

**2024 CPCN/Tariff filing**

**System year 1 is 2025**

**For analysis purposes, the unit of participation is 1 kW connected load savings. Rebates are per kW .**

**Commercial Advanced Lighting program**

This program promotes energy efficiency by offering incentives to non-residential end-use members to install high-efficiency LED lighting in their facilities.

<u>Assumption</u>	<u>Source</u>
<b>Load Impacts</b> Before Participant 48,000 kWh, 5.1 kW (coincident with winter system peak), 9.6 kW (summer)  Savings: 4,250 kWh 0.45 kW (winter), 0.64 kW (summer)  After Participant 43,750 kWh, 4.65 kW (coinc. with winter system peak), 8.96 kW (summer)	Lighting load for typical 8,000 square foot commercial building. EUI of 6 kWh per square foot (sources: EPRI Market Profiles, Duke Power end use metering study).  Savings in connected load of 1 kW : coincidence/diversity factor of 0.85 in Summer,. kWh savings based on DSManager factor for kWh savings per kW. kW impacts based on planning load profile  Before participant net of savings
<b>Lifetime of savings</b> <b>Discount rate for TRC and RIM</b> <b>Generation Capacity Cost - \$174.60</b> per kW-year (no escalation). 73% winter 27% summer. <b>Avoided Electricity Energy Costs - PJM</b> Market, AEP-Dayton hub, \$45.96 /MWh in 2025 <b>Transmission Capacity Cost - OATT tariff \$ 44.34 per kW-year in 2025</b> <b>Distribution Capacity Cost - \$ 4.93 per kW-year in 2025</b> <b>Participant Costs \$ 2,210 per unit.. 2% esc.</b> <b>Tax credit (benefit): \$0</b>	<b>15</b> Years, based on GDS measures in 2024 potential study <b>5</b> percent per EKPC financial data; 3.5 % societal test from Mercatus Center report <b>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.</b> 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 Point-to-point rate (12 CP), 2023-24. OATT. 2.8 % escalation rate based on 10 yr PPI.. Applied to summer coincident peak. Based on marginal cost of distribution. 2.8 % escalation rate based on 10 yr PPI. . Applied to summer coincident peak. Based on median measure cost per kWh in GDS 2024 potential study (office lighting) No tax credit available for this program
<b>Administrative Cost</b> EK \$0 (2025) , \$20,000 (2026), \$10,400 fixed annual (2027-2039). 2% esc  Co-op \$32 per new unit (1 kW), 2 % esc.	Note: no program in Year 1. Year 2 only: program setup, marketing, verification, , rebate processing, general admin, Years 3 forward: marketing, verification, rebate processing, general admin,  Site visit. Assumes typical savings per facility is 4 kW. Labor costs are \$128. (2 hours) .
<b>Rate Schedule - Retail</b> South Kentucky B rate Cust chrg \$40.00, Energy Rate \$0.08742 <b>Rate Schedule - Wholesale</b> East Kentucky E-2 rate.	Current rates in effect as of January 2024..plus Environmental Surcharge and FAC  Current rates in effect as of January 2024. plus Environmental Surcharge and FAC
<b>Participation - 2025: 0. 2026-2039: 1,000 units per year. 10% Free Riders</b>	Per program design. Participation unit is 1 kW connected load reduction. Program starts 2026.
<b>Rebates</b> Co-op to Participant \$ 250 per unit, 2% EK to Co-op \$ 610 per unit, 2% esc	Per program design Per program design