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October 22, 2018

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 Commission's Proposed Policy Statement Concerning Distribution Rates and Alternative Ratemaking Methodologies, Docket No. M-2015-2518883

Dear Secretary Chiavetta:

Please find attached comments of the Natural Resources Defense Council, Sierra Club, and Clean Air Council concerning the Commission's Proposed Fixed Utility Distribution Rates Policy Statement in the docket referenced above.

Thank you very much.

Sincerely,

Mark Szybist
Senior Attorney and Pennsylvania Advocate
Natural Resources Defense Council

Tom Schuster
Senior Campaign Representative
Sierra Club

Logan Welde
Staff Attorney
Clean Air 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: October 22, 2018

INTRODUCTION & GENERAL COMMENTS

Natural Resources Defense Council, Sierra Club, and Clean Air Council (hereinafter “Joint Commenters”) appreciate the opportunity to submit these comments in response to the Public Utility Commission’s (“Commission”) Proposed Policy Statement Order dated May 3, 2018. Our comments are focused on rate design, and to a lesser extent ratemaking, for Pennsylvania’s electric distribution companies (EDCs).

The Natural Resources Defense Council (“NRDC”) is a nonprofit environmental organization with more than 1.4 million members and online activists, including nearly 54,000 in Pennsylvania. Since our founding in 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world’s natural resources, its public health, and the environment. NRDC’s top institutional priority is curbing emissions that cause climate change and building a just and equitable clean energy future—a priority that can be advanced by ramping up investments in energy efficiency and distributed solar generation, investments which are partly dependent on utility rates.

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, and the vast majority receives electricity and/or gas service from utilities regulated by the Commission. These members have a strong interest in ratemaking and rate design due to the impacts of those policy decisions on their financial ability to invest in solar, electric vehicles, and energy efficiency measures. They also share an interest in reducing pollution from electricity generation and fossil fuel extraction. Sierra Club has also submitted to this docket a petition signed by 889 of our members and supporters calling for rate policy that enables the achievement of environmental outcomes.

Clean Air Council is a member-supported environmental organization serving the Mid-Atlantic Region. 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.

Regardless of the design or process for setting them, utility rates create incentives for customer behavior. That behavior, in turn, impacts the costs associated with maintaining or expanding the utility’s distribution system, which in large part determines the utility’s revenue requirement that rates are designed to collect. It is therefore imperative that rates encourage the efficient use of the utility’s distribution system.

Climate change, which is driving increases in the frequency and intensity of extreme weather, also drives utility costs in the form of greater expenditures on power restoration and preemptive grid hardening. Fossil fuel combustion for electricity, heating, and transportation is the primary

driver of climate change. The latest report from the Intergovernmental Panel on Climate Change (IPCC) indicates that we must reduce carbon pollution by 45 percent from 2010 levels by 2030, and reach “net zero” carbon emissions around 2050 in order to limit warming to 1.5 degrees Celsius and prevent ecosystem disruption on a scale that would have catastrophic effects on human economies, health, and well-being.¹ Doing so will require that we dramatically expand our use of energy efficiency as well as our use of renewable energy, and that we use the cleaner electricity that results to power more of our vehicles and buildings.² The analysis calls for electric vehicles to account for 60 percent of our car vehicle-miles by 2050, and a smaller percentage of our medium-duty vehicle miles

Utility rates create incentives or disincentives for fossil fuel consumption by encouraging or discouraging investments in energy efficiency, distributed solar, transportation electrification, and building electrification. As the state agency responsible for setting utility rates, and also for cost-effectively implementing state level efficiency and renewable energy policy (via Act 129 and the Alternative Energy Portfolio Standard respectively), the Commission has an obligation to ensure that the incentives created by rates do not run counter to the achievement of these policy objectives.

Furthermore, Article I, Section 27 of the Pennsylvania Constitution states:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

Article I, Section 27 creates individual rights to environmental attributes, establishes that Pennsylvania's public natural resources are the property of all the people, including future generations, and makes the Commonwealth and its constituent units of government the trustees for the environment on behalf of the people. Recent decisions of the Pennsylvania Supreme Court have affirmed that Article I, Section 27 means what it says, and that state administrative agencies -- executive, local, and independent -- have an obligation to consider and apply the provision when making decisions that may affect the environment.³ Therefore, although the

¹ IPCC, *Global Warming of 1.5 °C: An IPCC special report on the impacts of global warming of 1.5 degrees C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (October 8, 2018). Available at: <http://www.ipcc.ch/report/sr15/>

² See Natural Resources Defense Council, *America's Clean Energy Frontier: Pathways to a Safer Climate Future*, which determined that the United States can cost-effectively reduce emissions of greenhouse gases by 80% in 2050 principally by taking these steps.

