Citizens for Pennsylvania's Future
610 N. Third St.
Harrisburg, PA 17101-1113

May 12, 2015

Rosemary Chiavetta
Secretary of the Commission
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: PUC Docket No. M-2015-2468992

Dear Chairman Chiavetta:

After reviewing other interested parties' comments on the 2016 Total Resource Cost (TRC) Test Order, Citizens for Pennsylvania's Future ("PennFuture"), the Clean Air Council, the Sierra Club, the Natural Resources Defense Council, the Environmental Defense Fund, and the Keystone Energy Efficiency Alliance ("KEEA") (hereinafter "Joint Commentators") have provided the attached reply comments.

Sincerely,

Robert C Altenburg

Robert Altenburg
Director, Energy Center
Citizens for Pennsylvania's Future

Logan Welde

Logan Welde
Staff Attorney
Clean Air Council

Tom Schuster
Sr. Campaign Representative for PA & NJ
Sierra Club

Dick Munson

Dick Munson
Director, Midwest Clean Energy
Environmental Defense Fund

Jackson Morris
Director Eastern Energy
Natural Resources Defense Council

Maureen Mulligan
Policy Director
Keystone Energy Efficiency Alliance

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Act 129 Energy Efficiency	)	
And Conservation Program - 2016	)	**Docket No. M-2015-2468992**
PA Total Resource Cost (TRC) Test	)	

REPLY COMMENTS OF JOINT COMMENTATORS: PENNFUTURE, SIERRA CLUB, ENVIRONMENTAL DEFENSE FUND, CLEAN AIR COUNCIL, KEYSTONE ENERGY EFFICIENCY ALLIANCE, AND NATURAL RESOURCES DEFENSE COUNCIL

Citizens for Pennsylvania's Future (PennFuture), Sierra Club, Environmental Defense Fund, Clean Air Council, Keystone Energy Efficiency Alliance (KEEA) and Natural Resources Defense Council (hereinafter "Joint Commentators") appreciate the opportunity to submit reply comments in response to other interested parties concerning the Public Utility Commission's (Commission) Tentative Implementation Order on the 2016 Total Resource Cost (TRC) Test dated March 11, 2015. These reply comments respond to a number of issues raised and are as follows:

I. Inclusion of O&M Benefits

As we stated in our comments on the TRC Order, Act 129 does not prohibit the inclusion of O&M benefits such as fossil fuel and water costs. PPL Electric agrees that there is no prohibition. However, they recommend that the Commission implement the same TRC methodology that was used for Phase II. PPL Electric provides three reasons as to why they think the TRC test should stay the same. The first is "consistency across phases allows for the comparison of program performance."[1]

We agree that it is desirable to compare program performance across the multiple phases, but including O&M benefits such as reduced fossil fuel or water costs will help ensure that the

[1]PPL Electric Utilities Corporation, 2016 Total Resource Cost (TRC) Test Comments, Docket No. M-2015-2468992, Apr. 27, 2015, 4.

TRC test accurately reflects the real benefits consumers are seeing. It will also not hinder the Commission's ability to review Phase III and compare it with Phase I and Phase II. The Commission could simply remove the O&M benefits from the calculation to see how Phase III compares to the previous phases that did not include O&M benefits and then add the O&M benefits back in to see how they have impacted the TRC ratio. Maintaining business as usual in the name of consistency would not allow the Commission to take into account changes and advances in knowledge with respect to costs and benefits that arguably should have been included in the TRC test from the very beginning of the program.

PPL Electric's second reason is that "the TRC methodology used for compliance needs to be consistent with the methodology used in the Market Potential Study so that benefits are not overstated or understated."[2] Yet, the Market Potential Study states that "the benefits calculated in the TRC usually include the avoided electric supply costs for the periods when there is an electric load reduction; savings of other resources such as *fossil fuels and water*; and applicable federal and state energy efficiency tax credits."[3] Then the Study cites consistency with Act 129 and the 2013 PA TRC Order as the reason why only the electricity savings and avoided operation and maintenance costs are included.[4] We, however, agree with the next paragraph in the Study that says "*all* incremental equipment costs, installation, *operation and maintenance*, cost of removal, and program administration costs are included in this test regardless of who pays for them."[5] Picking and choosing which O&M benefits to include ensures inconsistency, which is what the Commission should be trying to avoid.

