interconnection receipts and deliveries.
- (N) "Interruptible load" means load that can be curtailed or reduced at the supplier's discretion or in accordance with a contractual agreement.



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- (O) "Load" means the amount of power needed to be delivered at a given point on an electric system.
- (P) "Load modification" means the impact of a demand-side management, energy efficiency, demand reduction, price responsive demand, or demand response program designed to influence customers' patterns of electricity use in order to modify the utility's load shape.
- (Q) "Load shape" means the distribution of a utility's total electricity demand measured over time, usually expressed as a curve which plots megawatts supplied against time of occurrence, and illustrates the varying magnitude of the load during that time period.
- (R) "Native load" of a system means the internal load minus interruptible loads.
- (S) "Nonutility generation" means any source of electricity which is interconnected with a utility's system, but is not exclusively owned by an electric utility.
- (T) "Peak demand" or "peak load" means the electric transmission owner's or electric utility's maximum sixty-minute integrated clock hour predicted or actual load for the year.
- (U) "Price responsive demand" means the predictable response to changes in wholesale electricity prices of electricity demand by consumers who are served at retail rates or prices that can vary based on wholesale electricity prices or market conditions.
- (V) "Renewable energy resource" has the meaning set forth in division (A)(35) of section 4928.01 of the Revised Code.
- (W) "Reporting person" means any person required to file a long-term forecast report under section 4935.04 of the Revised Code.
- (X) "Supply-side resources" mean those resources that directly increase the amount of electricity available for consumption in a utility's certified territory.
- (Y) "Transfer ~~capability~~, capacity" means the ability of the transmission owner's system to move power over its system to another interconnected transmission system or distribution utility while meeting all national standard reliability requirements.
- (Z) "TTC" means total transfer capacity as defined by the regional reliability organization standards and is the measure of the ability of the interconnected electric systems to reliably move or transfer power from one area to another over all transmission lines or paths within the interconnected electric systems.

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4901:5-5-02      **Purpose and scope.**

- (A) This chapter specifies the reporting requirements for long-term forecast reports filed by electric utilities and transmission owners pursuant to Chapter 4901:5-1 of the Administrative Code.
- (B) Unless otherwise directed by the commission, all reports shall be filed using such forms as may be posted on the commission's web site. Such forms may be changed without further commission entry and each reporting person should check the commission's web site to obtain the current forms before filing a report.
- (C) The commission may, upon an application or a motion filed by a party, waive any requirement of this chapter, other than a requirement mandated by statute, for good cause shown.

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4901:5-5-03      **Forecast report requirements for electric utilities and transmission owners.**

**(A) Summary of the long-term forecast report.**

The long-term forecast report shall contain a summary describing the electric utility's forecast of loads and the resource plan to meet that load, and shall include at a minimum:

- (1) The planning objectives.
- (2) A summary of its forecasts of energy and peak load demands and the key assumptions or projections underlying these forecasts.
- (3) A description of the process by which the energy and peak load forecasts were developed.

**(B) General guidelines. The following guidelines shall be used in the preparation of the forecast:**

- (1) The forecast must be based upon independent analysis by the reporting electric transmission owner or electric utility.
- (2) The forecast may be based on those forecasting methods that yield the most useful results to the electric transmission owner or electric utility.
- (3) Where the required data have not been calculated directly, relevant conversion factors shall be displayed.

**(C) Special subject areas.**

- (1) The following matters shall specifically be addressed:
  - (a) A description of the extent to which the reporting electric transmission owner or electric utility coordinates its load and resource forecasts with those of other systems such as affiliated systems in a holding company group, associated systems in an integrated operating system or other coordinating organizations, or other neighboring systems.
  - (b) A description of the manner in which such forecasts are coordinated, and any problems experienced in efforts to coordinate forecasts.
  - (c) A brief description of any polls, surveys, or data-gathering activities used in preparation of the forecast.

