



Via electronic submission

March 16, 2016

Secretary Rosemary Chiavetta
Pennsylvania Public Utilities Commission
P.O. Box 3265
Harrisburg, P.A. 17120-3265

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

Secretary Chiavetta,

On behalf of Northeast Energy Efficiency Partnerships (NEEP),¹ please accept our comments regarding Alternative Ratemaking Methodologies, submitted to the Commission on March 16, 2016, in response to the Commission's request for public comment within its "Notice of En Banc Hearing."² NEEP is a regional non-profit that works to accelerate energy efficiency in homes, buildings and industry across the Northeast and Mid-Atlantic states. Our Policy Outreach and Analysis group serves as an information resource for policymakers, program administrators, Commissions, and others to support the adoption and implementation of public policies and programs that advance energy efficiency.

1. Introduction

As one of the nation's six Regional Energy Efficiency Organizations (REEOs), NEEP follows dockets and discussions through the Northeast and Mid-Atlantic region, and is uniquely positioned to offer perspective gained in other applications of alternative ratemaking throughout the states. Below we highlight insights from national-level resources on alternative ratemaking methodologies, as well as identify the impacts such policies have had within our region.

The American Council for an Energy Efficient Economy (ACEEE) observes that successful utility energy efficiency programs utilize three strategies to place energy efficiency on balanced footing with comparable supply side investments: (1) Allowing cost recovery for program expenditures; (2) Addressing the through-put incentive; and (3) Providing an earning opportunity for energy efficiency investments.³

Since the Commission has explicitly requested guidance on regional best practices around lost margin recovery mechanisms and incentive regulation tied to energy efficiency and conservation programs,⁴ our comments below address only: (1) The through-put incentive; and (2) Earnings opportunities associated with energy efficiency investments.

¹ These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners.

² Pennsylvania Public Utility Commission. Docket No. M-2015-2518883. Notice of En Banc Hearing on Alternative Ratemaking Methodologies. Available at: <http://www.puc.state.pa.us/pcdocs/1404767.doc>

³ Kushler, Martin. Energy Efficiency as a Utility System Resource: Some Thoughts for New Hampshire. (May 2014) Slide 37. Available at: <http://gencourt.state.nh.us/statstudcomm/committees/1079/documents/Kushler%20Presentation%20-%20Energy%20Efficiency%202015.pdf>

⁴ *Supra*, at note 2.

2. Addressing the Through-Put Incentive

Under traditional cost-of service ratemaking, utilities are motivated to increase sales revenues as a means of providing a return on investment to shareholders. In a restructured state like Pennsylvania, as increasing sales (kWh) require greater capacity (kW) from the grid during a given year, a distribution utility can grow value for their shareholders through investments in distribution system buildouts required to satisfy capacity needs. This motivation is known as the through-put incentive. In order to prevent e this through-put incentive from discouraging utility investments in energy efficiency, regulators have turned to alternative ratemaking strategies such as decoupling, or lost revenue adjustment mechanisms. The U.S. Environmental Protection Agency (US EPA) recently published a comparison of these two approaches, meant to guide policy makers as they seek to reduce carbon emissions and cut energy costs, summarized below in Figure 1.

Figure 1. US EPA Comparison of Policies for Removing Disincentives to Energy Efficiency

Policy	Pros	Cons
<p>Revenue decoupling: Policy that sets the utility's revenues at a fixed amount for a specific term to match the amount of anticipated costs incurred plus an appropriate profit.</p>	<ul style="list-style-type: none"> o Revenue decoupling weakens the link between a utility's sales and margin recovery. This reduces utility reluctance to promote energy efficiency, including building codes, appliance standards, and energy efficiency programs. o Through decoupling, the utility's revenues are stabilized and shielded from fluctuations in sales. Some have argued that this, in turn, might lower utility risk and cost of capital (CA Energy Consulting 2007; Delaware PSC 2007).^a The degree of stabilization is a function of adjustments made for weather, economic growth, and other factors (some regulations do not adjust revenues for weather or economic growth-induced changes in sales).^b o Decoupling does not require an energy efficiency program measurement and evaluation process to determine the level of under-recovery of fixed costs.^c o Decoupling has low administrative costs relative to specific lost revenue recovery policies. o Decoupling reduces the need for frequent rate cases and corresponding regulatory costs. o States have experience implementing revenue decoupling over several years. 	<ul style="list-style-type: none"> o Rates (and in the case of gas utilities, non-gas customer rates) can be more volatile between rate cases, although annual caps can be instituted (Graceful Systems 2012). o Where carrying charges are applied to balancing accounts, the accruals can grow quickly. o The need for frequent balancing or true-up requires regulatory resources; however PUC resources to implement decoupling are much less than those required to conduct more frequent rate cases. o
<p>Lost revenue recovery mechanisms: Policy that allows a utility to recoup lost revenue associated with not selling additional units of energy.</p>	<ul style="list-style-type: none"> o Removes disincentive to energy efficiency investment in approved programs caused by under-recovery of allowed revenues. o 	<ul style="list-style-type: none"> o Does not remove the throughput incentive to increase sales. o Does not remove the disincentive to support other energy saving policies. o Complex to implement given the need for precise evaluation; will increase regulatory costs if it is closely monitored. o Proper recovery (no over- or under-recovery) depends on precise evaluation of program savings.