³ See *Robinson Township v. Commonwealth*, 83 A.3d 901 (Pa. 2013), in which a plurality of the Court held sections of the Oil and Gas Act of 2012 unconstitutional under Article I, Section 27 and articulated key principles concerning the interpretation and application of the constitutional provision) and *Pennsylvania Environmental Defense Foundation v. Commonwealth*, 161 A.3d 911 (Pa. 2017), in which a majority of the Court affirmed the Robinson Township principles as law. See also *Center for Coalfield Justice and Sierra Club v. Commonwealth of*

restructuring of Pennsylvania’s electricity sector relieved the Commission of jurisdiction over the approval and siting of power plants, the Commission must consider the environmental impacts of its decisions regarding rates, and establish rate policy that is consistent with decarbonization imperatives.

As it does so, the Commission must look forward, not backward. It has long been assumed, including in the Proposed Policy Statement, that flat or declining load will continue indefinitely and that this will undercut electric utility revenues. However, transportation electrification and the maturation of heat pumps for space and water heating are likely to reverse that trend. One study projects load increase of up to 52% over the next 30 years.⁴ Rate designs that encourage customer investments in efficiency and solar energy, as well as encourage conservation behaviors, may be different from rate designs that encourage transportation and building electrification.

Historically, the Commission has used a fairly limited set of rate designs. The predominant rate design is a flat volumetric rate, wherein a customer is charged a fixed amount per unit of energy consumed, on top of a small fixed monthly fee. This rate design is problematic insofar as it does not reflect cost differentials depending on time of use, and offers no customer incentive to shift consumption behavior to less costly times. It is therefore unhelpful in addressing issues of system capacity utilization, which were rightly flagged as paramount in Chair Brown’s statement accompanying the Proposed Policy Statement Order.

Even more problematic is the trend that we have witnessed in recent rate cases wherein utilities request excessive increases to fixed customer charges in order to reduce their exposure to anticipated declines in volumetric sales. This practice is regressive, in that it penalizes lower income customers who tend to live in smaller homes and consume less energy.⁵ It also decreases the customer incentive for conservation behaviors, and increases the payback period for investments in efficiency and distributed solar. It does not accurately reflect cost causation, and as beneficial electrification occurs, fixed customer charges will encourage increases in customer demand without regard to whether it coincides with the system demand. We call on the Commission to more clearly state that it will look unfavorably upon rate proposals that increase the fixed customer charge.

We also call on the Commission to take a position against Lost Revenue Adjustment Mechanisms (“LRAMs”). These were expressly prohibited by Act 129, but could be allowed under Act 58. LRAMs allow utilities to recoup lost revenue that is a direct result of efficiency investments. They are problematic because they do not account for increased utility sales that are

Pennsylvania, Department of Environmental Protection, and Consol Pennsylvania Coal Company, 2017 WL 3842580 (Pa.Env.Hrg.Bd., Aug. 15, 2017) (applying Article I, Section 27 to mining permit issued by the Department of Environmental Protection.

⁴ See Electric Power Research Institute, *U.S. National Electrification Assessment* (April, 2018), available at <http://ipu.msu.edu/wp-content/uploads/2018/04/EPRI-Electrification-Report-2018.pdf>

⁵ Baatz, Brendon, *Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency*. ACEEE Report U1703 (March 21, 2017), available at <https://aceee.org/research-report/u1703>

unrelated to efficiency, and they do not eliminate the “throughput incentive” for utilities, which the Joint Commenters have discussed in previous comments.

Instead, we call on the Commission to embrace revenue decoupling, as provided for by Act 58 of 2018 (“Act 58”). We agree with the Regulatory Assistance Project (RAP) that “a well-designed decoupling mechanism both removes the utility throughput incentive and allows rates to be set at or very near long-run marginal costs. These are the two key policy objectives that are integral to the successful implementation and sustainability of energy efficiency.”⁶ Decoupling can also ensure that when per-customer consumption and capacity utilization increases, as is expected under electrification projections, utilities do not receive windfall profits and savings are returned to customers (even customers who do not increase their consumption), via a reduced volumetric rate. This is critical for ensuring that investments in electrification infrastructure are made equitably.

There are many variants of decoupling, which should be considered by the Commission on a case-by-case basis. The Commission should also encourage utilities to adopt rate designs that are supportive of the First Order Principles cited in Commissioner Place’s May, 3, 2018 Motion,⁷ that do not disproportionately burden, lower income customers, and that incent customers’ behaviors that reduce consumption of fossil fuels.

SPECIFIC COMMENTS CONCERNING THE SCOPE AND PURPOSE OF THE POLICY STATEMENT

I. The Commission should harmonize the Policy Statement with its Act 58 Implementation Order by clarifying what policy initiatives the Commission will consider important when reviewing rate requests, identifying beneficial electrification as such a policy initiative, and providing additional guidance concerning the alternative ratemaking methodologies authorized by Act 58.

A. *The declaration of policy in Act 58 is different from the declaration of policy in the “Purpose and Scope” section of the Commission’s draft Policy Statement.*

Section 69.3301 of the Commission’s draft Policy Statement, “Purpose and Scope,” states as follows:

Due to Federal and State policy initiatives to promote the efficient use of electricity, natural gas and water, as well as policy initiatives to promote distributed energy, the fixed utilities within this Commonwealth have seen minimal, flat or even declining load growth. The purpose of this policy statement is to invite the proposal, within a utility's base rate proceeding, of fixed utility distribution rate designs that further promote these

⁶ Migden-Ostrander, J., and Sedano, R., Regulatory Assistance Project, *Decoupling Design: Customizing Revenue Regulation to Your State’s Priorities*, at 39 (2016).