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- (2) No later than six months prior to the required date of submission of the forecast, the commission may supply the reporting electric transmission owner or electric utility:
  - (a) Copies of appropriate commission or other state documents or public statements that include the state energy policy for consideration in preparation of the forecast.
  - (b) Such current energy policy changes or deliberations, which, due to their immediate significance, the commission determines to be relevant for specific identification in the forecast (including but not limited to new legislation, regulations, or adjudicatory findings). The reporting person shall provide a discussion of the impacts of such factors and how it has taken these factors into account.
- (3) Existing energy efficiency, demand reduction, and demand response programs and policies of the reporting person, which support energy conservation and load modification, shall be described along with an estimate of their impacts on energy and peak demand and supply resources.
- (4) Energy-price relationships:
  - (a) To the extent possible, identify the relationship between price and energy consumption and describe how such changes are accounted for in the forecast.
  - (b) To the extent possible, specify a demand function that will or can be used to identify the relationship between any dynamic retail prices and peak load, which captures the impact of price responsive demand.
  - (c) A description of, and justification for, the methodologies employed for determining such energy-price relationships shall be included.
- (D) Forecast documentation. The purpose of the documentation section of the report is to permit a thorough review of the forecast methodology and test its validity. The components of the forecast documentation include:
  - (1) A description of the forecast methodology employed, including:
    - (a) Overall methodological framework chosen.
    - (b) Specific analytical techniques used, their purpose, and the forecast component to which they are applied.
    - (c) The manner in which specific techniques are related in producing the forecast.

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(d) Where statistical techniques have been used:

- (i) All relevant equations and data.
- (ii) The size of the standard error of the estimate, and the size of the forecasting error, associated with each relevant forecasting model equation, this information shall be included for each forecast at the bottom of forms FE-D1 to FE-D6.
- (iii) A description of the technique.
- (iv) The reason for choosing the technique.
- (v) Identification of significant computer software used.

(e) An explanation of how controllable and interruptible loads are forecasted and how they are treated in the total forecast.

(f) An identification of load factors or other relevant conversion factors and a description of how they are used within the forecast.

(g) Where the methodology for any sector has changed significantly from the previous year, a discussion of the rationale for the change.

(2) Assumptions and special information. The reporting person shall:

- (a) For each significant assumption made in preparing the forecasts, include a discussion of the basis for the assumption and the impact it has on the forecast results. Give sources of the assumption if other than the reporting person.
- (b) Identify special information bearing on the forecast (e.g., the existence of a major planned industrial expansion program in the area of service or other need determined on a regional basis).

(3) Database documentation. The responsibilities of the reporting person with regard to its forecast database are as follows:

(a) The reporting person shall provide or cause to be provided:

- (i) A brief description of all data sets used in making the forecast, both internal and external, input and output, and a citation to the sources.
- (ii) The reasons for the selection of the specific database used.

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(iii) A clear identification of any significant adjustments made to raw data in order to adapt them for use in the forecast, including, to the extent practicable:

(a) The nature of the adjustment made.

(b) The basis for the adjustment made.

(c) The magnitude of the adjustment.

(b) If a hearing is to be held on the forecast in the current forecast year, the reporting person shall provide to the commission in electronic formats or other medium as the commission directs, all data series, both input and output, raw and adjusted, and model equations used in the preparation of the forecast.

(c) The reporting person shall provide to the commission, on request:

(i) Copies of all data sets used in making the forecasts, including both raw and adjusted data, input and output data, and complete descriptions of any mathematical, technical, statistical, or other model used in preparing the data.

(ii) A narrative explaining the data sets and any adjustments made with the data to adapt it for use in the forecast.

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4901:5-5-04      **Forecasts for electric transmission owners.**

**(A) General guidelines.**

The electric transmission owner shall provide or cause to be provided data on the use of its transmission lines and facilities.

- (1) The forecast shall include data on all existing transmission lines and associated facilities of one hundred twenty-five kilovolts (kV) and above as defined by the commission, for year zero to year ten.
- (2) The forecast shall include data on all planned transmission lines and associated facilities of one hundred twenty-five kilovolts (kV) and above as well as substantial planned additions to, and replacement of existing facilities, as defined by the commission for year zero to year ten.
- (3) The reporting electric transmission owner shall be prepared to supply to the commission on demand, additional data and maps of transmission lines and facilities.

**(B) Transmission energy data and peak demand forecast forms.**

The electric transmission owner's forecast shall be submitted in an electronic form prescribed by the commission or its staff.

