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#### **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	)	Case No. 10-2912-GE-ORD
4901:5-1; 4901:5-3; 4901:5-5; and 4901:5-7,	)	
Ohio Administrative Code.	)	

## <u>ENTRY</u>

#### The Commission finds:

- (1) Section 119.032, Revised Code, requires all state agencies, every five years, to conduct a review of its rules and determine whether to continue their rules without change, amend their rules, or rescind their rules.
- (2) Section 119.032(C), Revised Code, requires that the Commission determine:
  - (a) Whether the rule should be continued without amendment, be amended, or be rescinded, taking into consideration the purpose, scope, and intent of the statute under which the rule was adopted;
  - (b) Whether the rule needs amendment or rescission to give more flexibility at the local level;
  - (c) Whether the rule needs amendment to eliminate unnecessary paperwork; and
  - (d) Whether the rule duplicates, overlaps with, or conflicts with other rules.
- (3) 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;

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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.

- (4) The rules in Chapter 4901:5-1, Ohio Administrative Code (O.A.C.) address long-term forecast reports generally, while the rules in Chapter 4901:5-3, O.A.C., discuss the filing of long-term forecast reports 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. In its initial review, Staff recommended only one minor change be made in these rules.
- (5) By entry issued on December 15, 2010, the Commission requested that interested persons file comments by January 18, 2011, on the Commission's rules found in Chapters 4901:5-1, 4901:5-3, 4901:5-5, and 4901:5-7, O.A.C.
- (6) Initial comments were filed in this docket by: Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company; 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. and Columbia, while OCC and the Natural Resources Defense Council filed joint reply comments.
- (7) Upon reflection, the Commission finds it appropriate that additional amendments be made to Chapter 4901:5-7, O.A.C., which governs the gas and natural gas long-term forecast reports, in order to simplify and streamline the requirements of that chapter. 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.

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(8) Accordingly, the Commission requests comments from interested persons on the additional proposed amendments to Chapter 4901:5-7, O.A.C., attached to this entry. Comments should be filed in this docket by July 13, 2011. Reply comments should be filed by July 27, 2011. Previously filed comments and reply comments do not need to be refiled, as the Commission will consider those comments in conjunction with any comments that are filed in accordance with this entry; therefore, any comments filed in response to this entry should be limited to the additional proposed amendments contained in Chapter 4901:5-7, O.A.C., attached to this entry.

It is, therefore,

ORDERED, That comments and reply comments on the attached rules contained in Chapter 4901:5-7, O.A.C., be filed in accordance with Finding (8). It is, further,

ORDERED, That a copy of this entry 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, and all interested persons of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

hler. Chairman

Paul A. Centolella

Andre T. Porter

Steven D. Lesser

Cheryl L. Roberto

JJT/sc

Entered in the Journal

Betty McCauley

Secretary

# 4901:5-7-01 Definitions. Gas and natural gas demand forecasts for gas distribution companies serving more than one hundred thousand customers.

- (A) Definitions. 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." The following definitions apply to this chapter:
- (4B) "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.
- (2C) "Forecast year," "year of the forecast," or "year zero" means the year in which the forecast is filed.
- (3D) "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.
- (4E) "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.
- (5F) "Forecast period" means year zero through year ten.
- (6G) "Reporting period" means year minus five through year ten.
- (7H) "Service area" means the geographic area within Ohio in which the company renders service to wholesale and retail consumers of gas.
- (8I) "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.

## 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.
- 4901:5-7-03 Gas and natural gas demand forecasts for gas distribution companies serving more than fifteen thousand customers.
- (BA) 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.
  - (5) If there are differences between data in the forecast report and similar actual and forecast data in other forms filed with the commission (e.g., federal energy regulatory commission form 2), the reporting utility shall note and explain any discrepancies.
- (€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.
- (d) Research and development efforts anticipated to affect supply or demand, including expenditure information and description of specific investigations (no proprietary information should be included) and the nature and timing of anticipated results of these investigations.
- (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 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 conservation: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.
  - (a) A description of, and justification for, the methodologies employed for determining energy conservation shall be included.
  - (b) Programs and policies of the reporting utility which support energy conservation shall be described
  - (c) To the extent possible, identify changes during the forecast period due to energy conservation for:
    - (i) Annual usage by major customer class.

