

July 31, 2017

Chairman Brown  
Vice Chairman Place  
Commissioner Coleman  
Commissioner Powelson  
Commissioner Sweet  
Pennsylvania Public Utilities Commission  
P.O. Box 3265  
Harrisburg, PA 17105-3265

Re: Alternative Ratemaking Methodologies, Docket No. M-2015-2518883.

Dear Chairman Brown and fellow Commissioners:

The American Council for an Energy-Efficient Economy (ACEEE) welcomes the opportunity to provide written reply comments on the proceeding on alternative ratemaking methodologies. ACEEE appreciates the Commission's interest in exploring complicated issues associated with alternative ratemaking. ACEEE also appreciates the Commission's leadership in implementation and support of the Act 129 energy efficiency programs. Energy efficiency is a valuable low-cost energy resource which provides many benefits to residents and business in the Commonwealth.

In addition to reply comments, we reiterate our previous comments and recommendations to the commission to consider the implementation of full revenue decoupling, reasonable performance incentives for efficiency programs, and cost based ratemaking that does not negatively affect other state policy goals.

Our reply comments are focused on several specific issues raised by other parties in this proceeding. Several parties offered recommendations to the commission for specific policies such as the use of lost revenue adjustment mechanisms (LRAM), straight fixed variable rate design (SFV), full revenue decoupling, formula rate plans, and other issues. While we support some of the proposals as best practice to balance the utility and customer interests, we contend other recommendations could be harmful to electric customers in Pennsylvania and detrimental to state policy goals of reducing overall consumption outlined in Act 129.

#### I. Full Revenue Decoupling Versus Lost Revenue Adjustment

In its comments, First Energy supports the use of lost revenue adjustment mechanisms to reduce risk of cost recovery to utilities. ACEEE has completed significant research on the results of this type of policy.<sup>1</sup> We find that LRAM does not eliminate the throughput incentive because total revenues are not reconciled, also increasing the likelihood of utilities overearning authorized revenues. LRAM is also

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<sup>1</sup> See "Valuing Efficiency: A Review of Lost Revenue Adjustment Mechanisms." American Council for an Energy-Efficient Economy. [aceee.org/valuing-efficiency-review-lost-revenue-adjustment](http://aceee.org/valuing-efficiency-review-lost-revenue-adjustment).

overly burdensome for utilities, stakeholders, and Commission staff to track and review. The calculation of lost revenue is a very specific calculation based on hundreds of thousands of energy saving measures with different measure lifetimes. To track and ensure accuracy of the lost revenue recovery mechanism is highly complex and overly burdensome.

Full revenue decoupling is a much simpler approach to solving the problems of revenue recovery outlined by First Energy. Other commenters, including PPL, proposed decoupling as an appropriate policy to address these concerns. We agree with PPL's recommendation on decoupling. A decoupling mechanism eliminates the throughput incentive and ensures a utility earns authorized revenues. A symmetrical decoupling mechanism also refunds customers when utilities earn revenues above the authorized amount. This policy reduces risk for utilities and customers by ensuring a utility earns its authorized revenues, but no more and no less. Full revenue decoupling also does not require the high administrative burden of tracking lost revenues associated with efficiency programs. This also minimizes the potential litigation battles which are introduced through implementation of LRAM.

Recommendation: ACEEE recommends the Commission adopt full revenue decoupling as a policy to ensure stable revenue recovery. ACEEE does not recommend lost revenue adjustment mechanisms for reasons discussed herein.

## II. Straight Fixed Variable (SFV) Rate Design

Several electric distribution companies provided comments in favor of SFV rate design. This type of rate design is not cost based and sends very poor price signals to customers to conserve electricity. In theory, SFV collects all costs considered "fixed" in a fixed monthly charge and all variable costs in volumetric rates. This differs from traditional customer charges by including costs of all shared distribution infrastructure into an average cost per customer. The primary arguments in favor of this rate design are based in revenue stability and cost causation. ACEEE agrees that the use of SFV rate design improves revenue stability for utilities, but strongly disagrees this approach is cost based. In fact, SFV rate design and the assertion that "all fixed costs should be recovered in fixed charges" is false.

SFV collects the same monthly charge (and fixed costs) for all customers within a class, regardless of customer size. A large customer would pay the same level of fixed costs as a small customer, regardless of any other circumstance. These customers may (and often do) impose different costs on the distribution system. For example, a single family home in the suburbs or rural areas will cost more to serve than a customer living in small urban apartment. Under SFV, these customers would be billed the same fixed charge, thereby significantly overcharging one customer while under charging another.

