

Combined Heat and Power (CHP) En Banc Hearing Summary Drexel University May 5, 2014

The PUC held an en banc hearing on Combined Heat and Power (CHP), or cogeneration, May 5, 2014, at Drexel University in Philadelphia, Pennsylvania. Participating in the hearing were PUC Chairman Robert F. Powelson and Commissioner Gladys M. Brown along with 9 panelists, including technical advisors, project developers, technology vendors and representatives from Philadelphia Gas Works and PECO Energy. Approximately 50 people, with equally diverse interests, were in attendance.

The purpose of the hearing was to explore current issues and discuss regulatory policies impacting greater adoption of CHP in Pennsylvania. The hearing included three panels with presentations that were followed with questions from Chairman Powelson and Commissioner Brown.

PANEL 1

Presenters for the first panel were:

Gearoid Foley (Senior Technical Advisor, Mid-Atlantic CHP Technical Assistance Partnership)
Richard Sweetser (Senior Technical Advisor, Mid-Atlantic CHP Technical Assistance Partnership)
Martha Krebs (Director, Consortium for Building Energy Innovation (CBEI))

Mr. Foley and Mr. Sweetser provided a joint presentation that included an introduction to the U.S. Department of Energy's CHP Technical Assistance Partnerships, an overview of CHP, examples of CHP applications, benefits & considerations for CHP, the technical potential for CHP, a review of CHP status in the Mid-Atlantic, lessons learned and future potential for CHP in Pennsylvania.

Ms. Krebs' presentation focused on the application of CHP in commercial buildings. Her presentation included the potential for CHP in the commercial building sector, challenges to CHP installation in commercial buildings, benefits of CHP applications and the CBEI approach to CHP for commercial buildings.

The panel concluded with the following comments, questions and panelist responses.

Chairman Powelson noted the differences in interconnection standards between Pennsylvania, Ohio and Maryland.

Chairman Powelson asked about CHP participation in ancillary markets.

Answer: Richard Sweetser responded that CHP is generally designed as base load with the design sized to meet the thermal load.

Chairman Powelson asked about a CHP system's effects on property values.

Answer: Richard Sweetser responded that we're just at the cusp of that idea.

Answer: Gearoid Foley mentioned On-bill Financing (OBF) loans should be to the (electric) meter not to the building owner.

Answer: Martha Krebs added that CBEI will be working on OBF studies this year.

Chairman Powelson asked of Mr. Sweetser, you mentioned a 30% capital expenditure shortfall, what is the other 70%.

Answer: Richard Sweetser responded that 70% is the amount a customer is willing to invest into a project and states need to help with the rest.

Chairman Powelson asked “is Pennsylvania part of the DOE pilot?”

Answer: Richard Sweetser responded no.

Commissioner Brown asked, can you provide examples of incentives PA should adopt?

Response: Richard Sweetser noted that President Obama’s 2012 Executive Order did not provide money for CHP. He indicated that there are lots of examples of what works for incentives and that he will provide information.

Answer: Gearoid Foley said there needs to be a way to monetize the societal benefits. He explained that in New Jersey, lost productivity resulting from Super Storm Sandy cost \$11.7 billion, and those losses could have been reduced if CHP more widely used.

Commissioner Brown asked, can you give examples of CHP being used in governmental buildings?

Answer: Gearoid Foley stated that Princeton University is a good example. The 15 MW CHP plant provides steam and chilled water throughout the campus. And, he noted that we need to recognize, CHP is not used much in office buildings.

PANEL 2

Presenters for the second panel were:

Dean Musser (CEO, President and Director, Tangent Energy Solutions)

Bob Pistor (Vice President, UGI HVAC Enterprises Inc.)

Al Neuner (Vice President, Facility Operations, Geisinger Health Systems)

John Zabilowicz (COO, ZF Energy Development)

Mr. Musser presented on the benefits of decentralized energy vs. centralized energy, focusing on factors related to CHP implementation including barriers and the need for solutions.

Mr. Pistor described the CHP project development process of UGI HVAC Enterprises Inc. for projects sized less than 10 MW. He highlighted length of project development, education of potential customers, project impediments and provided several policy recommendations.

Mr. Neuner described the successful application of CHP at Geisinger Health Systems. He included details of CHP benefits to Geisinger and provided some suggestions for improvement to CHP policy issues.

Mr. Zabilowicz discussed the negative impact on CHP projects from utility infrastructure expansion costs. He noted that natural gas is readily available but infrastructure for delivery is not and the high cost for infrastructure expansion results in a “no go” decision for projects.

The panel concluded with the following comments, questions and panelist responses.

Chairman Powelson asked, can ‘GET Gas’ help CHP projects? (GET Gas, which stands for Growth Extension Tariff, is UGI’s new tariff, which allows residential customers in the UGI companies’ service territories to finance the cost of extending gas lines to their property over the course of several years).

Answer: Bob Pistor responded yes, it provides a little help.

Chairman Powelson asked, do we need to look at dedicated CHP funding initiatives?

Answer: Dean Musser said he believes this is an Act 129 issue. Investors assume they will receive an Act 129 grant. Mr. Musser also stated that more specific treatment for CHP in Act 129 can offer more certainty.

