STATEMENTS OF POLICY

Title 52—PUBLIC UTILITIES

PENNSYLVANIA PUBLIC UTILITY COMMISSION

[52 PA. CODE CH. 69]

[M-2016-2530484]

Combined Heat and Power

The Pennsylvania Public Utility Commission (Commission), on February 25, 2016, adopted a proposed policy statement that establishes a biennial reporting requirement for electric and natural gas distribution companies regarding their efforts to eliminate obstacles to the development combined heat and power in this Commonwealth.

Public Meeting held
February 25, 2016

Commissioners Present: Gladys M. Brown, Chairperson; Andrew G. Place, Vice Chairperson; Pamela A. Witmer; John F. Coleman, Jr.; Robert F. Powelson

Proposed Policy Statement on Combined Heat and Power; M-2016-2530484

Proposed Policy Statement

By the Commission:

In light of the potential benefits to the public of Combined Heat and Power (CHP), the Commission is interested in considering ways to advance the development of CHP in Pennsylvania. The Commission recognizes that CHP is an efficient means of generating electric power and thermal energy from a single fuel source, providing cost-effective energy services to commercial businesses like hotels, universities and hospitals. CHP systems capture the waste heat energy that is typically lost through power generation, using it to provide heating and cooling for manufacturing and business. In addition to improving manufacturing competitiveness and reducing greenhouse gas emissions, CHP benefits businesses by reducing energy costs and enhancing reliability for the user.

The Commission believes that there are several areas where electric and natural gas distribution companies (EDCs and NGDCs) may be able to implement policies and practices that reduce barriers to such development. With this Order, the Commission proposes a policy statement that establishes a biennial reporting requirement for EDCs and NGDCs regarding their efforts to eliminate obstacles to the development of CHP in the Commonwealth. The Commission is seeking comment on this proposed policy statement.

Purpose

This proposed policy statement is intended to:

- Promote CHP investments;
- Encourage EDCs and NGDCs to make CHP an integral part of their energy efficiency and resiliency plans, as well as their marketing and outreach efforts;
- Encourage these companies to design interconnection and standby rates for owners and operators of CHP facilities; and
- Promote the consideration of special natural gas rates for owners and operators of CHP facilities.

Background

CHP is a type of distributed energy that takes the form of an integrated system located at or near a building or facility that provides at least a portion of the building's electrical load and uses thermal energy for space heating or cooling, process heating or cooling, refrigeration, or dehumidification.

The Commission held En Banc hearings on CHP at Drexel University and the University of Pittsburgh in the spring and fall of 2014, respectively. Witnesses representing a cross section of the community interested in CHP testified at the hearing, including consultants, electric and natural gas distribution companies, universities, and CHP system owners and advocates. These hearings reinforced the Commission's understanding that a coordinated approach to CHP can provide real benefits to the economy, the environment, and the security of residents and businesses within the Commonwealth.

In particular, the testimony of Gearoid Foley, Senior Technical Advisor for the United States Department of Energy's CHP Technical Assistance Partnership, highlighted the potential benefits of CHP for Pennsylvania. Mr. Foley asserted that by sourcing as little as 1% of Pennsylvania's electric consumption from CHP systems, the Commonwealth would reduce the need for more than 1.4 million MWh annually from the grid and reduce 196 MW of peak demand on the grid.[1]

Together, the participants at the hearings identified the following benefits of CHP:

- Improved energy efficiency through increased utilization of thermal energy;
- Reduced energy costs through reductions in peak demand as well as the associated mitigation of price volatility;
- Reduced emissions resulting from less overall energy consumption;
- Improved reliability for a grid that is increasingly challenged by natural and manmade disasters;
- Increased diversification of resources used for generating electricity;
- Increased economic development enhanced by the availability of shale gas, thus utilizing more of this abundant resource in Pennsylvania to benefit the Commonwealth's economy;
- Increased national security because multiple points of power generation present a better defense to catastrophic failure and attack; and
- Facilitated expansion of natural gas distribution for all customers.

Participants at the hearings also identified the following barriers to CHP development:

- Difficulty in justifying capital investment, particularly due to the long term payback requirements of CHP;
- Costs of purchasing backup power during planned plant maintenance and unplanned downtime; and
- Interconnection procedures and fees.

