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December 19, 2014

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor (filing room)
Harrisburg, PA 17120

RE: Act 129 Energy Efficiency and Conservation Program Phase III; Docket No. M-2014-2424864; **COMMENTS OF THE PENNSYLVANIA STATE UNIVERSITY**

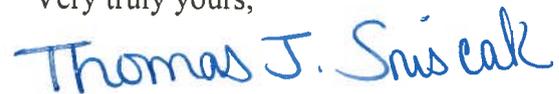
Dear Secretary Chiavetta:

Please find enclosed, for filing with the Pennsylvania Public Utility Commission, Comments of The Pennsylvania State University in the above-captioned proceeding. Copies of this document will be served in accordance with the Certificate of Service. Pursuant to the Commission's direction, Word-formatted copies of these Comments have been electronically mailed to Megan G. Good at megagood@pa.gov and Kriss Brown at kribrown@pa.gov.

MAILING ADDRESS: P.O. BOX 1778 HARRISBURG, PA 17105

Should you have any questions or comments, please feel free to contact me directly.

Very truly yours,



Thomas J. Sniscak
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*Counsel for
The Pennsylvania State University*

TJS/CMA/das
Enclosures

cc: Robert F. Powelson, Chairman
John F. Coleman, Jr., Vice Chairman
Gladys M. Brown, Commissioner
Pamela A. Witmer, Commissioner
James H. Cawley, Commissioner
Jan H. Freeman, Executive Director
Mary Beth Osborne, Director of Regulatory Affairs
Bohdan Pankiw, Chief Counsel
Robert Young, Deputy Chief Counsel
Kriss Brown, Assistant Counsel (**via email**)
Paul Diskin, Director, Technical Utility Services
Darren Gill, Deputy Director, Technical Utility Services
Joseph Sherrick, Supervisor, Technical Utility Services
Megan Good, Analyst, Technical Utility Services (**via email**)
Per Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the parties, listed below, in accordance with the requirements of §1.54 (relating to service by a party).

Via Electronic and First Class U.S. Mail

John Manz, Director
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Thomas J. Sniscak
Christopher M. Arfaa

Dated: December 19, 2014

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Re: Act 129 Energy Efficiency and Conservation
Program Phase III

Docket No. M-2014-2424864

**COMMENTS OF
THE PENNSYLVANIA STATE UNIVERSITY**

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DATED: December 19, 2014

Counsel for
THE PENNSYLVANIA STATE UNIVERSITY

The Pennsylvania State University (Penn State or the University), by its undersigned attorneys, submits these Comments to the Pennsylvania Public Utility Commission (Commission) in response to the October 23, 2014 Secretarial Letter seeking comments on topics instrumental in designing and implementing a potential Phase III Energy Efficiency & Conservation (EE&C) Program pursuant to Pennsylvania Act 129 of 2008. Penn State applauds the Commission's efforts in this regard and appreciates the opportunity to submit these Comments.

I. INTRODUCTION AND SUMMARY

The General Assembly has recognized the following public policy findings and declared that the following objectives of the Commonwealth are served by Act 129:

(1) The health, safety and prosperity of all citizens of this Commonwealth are inherently dependent upon the availability of adequate, reliable, affordable, efficient and environmentally sustainable electric service at the least cost, taking into account any benefits of price stability, over time and the impact on the environment.

(2) It is in the public interest to adopt energy efficiency and conservation measures and to implement energy procurement requirements designed to ensure that electricity obtained reduces the possibility of electric price instability, promotes economic growth and ensures affordable and available electric service to all residents.

(3) It is in the public interest to expand the use of alternative energy and to explore the feasibility of new sources of alternative energy to provide electric generation in this commonwealth.¹

Penn State looks forward to working with the Commission and the Commonwealth's electric distribution companies (EDCs) to ensure that the EE&C Program continues to serve Act

¹ Act of Oct. 15, 2008, P.L. 1592, No. 129 (preamble).

