



PHILADELPHIA GAS WORKS

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May 31, 2016

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P.O. Box 3265
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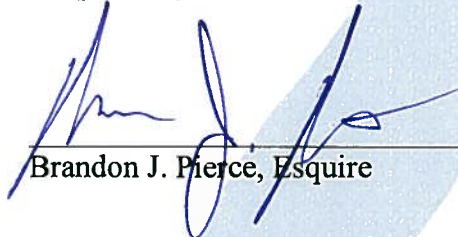
Re: Comments of Philadelphia Gas Works to Proposed Policy Statement M-2016-2530484

Dear Secretary Chiavetta:

Please find enclosed Philadelphia Gas Works' Comments in response to the Pennsylvania Public Utility Commission's Proposed Policy Statement on Combined Heat and Power, entered on March 9, 2016, at Docket No. M-2016-2530484.

If additional information is required, please do not hesitate to contact the undersigned. Thank you for your assistance in this matter.

Respectfully,



Brandon J. Pierce, Esquire

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

**COMMENTS OF PHILADELPHIA GAS WORKS
TO PROPOSED POLICY STATEMENT**

I. INTRODUCTION

Philadelphia Gas Works (“PGW” or the “Company”) submits these Comments in response to the Pennsylvania Public Utility Commission’s (“PUC” or the “Commission”) Proposed Policy Statement on Combined Heat and Power, entered on March 9, 2016, at Docket No. M-2016-2530484 (“Policy Statement”). PGW appreciates the opportunity to comment on this important issue and fully supports the Commission’s stated goal of advancing the development of combined heat and power (“CHP”) in Pennsylvania.

The Commission’s Policy Statement proposes to establish biennial reporting requirements for electric distribution companies (“EDCs”) and natural gas distribution companies (“NGDCs”) regarding their efforts to eliminate obstacles to CHP development. The Commission identified the Policy Statement’s purpose as intending 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.

The Policy Statement seeks Comments from interested parties on the Commission's proposed reporting requirements, attached to the Policy Statement as Annex A. PGW supports these proposed reporting requirements for data that is accessible and available to the extent that the data is not confidential and/or proprietary, as described in these Comments below.

II. BACKGROUND AND PROCEDURAL HISTORY

Combined heat and power systems are one of the most efficient means of generating electricity and thermal energy from a single fuel source available today. CHP refers not to one type of technology, but any number of technologies used in conjunction to produce cost-effective energy services. CHP systems capture the waste heat produced in power generation and utilize that heat energy for heating, domestic hot water, process load, and cooling services.

CHP systems deliver numerous direct and indirect benefits that justify supporting further development in Pennsylvania. Customer benefits include increased reliability and resiliency, lower operational costs, fuel price stability, optimized energy efficiency, increased property value, and a reduced carbon footprint, among others. Customers who install CHP systems reduce their exposure to electric grid power outages, thus increasing reliability and resiliency. Further, by using natural gas to power on-site CHP generation units, customers pay lower effective per kWh power prices by eliminating costs such as transmission and distribution charges and are able to leverage the low cost of natural gas. Similarly, customers can control and lock-in long term fuel purchases while mitigating electric price variability. CHP systems also use waste heat recovery to replace other equipment powered by expensive steam, oil, or grid electricity, thus optimizing energy efficiency while reducing the customer's carbon footprint.

CHP benefits are not limited to customers. Direct and indirect benefits accrue to utilities as well. These benefits include reduced strain on electric transmission and distribution systems, reduced need for infrastructure and reserve margins, increased availability as capacity resources, ability to balance power system fluctuations and provide ancillary services, increased and higher load for NGDCs, and the ability to use CHP to supplement and support greater renewable energy deployment, among others.

Recognizing myriad CHP benefits, the Commission held *en banc* hearings in the spring and fall of 2014 at Drexel University in Philadelphia and the University of Pittsburgh, respectively. Testimony at the hearings included representatives from EDCs and NGDCs, universities, CHP system owners and advocates, consultants, and the United States Department of Energy. “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.”¹

The *en banc* hearings also helped to identify barriers to broader and more expedient CHP deployment in Pennsylvania. Namely, those challenges—from a customer perspective—include difficulty justifying the up-front capital investment and potential long term payback period, the cost of purchasing backup power during planned plant maintenance and unscheduled downtime, and interconnection procedures and fees.

The Commission’s Policy Statement also cited the American Council for an Energy-Efficient Economy (“ACEEE”), who developed a methodology for determining the progress each state is making to eliminate barriers and encourage CHP deployment. ACEEE’s 2015 State Energy Efficiency Scorecard component for CHP deployment ranks Pennsylvania seventh in the

¹ Policy Statement at 2.

nation for CHP deployment.² Pennsylvania scored 2.5 out of 4 points, while Massachusetts and California tied for the highest rank with 4 out of 4 points.