- (1) Electric transmission owners shall file energy delivery forecast (megawatt hours/year) data: Actual and forecast as shown on form FE-T1. The electric transmission owner shall indicate the total energy it received from all generating sources connected to their transmission system within Ohio as well as the total energy received from all generating sources connected to their system. They shall indicate the total energy received at interconnections with other electric transmission owners within Ohio as well as the total energy received from all its interconnections. The electric transmission owner shall report the total energy deliveries to interconnections within Ohio as well as to all its interconnections. The electric transmission owner shall report the total energy deliveries for loads within Ohio as well as to all load deliveries.
- (2) Electric transmission owners shall file system seasonal peak load demand forecasts: Actual and forecast system peak demand levels for summer and winter seasons as displayed on form FE-T2, covering both native and internal loads, as defined in the form.
- (3) Monthly data of energy and peak loads. The electric transmission owner shall specify in detail the methodology employed to produce monthly forecasts of energy and peak load for the current year and one year in the future. The

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reporting electric transmission owner shall provide or cause to be provided monthly information as required on the following forms:

- (a) "Total monthly energy forecast" forecast information concerning monthly energy forecasts shall be provided for two years on form FE-T3.
- (b) "Monthly internal peak load forecast" forecast information concerning monthly peak load forecasts shall be provided for two years on form FE-T4.
- (c) "Monthly energy transaction" the reporting electric transmission owner shall provide or cause to be provided monthly data on all energy received and delivered for the twelve months of the most recent year for which actual data is reported on the forms FE-T5 and FE-T6:
  - (i) On form FE-T5 part A, the electric transmission owner shall provide or cause to be provided monthly data on all energy received under firm contract and nonfirm contract:
    - (a) From power plants directly connected to their transmission system.
    - (b) From other sources.
    - (c) The total energy received from all sources for the month.
  - (ii) On form FE-T5 part B, the electric transmission owner shall provide or cause to be provided monthly data on energy delivered under firm and nonfirm contract for the total system and for delivery points located in Ohio:
    - (a) The amount of power delivered to affiliated electric utilities.
    - (b) The amount of power delivered to other nonaffiliated investor-owned electric utilities.
    - (c) The amount of power delivered to cooperatively owned electric utilities.
    - (d) The amount of power delivered to municipally owned electric utilities.
    - (e) The amount of power delivered to federal and state electric agencies.
    - (f) The amount of power delivered for nondistribution service.
    - (g) The total amount of power delivered.



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- (iii) On form FE-T5 part C, the electric transmission owner shall provide or cause to be provided monthly data on system losses and/or unaccounted for energy by firm and nonfirm transmission service.
- (4) The reporting electric transmission owner shall provide the following data on the operating conditions of transmission owner's system at the time of the system's monthly peak for each month during the most recent year on form FE-T6:
  - (a) The date and time of peak.
  - (b) The peak MWs.
  - (c) Any scheduled transmission outages on the system.
  - (d) Any unscheduled transmission outages on the system.
  - (e) Any emergency operating procedures in effect.
- (C) The existing transmission system.
  - (1) The reporting electric transmission owner shall provide or cause to be provided a brief narrative description of the existing electric transmission system and identify any transmission constraints and critical contingencies with and without the power transfers to the neighboring companies detailed in forms FE-T7 and FE-T8:
    - (a) A summary of the characteristics of existing transmission lines shall be shown as indicated in form FE-T7, characteristics of existing transmission lines.
    - (b) A separate listing of substations for each line included in form FE-T7 shall be shown as indicated in form FE-T8, summary of existing substations.
  - (2) Each reporting electric transmission owner shall provide or cause to be provided maps of its electric transmission system as follows:
    - (a) One schematic map of the transmission network.
    - (b) A map showing the actual, physical routing of the transmission lines, geographic landmarks, major metropolitan areas, and the location of substations and generating plants, interconnects with distribution, and interconnections with other electric transmission owners.
    - (c) Two copies of the map described in paragraph (C)(2)(b) of this rule, for commission use, on a 1:250,000 scale. The electric transmission owners

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may jointly provide one set of maps to meet this requirement. Participation in the commission's joint mapping project will meet this requirement.