129's public policy objectives. Sustainability and energy conservation have long been priorities for the University. Penn State's primary environmental focus is on the reduction of energy consumption through increased efficiency, conservation and awareness. The University has reduced its campus greenhouse gas emissions by 18% since 2005 and has set an ambitious new reduction goal of 35% by 2020. The 18% reduction was based on a foundation of energy conservation efforts which were supplemented with the purchase of renewable energy credits. The new goal of a 35% reduction by 2020 will continue to be anchored with energy management and conservation efforts, but will be supplemented with an increased level of combined heat and power (CHP), low-carbon energy production, and hydropower. Penn State's strategy for 2020 and beyond will look for opportunities to further integrate and increase use of a continually-developing suite of renewable technologies.

As discussed below, in order to achieve the policy objectives of Act 129, Phase III of the EE&C Program should include the use of behind-the-meter distributed generation to meet energy and demand reduction goals, and provide incentives in the form of custom measures for both renewable energy generation projects and combined heating and power (CHP) projects.

In response to the Commission's specific queries, Phase III should be at least five (5) years in duration. Like Phases I and II, Phase III should include a reduction target carve-out of at least ten percent (10%) for the government, educational and non-profit sector. The Commission should allow for the continued spending of Phase II budgets after targets are met and allow EDCs to apply any excess consumption reductions from Phase II towards their Phase III consumption reduction requirements. The Commission should prescribe a deadline of 180 days for the submission of rebate applications following the in-service dates of measures installed during Phases II and III. Similarly, EDCs should "true-up" their costs/budgets within 180 days

after the end of each phase. During Phase III, the Total Resource Cost (TRC) Test methodology should be reviewed and updated annually.

II. COMMENTS

A. Proposed Phase III EE&C Program Guidelines

1. Phase III of the EE&C Program Should Include the Use of Behind-the-Meter Distributed Generation to Meet Energy and Demand Reduction Goals

The Commission has recognized that customers' behind-the-meter, distributed energy generation resources can be used to meet Act 129's energy savings and peak demand reduction goals:

We find that Act 129 does not eliminate distributed generation for use in meeting energy consumption and demand reduction goals. Rather, Act 129 is silent with respect to the use of distributed energy resources. The Act does not dictate how EDCs must meet the reduction goals, only that they must. The Act appropriately leaves these matters to the discretion of the EDCs, pursuant to the Commission's review.

The definition of "peak demand" explicitly states that, for an EDC, "the term shall mean the sum of the metered consumption for all retail customers over that period." 66 Pa. C.S. § 2806.1(m). It is undeniable that the use of distributed energy resources during peak hours will reduce a company's metered consumption during those periods. Because on-site generation is generally located "behind the meter," distributed energy resources also reduce the metered consumption of the retail customer, which is one of the qualifying factors for "energy efficiency and conservation measures," as defined by the Act.

Program administrators will be required to comply with all federal, state and local requirements relating to distributed generation. Under this approach, a distributed generation program can reduce

peak demand in full compliance with both Act 129 and current Commonwealth regulations.²

EDCs' EE&C plans can encourage the use of distributed generation to realize energy savings and peak demand reductions in two ways: directly, through programs that target eligible commercial and industrial customers who have existing backup generation resources or are interested in having grid-connected generating units installed at their facilities,³ or indirectly, through demand response programs that permit customers to reduce consumption of electricity from the grid during peak periods by resorting to other sources of power.⁴ In either case, the use of distributed generation helps EDCs achieve Act 129's EE&C goals.

Unlike many EE&C measures, distributed generation programs serve Act 129 objectives in addition to reductions in EDCs' metered consumption. The installation of on-site generation by utility customers improves the adequacy and reliability of electric service in the Commonwealth, so distributed generation programs that encourage such installation will promote Act 129's policy of "ensur[ing] affordable and available electric service to all residents."⁵ Similarly, distributed generation programs that promote the installation and use of renewable energy generation facilities will serve the additional Act 129 policy objectives of

² *Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company for Consolidation of Proceedings and Approval of Energy Efficiency and Conservation Plans*, Docket Nos. M-2009-2092222, M-2009-2112952 and M-2009-2112956, slip op. at 46-47 (Pa. PUC Oct. 28, 2009) (hereinafter *First Energy Phase I Order*); see also *Petition of West Penn Power Company d/b/a Allegheny Power for Approval of its Energy Efficiency and Conservation Plan, Approval of Recovery of its Costs through a Reconcilable Adjustment Clause and Approval of Matters Relating to the Energy Efficiency and Conservation Plan*, Docket No. M-2009-2093218, slip op. at 41-42 (Pa. PUC Oct. 23, 2009) (hereinafter *West Penn Phase I Order*) (same).

