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May 31, 2017

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

Re: Comments of Natural Resources Defense Council, Sierra Club, and Clean Air Council on Alternative Ratemaking Methodologies, Docket No. M-2015-2518883

Dear Secretary Chiavetta:

Please find attached comments of the Natural Resources Defense Council (NRDC), Sierra Club, and Clean Air Council concerning the docket referenced above.

If you have any questions concerning the memorandum or the analysis in it, please do not hesitate to call me at 570-447-4019.

Thank you very much.

Sincerely,

Mark Szybist

Mark Szybist
Senior Program Advocate
Energy & Transportation
Natural Resources Defense Council

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Alternative Ratemaking
Methodologies**

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Docket No. M-2015-2518883

**COMMENTS OF NATURAL RESOURCES DEFENSE COUNCIL, SIERRA CLUB, AND
CLEAN AIR COUNCIL**

Dated: May 31, 2017

I. INTRODUCTION

Natural Resources Defense Council (NRDC), Sierra Club, and Clean Air Council submit the following comments in response to the Commission's Tentative Order dated March 2, 2017 ("Tentative Order").

NRDC is a non-profit environmental organization with more than 50,000 members and activists in Pennsylvania. We work nationally and internationally to protect natural resources, public health, and our top institutional priority is curbing emissions of pollutants that cause global warming and building a clean energy future, chiefly through the increased use of energy efficiency and renewable energy resources. NRDC supports actions, including utility ratemaking proposals, that promote efficiency and renewable energy, and oppose actions that are likely to disincentive those resources. In Pennsylvania and several other states, NRDC participates in Energy Efficiency for All, a partnership of organizations that works to expand energy efficiency benefits for low-income persons living in multifamily homes.

Sierra Club is a non-profit environmental organization whose mission is to explore, enjoy, and protect the wild places of the Earth and to practice and promote the responsible use of the Earth's resources and ecosystems. The Sierra Club currently has over 30,000 members in Pennsylvania, all of whom are impacted by electric rate policy. These members have a strong interest in the success of energy efficiency and renewable energy programs, as they can help protect wild places and their ambient environment from the effects of air, water, and other pollution from electrical generation. We would like to see utilities embrace and invest in efficiency and renewable energy, which is much more likely with proper rate reform.

The Clean Air Council is a member-supported Pennsylvania wide environmental health organization. The Council is dedicated to protecting and defending everyone's right to breathe clean air. The Council works through a broad array of related sustainability and public health initiatives, using public education, community action, government oversight, and enforcement of environmental laws. The Council has worked to reduce energy consumption through energy efficiency and education since its inception.

The Commission began this proceeding in 2015 by requesting testimony on whether alternative rate methodologies (1) encourage energy utilities to better implement energy efficiency and conservation programs, (2) are just and reasonable and in the public interest, and (3) are cost-effective. The Tentative Order issued in March, 2017 seeks “comments on, and potential processes to advance, alternative rate methodologies that address issues each utility industry is facing,” and notes that the electric utility industry “has experienced flat or declining energy consumption and demand in recent years.” Before offering substantive comments on alternative ratemaking, we will briefly discuss this and other issues facing electric utilities, and attempt to contextualize them within the issues facing the industry’s customers.

We view the primary issue for electric utilities as uncertainty surrounding their ability to recover their prudently incurred authorized costs of service. For most of the 20th century, electricity use consistently increased in the U.S. at a rate at least twice that of the population. Since then, and increasingly in the last decade, economic growth has decoupled from growth in energy consumption, with electricity sales flattening and have declining in some regions. This trend is likely to accelerate as distributed solar becomes widely affordable and mainstream, energy-efficient technologies continue their steady march, and the economy as a whole is increasingly oriented toward service and knowledge industries than the energy-intensive manufacturing of the past. Meanwhile utilities’ rates in Pennsylvania continue to be based on flat or declining volumetric sales, exposing electric distribution companies (EDCs) to an uncertain future.

Pennsylvania utilities are not alone in facing economic issues. As the Commission knows, many utility customers in the Commonwealth increasingly struggle to make ends meet. For decades, inequality in income and wealth has been increasing in the U.S. In Pennsylvania, middle-income industries have lost 68,000 jobs since 2001, while low- and high- income industries have gained 108,000 jobs. As a result, as the Public Utility Law Project (PULP) has noted on numerous occasions, a staggering number of Pennsylvanians face a high energy cost burden. According to an annual assessment of energy affordability by Fisher, Sheehan, and Colton¹:

¹ Fisher, Sheehan, & Colton, *The Home Energy Affordability Gap 2017* (2nd Series), published April, 2017.