- (ii) System winter season usage.
- (iii) System peak day usage.
- (d) To the extent-possible, identify changes during the forecast period in energy demand due to market penetration of equipment or techniques designed to produce energy conservation.

### (4) Energy-price relationships:

- (a) To the extent possible, identify changes during the forecast period in energy demand by major customer class and system peak-due to customer energy prices. Iand 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.

### (5) Fuel switching:

- (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to fuel switching. Include where practicable the specific type of application for which fuel switching is expected and associated volumes in each customer class expected to switch and how such changes are accounted for in the forecast.
- (b) Describe the methodologies for determining such fuel switching, including justification for the methodologies employed.

## (6) Self-help and other transported gas:

- (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to customer obtained self-help gas or other transported gas. Include a description of the company's policy toward the transportation of self-help gas.
- (b) Describe the methodologies for determining the volumes described above, including the justification for the methodologies employed.
- (c) Discuss the effect on gas demand of current state and federal policies toward the transportation of natural gas.

- (7) Textual material not specifically required but of importance to the demand forecast of the reporting utility may be included in an appropriate section.
- (DC) 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 documentation when combined with the data tape provided under paragraph (D)(3)(b) of this rule should be thorough enough to permit replication of the forecast results by the commission or other parties who have prima facie expertise in forecasting. The components of the forecast documentation shall include:
  - (1) Forecast A description of the forecast methodology. The reporting utility shall specify in detail for both the load and peak forecast the 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.
    - (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) A brief description of any alternative methodologies attempted and a discussion of the results.
    - (gf) An identification of customer usage factors and a description of how they are used within the forecast.

- (hg) Where the methodology for any major customer class has changed significantly from the previous year, a discussion of the rationale for the change.
- (i) Where surveys are used, a display of:
  - (i) Assumptions provided to those surveyed, if any (e.g., gas price forecasts, price forecasts of alternate fuels).
  - (ii) Copies of any forms used in the survey.
  - (iii) Survey technique used.
- (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) Specifically address each of the following:
    - (i) Current-and future relative-prices and availability of conventional fuels by major customer class for the forecast period and its effect on the forecast.
    - (ii) Current and future relative prices and availability of alternative energy sources and technologies (including but not limited to solar, wind, waste, and wood) for the forecast period and its effect on the forecast.
    - (iii) Pricing policy, including:
      - (a) Alternative rate structures.
      - (b) Predicted consumption effects for each customer class.
      - (c) Predicted natural gas price behavior.
    - (iv) Economic and demographic trends within the utility's service area.
    - (v) Assumed inflation rate.
    - (vi) Anticipated penetration of cogeneration technology in each customer class and its likely effect on demand for natural gas.

### (vii) Residential customers, including:

- (a) Number of year end residential customers disaggregated by heat and non-heat for the past five years, the current year, and the number anticipated for the next ten years
- (b) Specific data and sources of population and household data upon which customer projections are based.
- (c) Where official state population projections are not used, an explanation of why alternative population projections are employed.
- (viii) A listing of all customer groups included in the "other" category on form FG1-1.
- (ix) Other assumptions critical to forecast techniques or company operating procedures.
- (x) To the extent-possible, the impact of changes in appliance saturation on total residential demand and on usage per residential customer.
- (xi) For years minus five through minus one the reporting utility shall provide weather-adjusted (normalized) sales volumes, by major customer class and total sales, with a brief description of how the adjustments were obtained.
- (eb) 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 submit provide to the commission with its long term forecast report a documented magnetic tape (1600-BPI, 9-track, EBCDIC) containing 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. The commission may make exceptions to paragraph (D)(3) of this rule for good cause.
- (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.
- (ED) 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) 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.
  - (32) 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).
  - (43) 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.
- (54) Peak and forecast design day requirements: historical peak requirements and forecast design day requirements (MMCF) as indicated on form FG1-5.
- (65) 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.

# 4901:5-7-02 04 Gas and natural gas supply forecasts for gas distribution companies serving more than one hundredfifteen 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 areas.

- (1) The forecast shall contain a copy of the most recent annual report to shareholders of the reporting utility and of any parent company of the reporting utility.—A photocopy is acceptable:
- (2) One completed copy of securities exchange commission form 10K, "Annual Report to the Securities Exchange Commission," shall be filed at the time it is available as part of the reporting utility's annual forecast filing. If the reporting utility does not file such a form and a comparable form is prepared by the parent company, then the parent company's form shall be filed at the time it is available as part of the annual forecast filing.
- (3) Compatibility with other-filings. If there are differences between data in the forecast report and similar actual or forecast data in other forms filed with the commission

(e.g., federal energy regulatory commission form 2), the reporting utility shall note and explain any discrepancies.

