

Re: Case No. PUR 2024-00152  
Public Comments submitted by  
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December 2, 2024

**Thank you for the opportunity to submit comments regarding the study of performance-based regulation (PBR) and alternative regulatory tools for Virginia’s investor-owned utilities.**

Stakeholders can offer valuable insight and knowledge that would otherwise be missed in the process. We ask that the State Corporation Commission and Virginia Energy offer continued education and engagement to stakeholders to meaningfully participate and offer feedback opportunities as this study progresses.

The Nature Conservancy is a global science-based organization working to tackle the dual threats of climate change and loss of biodiversity.

**The Nature Conservancy believes that PBR and alternative regulatory tools offer an opportunity to align utility incentives with the decarbonization goals set forth by the legislature through the Virginia Clean Economy Act (VCEA) and the Commonwealth Clean Energy Policy.<sup>1</sup>**

The current “Cost of Service” regulatory model for investor-owned utility rewards utilities with profit for building new capital projects, not for operating expenses. To the extent that this model incentivizes utilities to build more generation rather than reduce overall demand or peak demand, the model is at odds the Commonwealth Clean Energy Policy and the Virginia Clean Economy Act, both of which have decarbonization goals. The least-cost way to decarbonize the power sector is to lower overall energy demand and peak demand.

Decarbonizing the power sector at reasonable and equitable cost to consumers is a high priority for The Nature Conservancy. Therefore, we support the SCC’s and Virginia Energy’s research into well-designed PBR and Performance Incentive Mechanisms (PIMs) that lead to affordable decarbonization. The cheapest generation is the generation never built, and the Cost of Service regulatory model fails to take this into account.

Virginia as a state has a tremendous amount of electric energy efficiency potential. A 2017 analysis by the Electric Power Research Institute calculated that Virginia’s economic electric energy efficiency

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<sup>1</sup> § 45.2-1706.1

potential for non-jurisdictional customers would grow to 26,700 GWh in 2035 (this was before exponential data center growth was anticipated, so was estimated to be 18.7% of non-jurisdictional sales).<sup>2</sup> While not all of this potential can be addressed through utility energy efficiency and DSM programs, Virginia should explore how PIMs can incentivize the full application of these programs to lower electricity demand.

We support the thorough exploration of PIM designs, especially those implemented by other states and countries, that have the following goals and metrics:

- Lower both overall energy demand and peak demand
- Are “climate-forward” PIMs that consider reduction in carbon dioxide emissions in addition to energy saved
- Incentivize electrification to lower carbon emissions from methane gas and other fossil fuels
- Decouple utility earnings from energy sales

**Virginia’s Energy Efficiency Resource Standard (EERS) is an example of a PIM that might work better with improved design and complementary policies in place.**

Based on TNC’s experience in the SCC energy efficiency stakeholder processes for Dominion Energy and Appalachian Power Company, we offer our comments about a PBR tool already in use in Virginia: The Energy Efficiency Resource Standard (EERS). This PIM is part of the VCEA and went into effect in 2022 for Dominion Energy and Appalachian Power Company. We recommend that the SCC include Virginia’s EERS in its study of PBRs in order to determine the extent to which it is achieving the goal of energy savings, and which additional PIMs could lead to improved energy savings.

The EERS provides annual energy savings targets for investor-owned utilities, the opportunity to earn the same ROE as on capital expenditures for hitting those targets, and a bonus if savings targets are exceeded.

The table below lists the EERS targets for Dominion and APCo for 2025, compared to the electric energy efficiency potential for 2025 predicted by the Electric Power Research Institute report described earlier. It shows that if Dominion and APCo were to achieve their energy savings targets, they would fulfill 22% of the predicted economic energy potential for residential, commercial, and industrial customers (recall that this report was completed in 2017, before data centers comprised a substantial amount of energy demand). This shows that

- 1) When EERS targets are met, utility programs can achieve a significant percent of cost-effective energy efficiency potential.
- 2) It’s possible that if EERS targets are increased, more economic energy efficiency potential can be achieved.

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<sup>2</sup> State Level Electric Energy Efficiency Potential Estimates: EPRI, Palo Alto, CA: 2017. 3002009988. [https://www.energy.gov/sites/prod/files/2017/05/f34/epri\\_state\\_level\\_electric\\_energy\\_efficiency\\_potential\\_estimates\\_0.pdf](https://www.energy.gov/sites/prod/files/2017/05/f34/epri_state_level_electric_energy_efficiency_potential_estimates_0.pdf) page 4-5

- 3) If other PIMs aimed at incentivizing energy efficiency and DSM are implemented, they may be able to achieve further reductions in energy efficiency and DSM that an EERS cannot incentivize.