**(D) The planned transmission system.**

The reporting electric transmission owner shall provide or cause to be provided a detailed narrative description of the planned electric transmission and identify any transmission constraints and critical contingencies with and without the power transfers to the neighboring companies and a description of the plans for development of facilities for years zero through ten as follows:

**(1) Specifications of planned transmission lines shall be provided on form FE-T9, specifications of planned electric transmission lines for:**

**(a) New lines requiring new rights-of-way.**

**(b) Lines in which changes of capacity, either in terms of current, voltage, or both, are scheduled to take place.**

**(c) Other changes in transmission lines or rights-of-way, which would be considered as substantial additions, as defined in rule 4906-1-02 of the Administrative Code.**

**(2) A listing of all proposed substations shall be provided in form FE-T10, summary of proposed substations.**

**(3) The transmission forecast shall include maps of the planned transmission system as follows:**

**(a) An overlay to each of the maps required in paragraph (C) of this rule showing the planned transmission lines, substation, and generating plants as they will tie into the existing system; planned lines shall be shown and identified as such and keyed into form FE-T9, to provide as complete a picture of the system as is possible. Combined maps showing both existing and proposed facilities may be substituted for the overlays. Where planning horizons make it impractical to comply fully with the data requirements of this rule, as many data as are available shall be provided along with the estimated date on which additional data will be available.**

**(b) Two copies of the above overlay, for commission use, on a scale of 1:250,000. The electric transmission owners may jointly provide one set of overlays to meet this requirement. Participation in the commission's joint mapping project will meet this requirement.**

**(E) Substantiation of the planned transmission system.**

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The reporting electric transmission owner shall submit a substantiation of transmission development plans, including:

- (1) Description and transcription diagrams of the base case load flow studies of the transmission owner's transmission system in Ohio, one for the current year and one as projected either three or five years into the future, and provide base case load flow studies on computer disks in PSSE or PSLF format along with transcription diagrams for the base cases.
  - (2) A tabulation of and transcription diagrams for a representative number of contingency cases studied along with a brief statements concerning the results.
  - (3) Analysis of proposed solutions to problems identified in paragraph (E)(2) of this rule.
  - (4) Adequacy of the electric transmission owner's transmission system to withstand natural disasters and overload conditions.
  - (5) Analysis of the electric transmission owner's transmission system to permit power interchange with neighboring systems.
  - (6) A diagram showing the electric transmission owner's import and export transfer capabilities and identifying the limiting element(s) during each season of the reporting period. In addition, the reporting electric transmission owner will provide a listing of transmission loading relief (TLR) procedures called during the last two seasons for which actual data are available. That listing may include only those TLRs called as a result of a transmission limit on the reporting electric transmission owner's transmission system. For each TLR event, the listing shall include the maximum level, and the duration at the maximum level, and the magnitude (in MW) of the power curtailments.
  - (7) A description of any studies regarding transmission system improvement, including, but not limited to, any studies of the potential for reducing line losses, thermal loading, and low voltage, and for improving access to alternative energy resources.
  - (8) A switching diagram of the transmission network.
- (F) Regional and bulk power requirements.

To avoid the inefficiencies associated with having each electric transmission owner report this data, the electric transmission owners may have the regional transmission system operator submit a single report on their behalf. This information shall be provided as soon as it becomes available. Data provided to the commission concerning the electric transmission owner's existing and planned bulk power transmission system (two hundred thirty kV and above) shall include the following:

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- (1) The most recent regional power existing facilities and an authorized map.
  - (2) A plan on the bulk power transmission network of the region in service (total certified territory of the companies in the region including out-of-state certified territories) at the time of the report, including interfaces with adjoining regions.
  - (3) Regional transmission system power interchange matrix.
  - (4) A transmission diagram and a summary of the load flow base case studies of the bulk power network of the region as it now exists at the time of reporting.
  - (5) A plan of the bulk power transmission network of the region (including interties with adjoining regions) and the general routing of facilities committed or tentatively projected for service within ten years, including identification of principal substations, operating voltages, and projected in-service dates.
  - (6) A list and diagram showing transmission constraints of the bulk power transmission network, including interconnections.
- (G) To the extent that information sought in this rule contains critical energy infrastructure, the reporting person shall provide such information to the commission's staff but redact all such information before filing in the case docket.

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4901:5-5-05      **Energy and demand forecasts for electric utilities.**

**(A) General guidelines.**

- (1) The reporting person shall provide or cause to be provided data on the use of the electric utility's distribution lines and facilities.
- (2) The reporting person shall specify in detail the methodology employed to produce monthly forecasts of energy and peak load for the current year and one year in the future.
- (3) The reporting person shall, upon request, supply to the commission with additional data and maps of distribution lines and facilities.

**(B) Distribution energy data and peak demand forecast forms.**

The distribution forecast shall be submitted in an electronic form prescribed by the commission or its staff.