- More than 1.5 million households in Pennsylvania have total household income below 200% of the federal poverty level, and these households pay a significant, and outsized, portion of their income for home energy.
- Families and individuals living at or below 50% of the federal poverty level have staggeringly high energy burdens – paying an average of 28% of their income on home energy costs. Those between 50% and 100% of poverty spend about 15% of their income on energy.
- This translates to a rise in food insecurity, poor health, dangerous living conditions, and even homelessness. This affordability dilemma not only harms low income individuals and families – it also contributes to the overall cost of energy for all Pennsylvanians through increased uncollectible accounts and ongoing programmatic costs.
- Existing programs to assist with energy cost burdens are not adequate to address the home energy affordability gap in Pennsylvania.

For these reasons, we strongly agree with those commenters who have urged the Commission to bear carefully in mind the potential impacts of alternative ratemaking on low-income customers, and we appreciate the Commission’s recognition of the importance of doing so. At the same time, we also strongly support efforts to establish revenue decoupling and performance-based ratemaking (and associated incentive mechanisms for utilities that meet and/or exceed certain benchmarks).

As public interest environmental organizations we are interested in energy policies that reduce harmful air pollution and thereby curb climate change and prevent harmful health impacts. We regard policies to support and drive energy efficiency as the single most cost-effective means to this end, and believe it is critical that utilities be incented, and not disincented, to design and implement aggressive efficiency programs. We believe that a carefully designed decoupling of rates and volumetric energy sales, combined with performance incentives and low-income protections, would be beneficial to all Pennsylvanians – including the most financially vulnerable. By contrast, we find current ratemaking trends – mostly in the direction of increased fixed charges – to be troubling, and believe that they will inevitably exacerbate the energy affordability gap.

A generation ago, in considering demand-side management in the electric utility industry, the Commission observed that “the corporate objective of electric utilities has, to date, been one of increasing demand to increase sales to increase revenues.”² Little in Pennsylvania has changed since then. Now, as electricity demand flattens and declines, utilities’ response to their revenue dilemma has been, as noted above, to reduce revenue risk by increasing fixed customer charges. This is regressive and adds to the energy affordability gap, as lower income customers pay the same higher fixed charges as higher-income customers while consuming less energy. The trend also reduces customers’ financial incentives to conserve energy. In the absence of any serious rate policy reform, and given the broad economic trends highlighted above, we expect this regressive trend to continue.

Increasingly, there is recognition that the utility business model must change in response to current environmental, economic, and energy realities and imperatives. Specifically, from the perspective of our organizations, the traditional utility business model and the regulatory system that supports it must evolve to realign utility incentives with the urgent need to reduce carbon emissions in a way that supports reliability, affordability, grid modernization, and a clean energy future.

The current proceeding could serve as a major step in this direction, and away from increasing attempts by utilities to recover their revenue requirements through fixed charges and residential demand charges that are likely both to discourage efficiency and conservation and impose excessive burdens and moderate- and low-income electricity customers.

We thank the Commission for the opportunity to comment on these important issues.

II. BACKGROUND

On December 31, 2015, the Commission issued a Secretarial Letter scheduling an *en banc* hearing “to seek information from experts regarding the efficacy and appropriateness of

² Order No. I-900005, Re Demand-Side Management by Electric Utilities—Uniform Cost Recovery Mechanism, Dec. 13, 1993, at 18.

alternative ratemaking methodologies, such as revenue decoupling, that remove disincentives that might presently exist for energy utilities to pursue aggressive energy conservation and efficiency initiatives.” The Commission requested comments on whether decoupling or other methodologies would actually incentivize utilities to achieve more efficiency and conservation; whether the benefits of implementing alternative ratemaking methodologies would outweigh the costs; and whether, in light of these and other factors, decoupling and other alternative ratemaking methodologies are just, reasonable, and in the public interest.³

The Commission invited eleven parties to testify at the *en banc* hearing, which was held on March 3, 2016. NRDC sponsored the testimony of one invitee, Mark Newton Lowry of the Pacific Economics Group. After the hearing, the Commission accepted public comments. NRDC and Clean Air Council submitted comments jointly with the Keystone Energy Efficiency Alliance (KEEA); Sierra Club submitted comments separately.