III. PGW'S CHP IMPLEMENTATION EFFORTS

PGW has been actively engaged in designing and implementing innovative solutions to promote CHP development in its service territory. As of the date of these Comments, there are fifteen CHP units currently operating in PGW's service territory with a total installed capacity of over 5 MW, and several new projects are under consideration by PGW customers. One of the fifteen projects includes a CHP system at PGW's headquarters that provides electricity and uses the waste heat for both heating and cooling. This in-house CHP system has an installed capacity of 200 kW and produces at least \$200,000 in annual energy savings. PGW also uses its CHP system as an educational and promotional tool to show interested customers the benefits of CHP. Further, PGW offers an incentive program, on a limited basis, which provides assistance to customers for CHP installation costs.

In addition to developing information internally, PGW is exchanging information with other external organizations and associations such as the Energy Solutions Center, the American Society of Heating, Refrigerating and Air-Conditioning Engineers ("ASHRAE"), and CHP equipment suppliers and associations.

Additionally, in PGW's Petition for approval of its DSM Phase II, filed on December 23, 2014,³ the Company proposed a new program that would promote specific, cost-effective energy efficiency and resiliency projects, primarily including micro-CHP for commercial end-uses. The proposal provides for prescriptive rebates for micro-CHP units of 30 kW and smaller (an

² The 2015 State Energy Efficiency Scorecard, October 2015, Report U1509 at 8, <http://database.aceee.org/state-scorecard-rank>.

³ Docket No. P-2014-2459362.

incentive of \$750 per kW capacity, capped at 50% of each project's incremental costs). The proposal also includes a path for custom project applications. On March 18, 2016, Administrative Law Judges Christopher P. Pell and Marta Guhl issued a Recommended Decision recommending, *inter alia*, that the CHP proposal be denied. The matter is now pending before the Commission and a determination is expected shortly after the filing of these Comments.

IV. COMMENTS

PGW views the Commission's Policy Statement as an important step in promoting and encouraging CHP development in Pennsylvania. CHP has the ability to provide economic benefits to customers, economic development benefits to the City of Philadelphia and the Commonwealth, environmental benefits to customers and ratepayers, stimulate business development, and reduce CO₂ emissions, among others. PGW supports the advancement of CHP development in Pennsylvania and the Commission's efforts to promote and encourage CHP investment and deployment. Additionally, PGW supports the Comments filed by the Energy Association of Pennsylvania ("EAP")—of which PGW is a member—and will not repeat those Comments herein.

PGW also supports the Commission's proposed Policy Statement that establishes a biennial reporting requirement for EDCs and NGDCs, with the caveat that some of the information sought by the Commission would have to be reported in generic or anonymous terms or require customer permission to provide specific data. While PGW supports the reporting requirement, the Company does not support the Commission's proposed sunset provision as a part of this Policy Statement proceeding.

PGW, like the Commission, recognizes that there are significant opportunities for further CHP development in Pennsylvania. For example, on the ACEEE Scorecard, Massachusetts and

California, the top-ranked states for CHP development, have 4 out of 4 points in that category, while Pennsylvania, tied for seventh in the nation, has a 2.5 rating for CHP development. This illustrates two main points: first, Pennsylvania is doing well in CHP development, as evidenced by its high ranking; and second, Pennsylvania still has untapped opportunities it must leverage to become a top-tier leader in CHP deployment. According to the U.S. Department of Energy, as of 2011, Pennsylvania had over 3,300 MW of installed CHP base. However, “it is important to understand that most of this capacity was developed in the ten years from 1985 through 1995.”⁴ The Department of Energy also determined that Pennsylvania has a technical market potential⁵ of nearly 11,000 MW⁶ and an economic market potential⁷ of over 3,400 MW over the next 20 years.⁸ Further, a 2015 report prepared for the Commission determined that economic cumulative savings potential provided by CHP systems across all sectors for all seven Pennsylvania EDCs

⁴ Pennsylvania Combined Heat and Power Market Assessment, US DOE Mid-Atlantic Clean Energy Application Center at 20 (Apr. 2011) (“DOE Assessment”), <http://www.midatlanticchptap.org/states/MA%20CHP%20TAP%20CHP%20Market%20Analysis%20Pennsylvania.pdf>.