[1] http://www.puc.state.pa.us/NaturalGas/pdf/CHP/PPT-DOE1_EBH100714.pdf

Investment in CHP, in the absence of state, federal and other investment subsidies, is largely driven by the cost of electricity. Some states have made aggressive investments in CHP from various financial resources, including customer contributions and federal funds made available to harden the system after catastrophes (such as Hurricane Sandy). The Commonwealth, at this time, does not have a similar mechanism to encourage CHP development. However, the Commission would like to explore whether Pennsylvania should utilize some of the systemic changes and programs that other states have adopted, including the streamlining of interconnection applications and fees, and the adoption of revised standby charges.

While direct financial support (e.g., state grants) may not be available in Pennsylvania, the Commission proposes the issuance of this policy statement to help promote implementation of CHP, to encourage companies to share the progress they have made with CHP development, and to help the Commission determine how to best continue the advancement of CHP.

The American Council for an Energy-Efficient Economy CHP Scorecard

We believe that the Commission should facilitate efforts to make Pennsylvania a leader in CHP deployment to more fully realize the benefits provided by CHP and the enhanced utilization of our indigenous shale gas resources. The American Council for an Energy-Efficient Economy (ACEEE) has developed a methodology to determine if a state encourages the deployment of CHP systems.[2] Massachusetts and California rank the highest in the ACEEE rankings while Pennsylvania is tied with Oregon and Washington for 7th place.

In ranking the States, ACEEE analyzed the following criteria employed to encourage the development of CHP:

• The presence and design of interconnection standards;

• The extent to which CHP is identified and encouraged as an energy resource, based on four subcategories:

o Eligibility of CHP within an energy efficiency resource standard or other similar regulatory requirement;

o The presence of utility- or program administrator-run CHP programs designed to acquire CHP energy resources;

o The presence of state-approved production goals or program budgets for acquiring a defined amount of kWh savings from CHP; and

o Access to production incentives, feed-in tariffs, standard offer programs, or other revenue streams linked to kWh production points.

• Deployment incentives, including rebates, grants, and financing; or a net metering standard that applies to CHP; and

• Additional supportive policies, including certain streamlined air permits, technical assistance, goals for CHP in critical facilities, resiliency efforts, and policies that encourage the use of renewable or opportunity fuels in conjunction with CHP.

ACEEE has noted that CHP is considered an eligible resource under Pennsylvania's alternative energy portfolio standard and CHP deployment is encouraged through additional policies and technical assistance efforts. In fact, five new CHP systems were installed in Pennsylvania in 2014.

The ACEEE study confirmed that Pennsylvania can improve in the areas of interconnection standards, the presence of a program designed to acquire CHP energy resources, and state approved production goals for acquiring a defined amount of savings from CHP. This has helped guide our tentative conclusions.

Act 129

CHP has figured prominently as part of Pennsylvania's Act 129 energy efficiency and conservation programs. See 66 Pa.C.S. §§ 2806.1, 2806.2. In the Implementation Order for Phase III of the Act 129 Energy Efficiency and Conservation Program, CHP was specifically highlighted as a comprehensive measure that was to be considered by the EDCs.[3] Further, a number of utilities have existing incentive programs for CHP.[4] However, Pennsylvania has only begun to realize the myriad of benefits that CHP can offer.

A GDS Associates, Inc. report on the market potential of distributed generation, which could be applicable toward the compliance targets of Phase III of Act 129 indicates that, other than steam turbines, CHP does not have a Total Resource Cost (TRC) value greater than one. However, if the maximum measure life under the TRC were to be expanded from 15 years to 25 years, the TRC value would be greater than one for additional CHP technologies, such as (but not limited to) reciprocating engines, gas turbines and micro-turbines. This would further result in a much higher cost effective potential, as measured in potential installed MW capacity.[5]

Proposed Policy Statement

A more comprehensive effort to support the further deployment of CHP systems may help fulfill the Commission's responsibilities. The Commission also recognizes that some of the benefits of CHP, such as economic development and reduced air emissions, transcend its jurisdiction and responsibility. Further, we acknowledge that technology and energy development are constantly changing and advancing. Thus, we believe the Commission should also stand ready to work with other federal, state and local governments and agencies to develop an approach focusing on all of the aforesaid benefits of CHP.