On March 2, 2017, following its review of the testimony and comments submitted to date, the Commission issued a Tentative Order “seeking comments on, and potential processes to advance, alternative rate methodologies that address issues each utility industry is facing,” noting that the electric industry was encountering flat or declining energy consumption and demand due to energy efficiency, fuel-switching, and distributed generation, among other factors. Also on March 2, 2017, Vice Chairman Andrew Place issued a Statement that, among other things, proposed a three-part rate electricity rate featuring demand charges for all customers, including residential customers. The Tentative Order set a comment period for 45 days. On March 23, 2017 the Commission enlarged the comment period to 90 days upon petition by the Office of the Consumer Advocate.

³ The Commission’s Order followed settlement agreements in two base rate cases, one filed by PECO and one by PPL, that provided for decoupling collaboratives. CAC and NRDC intervened in those cases and, along with the Keystone Energy Efficiency Alliance, argued for revenue decoupling as an alternative to the significant increases in customer fixed charges requested by each utility.

On May 25, 2017 NRDC submitted as comments a legal memorandum that addressed at length one of the questions posed by the Commission in its Tentative Order: what types of alternative ratemaking the Commission may engage in under its existing statutory authority.⁴

III. COMMENTS

Preliminarily, since the Commission’s legal authority to engage in alternative ratemaking is fundamental to the other questions the Commission is asking in this proceeding, we will summarize the legal analysis set forth in the memorandum submitted on the docket on May 25. Then we will offer brief comments concerning the use of performance incentives, revenue decoupling, and residential demand charges.

The Commission has asked whether, following the submission of comments in response to the Tentative Order, it should “proceed with policy statements identifying guidelines for preferred alternative rate methodologies for each utility type, under identifiable conditions, and as permitted by law” or instead “initiate rulemakings to require a specific alternative rate methodology for specific utility types or specific rate classes.”

Ultimately, we believe that for Pennsylvania to achieve the levels of energy efficiency that it must if the U.S. is to avoid the worst effects of climate change, certain alternative ratemaking methodologies – including revenue decoupling – must become legally binding on electric utilities in Pennsylvania. However, we also recognize that for various reasons – including statutory limits on the Commission’s alternative ratemaking authority, the contentious history of revenue decoupling in Pennsylvania, and the opposition of utilities to a “one-size-fits-all approach” – the current round of comments is no more likely to result in stakeholder consensus on alternative ratemaking issues than the last round. Consequently, we respectfully request that, as its next step in the proceeding, the Commission should develop one or more policy statements through a stakeholder process where the Commission, utilities, and other stakeholders have an opportunity to collaborate and reach as much agreement as possible. The time is ripe for the

⁴ Available at <http://www.puc.state.pa.us/pcdocs/1522413.pdf>

Commission to put forth a straw proposal that begins to implement much needed ratemaking reforms in Pennsylvania, after it reviews the latest round of filings in this proceeding.

A. Under its existing statutory authority, the Commission has the ability to implement performance incentives and revenue decoupling in connection with Act 129 programs, at least through base rate cases.

The main points in Professor Van Nostrand’s legal analysis are as follows:

- Four major statutes govern the Commission’s authority to incentivize energy efficiency and conservation: Act 114 of 1986, the Electricity Generation Customer Choice and Competition Act of 1996 (“Competition Act”), the Alternative Energy Portfolio Standards Act of 2004, and Act 129 of 2008 (“Act 129”). These statutes are relatively prescriptive with respect to utilities’ duties to procure energy efficiency and renewable energy. Nonetheless, the Commission likely has the authority to implement a broad array of incentive- and performance-based regulatory policies.

- With respect to performance incentives, Pennsylvania law provides two grants of authority for the Commission to implement performance-based ratemaking: section 523 of the Public Utility Code, which was enacted as part of Act 114 of 1986 and requires the Commission to consider a utility’s dedication to efficiency and conservation when determining “just and reasonable rates,” and section 2806(i), which was enacted as part of the Competition Act of 1996 and authorizes the Commission “to use performance-based rates as an alternative to existing rate base/rate of return regulation.” In 1993, in a challenge to an Energy Efficiency Adjustment mechanism that included utility incentives for electricity savings, the Pennsylvania Commonwealth Court struck down the use of a surcharge under section 1307 of the Code to recover incentives, finding that while “there is nothing to prohibit ... a calculation of incentives,” such incentives may be recovered only within a base rate case under section 523. Since then, the Commission has declined to implement performance-based ratemaking in base rate cases, while first recognizing and then rejecting its ability to do so.⁵

⁵ In a 2011 order regarding compliance with section 410(a) of American Recovery and Reinvestment Act of 2009 (ARRA), the Commission stated that it “believes that 66 Pa.C.S. 523(b)(4) provides the Commission with authority to consider positive incentives for EDCs when determining just and reasonable rates in a base rate proceeding based upon an EDC’s success regarding its Act 129 conservation program, and that Act 129 can be read harmoniously