- (1) Each electric utility shall file a certified territory energy forecast (megawatt-hours/year). Each electric utility operating in Ohio shall furnish completed sets of FE-D1 and FE-D2 forms:
  - (a) FE-D1 shall contain data for only the Ohio portion of the reporting electric utility's total certified territory.
  - (b) Electric utilities that are members of an integrated operating system and operated on a system basis shall also file FE-D2 for the integrated system.
- (2) Each electric utility shall file Ohio and system seasonal peak load demand forecasts: Actual and forecast system peak demand levels for summer and winter seasons as displayed on forms FE-D3 and FE-D4, as follows:
  - (a) FE-D3 shall contain data for only the Ohio portion of the reporting electric utility's total certified territory.
  - (b) Electric utilities that are members of an integrated operating system and operated on a system basis shall also file form FE-D4 for the integrated system.

**(3) Monthly forecasts of energy and peak loads.**

The electric utility shall specify in detail the methodology employed to produce monthly forecasts of energy peak load and resources for the current year and one

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year in the future. The reporting electric utility shall provide or cause to be provided monthly information as required on the following forms:

- (a) From FE-D5, monthly net energy for load forecast.
- (b) Form FE-D6, monthly native and internal peak load forecasts.

(C) Substantiation of the planned distribution system.

The reporting electric utility shall submit a substantiation of distribution development plans, including:

- (1) Load flow or other system analysis by voltage class of the electric utility's distribution system performance in Ohio, that identifies and considers each of the following:
  - (a) Any thermal overloading of distribution circuits and equipment.
  - (b) Any voltage variations on distribution circuits that do not comply with the current version of the American National Standard Institute (ANSI) standard C84.1, electric power systems and equipment voltage ratings or standard as later amended.
- (2) Analysis and consideration of proposed solutions to problems identified in paragraph (C)(1) of this rule.
- (3) Adequacy of the electric utility distribution system to withstand natural disasters and overload conditions.
- (4) Analysis and consideration of any studies regarding distribution system improvement, including, but not limited to, any studies of the potential for reducing line losses, thermal loading and low voltage or any other problems, and for improving access to alternative resources.
- (5) A switching diagram of circuits less than one hundred twenty-five kV that are not radial.

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**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 ten-year forecast which shall identify the electricity resource options (including purchased power) expected to be needed to meet forecast system load levels, as

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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



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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.

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- (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 short- and 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 demand-side 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 cost-effectiveness of demand-side management programs.
  - (iii) Whether the plan gives adequate consideration to the following factors:

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- (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.

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4901:5-7-01

## Definitions.

- (A) Unless otherwise specified, all terms used in Chapter 4901:5-7 of the Administrative Code are the same as those found in the fourth edition "Glossary For The Gas Industry" published by the planning and analysis group of the "American Gas Association."
- (B) "Energy-price relationships" means the calculated or observed effects on gas demand resulting from changes in the customer price of gas or other fuels. It consists of both energy conservation effects which reduce customer energy use directly and effects which cause customers to switch to or from utility-provided gas.
- (C) "Forecast year," "year of the forecast," or "year zero" means the year in which the forecast is filed.
- (D) "Energy conservation" means the effect upon gas demand resulting from customer adoption and use of measures, standards, equipment, or techniques designed, at least in part, to decrease gas consumption or to increase efficiency of gas use. Energy conservation may include the result of increases in price, but does not include price-induced fuel switching.
- (E) "Self-help gas and other transported gas" means natural or synthetic gas owned by or acquired on behalf of an end-user or owned by another person which was developed independently or acquired from a third party, but which requires the use of one or more company or utility to transport the gas to the end-user.
- (F) "Forecast period" means year zero through year ten.
- (G) "Reporting period" means year minus five through year ten.
- (H) "Service area" means the geographic area within Ohio in which the company renders service to wholesale and retail consumers of gas.
- (I) "Fuel switching" means the substitution of one energy source for another in a particular end use or process, as a result of changing relative prices or technologies.