---

[2] *Id.*
[3] Statewide Evaluation Team, Pennsylvania Energy Efficiency Potential Study Report, Feb. 2015, 19 [emphasis added].
[4] *Id.* at 19-20.
[5] *Id.* at 20 [emphasis added].

We also agree with PPL Electric that benefits should not be overstated or understated and that is exactly why it is essential to include O&M benefits. Currently, the benefits are being vastly understated because non-energy benefits like fossil fuel and water savings are excluded from the methodology. Including O&M benefits will not affect the market potential. It will merely show the real impact the Act 129 program has had on consumers.

PPL Electric's third reason is that "many of the non-electric benefits such as water reductions, productivity and quality of life issues are difficult to verify and would be burdensome for the customer to identify, calculate, and provide to the EDC."[6] While we agree that verifying non-energy benefits requires additional effort, the result is more accurate than assuming such benefits do not exist.

There is an abundance of data proving that consumers see tangible monetary benefits. In particular, O&M benefits such as fossil fuel and water cost reductions can be verified by calculating the difference energy efficiency measures have made on consumers' bills and that information is readily available. For quality of life issues, consumers could measure their increased comfort levels due to their homes being warmer in the winter, cooler in the summer, etc. They can also tell if their health has been positively impacted by those same benefits of the Act 129 program.

In addition, the Home Performance Coalition (HPC) and the National Efficiency Screening Project's (NESP) Resource Value Framework (RVF) provided to the Commission in HPC and KEEA's comments addresses the issue of verifying benefits.[7] The treatment of benefits section of the RVF states "efficiency screening practices should not exclude relevant benefits on the grounds that they are difficult to quantify. Applying rough or qualitative approximations of

---

[6] *Id.* at 5.
[7] Home Performance Coalition and the Keystone Energy Efficiency Alliance, 2016 Total Resource Cost (TRC) Test Comments, Docket No. M-2015-2468992, Apr. 24, 2015, 3.

hard-to-quantify benefits and costs is preferable to assuming that those benefits do not exist or have no value."[8] The RVF also provides options for verifying non-energy benefits even if it is not possible to put those benefits into "monetary" terms. Estimates may be used (either in terms of a percent of benefits or in terms of $/MWh or $/therm) to approximate the value of the non-monetized benefits. Alternative screening benchmarks such as allowing efficiency programs to be considered in the public interest at pre-determined benefit-cost ratios of less than one is another option. Furthermore, regulators and program administrators can use their best judgment to account for hard-to-quantify benefits. Other ways to quantify benefits are by estimating the tons of emissions avoided, net number of jobs produced, reduced sick days, etc. Once those benefits are quantified, they can "help inform the application of other estimates, alternative benchmarks and regulatory judgment."[9]

Based on a 2011 survey, twelve states include non-energy benefits. Seven of those states include water and fuel savings. Some of the states use a percentage-based adder to account for non-energy benefits, usually amounting to 10%.[10] Adders are "designed to capture or internalize such externalities."[11] A 10% adder would be reasonable for Pennsylvania's TRC test. That is especially true considering research conducted in 2006 on environmental benefits concluded that "including the additional environmental benefits from reducing CO2, NO*x*, SO2, and PM_{10} emissions could add ~10% to the value of energy savings from energy efficiency programs."[12]

