

# Memorandum

TO: CAT ZINGG AND ERIC MILLER, EVERGREEN ACTION

FROM: CAROLINE RESOR, WOODYDYNNE DEJEANLOUIS, TYLER COMINGS, AND PAT KNIGHT

DATE: OCTOBER 16, 2026

RE: ESTIMATING THE ELECTRIC BILL IMPACTS ON PENNSYLVANIA RESIDENTIAL CUSTOMERS OF A POLICY  
ELIMINATING THE RTO ADDER

## Summary

Synapse Energy Economics, Inc. (Synapse) calculated a high-level estimate of annual electric bill savings achievable for Pennsylvania residential customers from proposed legislation. Pennsylvania [House Bill 2755](#) would eliminate the return on equity (ROE) adder that utilities currently receive for participating in PJM markets, which imposes unnecessary costs on consumers. We estimated, in million-dollar and dollar-per-household terms, the difference between a future with the policy and a *status quo* future without the policy. We found that removing the ROE adder may save residential customers \$2 per customer per year or \$13 million statewide per year based on the latest annual transmission spending data. We summarize the findings in Table 1. We document our approach, methods, and key assumptions in the next section.

**Table 1. Average annual savings in million-dollars statewide and dollars-per-household terms**

|                        | Residential class | Each residential customer                              |
|------------------------|-------------------|--------------------------------------------------------|
| Average annual savings | \$13.2 million    | \$2<br><i>Impact by utility varies from \$1 to \$7</i> |

*Source: Synapse analysis (see below for key assumptions and data sources). All dollars are in 2025 real dollars.*

## Methods, Assumptions, and Data Sources

Under the Federal Power Act, utilities that voluntarily join a regional transmission organization (RTO) are entitled to a 0.5 percent adder to their allowed ROE. Proposed legislation would require Pennsylvania transmission utilities to join and participate in PJM, thereby removing this adder.

Our methodology relied on publicly available Projected Transmission Revenue Requirement (PTRR) formula rate workbooks and 10-K U.S. Securities and Exchange Commission (SEC) filings for the four largest transmission owners in Pennsylvania: PECO Energy Company (PECO), Duquesne Light Company

(DQE), PPL Electric Utilities (PPL), and FirstEnergy.<sup>1,2</sup> We excluded UGI Utilities from this analysis since it represents less than 1 percent of Pennsylvania's summer peak load as of 2026.<sup>3</sup>

## ROE reduction

We obtained the allowed ROE (inclusive of the 50 basis-point adder) from Form 10-K filings for year ending December 31, 2025, specific to each transmission owner's transmission formula rates.<sup>4</sup> We calculated the reduced ROE by subtracting 50 basis points (0.50 percent) to reflect the elimination of the PJM RTO incentive adder (Table 2).

**Table 2. Transmission ROEs Under Allowed and Reduced-ROE Scenarios**

|             | <b>Allowed ROE (including Adder)</b> | <b>ROE without Adder</b> |
|-------------|--------------------------------------|--------------------------|
| PECO        | 10.35%                               | 9.85%                    |
| DQE         | 11.40%                               | 10.90%                   |
| PPL         | 10.41%                               | 9.91%                    |
| FirstEnergy | 10.30%                               | 9.80%                    |

*Source: PTRR workbooks and 10-K for each transmission owner. FirstEnergy PTRR reports 10.30% but 10-K reports 10.50%.*

## Transmission revenue requirement reduction

We used these publicly available PTRR workbooks<sup>5</sup> from 2025 (or 2026 where available) for PECO, DQE, PPL, and FirstEnergy to estimate the total changes in their transmission revenue requirements with and without the ROE incentive adder. We substituted the reduced ROE for the existing ROE (i.e., cost of common stock) value while holding all other inputs constant. After this change, the PTRR formulas recalculated the associated income taxes and the post-tax return in each utility workbook. This resulted in a reduced value for the pre-tax ROE (i.e., inclusive of the gross-up for taxes).

We then compared the difference in this final result both with and without the ROE adder. For each transmission owner, this difference represents the average savings per year across all PJM customers in those zones from reducing the ROE.

1 The PTRR workbook for FirstEnergy is named for Mid-Atlantic Interstate Transmission (MAIT), which is a subsidiary of FirstEnergy Corp. For ease of reference, we refer to this transmission owner as FirstEnergy. FirstEnergy owns Penn Power, Penelec, Met-Ed, and West Penn Power.

2 The 10-K for PPL is named for Exelon, which is the parent company of PPL.

3 Electric power outlook for Pennsylvania 2025–2030. PJM. Available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2025/pennsylvania.pdf>.

4 Annual Report Form 10-K. U.S. Securities and Exchange Commission. Available at: <https://www.sec.gov/>.

5 PJM Interconnection. Formula Rates. Available on the PJM website: <https://www.pjm.com/markets-and-operations/billing-settlements-and-credit/formula-rates.aspx>.

Transmission projects are recovered through transmission enhancement charges (TEC) and network integration transmission service (NITS) charges. Since estimating new TEC and NITS charges was out of scope for this analysis, we took a simplified approach.