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4901:5-7-02

**Purpose and scope.**

- (A) This chapter specifies the reporting requirements for long-term forecast reports filed by gas distribution companies pursuant to Chapter 4901:5-1 of the Administrative Code.
- (B) Unless otherwise directed by the commission, all reports shall be filed using such forms as may be posted on the commission's web site. Such forms may be changed without further commission entry and each reporting utility should check the commission's web site to obtain the current forms before filing a report.
- (C) The commission may, upon an application or a motion filed by a party, waive any requirement of this chapter, other than a requirement mandated by statute, for good cause shown

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4901:5-7-03

**Gas and natural gas demand forecasts for gas distribution companies serving more than fifteen thousand customers.**

(A) General guidelines. The following guidelines shall be used in the preparation of the demand forecast:

- (1) The demand forecast must be based upon independent analysis by the reporting utility.
- (2) The demand forecast may be based on those forecasting methods which yield the most useful results to the utility.
- (3) Where the required data have not been calculated directly, relevant conversion factors shall be displayed.
- (4) All gas volumes shall be reported at 14.73 psia.

(B) Special subject areas.

(1) The following matters shall specifically be addressed:

- (a) A description of the extent to which the reporting utility coordinates its load forecasts with those of other systems such as affiliated systems in a holding company group, or other neighboring systems and, if the reporting utility is a combination utility, a description of the coordination of its gas load forecast with its electric load forecast.
- (b) A description of the manner in which such forecasts are coordinated, and any problems experienced in efforts to coordinate load forecasts.
- (c) A brief description of any computer modeling, demand forecasting, polls, surveys, or data-gathering activities used in preparation of the forecast.

(2) No later than six months prior to the required date of submission of the forecast, the commission shall supply reporting utilities:

- (a) Copies of appropriate commission or other state documents or public statements that include the state energy policy for consideration in preparation of the forecast.
- (b) Such current energy policy changes or deliberations which, due to their immediate significance, the commission determines to be relevant for specific identification in the forecast (including but not limited to new legislation, regulations, or adjudicatory findings). It is the commission's intent that such additional factors be limited to issues of current policy

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which may influence the forecast, but which otherwise may not have been specifically identified by the reporting utility. The reporting utility shall, to the extent possible, provide either a discussion of the impacts of such factors on the forecast or demonstrate how it has taken these factors into account in its forecast. The reporting utility need not adopt such factors as a part of its forecast.

(3) Energy efficiency, demand reduction, and demand response programs and policies of the reporting utility, which support energy conservation and load modification, shall be described along with an estimate of their impacts on energy and peak demand and supply resources.

(4) Energy-price relationships:

(a) To the extent possible, identify changes during the forecast period in energy demand and identify and describe how such changes are accounted for in the forecast.

(b) Describe the methodologies for determining such energy-price relationships, including justification for the methodologies employed.

(C) Forecast documentation. The purpose of the documentation section of the report is to permit a thorough review of the forecast methodology and test its validity. The components of the forecast documentation shall include:

(1) A description of the forecast methodology employed, including:

(a) Overall methodological framework chosen.

(b) Specific analytical techniques used, their purpose, and the forecast component to which they are applied.

(c) The manner in which specific techniques are related in producing the forecast.

(d) Where statistical techniques have been used.

(i) All relevant equations.

(ii) The results of appropriate statistical tests.

(iii) A description of the technique.

(iv) The reason for choosing the technique.

(v) Identification of significant computer software used.

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- (e) An explanation of how interruptibles, curtailables, and other non-firm requirements are forecast, how they are treated in the total forecast and an identification of demand volumes subject to interruption or curtailment and other non-firm demand.
  - (f) An identification of customer usage factors and a description of how they are used within the forecast.
  - (g) Where the methodology for any major customer class has changed significantly from the previous year, a discussion of the rationale for the change.
- (2) Assumptions and special information. The reporting utility shall:
  - (a) For each significant assumption made in preparing the forecasts include a discussion of the basis for the assumption and the impact it has on the forecast results. Give sources of the assumption if other than the reporting utility.
  - (b) Identify special information bearing on the forecast (e.g., the existence of a major planned industrial expansion program in the area of service).
- (3) Data base documentation. The responsibilities of the reporting utility with regard to its forecast data base are as follows:
  - (a) The reporting utility shall provide:
    - (i) A brief description of all data sets used in making the forecast, both internal and external, input and output, and a citation to the sources.
    - (ii) The reasons for the selection of the specific data base used.
    - (iii) A clear identification of any adjustments made to raw data in order to adapt them for use in the forecast, including for each adjustment, to the extent practicable:
      - (a) The nature of the adjustment made.
      - (b) The basis for the adjustment made.
      - (c) The magnitude of the adjustment.
  - (b) If a hearing is to be held on the forecast in the current forecast year, the reporting utility shall provide to the commission in electronic formats or other medium as the Commission directs all data series, both input and



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output, raw and adjusted, and model equations used in the preparation of the forecast.

