

This program is designed to improve new residential home energy performance. This program provides guidance during the building process to guarantee a home that is 25%-30% more efficient than the Kentucky standard built home. The program encourages new homes to be built to higher standards for thermal integrity and equipment efficiency, as well as to choose a geothermal or air source heat pump rather than less efficient forms of heating and cooling.

<u>Assumption</u>	<u>Source</u>
<p><b>Load Impacts</b>                      Before Participant                      10,500 kWh, 8.12 kW (coinc. with winter system peak), 2.47 kW (summer)</p> <p>Savings: <b>3,263 kWh</b> <b>2.49 kW</b> (winter), <b>0.95 kW</b> (summer)</p> <p>After Participant                      7,237 kWh, 5.63 kW (coinc. with winter system peak), 1.52 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 15% savings from weatherization, plus more efficient heat pump (16.2 SEER2) . kW impacts based on planning load profile</p> <p>Before participant net of savings</p>
<p><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, <b>\$45.96 /MWh</b> in 2025  <b>Transmission Capacity Cost - OATT tariff \$ 35.76</b> per kW-year in 2025  <b>Distribution Capacity Cost - \$ 4.93</b> per kW-year in 2025  <b>Participant Costs \$ 2,263..</b> 2% esc.  <b>Tax credit (benefit): \$0</b></p>	<p><b>20</b> Years  <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></p> <p>based on December 26, 2023 ACES Forward prices for AEP_Dayton hub. <b>\$45.96 /MWh</b> in 2025. DSMore <b>Scenario 9, 0.587 esc in 2025</b></p> <p>Network rate, 2023-24. 2.8 % escalation rate based on 10 yr PPI.. Applied to winter coincident peak.</p> <p>Basd on marginal cost of distribution. 2.8 % escalation rate based on 10 yr PPI. . Applied to winter coincident peak.</p> <p>GDS costs for measure bundle                      Tax credit for new construction is given to the builder for Energy Star qualified homes</p>
<p><b>Administrative Cost</b>                      EK <b>\$5,756</b> (2025 value) fixed annual (2025-2039). 2% esc                      Co-op <b>\$400</b> per new participant</p>	<p>Program admin - 2022 value of \$5,300 adjusted to 2025..</p> <p>Based on new program design</p>
<p><b>Rate Schedule - Retail</b>                      Median Residential Rate for Co-ops                      Cust chrg <b>\$16.09</b>, Energy Rate <b>\$.088229</b>  <b>Rate Schedule - Wholesale</b>                      East Kentucky E-2 rate.</p>	<p>Current rates in effect as of January 2024.. <b>includes Environmental Surcharge and FAC</b></p> <p>Current rates in effect as of January 2024. <b>includes Environmental Surcharge and FAC</b></p>
<p><b>Participation - 2025: 494. 2026-2039: 494 per year. 5%</b> 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. Free riders based on Frontier Assoc study for LG&amp;E/KU</p>
<p><b>Rebates</b>                      Co-op to Participant <b>\$ 750</b>, 2% esc                      EK to Co-op <b>\$1,450</b>, 2% esc</p>	<p><b>Based on tariff</b>  <b>Based on tariff</b></p>