³ See, e.g., *West Penn Phase I Order* at 41-42.

⁴ See, e.g., *First Energy Phase I Order* at 46-47.

⁵ Act of Oct. 15, 2008, P.L. 1592, No. 129 (preamble).

“expand[ing] the use of alternative energy and . . . explor[ing] the feasibility of new sources of alternative energy to provide electric generation in this Commonwealth.”⁶

2. Phase III of the EE&C Program Should Include Renewable Energy Generation Projects

As discussed above, two of the public policy objectives of Act 129 are “to expand the use of alternative energy and to explore the feasibility of new sources of alternative energy to provide electric generation in this commonwealth.”⁷ Accordingly, the Act directs that “[e]nergy efficiency and conservation measures **shall include solar or solar photovoltaic panels, . . . geothermal heating, . . . and other technologies** . . . approved by the commission.”⁸ The Phase III EE&C Program therefore should encourage the development of renewable energy generation projects to produce EDC energy savings and peak demand reductions.

Given the diverse and changing nature of alternative energy technologies, renewable energy projects should be addressed through custom measures rebate programs rather than technology-specific incentives. Renewable energy projects should be approved as eligible custom measures projects if found to be cost effective as indicated by a Total Resource Cost (TRC) score of at least 1.0, as calculated in accordance with the Technical Reference Manual (TRM) standards or other Commission guidelines or directives. In addition, to ensure that the projects promote the objectives of the Act, eligible renewable energy projects should be used solely for customer on-site use (i.e., not wholesale merchant projects), produce retail energy savings to an EDC (i.e., the reduction of electricity consumption), be installed and operational during Phase III, and comply with all Commission interconnection and standby service rules and

⁶ *Id.*

⁷ *Id.*

⁸ 66 Pa. C.S. § 2803(m) (emphasis added).

requirements. While the amount of incentive available for a single project may be limited, *eligibility* for the incentive should not be limited to projects of a particular size.

3. Phase III of the EE&C Program Should Include Combined Heating and Power (CHP) Projects

The Phase III EE&C Program should include or continue to include CHP projects because such projects clearly promote EDC energy efficiency and conservation as well as reliability and availability. In 2013, Penn State generated 65,908,586 kilowatt hours of its own electricity on campus. This avoided purchasing that power from the grid and the accompanying production of 45,181 metric tons of greenhouse gas emissions — the equivalent of taking 9,512 passenger vehicles off the road or 6,215 homes off the electrical grid. Because the East and West Campus Steam Plants at University Park are located on campus, Penn State can capture the “waste heat” and use it locally at the same time it is generating electricity. In 2011, the campus steam system operated at 73 percent efficiency. When fully completed, Penn State’s CHP system will operate at better than 80 percent — more than twice the efficiency of the industrial power grid. The on-site power generation capability provided by the CHP plants also means that University Park is able to provide 100 percent of its critical emergency power should there be a loss in the supply of electricity from EDCs.

Like renewable energy generation projects, CHP projects should be approved or continue to be approved as eligible custom measures projects, if found to be cost effective as indicated by a TRC score of at least 1.0, as calculated in accordance with the TRM standards or other Commission guidelines or directives. In addition, to ensure that the projects promote the objectives of the Act, eligible CHP projects should be used solely for customer on-site use (i.e., not wholesale merchant projects), produce retail energy savings to an EDC (i.e., the reduction of electricity consumption), be installed and operational during Phase III, and comply with all

Commission interconnection and standby service rules and requirements. The success of Penn State's CHP project shows that eligibility for incentives should not be limited to projects of a particular size.

The Phase III Program should not discriminate against CHP projects. Some EDC Phase II EE&C Plans require CHP projects to demonstrate higher TRC ratios and provide smaller rebates than they do for other custom measures. In light of the considerable energy efficiency and conservation and emergency power availability produced by CHP projects, such constraints are incompatible with the policy objectives of Act 129.