- (4) 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 including geographic 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.
  - (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.
- (H) The reporting utility shall independently develop a long-term strategic supply plan for the purpose of assisting it in operating within a changing natural gas industry environment. The long-term strategic supply plan shall be structured in a manner which provides the most useful results to the utility.
- 4901:5-7-03 05 Resource forecasts and site inventories of transmission facilities for gas distribution companies serving more than one hundredfifteen 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. The existing transmission system.
  - (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.
    - (2b) Each reporting utility shall provide maps of the gas transmission system within Ohio through which the reporting utility provides service as follows:
      - (ai) 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.
    - (bii) 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.
  - (C2) The planned transmission system. The transmission forecast shall include maps of the planned transmission system as follows:
    - (1a) 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, as many data as are available shall be provided along with the estimated date on which additional data will be available.

- (2b) 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.
- (Đ3) Transmission forecast forms. The reporting utility shall provide, on forms supplied by the commission:
  - (1a) A summary of the characteristics of existing transmission lines as indicated in Form FG3-1, "Characteristics of Existing Transmission Lines."
  - (2b) Specifications of planned transmission lines as indicated in form FG3-2, "Specifications of Planned Gas Transmission Lines."

# 4901:5-7-04 Gas and natural gas demand forecasts for gas distribution companies serving fifteen thousand to one hundred thousand customers.

- (A) Definitions. 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." The following definitions apply to this chapter:
  - (1) "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.
  - (2) "Forecast year," "year of the forecast," or "year-zero" means the year-in which the forecast is filed.
  - (3) "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.
  - (4) "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.
  - (5) "Forecast period" means year zero through year ten.

- (6) "Reporting period" means year minus five through year ten.
- (7) "Service area" means the geographic area within Ohio in which the company renders service to wholesale and retail consumers of gas.
- (8) "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.
- (B) 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) Persons filing forecast reports under this rule may use common methodologies and participate in joint hearings.
  - (4) Where the required data have not been calculated directly, relevant conversion factors shall be displayed.
  - (5) All gas volumes shall be reported at 14.73 psia.
- (C) 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) Energy conservation:

- (a) A description of, and justification for, the methodologies employed for determining energy conservation shall be included.
- (b) Programs and policies of the reporting utility which support energy conservation shall be described.
- (c) To the extent possible, identify changes during the forecast period due to energy conservation for:
  - (i) Annual usage by major customer class.
  - (ii) System winter season usage.
  - (iii) System peak day usage.
- (d) To the extent possible, identify changes during the forecast period in energy demand due to market penetration of equipment or techniques designed to produce energy conservation.

### (3) Energy price relationships:

- (a) To the extent possible, identify changes during the forecast period in energy demand by major customer class and system peak due to customer energy prices. 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.

#### (4) Fuel switching:

- (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to fuel switching. Include where practicable the specific type of application for which fuel switching is expected and associated volumes in each customer class expected to switch and how such changes are accounted for in the forecast.
- (b) Describe the methodologies for determining such fuel switching, including justification for the methodologies employed.
- (5) Self-help and other transported gas:

- (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to customer obtained self-help gas or other transported gas. Include a description of the company's policy toward the transportation of self-help gas.
- (b) Describe the methodologies for determining the volumes described above; including the justification for the methodologies employed.
- (c) Discuss the effect on gas demand of current state and federal policies toward the transportation of natural gas.
- (6) Textual material not specifically required but of importance to the demand forecast of the reporting utility may be included in an appropriate section.
- (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 documentation when combined with the data provided under paragraph (D)(3)(b) of this rule should be thorough enough to permit replication of the forecast results by the commission or other parties who have prima facie expertise in forecasting. The components of the forecast documentation shall include:
  - (1) Forecast methodology. The reporting utility shall specify in detail for both the load and peak forecast the 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.