- With respect to revenue decoupling, as many commenters have noted, section 66 Pa.C.S. § 2806.1(k) of Act 129 allows utilities to recover the cost of implementing efficiency and conservation programs through a reconcilable adjustment clause under section 1307, but prohibits the use of an automatic adjustment clause for the recovery of lost revenues. At the same time, section 2806.1(k)(3) provides that decreased revenue and reduced energy consumption may be reflected in a base rate case proceeding filed by an EDC under section 1308. Given this scheme, the Commission can likely implement decoupling in connection with Act 129 lost revenues only through a deferral mechanism, with recovery in a subsequent base rate proceeding. Arguably, the Commission could also implement a performance-based decoupling mechanism between base rate cases, with the percentage recovery of deferred amounts scaled according to a utility’s performance in achieving efficiency target. Such a mechanism would not operate through *automatic* adjustments based on a simple, mathematical process, but rather be conditioned on a utility’s performance. While it could be argued that section 2806.1(k)(3)’s allowance of pro forma adjustments in base rate proceedings addresses the issue to be remedied by a decoupling mechanism, the recovery of lost revenues is only one aspect of decoupling, and does not remove the incentive for utilities to sell more electricity.

B. The Commission should commit to implementing performance incentives for EDC performance in Act 129 programs, and with stakeholders should work to develop incentives that push utilities to achieve efficiency savings that exceed their Act 129 targets and increasing benefits for low-income customers.

As noted in Mark Lowry’s testimony sponsored by NRDC, performance incentive mechanisms (“PIM”) are ratemaking methodologies that use quantitative metrics and targets to

with Section 523(b)(4).” Docket No. I-2009-2099881, Aug. 1, 2011, at 30. The Commission noted that it is important “to distinguish between a positive incentive given to an EDC based on its success in implementing an Act 129 program and any such decreased revenues resulting from an Act 129 energy conservation program.” *Id.* However, in its 2015 Order implementing Phase III of Act 129, the Commission dismissed incentives for utility performance in Act 129 programs as “contrary to the Act” and “nothing more than an additional revenue stream due to reduced consumption, which can only be recovered by EDCs through a distribution rate proceeding.” In its March 2, 2017 Tentative Order in this proceeding, the Commission states that “[t]here is a question as to whether Act 129 permits performance incentives for the large EDCs that are required to implement the Act 129 Energy Efficiency and Conservation (EE&C) program,” and suggests that because Act 129 is “a comprehensive piece of legislation” and does not specifically authorize performance incentives, sections 523(b)(4) and 2806(i) may not allow the establishment of incentives for utility performance in Act 129 programs.

link a utility's revenue to its performance in areas that matter to customers and other stakeholders. They can involve both rewards and penalties, and they generally use load as a metric, with load savings estimated through engineering models or statistical analysis of customer billing data and verified through site visits.⁶

Typically, PIM awards are granted for “attainment of a threshold level of savings which may be higher or lower than the target.” Compensation for load savings can take the form of shared savings, bonuses, management fees, lump sum payments, and the amortization of efficiency expenditures. Demand-side PIMs for electric utilities have been established in 27 jurisdictions, including New York and Ohio,⁷ with most focusing on energy efficiency and some also addressing demand response as well as carbon reductions in a utility service's territory.⁸

Shared savings mechanisms have been the most popular PIM compensation approach, though in some cases more than one type of PIM has been combined within a single incentive package (e.g., shared savings for programs with quantifiable benefits, management fees for education, and marketing programs). While PIMs usually apply to broad areas within a utility's service territory, it is possible for PIMs to be targeted to specific geographic areas – for example, areas where transmission and distribution infrastructure would otherwise need to be upgraded to accommodate growing load.

Based on the Tentative Order, the Commission appears to have two main questions concerning PIMs. First, “there is a question as to whether Act 129 permits performance incentives for the large EDCs that are required to implement the Act 129 Energy Efficiency and Conservation (EE&C) program.” Second, in light of the testimony presented and comments submitted in this

⁶ Lowry acknowledged that “[e]ven with high-quality data ... reliable estimating savings can be challenging,” but cautioned against choosing PIMs based solely on the ease of measurement, since harder-to-measure PIMs may be “equally or more cost effective.” Mark Newton Lowry, *Alternative Regulation for Pennsylvania DSM*, at 25.