---

[8] National Home Performance Coalition, The National Efficiency Screening Project, "The Resource Value Framework Reforming Energy Efficiency Cost-Effectiveness Screening," Aug. 16, 2014, 6-7, http://www.homeperformance.org/sites/default/files/nhpc_nesp-recommendations_20140816.pdf.
[9] *Id.*
[10] CPUC Energy Division staff, Addressing Non-Energy Benefits in the Cost-Effectiveness Framework, 4-5, http://www.cpuc.ca.gov/NR/rdonlyres/BA1A54CF-AA89-4B80-BD90-0A4D32D11238/0/AddressingNEBsFinal.pdf.
[11] California Standard Practice Manual Economic Analysis of Demand-Side Programs and Projects, Oct. 2001, 20, http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC_STANDARD_PRACTICE_MANUAL.pdf.
[12] Kenneth Gillingham, Richard Newell, and Karen Palmer, ENERGY EFFICIENCY POLICIES: A Retrospective

Additionally, the Bonneville Power Administration, a federal nonprofit agency based in the Pacific Northwest, is required by the Pacific Northwest Electric Power Planning and Conservation Act to add a 10% premium in valuing energy efficiency which accounts for all "quantifiable environmental costs"[13] in evaluating generating resources.[14]

In PPL Electric's comments, they also recommend an alternative method for accounting for net-to-gross in the TRC test.[15] The argument they provide is similar to those in favor of including non-energy benefits in the TRC test. For instance, PPL Electric states that the Commission's recommended procedure for factoring net-to-gross ratios into the calculation of the TRC "results in understating the value of savings from certain energy efficiency measures and programs."[16] The change PPL Electric proposes also shows that they are only in favor of keeping the TRC methodology consistent when it comes to excluding O&M benefits.

As an alternative, we could also support the option provided by HPC and KEEA that instead of adding non-energy benefits, the Commission consider "reducing consideration of the total consumer payment, such that the test accounts only for the proportion of the participant's total payment that is relevant specifically to *energy* benefits."[17] As stated by HPC and KEEA, this option would address the Commission and PPL Electric's concerns about the cost and difficulty of verifying non-energy benefits.

We support CAUSE-PA's assertion that "consideration of certain non-energy benefits derived from low income energy efficiency programming, specifically including decreased

---

Examination, *Annual Review of Environment and Resources* 2006. 31:161–92, Jul. 21, 2006, 186, http://web.mit.edu/cron/project/urban-sustainability/Old%20files%20from%20summer%202009/Ingrid/Urban%20Sustainability%20Initiative.Data/Energy%20Efficiency%20Policies%20A%20Retrospective%20Examination.pdf.

[13] 16 USC § 839a(4)(B) and (4)(D), https://www.law.cornell.edu/uscode/text/16/839a.

[14] Regulatory Assistance Project (RAP), Jim Lazar and Ken Colburn, Recognizing the Full Value of Energy Efficiency, Sept. 2013, 13, http://www.raponline.org/document/download/id/6739.

[15] *PPL Electric Comments*, at 7.

[16] *Id.*

[17] *HPC and KEEA Comments*, at 4.

universal service program costs and uncollectible expenses, is contemplated by Act 129 and fits squarely within the definition of the TRC test."[18] Benefits such as reduced universal service program and uncollectible account costs need to be included in the TRC test and they are verified avoided monetary costs shown through reductions in consumers' electric bills. Utilities also reap the benefits of having fewer administrative costs due to reductions in collection and service termination related expenses in addition to more revenue from fewer bad debt write-offs and uncollectible bills.

II. Periodic Review and Updating Process in Phase III and the TRC Test

We support Pennsylvania State University's recommendation that "the Commission establish a periodic review and updating process in Phase III and that the TRC test methodology be reviewed and updated annually."[19] We agree that reviewing the TRC test is not synonymous with changing the TRC test mid-phase. The Commission should be able to review the TRC test throughout Phase III to ensure that the appropriate costs, benefits, technologies, etc. are accounted for. This is especially important considering that, as KEEA and HPC mentioned,[20] the U.S. Environmental Protection Agency's Clean Power Plan will likely have an impact on the program.

---

[18] Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania, 2016 Total Resource Cost (TRC) Test Comments, Docket No. M-2015-2468992, 2.

[19] Pennsylvania State University, 2016 Total Resource Cost (TRC) Test Comments, Docket No. M-2015-2468992, May 1, 2015, 1.

[20] HPC and KEEA Comments, at 5.