⁷ Available at <http://www.puc.pa.gov/pdocs/1565057.pdf>

Federal and State policy objectives, reduce fixed utility disincentives for promoting these objectives, provide incentives to improve system economic efficiency, avoid future capital investments, and ensure that fixed utilities receive adequate revenue to maintain the safe and reliable operation of their distribution systems. At the same time, an alternative rate design methodology should reflect the sound application of cost of service principles, establish a rate structure that is just and reasonable, and consider customer impacts.

Two days before the Commission released the draft Policy Statement, the Pennsylvania House of Representatives passed House Bill 1782. After passage in the state Senate three weeks later, Governor Wolf signed HB 1782 into law on June 28, 2018 as Act 58 of 2018. The statute took effect on August 27.

Act 58 expands the range of alternative ratemaking methodologies that, subject to approval by the Commission in a base rate case, fixed utilities may use in the Commonwealth. In addition to authorizing four specific methodologies – revenue decoupling, performance-based ratemaking, multi-year rate plans, and formula rates – Act 58 authorizes “rates based on a combination of more than one” of these methodologies, as well as “other ratemaking mechanisms as provided under this chapter.”

Act 58 also includes a “declaration of policy.” It states:

- (1) *Innovations in utility operations and information technologies are creating new opportunities for all customers, and it is in the public interest for the commission to approve just and reasonable rates and rate mechanisms to facilitate customer access to these new opportunities while ensuring that utility infrastructure costs are reasonably allocated to and recovered from customers and market participants consistent with the use of the infrastructure.*
- (2) *It is the policy of the Commonwealth that utility ratemaking should encourage and sustain investment through appropriate cost recovery mechanisms to enhance the safety, security, reliability or availability of utility infrastructure and be consistent with the efficient consumption of utility service.*

Following the enactment of Act 58, the Joint Commenters and several other parties filed a letter in this docket requesting that the scope of the Policy Statement be expanded to include implementation of ratemaking methodologies authorized under the statute, and that the comment period on the draft Policy Statement be extended to allow interested parties time to comment on implementation.

On August 14, 2018, the Commission granted the request to enlarge the comment period, but did not speak directly to relationship between the Policy Statement and Act 58. The Commission stated:

The Commission recognizes the importance and complexity of the issues raised in the Proposed Policy Statement Order and the passage of Act 58 of 2018 (relating to alternative ratemaking for utilities) after the entry date of the Order. The Commission also recognizes that a thorough and complete record will better inform the Commission, the public utilities, consumers and other interested stakeholders on these important ratemaking issues.

Shortly afterward, on August 23, 2018, the Commission issued a Tentative Implementation Order (“TIO”) concerning Act 58 and opened a new docket, M-2018-3003269, to seek public comment. Of the declaration of policy in Act 58, the TIO states:

The Commission has previously recognized and proposed similar policy goals in the Fixed Utility Distribution Rates Policy Statement proceeding at Docket No. M 2015 2518883. While not requiring specific action by the Commission, the Commission will consider the policy goals contained in Section 1330(a) of the Code, as well as other applicable policy goals established by statute, regulation or case law, when reviewing requests to change base rates for natural gas distribution companies (NGDCs), electric distribution companies (EDCs), water or wastewater utilities or city natural gas distribution operations.

In comments filed in this docket on October 2, 2018, the Consumer Advisory Council to the Commission observed that “the Commission’s Policy Statement Order that is the subject of these comments complements its Act 58 Tentative Implementation Order in that it is designed to provide guidance ... about the specific factors that the Commission will consider in determining whether to approve or deny any proposed alternative rate designs in [a] utility’s general base rate case,” while the Act 58 Order prescribes the procedures by which a utility may request use of an alternative ratemaking methodology.

The Joint Commenters agree that, as proposed for comment in their respective dockets, the draft Policy Statement and draft Act 58 Implementation Order are complementary – the former essentially substantive, the latter essentially procedural. But the procedural nature of the TIO only highlights the need for the Commission to address the substantive policy issues raised by Act 58 in the Policy Statement, and to reconcile the different expressions of policy goals in Act 58, on one hand, and the draft Policy Statement, on the other.

As the Commission has noted, the goals in Act 58 are similar to those in the draft Policy Statement. However, there are differences. For example, while the draft Policy Statement invites the proposal of rate designs that “avoid future capital investments,” the declaration of policy in Act 58 encourages utility investment “to enhance the safety, security, reliability, or availability of utility infrastructure.” While the draft Policy Statement proposes support both for rate designs that promote “the efficient use of electricity, natural gas, and water” and designs that promote distributed energy resources (“DER”), Act 58 is silent on DER, and its language concerning efficiency is more ambiguous: ratemaking should “be consistent with the efficient consumption

of utility service.” While Act 58 addresses both ratemaking (“alternative rate mechanisms”) and rate design (“alternative rates”), it emphasizes ratemaking. The draft Policy Statement, on the other hand, emphasizes alternative rate design.

