

Case: Duct Sealing

Button-Up Duct sealing

Sealing ductwork. Duct Sealing Program (“Duct Seal”) is designed to incentivize Residential end-use members to seal up the ducts that deliver heat or cooling from the heating or cooling equipment to individual rooms in the home. Reductions in duct losses are measured using a blower test.

<u>Assumption</u>	<u>Source</u>
<p>Load Impacts Before Participant 10,500 kWh, 8.12 kW (coinc. with winter system peak), 2.47 kW (summer)</p> <p>Savings: 880 kWh 0.78 kW (winter), 0.30 kW (summer) After Participant 9,620 kWh, 7.34 kW (coinc. with winter system peak), 2.23 kW (summer)</p>	<p>Mix of Furnace/Central AC and air source heat pump weighted according to saturation in existing single family homes. 70% heat pump, 30% furnace/CAC.</p> <p>GDS kWh savings for duct sealing, weighted by electric heat technology. kW impacts based on planning load profile.</p> <p>Before participant net of savings</p>
<p>Lifetime of savings Discount rate for TRC and RIM Generation Capacity Cost - \$174.60 per kW-year (no escalation). 73% winter 27% summer. Avoided Electricity Energy Costs - PJM Market, AEP-Dayton hub, \$45.96 /MWh in 2025 Transmission Capacity Cost - OATT tariff \$ 35.76 per kW-year in 2025 Distribution Capacity Cost - \$ 4.93 per kW-year in 2025 Participant Costs \$ 738. 2% esc. Tax credit (benefit): \$0</p>	<p>20 Years (Illinois 2023 TRM) 5 percent per EKPC financial data; 3.5 % societal test from Mercatus Center report Avoided costs of a RICE unit. Updated escalators to match. Allocation is 73% winter 27% summer. Summer values based on PJM capacity performance market December 2023 with IHS Markit forecast, start year is 2024. based on December 26, 2023 ACES Forward prices for AEP_Dayton hub. \$45.96 /MWh in 2025. DSMore Scenario 9, 0.587 esc in 2025 Network rate, 2023-24. 2.8 % escalation rate based on 10 yr PPI.. Applied to winter coincident peak. Basd on marginal cost of distribution. 2.8 % escalation rate based on 10 yr PPI. . Applied to winter coincident peak. GDS costs for measure No tax credit available</p>
<p>Administrative Cost EK \$6,600 (2025 value) fixed annual (2025-2039). 2% esc Co-op \$200 per new participant</p>	<p>Program admin - 2022 value of \$6,000 escalated to 2025. Based on new program design</p>
<p>Rate Schedule - Retail Median Residential Rate for Co-ops Cust chrg \$16.09, Energy Rate \$0.088229 Rate Schedule - Wholesale East Kentucky E-2 rate.</p>	<p>Current rates in effect as of January 2024.. includes Environmental Surcharge and FAC Current rates in effect as of January 2024. includes Environmental Surcharge and FAC</p>
<p>Participation - 2025: 0. 2026-2039: 37 per year. 10% Free Riders</p>	<p>2025 - existing programs based on 2023 annual report. New programs - 0 (they begin in 2026).. 2026-2039 based on proposed new budget</p>
<p>Rebates Co-op to Participant \$ 500, 2% esc EK to Co-op \$750, 2% esc</p>	<p>Based on proposed tariff Based on proposed tariff</p>