B. Comments on Selected Topics and Issues Identified by the Commission

1. Length of Phase III of the EE&C Program

The Commission determined that a three-year term was appropriate for Phase II of the EE&C Program. In Penn State's experience, three years is not enough time for a large institution to budget, plan, design, permit, execute and complete significant EE&C projects. Budgeting and planning procedures mean that industrial, governmental and educational customers' EE&C projects require far more lead time than residential measures. On the other end, institutional EE&C projects tend to be larger and more complex and thus generally require more time to implement than typical residential EE&C measures. Penn State therefore recommends that Phase III of the EE&C Program have a duration of at least five (5) years.

2. Inclusion of a Reduction Target Carve-out for the Government, Educational and Non-Profit Sector

In Phase I, Act 129 required each EE&C Plan to obtain at least ten percent (10%) of the required reductions in consumption and peak demand from units of Federal, State and Local government, including municipalities, school districts, institutions of higher education and non-profit entities (government/educational/non-profit sector or G/E/NP sector). In implementing

Phase II of the EE&C Program, the Commission again required EDCs to obtain a minimum of 10% of all consumption reduction requirements from the government/educational/non-profit sector. The Commission has directed the Statewide Evaluator (SWE) to determine, in both the energy efficiency and the demand response potential studies, the potential for consumption and peak demand reductions in the G/E/NP sector.

Based on its own energy efficiency and conservation experience, Penn State is confident that the SWE will determine that there is cost-effective consumption and/or peak demand reduction potential in the G/E/NP sector within the Act 129 framework. Given the budgetary constraints that G/E/NP customers face, concentration of EDC EE&C efforts in that sector is warranted. Therefore, Penn State recommends that the Commission again include a carve-out for reductions in that sector of at least ten percent (10%).

3. EDCs' Phase III Budgets

a. Accumulated Savings in Excess of Reduction Requirements

In implementing Phase II, the Commission recognized that many of the EDCs had surpassed their Phase I consumption reduction requirement of 3% before the end of the Phase, while still having budget available for the continued provision of measures. The Commission allowed the EDCs to continue spending their budgets to provide Phase I measures until the expiration of Phase I. The Commission also allowed those consumption reductions in excess of the 3% goal to be applied to the EDCs' Phase II targets.

Allowing EDCs to continue spending their budgets to provide Phase II measures after their targets are met will give them the ability to increase their energy efficiency and conservation, thus furthering the objectives of Act 129. Allowing them to apply any resulting excess consumption reductions from Phase II towards their Phase III consumption reduction requirements will give them the incentive to do so. The Commission should therefore (a) allow

for the continued spending of Phase II budgets after targets are met, and (b) allow EDCs to apply any excess consumption reductions from Phase II towards their Phase III consumption reduction requirements.

b. Finalizing Phase II Spending

During its review of the EDCs' Phase I reports and the Phase II EE&C Plans, the Commission encountered an issue in which a measure may have been installed and commercially operable before the end of Phase I, but a rebate application had not been submitted to the EDC until a significant amount of time afterwards, affecting the timing with regard to the EDCs closing their Phase I books. Additionally, questions were raised regarding whether deadlines should be set for rebate applications following the in-service date of the measure. Lastly, issues arose regarding residual Phase I expenses to recover and/or revenue to refund to customers.

EDCs should not be required to develop different application deadlines specific to their programs; such a requirement would introduce needless complexity into the EDC program. Nor should the Commission prescribe different deadlines for the submission of rebate applications for measures installed at the beginning, middle or end of a Phase. Instead, the Commission should prescribe a deadline of 180 days for the submission of rebate applications following the in-service date of the measure. Similarly, EDCs should "true-up" their costs/budgets within 180 days after the end of each phase.

4. Updating the Total Resource Cost Test

In Phases I and II, the Commission established and subsequently reviewed the TRC Test methodology. In order to ensure the TRC Test methodology remains up to date, Penn State recommends that the Commission establish a periodic review and updating process in Phase III. Penn State recommends that the TRC Test methodology be reviewed and updated annually.

III. CONCLUSION

The Commission should implement Phase III of the EE&C Program in a manner consistent with these Comments.

Respectfully submitted,



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