⁷ Several states (including California, Minnesota, New York, Ohio, Massachusetts, and Rhode Island) have adopted both revenue decoupling and PIMs for electric utilities. Others (including New Hampshire, North Carolina, South Carolina, Georgia, Wisconsin, Missouri, Arkansas, Louisiana, Texas, Oklahoma, Colorado, New Mexico, and Arizona) have adopted PIMs but not also revenue decoupling.

⁸ The performance metrics adopted by New York in its REV proceeding include enhanced customer knowledge and tools that will support effective management of the total energy bill, market animation and leverage of customer contributions, system-wide efficiency, fuel and resource diversity, system reliability and resiliency, and reduction of carbon emissions. *See*

<http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument>

proceeding in 2016, the Commission has concerns about whether performance incentives are just, reasonable, and in the public interest.

With respect to the first question, we believe that based on the analysis of Professor Van Nostrand summarized above, it is clear that the Commission may authorize efficiency-related performance incentives both for EDCs that are subject to Act 129 and EDCs that are not.

As the analysis notes, the Commonwealth Court has found that “there is nothing to prohibit the determination of a calculation of incentives” so long as the Commission makes incentive-based adjustments based on specific findings in rate cases pursuant to section 523 of the Public Utility Code, rather than through automatic adjustments under section 1307.⁹ Moreover, section 2806(i) of the Code, adopted in Competition Act, provides that the Commission may “use performance-based rates as an alternative to existing rate base/rate of return rulemaking.”

The Commission’s doubts about performance-based incentives in connection with Act 129 efficiency and conservation programs appear to stem from the idea that Act 129 is a “comprehensive piece of legislation,” which, by virtue of not specifically mentioning performance incentives, prohibits them implicitly.

We do not share such doubts. Given the explicit prohibition in section 2806.1(k) of the use of automatic adjustment mechanisms for the recovery of lost revenues, we believe that when the General Assembly wished to prohibit a form of ratemaking in Act 129, it knew how to do so. In the absence of a provision that explicitly forbids the Commission from adopting performance incentives, we believe that Act 129 and section 2806(i) must be read *in pari materia*, as suggested by Professor Van Nostrand.¹⁰

⁹ *Pennsylvania Indus. Energy Coalition v. Pennsylvania Public Utility Comm’n*, 653 A.2d 1336, 1349, appealed granted, 665 A.2d 471, affirmed 670 A.2d 1152 (1995).

¹⁰ In pages 22-24 of his memorandum Professor Van Nostrand analyzes several recent cases in which the Pennsylvania Commonwealth Court reviewed the Commission’s exercise of statutory authority and concluded that if the Commission were to assert its authority under section 2806(i) to implement performance incentives concerning Act 129, “the prospects are relatively good that the Commission’s actions would be upheld” if challenged

As to whether performance incentives for EDCs are just, reasonable, and in the public interest, NRDC submits that they can be – and believes that a stakeholder working group with clear, defined objectives and a finite timeframe for resolution and implementation would be the ideal place to develop standards and criteria for performance incentives (to be incorporated into a policy guidance) to ensure that any incentives approved by the PUC would be just and equitable.

In its March 2, 2017 Tentative Order, the Commission noted that some parties dislike performance incentives because they provide “earnings for utilities for what they should be doing anyway, performance metrics are hard to design to be easily measurable or managed or immune from utility gaming, for utilities it is an opportunity to see deductions from earnings.”¹¹

Indeed, some commenters in this proceeding have opposed incentives, arguing that Act 129 already effectively aligns utility incentives with energy efficiency goals, and has driven significant utility spending and energy savings without any incentives beyond the “carrot” of utilities’ ability to propose pro forma adjustments in base rate cases to reflect lost revenues

Other commenters have questioned whether there is any need for incentives, given that Act 129 imposes penalties for an EDC’s failure to meet its PUC-approved savings targets, and are wary that incentives might do nothing but raise rates and increase utility earnings at the expense of ratepayers.

We believe that the most compelling argument for performance incentives is that, as KEEA notes in its comments, EDCs currently stop spending their Act 129 budgets as soon as they have met the targets in their plans, leaving up to 20% of budgeted funds – and a significant amount of cost-effective efficiency savings – on the table. They have no incentive to exceed their targets because doing so brings no reward, only reduces the amount of electricity they sell and (given the absence of a decoupling mechanism for lost revenues) the amount of the money they make.

In our view, a well-designed PIM would not only provide more incentive for Pennsylvania’s EDCs to spend up to their Act 129 budgets and achieve more cost-effective energy savings; it

¹¹ Tentative Order, at 13, quoting testimony of Richard Sedano, at 4.

would also provide additional efficiency measures and other assistance to low-income consumers, alleviating the significant energy burdens that they face.