We agree with the Commission that when it reviews utility rate requests, it may consider “other applicable policy goals established by statute, regulation or case law” in addition to those set forth in Act 58. We also believe that the various differences between the declaration of policy in Act 58 and the draft Policy Statement are not necessarily inconsistencies, and that they can be harmonized by the Commission. But we also believe that it is important for the Commission to speak to the discrepancies directly, and reconcile them clearly. In the following section, we provide recommendations on how the Commission may do so.

- B. *The Commission has the authority to promote policy goals for alternative ratemaking that are consistent with Pennsylvania law and responsive to relevant developments in the utility industry, the circumstances of Pennsylvania’s utility customers, and the economy.*

Under the Public Utility Code, the Commission has “the general administrative power and authority to supervise and regulate all public utilities doing business within this Commonwealth,”⁸ and may exercise its authority either through the issuance of legally binding regulations under section 501(b) or through the issuance of policy statements in accordance with the Commonwealth Documents Law.⁹

That statute defines “statement of policy” as “any document, except an adjudication or a regulation, promulgated by an agency which sets forth substantive or procedural personal or property rights, privileges, immunities, duties, liabilities or obligations of the public or any part thereof, and includes, without limiting the generality of the foregoing, any document interpreting or implementing any act of Assembly enforced or administered by such agency.”¹⁰

The Commission’s Policy Statement on alternative ratemaking, being a policy statement, will not be binding on any fixed utility that requests approval of an alternative ratemaking mechanism.¹¹ On the other hand, because the Policy Statement will not have the force of a regulation, the Commission has, as supervisor of Pennsylvania’s public utilities under section 501, broad discretion to express in the Policy Statement how it believes utilities should be responding to current technological, economic, and social developments.

In exercising this discretion, however, the Commission must, as noted above, bear in mind its duties under Article I, Section 27 of the Pennsylvania Constitution.

⁸ 66 Pa.C.S. § 501(b)

⁹ See 45 P.S. § 1102(13)

¹⁰ 45 P.S. § 1102(13)

¹¹ See., e.g., *Borough of Bedford v. Com., Dept. of Environmental Protection*, 972 A.2d 53 (Pa. Commw. 2009).

Both in the Act 58 Implementation Order and the Policy Statement, the Commission should signal cognizance of its duty to act in a manner consistent with Article I, Section 27 of the Pennsylvania Constitution when reviewing alternative ratemaking requests by fixed utilities.

At a minimum, this means considering the impacts that ratemaking methodologies – alternative and conventional – will have on how much energy is consumed in the Commonwealth, how clean that energy is, and how customers are enabled and incentivized to reduce their consumption and take advantage of clean energy resources.

- C. *The Policy Statement should include the beneficial electrification of Pennsylvania’s transportation sector and buildings as an important policy consideration for the Commission.*

Section 69.3301 of the Commission’s draft Policy Statement, “Purpose and Scope,” currently provides that the purpose of the Statement is to invite the proposal of “fixed utility rate designs” that support and promote “Federal and State policy initiatives to promote the efficient use of electricity, natural gas and water, as well as policy initiatives to promote distributed energy, reduce fixed utility disincentives for promoting these objectives, provide incentives to improve system economic efficiency, avoid future capital investments, and ensure that fixed utilities receive adequate revenue to maintain the safe and reliable operation of their distribution systems.”

The PUC explains that the intent of this section is “to establish what the Commission views as important policy initiatives that must be considered in designing and establishing rates for all classes of fixed utility customers. It is not intended to convey all policy initiatives that are to be considered, or that these policy initiatives are to be considered above all other ratemaking principles, but to identify these policy initiatives as important to the Commission.”

The Joint Commenters support the current “Purpose and Scope” section to the extent that it expresses support for EE and DER initiatives and seeks to discourage future capital investments that can be avoided by further increasing EE and DER.

But we also believe that section 69.3301 should endorse the goal of beneficially electrifying Pennsylvania’s transportation and building sectors, and of encouraging strategic utility investments that serve this purpose.

The Policy Statement’s observation that load growth among electric utilities has been flat or declining in recent years is accurate as a reflection of the present and the recent past, and consonant with a “death spiral” characterization of the electric utility industry popularized by *Disruptive Challenges*, a 2013 report by the Edison Electric Institute that forecasted that utilities could expect to face rising costs, revenue erosion, reduced profits, and slumping creditworthiness.

Looking forward, however, there will likely be substantial growth in utility loads, requiring additional capital investment, due to “beneficial electrification” – so called because it refers to uses of electricity that are geared toward reducing greenhouse gas (“GHG”) emissions.

These beneficial uses include electric vehicles (“EVs”) to displace petroleum-based transportation, heat pumps to replace natural gas-, oil- and propane-fueled space heating, and high-efficiency electric water heating to replace the use of natural gas for water heating.