Additionally, Virginia should expand its use of energy efficiency programs and policies outside of utility-oriented ones.

Energy Efficiency for Virginia in 2025				
Statewide Economic Energy Efficiency Potential <sup>3</sup>	Appalachian Power EERS Target <sup>4</sup>	Dominion EERS Target <sup>5</sup>	Total of both Targets	EERS targets expressed as percent of Statewide Economic Energy Efficiency Potential
17,211,000 MWh	289,040 MWh	3,411,567 MWh	3,700,607 MWh	22%

If Virginia’s EERS program were functioning well as a PIM, we believe that its 2022-2025 targets would be achieved, if not surpassed, by investor-owned utilities. Instead, Dominion fell short on its 2022 targets and is not on track to hit its 2023-2025 targets.<sup>6</sup> It is possible that a different level of incentive or disincentive is needed to result in the desired action by Dominion. A utility might be more inclined to hit energy savings targets if saving energy were not counter to the utility’s interests under the Cost of Service regulatory model. Hence, decoupling utility earnings from energy sales would likely help Virginia’s EERS program reach greater levels of success.

**TNC encourages research into decoupling utility earnings from energy sales.**

Decoupling removes the disincentive to reduce energy demand. It does not by itself increase the incentive to improve energy efficiency or demand side management. Decoupling simply neutralizes the incentive to build more generation. Research into the impact of PIMs with and without decoupling will give more useful information than research into PIMs alone. Importantly, decoupling allows utilities and shareholders to earn return on investment and ensures that utilities are made whole; it does so through a different model than electricity sales and profit earned on capital.

<sup>3</sup> Ibid.

<sup>4</sup> “Combined Reports Including: Annual Report on Energy Efficiency Programs, Annual Report on the Feasibility of Achieving Energy Efficiency Goals.” SCC. 2023. <https://www.scc.virginia.gov/getattachment/739c3bb3-063c-4c4d-8abe-0b57181db8b2/2023-0929-Combined-Energy-Efficiency-Reports.pdf>. Pg 18

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

**Additional PIMs may be needed to encourage Virginia electric utilities to decarbonize more effectively through energy efficiency and DSM.**

As stated earlier, TNC’s main interest in PBR is its potential to reduce carbon emissions cost-effectively by lowering total energy demand (we consider energy in this sense to be broader than electricity). Other states that have EERS policies also have PIMs for their electric utilities to further reduce carbon emissions. Two strategies discussed below are lowering peak demand and encouraging fuel switching. We recommend that these complementary PIMs be explored for their potential to incentivize additional carbon reductions.

**PIMs are needed to reduce peak demand.**

TNC encourages the study of the PIMs most effective at reducing peak demand, because they result in both reduced carbon dioxide emissions and reduced customer cost. Generally speaking, the higher the energy demand at any one time, the more expensive the energy sources that PJM will use. Also generally speaking, the more expensive energy resources tend to be older, less efficient coal-fired power plants that emit the most carbon dioxide.<sup>7</sup>

Another result of lower peak demand is a reduced need to build new methane gas-powered peaker plants. These plants are expensive to build, and new methane gas-powered plants will emit carbon dioxide past the VCEA deadline, become costly stranded assets, or both. A recent analysis demonstrated that aggressive investment in energy efficiency and demand response could meet peak demand for lower cost than the 10 peaker plants proposed in Texas.<sup>8</sup> TNC strongly encourages the investigation of the most effective PIM or combination of PIMs to reduce peak demand.

As previously mentioned, decoupling will likely result in greater efficacy of a Peak Demand Reduction PIM.

Virginia can look at the implementation of several different designs of Demand Flex PIMS from other states that can reduce peak demand. The chart below is a non-exhaustive list of examples of four types of PIMs from 4 states, as provided by the PIMs Database at RMI.<sup>9</sup> The database provides more details.

Type	State	Electric Utility	Description
Fixed Amount	NC	Duke Energy	For every incremental customer enrolled in dynamic and time-differentiated rates, the company earns \$5 up to a cap

<sup>7</sup> Cleary, Kathrynne, and Karen Palmer. 2020. “US Electricity Markets 101.” Resources for the Future. March 3, 2020. <https://www.rff.org/publications/explainers/us-electricity-markets-101/>.