Pennsylvania customers only pay for a portion of the project costs for transmission projects built by the transmission owners. This apportionment is based on cost allocation methodologies and complex rate-setting processes for transmission projects. We estimated the total weighted average percentage of baseline and supplemental projects built by these four transmission owners that are actually allocated to, and paid for, by customers within those zones. We used data on transmission projects and cost allocation from PJM's Transmission Cost Planner for projects already online or expected to be online between 2020 and 2026.<sup>6</sup> This provides a cost allocation factor, which we used to scale total savings in utility return to customers within the four PJM utility zones.

Next, as some of the four zones include utilities outside of Pennsylvania (with a share of the potential savings accruing to those customers) we reduced the zonal transmission cost savings to reflect the share accruing to Pennsylvania customers only. We performed this reduction using the share of each zone's peak load contribution in Pennsylvania relative to each zone's total peak load.<sup>7</sup>

## Bill savings

We used U.S. Energy Information Administration (EIA) data on utility sales and revenues to convert annual Pennsylvania-wide savings into customer bill impacts for the residential class.

- We allocated 38 percent of the total Pennsylvania savings to residential customers based on EIA sales data (Form 861, 2024). In reality, transmission costs are allocated to customer classes based on each class's contributions to peak load. However, as peak load data by class is not readily available, sales were used instead. We found that removing the RTO ROE adder would save residential customers in Pennsylvania **\$13.2 million per year**.
- We divided the cost savings for PA residential customers by annual residential sales (MWh) from EIA to calculate the rate impact of the cost savings (\$ per kWh).
- We multiplied the rate impact of the cost savings by the average residential customer usage per year (kWh) to calculate the annual bill impact of the cost savings on a per household basis. We found that the average bill savings per household are **\$2 per year**.
- We found that bill savings range from \$1 to \$7 per household per year depending on the PJM zone. Customers in PECO, DQE, and FirstEnergy zones have estimated bill savings of around \$1 per year. Customers in PPL's service territory, which represents 24 percent of

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<sup>6</sup> Data downloaded in October 2026 from PJM's Transmission Cost Planner, available at: <https://www.pjm.com/planning/m/project-construction>.

<sup>7</sup> For PECO, DQE, and PPL, 99-100 percent of the service territory is located within Pennsylvania. As a result, we allocated all or nearly all of the cost savings for each of these zones to Pennsylvania. For FirstEnergy, only 38 percent of the service territory is located within PA, so we reduced those cost savings accordingly.

residential customers in Pennsylvania, have estimated bill savings of just under \$7 per year. This higher level of avoided costs is due to higher pre-tax income costs in PPL than in the other utility zones: PPL's pre-tax income was \$618 million, roughly five times higher than PECO's, eight times higher than DQE's, and double FirstEnergy's.

## Comparison to New Jersey Findings

In July 2026, Synapse conducted a similar analysis focused on New Jersey and found that reducing ROE by 0.5 percent may save New Jersey residential customers \$5 per customer per year or \$19 million statewide per year based on the latest annual transmission spending data.<sup>8</sup>

The biggest drivers behind the difference between the annual savings in Pennsylvania (\$13 million statewide, \$2 per household) and New Jersey (\$19 million statewide, \$5 per household) are the magnitude of transmission spending and the number of residential customers in each state.

Higher transmission spending results in higher estimated savings from reducing the ROE on transmission spending, and New Jersey has nearly twice as much transmission spending as Pennsylvania. A higher number of residential customers dilutes the savings per customer, and the utility zones we analyzed in Pennsylvania collectively have just over 40 percent more residential customers than the utility zones we analyzed in New Jersey. Additionally, the average Pennsylvania residential customer uses nearly 30 percent more electricity per month than the average New Jersey residential customer, which means that the transmission costs get spread over more kWh in addition to more customers, further diluting the potential cost savings.

With lower transmission spending, more residential customers, and higher per-customer electricity usage than New Jersey, Pennsylvania has lower estimated savings from reducing ROE on both a statewide and a per customer basis. We evaluated the PJM transmission revenue requirement data by zone and allocated it to Pennsylvania and New Jersey. The New Jersey transmission revenue requirement is \$684 per customer per year. The Pennsylvania transmission revenue requirement is \$387 per customer per year, just under 60 percent of the New Jersey figure.<sup>9</sup>

However, within Pennsylvania, PPL spends more on transmission investments than the other utilities do. As a result, the savings we estimated for PPL customers from reducing ROE are higher (\$7 per customer per year) than the savings we estimated for customers in other PA utility zones (\$1 per customer per year).

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<sup>8</sup> "Electric bill impacts of four New Jersey policies." Synapse Energy Economics for Evergreen Action. July 6, 2026.

<sup>9</sup> "Annual Transmission Revenue Requirements (ATRR) and Network Integration Transmission Service (NITS) Rates." PJM. August 2026. Available at: <https://www.pjm.com/-/media/DotCom/markets-ops/settlements/network-integration-trans-service-august-2026.pdf>.