With respect to EVs in particular, RAP observes that:

“Electrification promises to transform the current transportation market, enabling utilities to capture revenues currently spent on fossil fuels, enhance their ability to manage the grid and integrate renewable resources, improve environmental outcomes, and provide their consumers with new products and services.”¹²

Similarly, the market for ductless heat pumps is growing 10 to 30 percent annually and, as noted by RAP, “[t]he electricity grid needs to prepare for this additional load, particularly where policies target electrification of residential space and water heating to reduce emissions.”

Consideration of these additional uses of electricity may complicate the Commission’s analysis when it reviews ratemaking and rate design proposals. For example, rate designs that may improve the cost-effectiveness of DERs and energy efficiency—such as lower customer charges and higher volumetric rates—may have the opposite impact with respect to the economic attractiveness of beneficial uses of electricity for EVs and heat pumps, which would benefit from lower volumetric rates.¹³

But we urge the Commission take beneficial electrification into account now, when it is in its relative infancy in Pennsylvania. In the years ahead, such uses are likely to dominate the electric utility industry as the transportation industry is transformed to reduce greenhouse gas emissions, and electricity is increasingly used for space and water heating to displace greenhouse-gas emitting fuels.

Meanwhile, identifying beneficial electrification as an important policy initiative is a logical way for the Commission to reconcile the draft Policy Statement’s goal of reducing capital investments with the language concerning infrastructure in the declaration of policy in Act 58, which arguably is more encouraging of such investments. The capital investments that the Commission should favor, when reviewing rate requests, are those that support beneficial electrification, DER, and the decarbonization of Pennsylvania’s economy. Investments that could

¹² Ken Colburn, Regulatory Assistance Project, “Beneficial Electrification: a Growth Opportunity” (February 1, 2017), available at <https://www.raponline.org/blog/beneficial-electrification-a-growth-opportunity/>

¹³ This is not to say that rates should not send accurate price signals to customers, e.g., through time-varying rates. Indeed, increased electrification makes clear and accurate price signals even more important, from the perspective of capacity utilization.

be avoided through energy efficiency and DER, and through rates and ratemaking methodologies that support efficiency and DER, should be viewed with circumspection.

For all these reasons, we respectfully request that the Commission consider: (1) revising the “Purpose and Scope” section of the Policy Statement to identify beneficial electrification as an important policy initiative that the Commission will consider, when reviewing rate requests, and (2) including, as a consideration in the “Distribution rate considerations” section of the Statement, how proposed rate designs and ratemaking mechanisms will affect incentives for, and costs of beneficial electrification.

Specifically with respect to transportation electrification, the Joint Commenters also respectfully urge the Commission to consider the recommendations in the report titled *Driving Transportation Electrification Forward in Pennsylvania: Considerations for Effective Transportation Electrification Ratemaking*, which NRDC commissioned from Synapse Energy Economics, Inc. and submitted on this docket on October 15, 2018.¹⁴

II. The Policy Statement should include guidance for revenue decoupling, performance incentives, multi-year rate plans, formula rates, and other ratemaking methodologies authorized under Act 58 that the Commission views as supportive of important policy initiatives.

A footnote in the Commission’s Tentative Implementation Order for Act 58 states that “at Docket No. M-2015-241883, the Commission has proposed a policy statement that is intended to provide guidance for fixed utilities and interested stakeholders on what the Commission will consider when investigating alternative ratemaking methodologies proposed in Section 1308.”

We strongly support the Commission’s intent, but believe that for that intent to be realized the Policy Statement must include more detailed guidance concerning the alternative methodologies authorized in Act 58.

As we noted in our letter to the Commission on August 2,¹⁵ the Commission’s proposed Policy Statement and Order focus on rate *design* while addressing the alternative *ratemaking* methodologies authorized by Act 58 only to a limited extent, in part due to doubts expressed by numerous parties concerning the legality.¹⁶

¹⁴ Melissa Whited, et al., Synapse Energy Economics, Inc., available at <http://www.synapse-energy.com/sites/default/files/PA-EV-Rates-Report-18-021.pdf>; docketed in this proceeding at <http://www.puc.pa.gov/pdocs/1589772.pdf>

¹⁵ Docketed at <http://www.puc.pa.gov/pdocs/1579468.pdf>

¹⁶ With respect to the distinction between rate design and ratemaking, and the significance of that distinction to this Docket, the Joint Commenters endorse the comments of the Advanced Energy Economy (AEE) Institute. AEE notes that while ratemaking and rate design are related, they are distinct concepts, with the term “ratemaking” commonly recognized as describing the process for deciding a utility’s revenue requirement and term “rate design” as describing the methods by which the revenue requirement is collected from customers in the form of tariffs. As AEE comments, rate design is widely understood as the method by which customers receive signals to manage

The enactment of Act 58 has eliminated the uncertainties concerning the Commission’s legal authority to approve alternative ratemaking methodologies. The final Policy Statement should reflect this fact by addressing alternative ratemaking methodologies in greater detail. The Commission is well-positioned to expand the Statement in this way, consistent with expressed intent, because three mechanisms authorized by Act 58 – revenue decoupling mechanisms, performance-based rates, and multi-year plans – have been discussed extensively in the Docket (and are discussed briefly in the Commission’s Proposed Policy Statement Order).