- (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) A brief description of any alternative methodologies attempted and a discussion of the results.
- (g) An identification of customer usage factors and a description of how they are used within the forecast.
- (h) Where the methodology for any major customer class has changed significantly from the previous year, a discussion of the rationale for the change.
- (i) Where surveys are used, a display of:
  - (i) Assumptions provided to those surveyed, if any (e.g., gas price forecasts, price forecasts of alternate fuels).
  - (ii) Copies of any forms used in the survey.
  - (iii) Survey technique used.
- (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) Specifically address each of the following:
    - (i) Current and future relative prices and availability of conventional fuels by major-customer class for the forecast period and its effect on the forecast.
    - (ii) Current and future relative prices and availability of alternative energy sources and technologies (including but not limited to solar, wind, waste, and wood) for the forecast period and its effect on the forecast
    - (iii) Pricing policy, including:
      - (a) Alternative rate structures.
      - (b) Predicted consumption effects for each customer class.

- (c) Predicted natural gas price behavior.
- (iv) Economic and demographic trends within the utility's service area.
- (v) Assumed inflation rate.
- (vi) Anticipated penetration of cogeneration technology in each customer class and its likely effect on demand for natural gas.
- (vii) Residential customers, including:
  - (a) Number of year end residential customers disaggregated by heat and non-heat for the past five years, the current year and the number anticipated for the next ten years.
  - (b) Specific data and sources of population and household data upon which customer projections are based.
  - (c) Where official state population projections are not used, an explanation of why alternative population projections are employed.
- (viii) A listing of all customer groups included in the "other" category on form FG1 1.
- (ix) Other assumptions critical to-forecast techniques or company operating procedures.
- (x) To the extent possible, the impact of changes in appliance saturation on total residential demand and on usage per residential customer.
- (xi) For years minus five through minus one the reporting utility shall provide weather-adjusted (normalized) sales volumes, by major customer class and total sales, with a brief description of how the adjustments were obtained.
- (c) 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) 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.
- (E) 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 sector, as indicated on 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 (these volumes 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 sectors 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.

# 4901:5-7-05 Gas and natural gas demand forecasts for gas distribution companies serving fifteen thousand to one hundred 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-areas.

- (1) The forecast shall contain a copy of the most-recent annual report to shareholders of the reporting utility and of any parent company of the reporting utility. A photocopy is acceptable.
- (2) One completed copy of securities exchange commission form 10K, "Annual Report to the Securities Exchange Commission," shall be filed at the time it is available as part of the reporting utility's annual forecast filing. If the reporting utility does not file such a form and a comparable form is prepared by the parent company, then the parent company's form shall be filed at the time it is available as part of the annual forecast filing.
- (3) Compatibility with other filings. If there are differences between data in the forecast report and similar actual or forecast data in other forms filed with the commission (e.g., federal energy regulatory commission form 2), the reporting utility shall note and explain any discrepancies.
- (4) 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 project 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.
- (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) Cas 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 FC2-5.
- (6) Other peaking facilities: a list of other sources of peaking gas supplies not included in paragraphs (G)(4) and (G)(5) above, as indicated in form FG2 6.
- (H) The reporting utility-shall independently develop a long term strategic supply plan for the purpose of assisting it in-operating within a changing natural gas industry environment. The long term strategic supply plan shall be structured in a manner which provides the most useful results to the utility.
- 4901:5-7-06 Resource forecasts and site inventories of transmission facilities for gas distribution companies serving fifteen thousand to one hundred 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 to the commission, on request, additional maps of transmission facilities.
- (BC) Specific requirements for gas distribution companies serving fifteen thousand to one hundred thousand customers. Existing transmission system.
  - (1) (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.
- (2b) 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."
- (3c) Upon request, the reporting utility shall provide a map of its service area and other information as may be required by the commission.
- (C2) 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 (BC)(31)(c) of this rule.

# 4901:5-7-07 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."
- (C) One completed copy of securities exchange commission form 10K, "Annual Report to the Securities Exchange Commission," shall be filed at the time it is available as part of the reporting utility's annual forecast filing. If the reporting utility does not file such a form and a comparable form is prepared by the parent company, then the parent company's form shall be filed at the time it is available as part of the annual forecast filing.
- (D) Annual report If applicable, the reporting company shall file a copy of its most recent annual report to shareholders.
- (E) Compatibility with other filings. If there are differences between data in this information filing and similar data in other forms filed with the commission (eg., federal energy regulatory commission form 2), the reporting utility shall note and explain any discrepancies.