(c) The reporting utility shall be prepared to provide to the commission on request:

(i) Copies of all data sets used in making the forecasts, including both raw and adjusted data, input and output data, and complete descriptions of any mathematical, technical, statistical, or other model used in preparing the data.

(ii) A narrative explaining the data sets, and any adjustments made with the data to adapt it for use in the forecast.

(D) Demand forecast forms. The demand presentation shall include the following elements presented on the indicated forms supplied by the commission.

(1) Service area natural gas demand: actual and forecast Ohio service area natural gas demand (MMCF/year) displayed by major customer class as indicated in form FG1-1.

(2) Monthly gas sendout: a month-by-month forecast of gas sendout in the service area for the current year and the following two years, as indicated on form FG1-3 (this sendout shall conform to the most likely growth scenario).

(3) Range of forecasts: a range of forecasts provided on form FG1-4 for natural gas sales volumes by residential, commercial, and industrial sector and total sales volumes. The range of forecasts shall consist of, at a minimum, three scenarios (highest, lowest, and most likely growth). The methodology for the range forecast shall be determined by the reporting utility and may be based on confidence intervals, different assumptions, or whatever techniques the reporting utility finds appropriate.

(4) Peak and forecast design day requirements: historical peak requirements and forecast design day requirements (MMCF) as indicated on form FG1-5.

(5) Self-help and other transported gas: historical and forecast self-help gas volumes as transported and anticipated to be transported by the reporting utility as indicated on form FG1-6.

(6) Gas distribution companies serving more than one hundred thousand customers should also include service area natural gas demand by industrial sectors: actual and forecast natural gas demand in Ohio only (MMCF/year) by industrial sectors displayed for each of the standard industrial classification (SIC) codes indicated on form FG1-2.

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4901:5-7-04

**Gas and natural gas supply forecasts for gas distribution companies serving more than fifteen thousand customers.**

- (A) General guidelines. The supply estimates used in these forecasts must be based upon the reporting utility's independent analysis of alternative sources of gas as well as its current sources. When data is based on material received from current or prospective suppliers, the reporting utility must show that it has made an independent review of such data and arrived at its own analysis of the probable future availability and price of gas from the source in question.
- (B) Special subject area. The forecast shall contain a description of the reporting utility's policies and activities involving the procurement of Ohio gas, the impact of such procurement upon the reliability of the reporting utility's gas supply, and the compatibility of such policies and activities with a least-cost procurement plan.
- (C) Gas and natural gas supply forecast discussion. A narrative shall be prepared which includes a general description of the methods and procedures used to develop the reporting utility's forecast of:
- (1) Gas supply, by source.
  - (2) Gas supply prices, by source.
  - (3) Natural gas storage facilities.
- (D) Projected sources of gas. A narrative shall be prepared which includes the following:
- (1) A description of the projected sources of gas for the forecast period. This description shall include the following:
    - (a) A list of the projected sources of gas for the forecast period.
    - (b) A description of the role of company-owned gas in the future supply mix.
    - (c) A description of the anticipated use of storage facilities in the future supply mix.
    - (d) The anticipated use of firm and interruptible transportation to obtain gas for system supply and the effect of state and federal policies toward the transportation of natural gas on the reporting utility's supply mix.
  - (2) A description of those factors which may have an impact on the reporting utility's projected natural gas supplies and its future construction of additional facilities, including but not limited to interconnections with alternate supplies.

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(E) Reliability of gas sources. A narrative shall be prepared which includes the following:

- (1) The reporting utility's working definition(s) of gas supply reliability.
- (2) A description of the methods used by the reporting utility to quantitatively or qualitatively measure gas supply reliability.
- (3) The reliability of gas sources over the past five years and the anticipated reliability of each of the reporting utility's gas sources over the forecast period.

(F) Analysis of system peak and winter season planning. The reporting utility shall provide an analysis of its ability to meet peak requirements under design weather conditions throughout the forecast period and shall also provide a description of supply projections for meeting winter season requirements.