For all these reasons, we urge the Commission to work with stakeholders to develop standards and criteria for PIMs that reward EDCs for exceeding their Act 129 targets and that reduce the energy burden of low-income Pennsylvanians.

C. The Commission should authorize decoupling in connection with Act 129 through a deferral mechanism, with recovery to be made in a subsequent base rate proceeding, and should consider the implementation of a performance-based decoupling mechanisms that can operate between base rate cases.

As with performance incentives, the Commission has asked essentially two questions concerning revenue decoupling in the Tentative Order: first, whether the Commission has the authority to implement revenue decoupling, and second, whether it should do so.

As noted above, Professor Van Nostrand's memorandum addresses the issue of the Commission's authority. While section 66 Pa.C.S. § 2806.1(k) of Act 129 prohibits the recovery of lost revenues through the use of an automatic adjustment clause, it appears that the Commission could implement a form of decoupling in connection with Act 129 lost revenues through a deferral mechanism, with recovery in a subsequent base rate proceeding. Arguably, the Commission also has the authority to implement a performance-based decoupling mechanism – with the percentage recovery of deferred amounts scaled according to a utility's performance in achieving efficiency targets – between base rate cases, as such a mechanism would not operate through automatic adjustments based on a simple, mathematical process, but rather be conditioned on a utility's performance.

As to whether the Commission should implement decoupling, we continue to believe that to the extent that the Commission may legally do so, it should implement full revenue decoupling for the reasons set forth in our earlier comments, which we incorporate here by reference. In short, decoupling serves the critical function of making utilities indifferent to their energy sales without abandoning the tradition of volumetric pricing and the incentives that it provides for customers to use energy efficiently. It removes utilities' primary incentive for seeking increases in fixed

customer charges. Empirical evidence has shown that revenue decoupling has minimal rate and bill impacts of in practice.¹² And based on that evidence, we believe that decoupling can be implemented in a way that addresses the concerns raised in this proceeding by the Office of the Consumer Advocate, the Office of the Small Business Advocate, and the Pennsylvania Utility Law Project, which we acknowledge.¹³¹⁴

For all these reasons, we recommend that the Commission clearly state its willingness to implement decoupling in connection with Act 129 lost revenues through a deferral mechanism, with recovery to be made in a subsequent base rate proceeding, and work with stakeholders to develop standards and criteria for decoupling mechanisms, including performance-based mechanisms. We also urge the consideration of performance-based mechanisms that can operate

¹² Previous comments of NRDC and others have noted the 2012 study by Pamela Morgan, *A Decade of Decoupling for U.S. Energy Utilities: Rate Impacts, Designs, and Observations* (Dec. 2012). The most recent decoupling assessment that we are aware concerns an electric and gas decoupling mechanism adopted by Puget Sound Energy (PSE) in Washington State under docket numbers Washington Utilities and Transportation Commission (WUTC) Docket numbers UE-121697 and UG-121705. In the settlements of those matters, PSE agreed to fund third-party evaluations of its decoupling mechanism to assess impacts on consumers in generally, low-income consumers specifically, and conservation program performance. The third-year evaluation for PSE's mechanism was published in January, 2017. See WUTC Docket UE-170033. It determined that overall, PSE's decoupling mechanism worked as intended; that the size of decoupling adjustments was small and "within the normal variations of energy costs from year to year"; that there was no significant difference in decoupling impacts for low-income residential customers and non-bill assisted residential customers; that there was no conclusive evidence to suggest that the decoupling mechanism had any adverse effects; and that decoupling had helped to support "an organizational reality in which it is okay for staff to exceed goals and in which DSM and renewable energy are included in a positive organizational outlook."

¹³ In the 2012 dialogue *Finding Common Ground Between Consumer and Environmental Advocates*, available at <https://www.nmlegis.gov/handouts/WNR%20072715%20Item%206%20Finding%20Common%20Ground%20Betw een%20Consumers%20and%20Advocates.pdf>, NRDC's Ralph Cavanagh and John Howat of the National Consumer Law Center engaged in a detailed discussion about decoupling that offers a good starting point for discussions about how decoupling can be implemented with robust protections for consumers. With respect to the concerns raised by Pennsylvania's consumer, business, and low-income advocates, we agree that in the design of a decoupling mechanism, care should be taken to ensure protections for low- and moderate-income households that generally have low participation rates in efficiency programs.