The Joint Commenters have discussed our positions on revenue decoupling, performance incentives, and other alternative ratemaking mechanisms authorized by Act 58 in comments previously submitted in this Docket. We will not rehearse those comments here, only note that we have outlined how decoupling with performance incentives and consumer protections can help the Commonwealth achieve its clean energy policy outcomes, while other methodologies such as high fixed customer charges and demand charges can be counterproductive. We urge the Commission to adopt clear policy guidance concerning these alternative ratemaking methodologies that steers utilities towards the policy objectives that the Commission values and wishes to support and promote.

SPECIFIC COMMENTS CONCERNING SECTION 69.3302, “DISTRIBUTION RATE CONSIDERATIONS”

The Joint Commenters generally support the non-inclusive distribution rate considerations proposed in section 69.3302, which the Commission proposes to employ “in determining just and reasonable distribution rates that promote the efficient use of electricity, natural gas or water, as well as the use of distributed energy resources.”

However, we provide the following observations and suggestions for modification of some considerations, (in addition to the recommendation in the previous section of these comments that the Commission include, as a new consideration, the impact that a proposed ratemaking methodology or rate design may have on the beneficial electrification of Pennsylvania’s transportation and building sectors).

69.3302(a)(1) How the rates align revenues with cost causation principles as to both fixed and variable costs.

While we agree that the Commission should consider “cost causation principles” when reviewing rate requests, we do not think those principles should be given undue weight. First, the Commission is charged with balancing a number of objectives in rate design in addition to cost causation, including economic efficiency and consistency with other policy objectives of the Commission. In some cases, a rate design that is claimed to reflect cost causation principles -- e.g., a high customer fixed charge -- may be entirely contrary to the achievement of broader

consumption and behavior in beneficial ways, while ratemaking is an important way to send signals to utilities and influence their behavior and decision-making.

policy goals, such as expansion of DER deployment, increased energy efficiency investments or promoting beneficial electrification.

Second, experts disagree as to what rate designs indisputably reflect cost causation. The process of performing a cost of service study involves dozens of judgment calls, and often there is no self-evident answer concerning how particular costs should be assigned. As a result, cost-of-service experts can offer “cost-based” studies with a wide range of outcomes. “The economic judgments required in rate proceedings are often hopelessly complex,” Chief Justice Rehnquist observed in *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 314 (1989), “and do not admit of a single correct result.” For this reason, it would be imprudent for the Commission to place too much weight on the principle of cost causation, when considering rate requests.

69.3302(a)(2) How the rates impact the fixed utility’s capacity utilization.

Time-of-use rates offer the most promise for increasing capacity utilization. The effectiveness of these rates in influencing customer behavior can be improved greatly by offering real-time information about changing rates to customers, and by deploying direct load control for high-demand appliances.

When coupled with the above features, the impact of beneficial electrification should be to increase capacity utilization. In particular, it can be anticipated that EVs will take advantage of smart-charging technology by charging during off-peak hours, which similarly will increase a fixed utility’s capacity utilization.

69.3302(a)(3) Whether the rates reflect the level of demand associated with the customer’s anticipated consumption levels.

This is a consideration commonly offered by utilities to justify imposition of demand charges on residential customers, particularly for customers with DERs. In recent years, electric utilities in Pennsylvania and throughout the country have proposed rate filings with significant increases in customer charges, reduced volumetric energy charges, and new demand charges, under the guise of accurately reflecting “cost causation” and avoiding the “cross-subsidization” of customers who have DERs by those who do not. As a practical matter—and perhaps purposefully, given the interests of many utilities in seeking to dampen the rush to DERs—such proposals dramatically extend the payback period for investing in DERs, thereby inhibiting the rate of growth of DERs.

Regardless of their impact on DERs, demand charges are a highly problematic rate mechanism, and should be viewed by the Commission with great circumspection. At least when based on a customer’s instantaneous peak demand over an extended period of time, with no consideration as to whether the customer’s peak demand coincides with the peak demand of the system, they will not be effective at preventing overtaxing of the distribution system. In place of demand charges, the Commission should encourage time-of-use rates and direct load control. Critical peak pricing could be more effective at protecting system reliability than demand pricing, and should be explored by the Commission. However, care should be taken to ensure customers have sufficient

notice of critical peak events to make informed choices and the Commission should consider whether some customers should be exempt.

69.3302(a)(4) How the rates limit or eliminate inter-class and intra-class cost shifting.

Although we agree that rate design proposals should be evaluated with alleged costs shifts in mind, we respectfully suggest that the Commission should not place undue weight on this factor, given the divergence of opinions on how such analyses should be performed.

Individual rate designs *within* a customer class typically do not have much impact on inter-class cost shifting, which, when it occurs, is largely the function of a cost-of-service study that allocates a utility’s revenue requirement across the various customer classes. As noted above, cost-of-service studies can produce a wide range of suggested outcomes, depending upon how judgment is exercised in resolving the myriad of cost assignment issues that a typical cost-of-service study entails.