Straight fixed variable rate design also promotes increased consumption because it reduces the price signal to customers to conserve electricity. Several decades of studies on customer response to different electricity prices provide substantial evidence that customers respond to changes in volumetric rates. SFV rate design substantially reduces the volumetric rate and reduces the portion of the bill that customers can control by lowering usage, thereby promoting increased consumption for customers. In a recent study, the Regulatory Assistance Project estimates a possible increase in consumption of 15%

for a utility moving to SFV rate design.<sup>2</sup> The increase in consumption would drive higher utility system costs because of needed infrastructure investments necessary for higher demand.

**Recommendation:** ACEEE strongly recommends the Commission reject proposals for SFV rate design. This type of rate design is not cost based and sends very poor price signals to customers to conserve electricity.

### III. Distribution Rate Design and Energy Efficiency

According to several recent surveys, bill savings are the primary reason customers engage in energy efficiency programs.<sup>3</sup> The bill savings (and associated payback periods) are dependent on the volumetric energy rate paid by customers. Several parties provided comments in support of rate design policies that would reduce the volumetric distribution rate, thereby reducing customer incentive to participate in Act 129 programs. PECO, writing in support of SFV rate design, stated “the Company expects customer participation in efficiency programs would continue to be driven by the commodity cost of electricity or natural gas – not distribution rate design.”<sup>4</sup> However, when reviewing a bill for a residential customer using 1,000 kWh a month, moving from current rate design to straight fixed variable would drastically reduce the customer incentive to participate in programs. Table 1 shows the breakdown of a customer’s bill under current rates.

Table 1. Monthly bill for PECO customer using 1,000 kWh per month under current rate design (constructed using rates active 7/25/2017, not including taxes, fees, and riders)

Description	Charge or rate	\$/month	% of bill
Customer charge	\$8.45	\$8.45	6%
Distribution	\$0.06598 /kWh	\$65.98	45%
Transmission	\$0.00688 /kWh	\$6.88	5%
Generation	\$0.06419 /kWh	\$64.19	44%
Total		\$145.50	

The table shows for a customer using 1,000 kWh a month, 45% of the total bill or about \$66 dollars per month is from volumetric distribution charges. Under current rate design, this customer can reduce this amount through conservation or efficiency. Under SFV rate design, these charges would be recovered in the customer charge, reducing the controllable portion of a customer’s bill by 45%. Table 2 shows what this bill would look like under SFV.

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<sup>2</sup> See “The Spector of Straight Fixed/Variable Rate Deigns and the Exercise of Monopoly Power.” Regulatory Assistance Project. [raponline.org/wp-content/uploads/2016/05/appendix-d-smart-rate-design-2015-aug-31.pdf](http://raponline.org/wp-content/uploads/2016/05/appendix-d-smart-rate-design-2015-aug-31.pdf).

<sup>3</sup> See “Rate Design Matters: The Intersection of Residential Rate Design and Energy Efficiency.” American Council for an Energy Efficient Economy. [aceee.org/research-report/u1703](http://aceee.org/research-report/u1703).

<sup>4</sup> See PECO comments at 10.

Table 2. Monthly bill for PECO customer using 1,000 kWh per month under straight fixed variable rate design (constructed using rates active 7/25/2017, not including taxes, fees, and riders)

Description	Charge or rate	\$/month	% of bill
Customer charge	\$74.43	\$74.43	51%
Transmission	\$0.00688 /kWh	\$6.88	5%
Generation	\$0.06419 /kWh	\$64.19	44%
Total		\$145.50	

Under this scenario, the fixed portion of the increases from 6% to 51%. This same hypothetical customer would no longer be able to use conservation or efficiency to reduce their bill. This also reduces the price signal for this customer to save electricity, moving from volumetric charges of approximately 13 cents per kWh to 6.5 (doubling the payback period for an energy efficiency measure). Considering bill savings are the primary driver for customer investment in energy efficiency, movement towards SFV rate design could have detrimental effects on statewide efforts to reduce energy consumption.

Recommendation: ACEEE recommends that the Commission consider price signals to customers when determining rate design. Rates provide customers price signals about how to efficiently use electricity. Some rate proposals, like straight fixed variable, provide customers no actionable information and lack basis in cost causation.

Sincerely,



Brendon Baatz  
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American Council for an Energy-Efficient Economy