¹⁴ These concerns point to the limitations of simple cost-benefit analysis as rule of social decision, a topic explored by economists such as James Boyce. In his landmark paper, *Inequality as a Cause of Environmental Degradation*, Boyce observed that "[c]ost-benefit analysis prescribes a precise rule to govern social decisions: an environmentally degrading activity should be pursued as long as its marginal net impact on society is positive. The latter is calculated, in theory, as the sum of marginal benefits and costs to everyone affected, including the external costs of pollution and resource depletion. In practice, this calculation is often quite difficult, but my concern here is not practical difficulties, but the theory itself. It is possible, indeed likely, that not everyone affected by the activity will derive a net benefit. Some will bear net costs. But as long as the winners could in theory compensate the losers, and still win, the activity is deemed 'socially efficient' and passes the cost-benefit test." James K. Boyce, *Inequality as a Cause of Environmental Degradation*, *Ecological Economics*, vol. 11, 1994. The concerns raised by the Office of the Consumer Advocate and others in this proceeding are similar, except that they concern potential adverse effects of an activity acknowledged to be generally beneficial: the pursuit of increased energy efficiency.

with appropriate oversight between base rate cases. We agree that as other commenters have recommended, this process should include a thorough review of potential rate and bill impacts and consider impacts on a wide variety of households, including low-usage customers, low-income customers, renters, and customers with inelastic usage because of health needs.

D. The Commission should not implement residential demand charges in any form, but instead consider implementing better alternatives such as expanded use of Time of Use (TOU) rates.

Contemporaneously with the Tentative Order, Vice Chairman Place issued a Statement that, among other things, proposed and requested comment on a three-part electricity rate consisting of a customer charge to recover metering and service line extension costs, a coincident demand charge to cover basic distribution grid capital and fixed grid operating costs, and a volumetric charge to cover other variable costs and operating expenses.¹⁵ As proposed, the rate would be implemented over nine years in three-year increments, costs would be allocated between rate classes in the same way that they are now, and the portion of the rate consisting of demand charges would be “net metered” to the extent that the demand charges reduce coincident peak demand.

While we appreciate Vice Chairman Place’s interest in balancing the need to incentivize efficiency and other demand-side management activities with ensuring that EDCs a reasonable opportunity to earn a fair return on their investments, we do not support the three-part rate he has proposed because we do not support demand charges for residential customers. We respectfully suggest that instead of implementing residential demand charges, the Commission should consider actions to increase EDCs’ implementation of Time of Use rates, whereby customers’ volumetric fee for electricity varies depending on the season or time of day.

¹⁵ Vice Chairman Place noted that the three-part rate was based on comments previously submitted in this proceeding by PECO, PPL, and FirstEnergy, i.e., the Pennsylvania EDCs subject to Act 129. All EDCs argued for demand charges to residential customers on the grounds that this would better reflect cost causation principles. PECO, in its comments, observed that the movement of its commercial and industrial customers to demand-based rates has resulted in more “appropriate price signals than current rate methodologies.” PECO comments at 5. Similarly, PPL and FirstEnergy argued that because costs of providing service for distribution operations are customer-based or demand based, it is inconsistent with cost-causation principles for a large portion of residential distribution revenue to be collected through a usage charge. PPL Comments, at 3. FirstEnergy Comments, at 20.

Generally speaking, our organizations believe that rate designs for electric utilities must support customer choices for electricity that is clean, affordable, and reliable; that when a rate design is proposed, its impacts on all customers must be evaluated and equitably balanced, with protections provided for low-income customers; that utilities should have a reasonable opportunity to recover their authorized revenue requirements on a timely basis, regardless of fluctuations in electricity use, and should collect costs mainly through volumetric usage charges, rather than large fixed charges; that rate designs should take into account that the cost of electricity service varies on a seasonal and daily basis, and should direct load towards times of lower-cost service; and that untested rate designs should be vetted and supported by credible data before being widely implemented.

