## 4901:5-5-06 Resource Integrated 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 Reserves 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 Reserves to Meet System Peak Load." Forecast information concerning monthly loads and resources shall be provided for two years on form FE-R2.

(e) 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 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.
- (c) Form FE-R6: "Electric Utility's Actual and Forecast Ohio Peak Load and Reserves 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.
- (d) Form FE-R7: "Actual and Forecast System Peak Load and Reserves 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.
- (e) Form FE-R8: "Electric Utility's Actual and Forecast Ohio Peak Load and Reserves 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.
- (f) Form FE-R9: "Actual and Forecast System Peak Load and Reserves 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 divisions (B)(2)(b) and (B)(2)(c) of section 4928.143 of the Revised Code:
  - (1) Existing generating system description.
    - (a) The reporting person shall provide a brief summary narrative of the existing electric generating system. If a hearing is to be held on the forecast in the current year, the reporting person shall submit to the commission with its long-term forecast report, the anticipated operating, maintenance, and fuel expense of each unit for each year of the forecast period. The commission may make exceptions to this paragraph for good cause.

(b) A summary of the pooling, mutual assistance, and all agreements for purchasing from and selling power and energy to other utilities or nonutility generators, including costs and amounts, shall be provided.

- (2) Need for additional electricity resource options. The reporting person shall describe the procedure followed in determining the need for additional electricity resource options. All major factors shall be discussed, including but not limited to:
  - (a) System load profile.
  - (b) Maintenance requirements of existing and planned units.
  - (c) Number of units, unit size, and availability of existing and planned units.
  - (d) Forecast uncertainty.
  - (e) Electricity resource option uncertainty with respect to cost, availability, commercial in-service dates, and performance.
  - (f) Lead times for construction or implementation of planned electricity resource options.
  - (g) Power interchange with other electric systems, including consideration of the ability to buy and sell power.
  - (h) Price-responsive demand and price elasticity due to the implementation of time-differentiated pricing options and assessments of the value of lost load.
  - (i) Regulatory climate.
  - (j) Reliability criteria, including a discussion and analysis of the reporting person's reliability criteria and factors influencing their selection, including, but not limited to:
    - (i) Reliability measures used and factors including the selection.
    - (ii) Engineering analysis performed.
    - (iii) Economic analysis performed.
    - (iv) Any judgments applied.
- (3) Resource Integrated resource plan.

(a) This paragraph shall include the electric utility's projected mix of resource options to meet the base case projection of peak demand and total energy requirements.

- (b) A discussion of the electric utility's projected system reliability shall be presented. It shall include:
  - (i) A discussion of the future adequacy of the electric utility's projected system in both the short- and long-term.
  - (ii) A discussion of the future adequacy of fuel supplies in both the 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 demandside management programs and nonelectric utility generation on both sides of the meter in a manner consistent with electric utility's generation and other electricity resource options. At a minimum, the total resource cost test as defined in rule 4901:1-39-01 of the Administrative Code, should be used to determine the costeffectiveness of demand-side management programs.
- (iii) Whether the plan gives adequate consideration to the following factors:
  - (a) Potential rate and customer bill impacts of the plan.
  - (b) Environmental impacts of the plan and their associated costs.
  - (c) Other significant economic impacts and their associated costs.
  - (d) Impacts of the plan on the financial status of the company.
  - (e) Other strategic considerations including flexibility, diversity, the size and lead time of commitments, and lost opportunities for investment.
  - (f) Equity among customer classes.
  - (g) The impacts of the plan over time.
  - (h) Such other matters the commission considers appropriate.
- (f) 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:
  - (i) 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."

(ii) 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 identified in the peak load demand forecast, on the following forms:

- (a) Form FE-R4: "Actual Generating Capability Dedicated to Meet Ohio Peak Load."
- (b) 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) 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."
  - (a) 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.
  - (b) 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.

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## CERTIFIED ELECTRONICALLY

Certification

08/21/2017

Date

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