The design of rates can affect whether or not *intra-class* cost- shifting is occurring, but here too experts differ as to when and to what extent cost-shifts are occurring. For example, utilities have argued in recent years that in the absence of high customer charges and demand charges, customers with DERs are not paying their fair share of the costs of maintaining the utility grid, and effectively being subsidized by non-generating customers, so that , costs need to be shifted to customers with DERs and rates for that those customers designed accordingly. But recent studies have suggested both that what cost-shifts are occurring are relatively small, and that the value that DERs provide to the grid is not adequately recognized.¹⁷ With respect to intra-class shifting too, then, “cost causation” is not a simple concept, and we believe that the Commission should avoid placing too much weight on it.

69.3302(a)(5) How the rates limit or eliminate disincentives for the promotion of efficiency programs.

A properly designed revenue decoupling mechanism should reduce or eliminate the disincentives that Pennsylvania’s EDCs may otherwise have to promote efficiency programs. Decoupling, however, is a ratemaking issue rather than a rate design issue. On the other hand, high fixed customer charges (or, in the extreme, Straight Fixed Variable (“SFV”) rates) may limit or eliminate disincentives for the promotion of efficiency programs, but they also eliminate the incentive for customers to actually participate in those programs – which increases the cost of efficiency programs tremendously. For these reasons we urge the Commission to signal a

¹⁷ See, e.g., Barbose, G., Lawrence Berkeley National Laboratory, *Putting the Potential Rate Impacts of Distributed Solar into Context* (January, 2017) and Rhodium Group, *What Is It Worth? The State of the Art in Valuing Distributed Energy Resources*, prepared for U.S. Department of Energy (January, 2017)

predilection for well-designed revenue decoupling mechanisms and against high fixed customer charges and SFV rates.

69.3302(a)(6) How the rates impact customer incentives to employ efficiency measures and distributed energy resources.

As noted above, a rate design with higher customer charges and lower energy charges will generally reduce the cost-effectiveness of customers deploying energy efficiency measures and DERs. As the Commission acts to achieve the broader clean energy objectives in Pennsylvania, it will thus be important for the Commission to take these impacts into account. At the same time, as noted above, beneficial electrification will become increasingly important in the coming years as the transportation sector is transformed to reduce GHG emissions, and rate design should be mindful of the impacts on these uses of electricity as well.

69.3302(a)(7) How the rates impact low-income customers and support consumer assistance programs.

We strongly support the Commission’s consideration of the potential impacts on low- and middle-income consumers, with respect both to rate design and alternative ratemaking methodologies. With the enactment of Act 58 the Commission has an opportunity, through its Policy Statement, to guide utilities away from the high fixed customer charges. As the Commission is aware, rate designs with high customer charges are generally disadvantageous to low-income customers, because given their lower consumption of energy, a higher unavoidable customer charge imposes a proportionately higher bill increase upon them than it does on other customers, while limiting their opportunities to reduce their bills and disincentivizing participation in weatherization programs.

Rollout of new rate designs, such as time of use or critical peak pricing, should consider impacts on low-income customers and allow opt-out or hold harmless provisions to reduce harm to customers that already have a high energy burden or lack resources to respond to incentives in time-of-use rates.

69.3302(a)(8) How the rates impact customer rate stability principles.

The Commission should take an expansive view of “rate stability.” If the objective is simply to reduce variability on a month-to-month basis, then this objective would favor Straight Fixed Variable rate designs. But SFV rates completely mask daily or seasonal cost differences of service provision, are regressive, and encourage excess consumption, which will create the need for more capital investment and increase rates in the longer term.

69.3302(a)(10) How the rates impact the frequency of rate case filings and affect regulatory lag.

Rate design has very little effect on the frequency of rate case filings. Ratemaking mechanisms such as decoupling, however, can reduce the frequency of rate filings by ensuring that utilities continue to recover their fixed costs and earn their allowed returns, notwithstanding declining usage per customer due to energy efficiency programs. Similarly, automatic adjustment mechanisms to recover fuel costs, riders or surcharges for energy efficiency investments, infrastructure investments, and similar items, are ratemaking mechanisms that have the effect of reducing the frequency of rate case filings.

69.3302(a)(12) Whether the alternative rate mechanism includes appropriate consumer protections.

We agree that for alternative ratemaking mechanisms, no less than for conventional ratemaking mechanisms, the Commission should require adequate consumer protections, and support the articulation of a non-exclusive list of factors to be considered, as the Commission sets forth in proposed §69.3303(b)(1) (stating that any weather normalization adjustment or revenue per customer ratemaking proposal must “[a]ddress consumer protection issues including revenue adjustment dead-bands, seasonal adjustment limitations, adjustment timelines, and any just and reasonable cost of capital adjustments.”)

69.3302(a)(13) Whether the alternative rate mechanism is understandable and acceptable to consumers and comports with Pennsylvania law.