We oppose demand charges for residential customers because while such charges have long been used for billing large industrial and residential customers, the U.S. has little experience with *residential* demand charges. Moreover, there is a proven alternative to residential demand charges: time-of-use-rates and other time-varying rates, such as critical peak pricing and peak time rebates.¹⁶

Demand charges recover part of an EDC's revenue requirements based on a customer's highest usage during the month, and are increasingly being proposed for residential customers as a way to stabilize utility revenues, reduce system costs at periods of peak electricity demand, and address questions of fairness (e.g., around the perception of cost-shifting from net-energy-metered customers to other customers).¹⁷

But non-coincident demand charges (such as those typically used for industrial customers) “are a shortcut, measuring each customer's individual highest usage during a month, regardless of

¹⁶ For a review of the limited instances where residential demand charges have been used in the U.S., and of how they have affected customer behavior in the U.S., see Brendon Baatz, *Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency* (American Council for an Energy-Efficient Economy, March, 2017), at 7, 15-19. For additional in-depth discussions of residential demand charges, see Jim Lazar, *Use Great Caution in Design of Residential Demand Charges* (Natural Gas & Electricity, February, 2016) and Chernick et al., *Charge Without a Cause: Assessing Electric Utility Demand Charges on Small Consumers* (Electricity Rate Design Review Paper No. 1, July 18, 2016).

¹⁷ See Lazar, *id.*

whether the usage was coincident with the system peak,¹⁸ and coincident-peak demand charges of the kind proposed in Vice Chairman Place’s statement “have other shortcomings, leaving some customers with more than their share of costs and others with none at all...”¹⁹ Demand charges “run counter to the ratemaking principles of simplicity, understandability, public accessibility, and feasibility of application,”²⁰ and in the age of smart meters regulators can target cost recovery more precisely by “focusing on well-defined peak and off-peak periods of the month, not just a single hour of usage. This more precise usage data makes demand charges a largely antiquated approach for all customer classes – and particularly inappropriate for residential consumers.”²¹

TOU rates – which set higher electricity prices at well-defined peak-usage hours that are communicated to customers in advance – are a superior alternative to residential demand charges because they send clearer and more targeted signals to customers than demand charges do and can allow customer bills to remain largely volumetric. And while the impacts of demand charges are uncertain, the effect of TOU rates on peak period usage are well documented.²²

Act 129 requires EDCs to submit “one or more proposed time-of-use and real-time price plans by January 1, 2010, or at the end of the applicable generation rate cap period, whichever is later.”²³ Under the statute, TOU rates must be offered to all customers who have smart meters, and residential and commercial customers must be given the opportunity to participate in time-of-use rates or real-time pricing. In a 2015 decision²⁴ concerning a TOU plan offered by PPL Electric Utilities Corporation (PPL), the Pennsylvania Commonwealth Court held that EDCs must offer TOU rates themselves, rather than relying exclusively on electric generation suppliers to offer them, and in response the Commission has issued a Secretarial Letter that sets forth a proposed TOU program design guidance for PPL and that “may be considered as guidance for [all] EDCs, thereby permitting EDCs the flexibility to propose other alternatives and/or

¹⁸ *Id.*, at 15.

¹⁹ *Id.*

²⁰ Chernick *et al.*, *id.*, at 11.

²¹ Lazard, *id.*, at 15-16.

²² See Baatz, *id.*

²³ 66 Pa.C.S.A. 2807(f)(5).

²⁴ *Dauphin County Indus. Development Authority v. Pennsylvania Public Utility Com'n*, 123 A.3d 1124 (Cmwlth. Ct., September 9, 2015).

modifications regarding their TOU operations that can be analyzed and approved by the Commission as part of their individual default service proceedings.’’²⁵

Given the many virtues of TOU rates, the clear drawbacks of demand charges, and the fact that because of AMI technology installed pursuant to Act 129, Pennsylvania’s EDCs are well positioned to implement TOU rates, we join KEEA in urging the Commission to recognize TOU rates as a superior alternative to demand charges in electricity rate design, and to take further steps in this proceeding to expand their use.

IV. CONCLUSION

We thank the Commission for the opportunity to comment in this proceeding, and respectfully request that the Commission give serious consideration to the ratemaking proposals set forth above, and convene a stakeholder working group with clear objectives to help develop policy guidance and a straw proposal on alternative ratemaking.

Mark Szybist, Esquire
**Senior Program Advocate, Pennsylvania
Natural Resources Defense Council**
1152 15th Street NW, Suite 300
Washington, DC 20005
(202) 289-242 (office)
(570) 447-4019 (cell)
mszybist@nrdc.org

Tom Schuster
**Sr. Campaign Representative
Sierra Club**
PO Box 51
Windber, PA 15963
(814) 467-2614 (office)
(814) 915-4231 (cell)
tom.schuster@sierraclub.org

Joseph Otis Minott, Esquire
**Executive Director, Chief Legal Counsel
Clean Air Council**
135 S. 19th Street, Suite 300
Philadelphia, PA 19103
(215) 567-4004
joe_minott@cleanair.org

²⁵ Secretarial Letter, April 6, 2017, Docket No. P-2013-2389572; Docket No. M-2016-2578051.