<sup>8</sup> Nadel, Steven, Christine Gerbode, and Jennifer Amann. 2021. “Energy Efficiency and Demand Response: Tools To Address Texas’s Reliability Challenges Energy Efficiency and Demand Response For Texas.” [https://www.aceee.org/sites/default/files/pdfs/energy\\_efficiency\\_and\\_demand\\_response\\_for\\_texas\\_10-13-21\\_final\\_0.pdf](https://www.aceee.org/sites/default/files/pdfs/energy_efficiency_and_demand_response_for_texas_10-13-21_final_0.pdf).

<sup>9</sup> “PIMs Database.” 2024. Rmi.org. 2024. <https://pims.rmi.org/>.

			of 450,000 incrementally enrolled customers and \$2,250,000 per Rate Year.
Percentage Adders	NH	The "Joint Utilities" of NH	This mechanism is intended to encourage each utility's program administrators to exceed their planned performance for Winter and Summer Peak Demand savings as part of the utility's energy efficiency program portfolio. A minimum threshold of 65% of the planned savings must be realized in order to be eligible for a reward. In order to achieve the maximum reward, 125% of the planned savings target must be realized.
ROE Basis Points	NY	NYSEG	Incentivizes NYSEG to deliver New York Control Area coincident electric system peak reductions that provide additional system benefits and lower supply costs to customers. NYSEG will receive a dollar amount equivalent to the linear interpolation of achievement, based on actual performance relative to the target levels for each Rate Year. The incentive levels are as follows: Minimum: 2.5 basis points Midpoint: 5 basis points Maximum: 10 basis points
Shared net benefits/shared savings	CO	XCEL	Intended to incentivize Xcel to pursue all possible cost-effective electric demand-side management ("DSM") through customer programs.  The performance incentive is equal to 40% of incremental net economic benefits from savings between 280 and 550 GWh. The company is eligible to begin earning the incentive once it reaches the minimum target of 400 GWh savings, with a cap at the maximum target of 550 GWh savings.  The PIM also includes a disincentive offset worth up to \$3M each year. The company is eligible to receive the first \$1.5M of this disincentive offset upon reaching 400 GWh savings, and another \$1.5M upon reaching 500 GWh savings.  Total incentives for all components are capped at \$18M.

**PIMs to incentivize electrification should be explored.**

So far, we have discussed reduced energy use only within the context of reduced electricity demand. However, switching from fossil fuel use to electricity use can be a way to use energy more efficiently and reduce carbon emissions. The Commonwealth Clean Energy Policy calls for net-zero greenhouse gas

emissions across all sectors of the economy by 2045.<sup>10</sup> PIMs that encourage the switching from gas-powered furnaces to highly efficient heat pumps would help Virginia reach this goal. New York has a PIM that measures incremental tons of avoided CO2 from heat pumps and building shell measures and rewards utilities with basis points.<sup>11</sup>

## CONCLUSION

### **A robust PBR framework should promote accountability and transparency.**

There should be clear mechanisms for regular and publicly available reporting to ensure that utilities are maximizing all opportunities to meet Virginia's energy goals.

### **Performance based regulation is a flexible framework that can be designed to meet Virginia's energy needs. This flexibility allows the state to continue to adapt to new technologies and energy demands.**

Regardless of the exact PIMs selected, it is important to design the PIMs with flexibility and regular review in mind. As new technologies in DSM and energy efficiency measurement become commercially viable, the PIM should be able to incorporate them. As regulators, utilities, and other stakeholders learn from the PIM process, they should be able to improve the tool to increase its efficacy towards achieving its stated goal. The flexibility of PIMs and alternative regulatory tools provides the ability for our utilities to adjust to growing and shifting energy demand.

The adoption of performance-based regulatory tools can modernize utility operations and align incentives with Virginia's climate goals.

### **The Nature Conservancy of Virginia supports the Commonwealth in exploring this process and looks forward to continued engagement. We hope to see additional opportunities for education and stakeholder input.**

Thank you for your consideration of our comments.

Sincerely,  
Lena Lewis  
Energy and Climate Policy Manager  
The Nature Conservancy

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<sup>10</sup> § 45.2-1706.1

<sup>11</sup> "PIMs Database." 2024. RMI.org. 2024. <https://pims.rmi.org/details/66.2>.