That the mechanism be understandable is an important consideration, and alternative rate mechanisms should be designed with this in mind. The Commission is free, of course, to reject proposed ratemaking mechanisms and rate designs that it deems to be confusing to customers. Similarly, alternative rate mechanisms must be consistent with Pennsylvania law, and the Commission certainly has the expertise to determine compliance, as well as the authority to reject proposals that it deems unlawful.

It is likely that rate designs that encourage customer behaviors that maximize capacity utilization will be more complex than conventional rates, as they will have to vary with time, and may even respond to actual conditions. This creates a need for enhanced communication with customers, such as smart phone apps that notify or remind a customer that the volumetric rate is about to change, or a critical peak pricing period has been called.

(b) In any distribution rate filing by a fixed utility under 66 Pa. C.S. § 1308 (relating to voluntary changes in rates), the fixed utility shall explain how these factors impact the distribution rates for each customer class.

Many of these factors would appear not to have any effect on distribution rates for individual customer classes. Consequently, imposing a requirement on utilities to explain how each of these factors affects distribution rates for each customer class may be a challenging exercise and produce irrelevant explanations. The Commission should consider addressing this issue when it examines the general filing requirements for utilities seeking rate changes under §1308, and

undertake to evaluate which of these factors actually come into play at the time that utilities make rate filings.

SPECIFIC COMMENTS CONCERNING SECTION 69.3303, “ILLUSTRATION OF POSSIBLE DISTRIBUTION RATEMAKING AND RATE DESIGN OPTIONS FOR THE ENERGY INDUSTRY”

The Joint Commenters respectfully submit that section 69.3303 of the proposed Policy Statement, “Illustration of possible distribution ratemaking and rate design options for the energy industry,” should, if retained at all, be revised to discourage the use of demand charges and minimize the percentage of customer bills comprised of the fixed customer charge.

Demand charges are problematic for a variety of reasons, particularly when they apply to residential customers.¹⁸ Demand charges tend to greatly increase bills for lower income customers, and do not account for neighbors’ peak usage occurring at different (possibly complementary) times. Most critically, an individual’s peak usage in a particular month is unlikely to coincide with the peak system demand during that month, and the peak system demand during many months may be well below the system’s actual capacity. Consequently, it makes little sense to base a high percentage of a customer’s bill on usage during a short time period that may have no relationship to their cost to the system.

In addition to sending highly distorted price signals to consumers related to their peak consumption, demand charges also discourage investments in efficiency, DERs, electric vehicles, and heat pumps because efficiency and conservation efforts that would otherwise be rewarded can be undone if multiple high amperage appliances happened to be used at the same time.

As we have discussed in our previous comments, time-of-use rates are much more effective in encouraging customers to shift energy consumption to times when the grid is underutilized and helping to avoid demand spikes. Such rates may include critical peak pricing,¹⁹ which employs a significantly higher volumetric charge during limited periods of time when the grid is operating at maximum capacity. These events do not follow a scheduled pattern, would be infrequent, and would require customer notification in order to impact behavior.

With respect to fixed customer charges (§ 69.3303, paragraph (c)(1)), we agree with the assessment of Lazar and Gonzalez who state that “the only truly customer-specific costs, which vary with the number of customers on a typical urban/suburban electric grid, are service drops, meters, and billing services.”²⁰ These are the only cost components that are appropriate to

¹⁸ Lazar, J., “Use Great Caution in Design of Residential Demand Charges. *Natural Gas & Electricity* (February, 2016), available at <https://www.raonline.org/wp-content/uploads/2016/05/lazar-demandcharges-ngejournal-2015-dec.pdf>

¹⁹ See, *Driving Transportation Electrification Forward in Pennsylvania*, supra.

²⁰ Lazar, Jim and Wilson Gonzalez, Regulatory Assistance Project, *Smart Rate Design for a Smart Future* (July, 2015), available at <http://www.raonline.org/wp-content/uploads/2016/05/rap-lazar-gonzalez-smart-rate-design-july2015.pdf>

include in fixed customer charges. Costs associated with the rest of the distribution system, including transformers, can vary depending on the amount of energy consumed and the degree to which the peak consumption of individual consumers coincides. This is the essence of the OCA's comment that "costs are variable in the long run" as endorsed in the Statement's First Order Principles.²¹ In order for a utility to efficiently manage those costs, its customers must receive price signals that encourage efficient behavior, which is clearly not the case with fixed charges that are inflated with electricity distribution costs.

CONCLUSION

We appreciate the opportunity to provide comments on the Commission's proposed Policy Statement and its ongoing exploration of alternative ratemaking, now under the auspices of Act 58. We hope that the Commission recognizes the critical role that utility rates play in the Commonwealth's ability to achieve its clean energy and efficiency priorities. In order to reduce pollution, achieve efficient grid use, protect customers, and enable the growth of emergent clean technologies, rates and ratemaking methodologies must be designed both to remove the throughput incentive for utilities and to provide consumers with actionable price signals.

²¹ Public Utility Commission, Proposed Policy Statement Order at 29.