Source: United States Environmental Protection Agency's Energy and Environment Guide to Action: State Policies and Best Practices for Advancing Energy Efficiency, Renewable Energy, and Combined Heat and Power.⁵

⁵ United States Environmental Protection Agency. Energy and Environment Guide to Action: State Policies and Best Practices for Advancing Energy Efficiency, Renewable Energy, and Combined Heat and Power. (2015) Page 7-51. Available at: https://www3.epa.gov/statelocalclimate/documents/pdf/guide_action_full.pdf

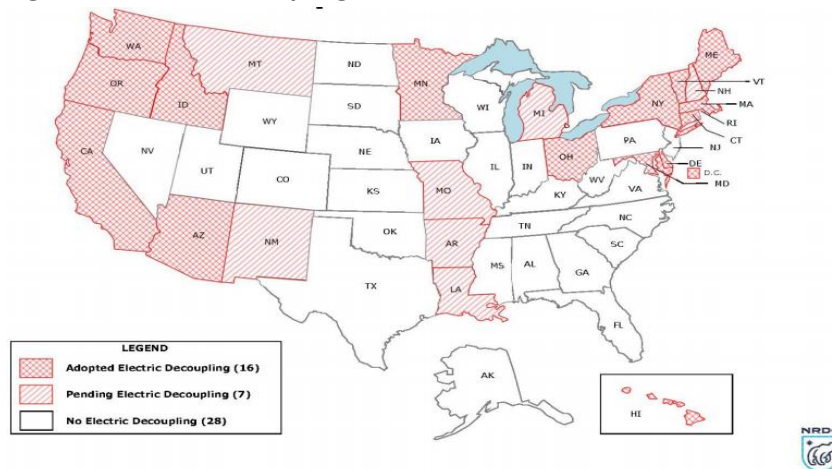
2.1. Revenue Decoupling

Revenue decoupling is one popular strategy for regulators seeking to remove utility disincentives to investments in energy efficiency. Within the US EPA's above-mentioned analysis, they provide an extensive description of decoupling, as well as its impacts on the through-put incentive:

“Decoupling is a variation of conventional PBR, and it is sometimes referred to as a particular form of “revenue cap.” Under this approach, a utility’s revenues are fixed for a specific term, in order to match the amount of anticipated costs incurred plus an appropriate profit. Alternatively, a utility’s revenues per customer could be fixed, or some other revenue adjustment system can be used, thus providing an automatic adjustment to revenues. If the utility can reduce its costs during the term through energy efficiency, DG, or other system efficiencies, it will be able to increase its profits. Furthermore, if a utility’s sales are reduced by any means, including efficiency, DG, weather, or economic swings, under-collections will be recovered from customers and the utility’s revenues will not be affected. The effect is symmetrical; unexpectedly higher sales and the resulting higher revenues will return money to customers. This approach eliminates the throughput incentive and does not require an accurate forecast of the amount of lost revenues associated with energy efficiency or DG.”⁶

In the past decade, revenue decoupling has become a popular tool for regulators throughout the country. Figure 2 provides a map of states that have embraced revenue decoupling for electric utilities as of September 2015.