⁵ “Technical market potential is a statement of the number of MW’s of power that could be produced from CHP plants assuming that all facilities with coincident electric and thermal loads would employ CHP. The estimation of technical market potential is generated by using multiple sources of data and various metrics as described below to identify and quantify in terms of size, sites suitable for the application of CHP. The existing CHP sites are subtracted from the identified sites to determine the remaining technical market potential. The technical market potential does not consider screening for economic rate of return, or other factors such as ability to retrofit, owner interest in applying CHP, capital availability, natural gas availability, and variation of energy consumption within customer application/size class. The technical potential as outlined is useful in understanding the potential size and size distribution of the target CHP markets in the state. Identifying technical market potential is a preliminary step in the assessment of market penetration.” DOE Assessment at 23 (Apr. 2011), <http://www.midatlanticchptap.org/states/MA%20CHP%20TAP%20CHP%20Market%20Analysis%20Pennsylvania.pdf>.

⁶ DOE Assessment at 32.

⁷ Economic market potential refers to CHP potential when factoring in economic rate of return, capital considerations, and other financial variables.

⁸ DOE Assessment at 31.

combined would average approximately 208,000 MWh per year and reduce CO₂ emissions by nearly 76,000 metric tons per year.⁹

As seen from the difference between technical and economic market potential in Pennsylvania, one of the largest obstacles to more rapid and expansive CHP development is the financial hurdle. Specifically, the large up-front capital investment may put projects beyond the reach of some business owners. PGW submits that the biennial reporting requirements will help identify progress on eliminating these barriers and showcase the innovative solutions that utilities are developing to remove these barriers. PGW remains committed to addressing these issues—for example, through its pending DSM II program—and stands ready to work with the Commission and interested stakeholders to achieve meaningful progress on this important issue.

The Commission’s proposed Policy Statement centers on reporting requirements, and therefore, the remainder of these Comments list each proposed reporting requirement in Annex A that is applicable to PGW and PGW’s Comments on those relevant provisions.

§ 69.3201. Statement of Scope and Purpose

- (b) CHP is subject to the jurisdiction of the Commission in several important ways, including, but not limited to, service reliability, energy efficiency and consumer rates. CHP systems can be an integral part of the defense to natural disasters and man-made 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.

PGW proposes that the last sentence of the provision above include additional wording, so as to read (PGW added language listed in **[bold]**):

⁹ Distributed Generation Potential Study for Pennsylvania at 26 (Mar. 2015), <http://www.puc.pa.gov/pdocs/1355000.pdf>.

In conjunction with [increasing] natural gas [usage] from shale gas resources, CHP also offers potential for lower costs for consumers.

§ 69.3202. Biennial reports.

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

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

PGW is able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

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

PGW is able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

(3) Any system reliability benefits. The description shall include specific benefits to critical customers, including but not limited to federal, state, and local government facilities, educational institutions, hospitals, nursing homes, and retail and wholesale suppliers of food, wastewater facilities, and water distributors.

PGW may be able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

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

PGW may be able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

(5) All CHP systems are to be included in the initial report. In subsequent reports, the companies need only identify new CHP systems interconnected (or disconnected) during the prior twenty-four month period.

PGW is able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

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

PGW is able to supply this information (to the extent PGW's CHP customers provide it when requested) with the caveat that the information will be in generic or anonymous form. Any information linked directly to a customer would require that customer's permission to report.

(c) 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.

PGW is able to supply this information. PGW notes that at this time, the issue of up-front financing (i.e. high initial capital costs) remains the biggest challenge to greater deployment of CHP systems.

...

(e) Additionally each NGDC shall report:

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

PGW is able to supply this information to the extent it is not proprietary or confidential business strategy or advanced marketing material.

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

PGW is able to supply this information.

§ 69.3204. Sunset.

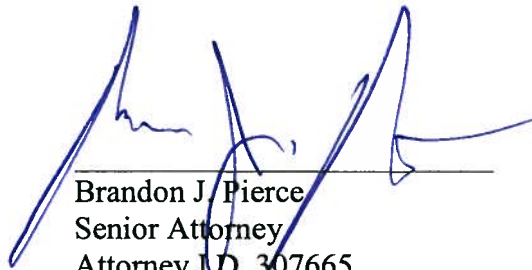
This policy statement shall automatically terminate on _____, 20 (Editor's note: The blank refers to 8 years and one day after the first report is filed) unless extended by Commission Order.

PGW does not support a sunset provision in this Policy Statement proceeding and respectfully requests that the Commission remove this language. PGW would prefer that any discontinuance be addressed in a future proposed Policy Statement.

V. CONCLUSION

Philadelphia Gas Works appreciates this opportunity to provide Comments on the Commission's proposed Policy Statement regarding biennial reporting requirements for EDCs and NGDCs on the progress of CHP deployment in their service territories. PGW supports the Commission's efforts to advance CHP deployment in the Commonwealth and stands ready to work with the Commission and interested stakeholders in advancement of that goal.

Respectfully Submitted,



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Date: May 31, 2016