For these reasons, we propose to require utilities to submit biennial reports on their efforts to support the development of CHP. EDCs and NGDCs will report with a particular focus on critical operations for food supply, hospitals, nursing homes, water and wastewater facilities, and government services; energy efficiency; and reduced costs to consumers. Furthermore, the proposed reports will provide information on any tariff provisions that support the development of CHP. Finally, utilities will provide information in the reports on interconnection processes and fees, as well as distribution charges that recognize costs but provide flexibility for owners and operators of CHP facilities.

The Commission has a responsibility to promote energy efficiency, the reliability and security of the electric and natural gas distribution systems, and control the costs

[2] The 2015 State Energy Efficiency Scorecard, October 2015, Report U1509. http://database.aceee.org/state-scorecard-rank.

[3] Energy, Efficiency and Conservation Program, Implementation Order at Docket No. M-2014-2424864, entered August 20, 2015, at page 61.

[4] For Phase II of Act 129 PECO was the only EDC to include a CHP specific incentive program. Each of the remaining EDCs included CHP in their custom incentive programs.

[5] http://www.puc.pa.gov/pcdocs/1355000.pdf.

that consumers pay for electric and natural gas service.[6] The proposed reporting requirement is consistent with the Commission's authority under Sections 501, 504, 505, 506 and 2806.1 of the Public Utility Code and the Alternative Energy Portfolio Standards Act, as amended. See 66 Pa.C.S. §§ 501, 504, 505, 506 and 2806.1, and 73 P.S. §§ 1648.1—1648.8 and 66 Pa.C.S. § 2814.

Conclusion

In order to advance the development of CHP in this Commonwealth, the Commission is proposing the Policy Statement contained in the Annex that requires a biennial reporting requirement for EDCs and NGDCs regarding the development of CHP in their service territories and their efforts to promote such development. The Commission is proposing this policy statement in accordance with our authority under sections 501, 504, 505, 506 and 2806.1 of the Public Utility Code, 66 Pa.C.S. §§ 501, 504, 505, 506 and 2806.1, and the Alternative Energy Portfolio Standards Act, as amended (73 P.S. §§ 1648.1—1648.8) and 66 Pa.C.S. § 2814. The Commission is seeking comment on the proposed Policy Statement; *Therefore*,

It Is Ordered That:

1. The proposed policy statement as set forth in Annex A, are issued for comment.

2. The Law Bureau shall submit this Order and Annex A to the Governor's Budget Office for review of fiscal impact.

3. The Law Bureau shall submit this Order and Annex A to the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin*.

4. Interested parties shall have 45 days from the date of publication in the *Pennsylvania Bulletin* of the Order and Annex A to file written comments referencing Docket No. M-2016-2530484 with the Pennsylvania Public Utility Commission, Attention: Secretary, P. O. Box 3265, Harrisburg, PA 17105-3265. Comments may also be filed electronically through the Commission's e-File System.

5. Interested parties shall have 25 days from the date comments are due to file written reply comments referencing Docket No. M-2016-2530484 with the Pennsylvania Public Utility Commission, Attention: Secretary, P. O. Box 3265, Harrisburg, PA 17105-3265. Comments may also be filed electronically through the Commission's e-File System.

6. A copy of this Order and Annex A shall be served upon the Office of Consumer Advocate, the Office of Small Business Advocate, the Commission's Bureau of Investigation and Enforcement, all jurisdictional electric distribution companies, and all jurisdictional natural gas distribution companies.

7. The contact person for technical issues is Joseph Sherrick, Bureau of Technical Utility Services, (717) 787-5369 or josherrick@pa.gov. The contact person for legal issues is Kriss Brown, Assistant Counsel, Law Bureau, (717) 787-4518 or kribrown@pa.gov.

ROSEMARY CHIAVETTA,
Secretary

Fiscal Note: 57-314. No fiscal impact; (8) recommends adoption.

[6] 66 Pa.C.S. §§ 1301 (just and reasonable rates), 1501 (safe, reliable and adequate service), 2205 (safety and reliability of natural gas distribution systems), 2804 (safety and reliability of electric distribution systems) and 2806.1 (energy efficiency and conservation).

Annex A

TITLE 52. PUBLIC UTILITIES

PART I. PUBLIC UTILITY COMMISSION

Subpart C. FIXED SERVICE UTILITIES

CHAPTER 69. GENERAL ORDERS, POLICY STATEMENTS AND GUIDELINES ON FIXED UTILITIES

COMBINED HEAT AND POWER

§ 69.3201. Statement of scope and purpose.