Figure 2. Electric Decoupling in the United States



Source: Nissen and Williams. “The Link between Decoupling and Utility-led Energy Efficiency”. ACEEE Energy Efficiency as a Resource Conference. (September 2015)⁷

⁶ *id.* at page 7-51

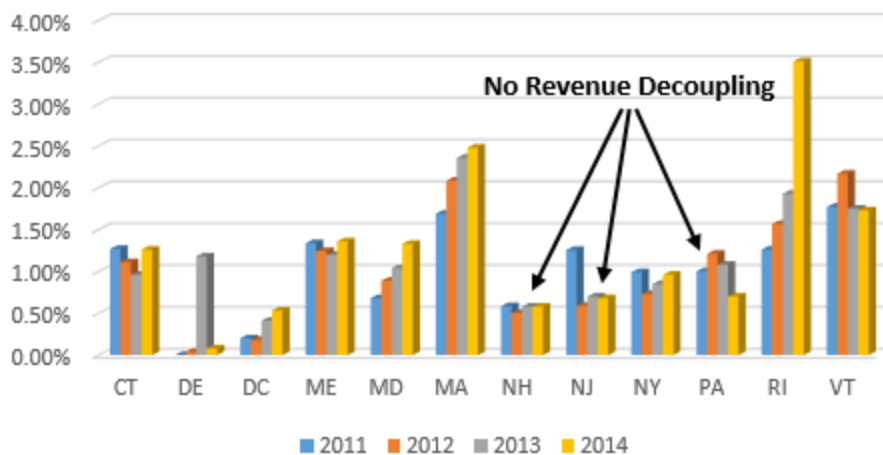
⁷ Nissen, Will (et al.) The Link between Decoupling and Utility Energy Efficiency. ACEEE Energy Efficiency as a Resource Conference. (September 2015) Available at:

http://aceee.org/sites/default/files/pdf/conferences/eeer/2015/Will_Nissen_Session1C_EER15_9.21.15.pdf

As shown in figure 2, Pennsylvania, New Jersey and New Hampshire are the only jurisdictions within the Northeast and Mid-Atlantic region that have not embraced decoupling. However, the New Hampshire Public Utility Commission does have decoupling available to it as a legislatively created regulatory construct, and is, in fact, considering decoupling as a possible outcome of their proceeding to establish an energy efficiency resource standard.⁸

Figure 3 is a chart describing the electric savings a percent of retail sales achieved by energy efficiency programs within the region. Notice that with the exception of Washington D.C. and Delaware, whose programs are in the early stages of maturation, there is a high correlation between those states that have adopted decoupling and those that achieve significant electric energy savings as a percent of retail sales.

Figure 3. Revenue Decoupling and Electric Savings as a Percent of Retail Sales
Electric Savings as Percent Retail Sales



Source: NEEP Regional Energy Efficiency Database⁹

2.2. Lost Revenue Adjustment Mechanisms

Lost Revenue adjustment mechanisms are another strategy for regulators seeking to encourage utility investment in energy efficiency. However, LRAMs come with certain deficiencies that are worth noting, consistent with the aforementioned EPA analysis, which provides an extensive description of lost revenue adjustment mechanisms:

“Experience has shown that LRAMs can result in utilities being allowed more lost revenues than the energy efficiency program actually saved. This is because the lost revenues are often based on projected savings. Furthermore, because utilities still earn increased profits on additional sales, *this approach does not fully remove the throughput incentive, and it provides a disincentive for utilities to implement additional energy efficiency or to support independent energy*

⁸ New Hampshire Public Utility Commission. Docket. No. 15-137. Gas and Electric Utilities Energy Efficiency Resource Standard. Available at: <https://www.puc.nh.gov/Regulatory/Docketbk/2015/15-137.html>


⁹ Northeast Energy Efficiency Partnerships’ Regional Energy Efficiency Database (REED). Available at: <https://reed.neep.org/>

efficiency activities. In summary, unlike other decoupling approaches, the LRAM approach provides limited incentives, does not fully address the throughput incentive, and does not influence efficient utility operations companywide.”¹⁰

In accordance with the observations by the U.S. EPA, experience has shown that states embracing decoupling have a much higher average savings as a percent of retail sales than those embracing lost revenue adjustment mechanisms. Figure 4 provides a review of program spending and savings averages associated with both revenue decoupling and lost revenue adjustment mechanisms. For further discussion of LRAM in application, see the American Council for an Energy Efficient Economy (ACEEE)’s Valuing Efficiency: A Review of Lost Revenue Adjustment Mechanisms.¹¹

Figure 4. Alternative Ratemaking and Efficiency Programs

	Average EE spending as % revenues	Average EE savings as % sales
States with LRAM (n=17)	0.82	0.48
States with decoupling (n=10)	4.11	1.47
States w/ EERS and LRAM (n=6)	1.4	0.85
States w/ EERS and decoupling (n=9)	4.33	1.54
States w/LRAM and no EERS (n=11)	0.51	0.27
States with neither LRAM, decoupling, nor EERS (n=12)	0.89	0.28