Chairman Powelson asked Al Neuner; how do these projects qualify for Act 129?

Answer: Al Neuner responded that CHP projects are not clearly spelled out in the EDC 129 plans.

Commissioner Brown asked, are there utility rate structures which are better and more dependable for CHP?

Answer: Bob Pistor indicated that demand billing would be better.

Answer: Dean Musser responded that access to the capacity market would be useful.

Commissioner Brown asked, what comments do you have regarding the regulatory certainty? Should the statute or Act 129 be changed?

Answer: John Zabilowicz stated that Act 129 monies were used for half of his projects and that CHP is ignored by most utility companies. Act 129 targets for CHP could be improved.

Answer: Bob Pistor stated he feels that Act 129 is the right place for CHP incentives.

PANEL 3

Presenters for the third panel were:

*Craig White (President & CEO, Philadelphia Gas Works
Richard G. Webster, Jr., (Vice President, Regulatory Policy & Strategy, PECO Energy Company)*

Mr. White highlighted the diverse benefits of CHP, customer implementation challenges, possible future direction of CHP and recommendations addressing barriers in Pennsylvania.

Mr. Webster provided an overview of PECO's incentives for CHP installation while noting successes and issues that face broader implementation of CHP installations.

The panel and hearing concluded with the following comments, questions and panelist responses.

Chairman Powelson asked for more information regarding the 3 successful projects in Philadelphia, especially the project at the Four Seasons Hotel. What were the key incentives to drive the investment?

Answer: Craig White stated it was a huge challenge, due to staff turnover at the project site and efforts to maximize the electric load. Mr. White noted that project lead time is extensive, which represents a big challenge for projects.

Mr. White briefly described the Four Seasons project with three 65 kW units on the penthouse, and noted that a large waste heat load is a big driver with "low hanging fruit" projects in the Philadelphia area. Mr. White also stated that pipeline capacity is needed for projects.

Chairman Powelson asked, are there incentives for PGW customers? On-bill financing (OBF)?

Answer: Craig White stated that financing is done through incentives and that they do not have OBF yet.

Chairman Powelson asked, do we need to re-examine the stand-by rates for CHP customers?

Answer: Richard G. Webster, Jr., stated that this issue would have to be discussed further and that it should be looked at in a future rate case.

Answer: Craig White responded that it becomes a customer allocation issue.

Chairman Powelson asked, do we need to expand the interconnection requirement to 10 MW or 15 MW? Would that stimulate the market?

Answer: Richard G. Webster, Jr., stated that this issue would have to be discussed further.

Chairman Powelson asked for thoughts on tax parity for CHP vs. solar.

Answer: Craig White stated that "CHP brings so much more than solar."

Chairman Powelson asked do we need a generic CHP rate?

Answer: Craig White stated that we need a proper rate structure for CHP and suggested a co-generation rate that could be applicable statewide.

Answer: Richard G. Webster, Jr., responded if the rate is cost-based that would be okay, but if it is a subsidized CHP rate we need to be careful.

Chairman Powelson followed-up on the previous question asking if a model tariff would be helpful.

Answer: Craig White said it is a good idea.

Answer: Richard G. Webster, Jr did not agree and said he would like to discuss and consider.

Chairman Powelson asked for more information regarding PPL Electric rejecting the request for Act 129 grant money. Al Neuner stated that he read the entire Act, highlighted certain sections, sent three letters and finally was granted the money.

Commissioner Brown asked, how do utility companies deal with the decrease of demand due to Act 129?

Answer: Craig White stated that this is a big challenge for gas companies that may warrant looking at the practice of revenue decoupling.

Commissioner Brown asked, should there be a specific rate class for CHP customers?

Answer: Richard G. Webster, Jr. stated that PECO used to have a rate class that CHP was in; the rates need to be looked at in the future.

Answer: Craig White said they have a co-gen rate but can look to do more and stated that the tariffs need more creativity regarding stand-by rates and firm rates.

Commissioner Brown said she wanted to know more about PECO programs but would get the information later (not at the En Banc).

Commissioner Brown stated that she feels that CHP is a “No Brainer,” but that education is the key. Whose role is it to provide the education? Is it the PUC?

Chairman Powelson said he considered the hearing a success and has scheduled a second hearing at the University of Pittsburgh on September 29, 2014.

Requests for information or inclusion on the distribution list were received from the following:

Denise LeClaire, Director, Sales & Marketing, ATCO Emissions Management

Mona Khalil, Ph.D., Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy

Randy Musselman, Sales Engineering, Cleveland Brothers - Power Systems Div.

Shari A. Williams, Community Outreach Manager, SEPA Marcellus Shale Coalition

Elinor Haider, Vice President, Market Development, Municipal & Commercial Business, Veolia North America

Comments about the use of CHP were received from the following:

Emily E. Krafjack, President, Connection for Oil, Gas & Environment in the Northern Tier, Inc. Ms. Krafjack provided comments related to how the natural gas industry is changing the air quality in the counties of Bradford, Sullivan, Susquehanna, Tioga and Wyoming and opposes seven, small (19 MW) natural gas-fired combined cycle electric generating units currently proposed in the aforementioned counties.