(G) Supply forecast forms. The supply presentation shall include the following elements presented on the indicated forms supplied by the commission.

- (1) Gas supplies: actual and forecast gas supply volumes (MMCF/year) by source, as indicated in form FG2-1.
- (2) Gas prices: actual and forecast gas supply prices (annual average \$/MCF) by source, as indicated in Form FG2-2.
- (3) Peak and design day supply: historical and forecast peak day supplies (MMCF) by source, as indicated in form FG2-3.
- (4) Natural gas storage facilities: a list of wholly or jointly owned or leased storage facilities, existing and planned over the forecast period, as indicated in form FG2-4.
- (5) Propane facilities: a list of existing facilities and those planned over the forecast period, as indicated in form FG2-5.
- (6) Other peaking facilities: a list of other sources of peaking gas supplies not included in paragraphs (G)(4) and (G)(5) of this rule, as indicated in form FG2-6.

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4901:5-7-05

**Resource forecasts and site inventories of transmission facilities for gas distribution companies serving more than fifteen thousand customers.**

(A) General guidelines.

- (1) The forecast shall include data on all existing and planned transmission lines and associated facilities, planned additions to, and replacement of, existing facilities, as defined by section 4906.01 of the Revised Code and rule 4906-1-02 of the Administrative Code, as well as any such gas lines leased or acquired.
- (2) The reporting utility shall be prepared to provide the commission, on request, additional maps of transmission facilities.

(B) Specific requirements for gas distribution companies serving more than one hundred thousand customers.

(1) The existing transmission system.

- (a) The reporting utility shall provide a brief narrative description of the existing gas transmission system which is detailed in form FG3-1.
- (b) Each reporting utility shall provide maps of the gas transmission system within Ohio through which the reporting utility provides service as follows:
  - (i) A map showing the actual, physical routing of the transmission lines, pumping stations, city gates, storage facilities, system interconnections, geographic landmarks, major interstate and intrastate pipelines, major metropolitan areas, and major highways.
  - (ii) One copy of the map described in paragraph (B)(2)(a) of this rule, for commission use, on a 1:250,000 scale. The utilities may jointly provide one set of maps to meet this requirement. Participation in the commission's joint mapping project will meet this requirement.

(2) The planned transmission system. The transmission forecast shall include maps of the planned transmission system as follows:

- (a) An overlay to each of the maps required in paragraph (B) of this rule showing the planned transmission lines and associated facilities as they will tie into the existing system; planned lines shall be shown and identified as such and keyed into form FG3-2 to provide as complete a picture of the system as is possible. Combined maps showing both existing and proposed facilities may be substituted for the overlays. Where planning horizons make it impractical to comply fully with the data requirements of this rule,

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as many data as are available shall be provided along with the estimated date on which additional data will be available.

(b) Two copies of the above overlay, for commission use, on a scale of 1:250,000 participation in the commission's joint mapping project will meet this requirement.

(3) Transmission forecast forms. The reporting utility shall provide, on forms supplied by the commission:

(a) A summary of the characteristics of existing transmission lines as indicated in Form FG3-1, "Characteristics of Existing Transmission Lines."

(b) Specifications of planned transmission lines as indicated in form FG3-2, "Specifications of Planned Gas Transmission Lines."

(C) Specific requirements for gas distribution companies serving fifteen thousand to one hundred thousand customers.

(1) Existing transmission system.

(a) The reporting utility shall provide a brief narrative description of the existing gas transmission system which is detailed in form FG3-1.

(b) The reporting utility shall provide a summary of the characteristics of existing transmission lines as indicated in form FG3-1, "Characteristics of Existing Transmission Lines."

(c) Upon request, the reporting utility shall provide a map of its service area and other information as may be required by the commission.

(2) The planned transmission system. If applicable, the reporting utility shall submit a ten-year resource forecast of all gas transmission facilities to be constructed, leased, or acquired with location of such facilities indicated on the map referenced in paragraph (C)(1)(c) of this rule.

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4901:5-7-06

**Gas and natural gas information filing for gas distribution companies serving fewer than fifteen thousand customers .**

(A) General.

(1) All gas volumes shall be reported at 14.73 psia.

(2) The names, addresses, and telephone numbers of the utility and responsible individuals shall be provided in the information filing.

(B) Forms. Each reporting utility shall submit one completed copy of form FG-S, "Small Gas Distribution Company Information Form."