Source: Kushler, Martin. Energy Efficiency as a Utility System Resource: Some Thoughts for New Hampshire. May 2015.¹²

3. Earnings Opportunities

In its comments on the Act 129 Phase III Tentative Implementation Order, the Keystone Energy Efficiency Alliance noted: “The existing regulatory structure with only a statutory penalty is all risk, with no reward for EDCs. It makes sense, therefore, that EDCs will support limited targets and pursue “cream-skimming” strategies that emphasize savings from prescriptive measures rather than pursuing deeper, more complex projects that maximize long-term energy savings.”¹³

ACEEE supports this hypothesis, describing earning opportunities for utilities as an important strategy for placing energy efficiency on balanced footing with comparable supply side investments. Figure 5 identifies states that

¹⁰ *id.* (Emphasis added)

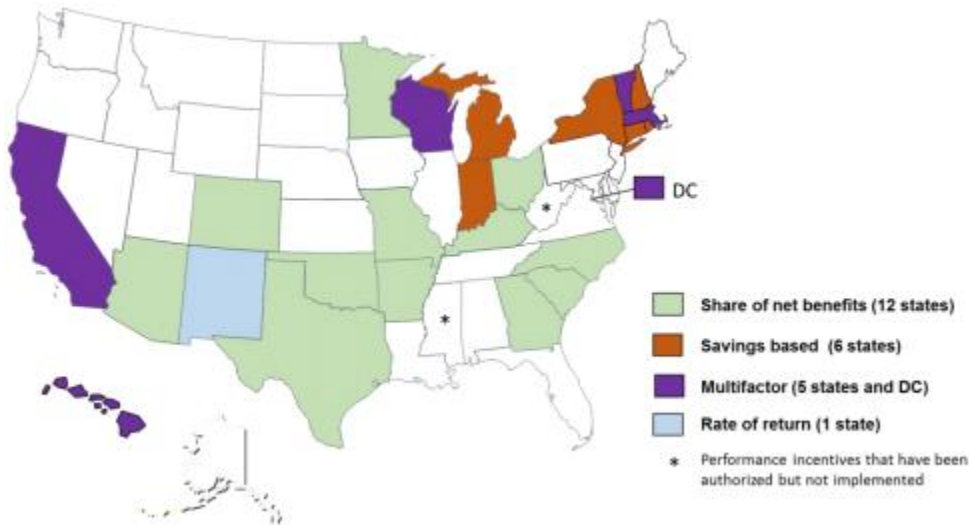
¹¹ Gillo, Annie (et al.). American Council for an Energy Efficient Economy. Valuing Efficiency: A Review of Lost Revenue Adjustment Mechanisms. (June 2015) Available at: <http://aceee.org/sites/default/files/publications/researchreports/u1503.pdf>

¹² *Supra*, at note 3.

¹³ Pennsylvania Public Utility Commission. Docket No. M-2014-2424864. Comments of Keystone Energy Efficiency Alliance on Act 129 Phase III Tentative Implementation Order. Available at: <http://www.puc.pa.gov/pdocs/1356224.pdf>

currently offer performance incentives to utility program administrators as a means of encouraging energy efficiency, while figure 6 identifies the correlation between performance incentives and savings as a percent of retail sales. Notice the high correlation between savings as a percent of retail sales, and the availability of performance incentives.

Figure 5. Performance Incentives for Energy Efficiency in the United States



Source: American Council for an Energy Efficient Economy. Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency.¹⁴

Figure 6. Program Spending/Savings and Performance Incentives

Utility Shareholder Incentives	EE Spending (% revenues)	EE Savings (% of sales)
25 states 'yes'	1.79	0.90
25 states 'no'	1.66	0.50

Source: Kushler, Martin. Energy Efficiency as a Utility System Resource: Some Thoughts for New Hampshire. May 2015.¹⁵

Conclusion

NEEP commends the Commission for its efforts to investigate alternative ratemaking strategies in Pennsylvania. While we make no specific recommendation of our own regarding the outcome of this investigation, we do offer observations from federal policymakers and national studies on the impact of similar strategies in application.

Please accept these comments in the spirit they are intended: to aid the Commission, and ultimately the ratepayers of Pennsylvania, in securing a more affordable, reliable, cleaner and sustainable energy future.

¹⁴ Nowak, Seth (et al.). American Council for an Energy Efficient Economy. Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency. Available at: <http://aceee.org/sites/default/files/publications/researchreports/u1504.pdf>

¹⁵ *Supra*, at note 3.

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