(a) Combined heat and power (CHP) is broadly described as a form of distributed energy that is an integrated system located at or near a building or facility that provides at least a portion of the electrical load and uses thermal energy for space heating or cooling, process heating or cooling, refrigeration or dehumidification.

(b) CHP is subject to the jurisdiction of the Commission in several important ways, including service reliability, energy efficiency and consumer rates. CHP systems can be an integral part of the defense to natural disasters and manmade attacks on the electric distribution system. CHP can be an important component in addressing environmental concerns and offers significant potential for economic development. In conjunction with natural gas from shale gas resources, CHP also offers potential for lower costs for consumers.

(c) Under 66 Pa.C.S. § 2806.1 (relating to energy efficiency and conservation program), electric distribution companies (EDC) have provided incentive programs for CHP. Likewise, some EDCs have specific tariffs regarding interconnection fees as well as charges for the use of distribution services.

§ 69.3202. Biennial reports.

(a) Jurisdictional electric distribution companies (EDC) and natural gas distribution companies (NGDC) shall file biennially, beginning _____ (*Editor's Note*: The blank refers to 4 months after the effective date of adoption of this statement of policy.), a report that documents their strategies, programs and other initiatives in support of combined heat and power (CHP) systems. The report must include:

(1) Identification and description of CHP systems interconnected with the EDC or NGDC, including:

(i) The location, the nameplate capacity (MW) and basic operation of each system.

(ii) Projected cost savings for CHP customers, if known.

(iii) Any system reliability benefits. The description must include specific benefits to critical customers, including Federal, State and local government facilities, educational institutions, hospitals, nursing homes, and retail and wholesale suppliers of food, wastewater facilities and water distributors.

(iv) Any transmission-related or distribution-related savings or avoided costs as the result of a CHP facility. NGDCs shall also report on revenue impacts.

(v) In the initial report, all CHP systems. In subsequent reports, the EDC or NGDC only needs to identify new CHP systems interconnected or disconnected during the prior 24-month period.

(2) A description of future CHP projects that are scheduled to come on line or are under discussion.

(3) A discussion of challenges that occurred during the time period covered by the report and any recommendations that might improve upon or hasten the deployment of CHP systems.

(b) In addition to the requirements in subsection (a), each EDC shall report:

(1) Its communications strategy relevant to CHP systems.

(2) Its interconnection terms and conditions, including:

(i) CHP specific interconnection fees.

(ii) Streamlined procedures, including well-defined application processing timelines and simple decision trees which are based on the characteristics of the project and for which interconnection procedures apply.

(iii) Standardized technical requirements.

(iv) Standardized, simplified application forms and contracts.

(v) A simplified, defined process to address disputes.

(vi) The ability for larger CHP systems and those not captured under net metering regulations to meet interconnection standards.

(3) Actual interconnection fees collected from each CHP facility.

(4) Actual electric generation delivered to all customers with CHP by the EDC on an hourly basis for the preceding 24-month period.

(5) The information in subsection (a)(1)(iv) in chart form.

(6) Any standby rates applicable to CHP systems offered by tariff, including backup service, scheduled maintenance service and supplemental services. The discussion must address the circumstances under which the rates apply and the level of each rate element.

(7) As to each tariffed rate identified in paragraph (6), discuss:

(i) The methodology used to design each customer, demand and energy rate element.

(ii) Whether the rates reflect cost differentials for daily and seasonal fluctuations in usage.

(iii) Whether the rates encourage the scheduling of maintenance at nonpeak times.

(c) In addition to the requirements in subsection (a), each NGDC shall report:

(1) How it encourages industrial, commercial and institutional CHP projects.

(2) Any separate rate classes it has for customer accounts with CHP systems.

§ 69.3203. Staff report.

The Commission's Bureau of Technical Utility Services will provide a biennial report to the Commission summarizing and analyzing the electric distribution company and natural gas distribution company reports, as well as making any recommendations regarding the development of combined heat and power in this Commonwealth.

§ 69.3204. Sunset.

Sections 69.3201—69.3203 (relating to statement of scope and purpose; biennial reports; and staff report) automatically terminate on _____ (*Editor's Note*: The blank refers to 8 years and 1 day after the first report is filed.), unless extended by Commission order.

[Pa.B. Doc. No. 16-640. Filed for public inspection April 15, 2016, 9:00 a.m.]