

Low Income Weatherization with CAAs for Tariff filing. includes Kentucky Housing share of measure costs as a participant cost. Look at TRC only here.

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	\$ 5,420,489	Revenue Declines	(\$7,332,859)
Rebates From EK	\$2,789,256	Administrative Costs	(\$1,927,653)
		Rebates Paid To Consumers	(\$15)
Total Benefits	\$8,209,744	Total Costs	(\$9,260,527)
Benefit / Cost Ratio: 0.89			

Participant Benefits		Participant Costs	
Electric Bill Declines	\$4,646,345	Up Front Investment	(\$2,607,034)
Rebates From Distribution System	\$ 13		
Reductions in Gas bill	\$496,410		
Total Benefits	\$5,142,767	Total Costs	(\$2,607,034)
Benefit / Cost Ratio: 1.97			

Total Resource Benefits		Total Resource Costs	
Avoided Energy Costs	\$4,043,974	Up Front Customer Investment	(\$2,938,211)
Avoided Gen Capacity Costs	\$1,643,816	Distribution System Admin. Costs	(\$1,927,653)
Avoided Transmission Expense	\$388,550	EK Administrative Costs	(\$91,899)
Reduced Nat Gas Costs	\$586,516		
Total Benefits	\$6,662,855	Total Costs	(\$4,957,762)
Benefit / Cost Ratio: 1.34			

EK Benefits		EK Costs	
Avoided Energy Costs	\$4,043,974	Decrease In Revenue	(\$5,420,489)
Avoided Gen Capacity Costs	\$1,643,816	Rebates Paid	(\$2,789,256)
Avoided Transmission Expense	\$388,550	Administrative Costs	(\$91,899)
Total Benefits	\$6,076,339	Total Costs	(\$8,301,643)
Benefit / Cost Ratio: 0.73			

Societal Benefits		Societal Costs	
Avoided Energy Costs	\$4,569,923	Up Front Customer Investment	(\$3,026,541)
Avoided Gen Capacity Costs	\$1,854,306	Utility Admin Costs	(\$2,080,050)
Avoided Transmission Expense	\$438,200		
Environmental Externalities	\$0		
Reduced Gas Costs	\$ 663,551		
Total Benefits	\$7,525,979	Total Costs	(\$5,106,591)
Benefit / Cost Ratio: 1.47			

Combined RIM:			
Benefits:	\$6,076,339	Costs:	(\$9,352,426)
Benefit / Cost Ratio: 0.65			

For March 2015 Tariff Filing

Low Income program with CAAs, updated, true TRC version (CARES)

EKPC provides an incentive to enhance the weatherization and energy efficiency services provided to its low income residential retail members by the Kentucky Community Action network of not for profit community action agencies (CAAs). Heat pump eligible homes receive a new SEER 14 heat pump as well as weatherization measures. Other homes receive only weatherization measures, which include an energy audit, air and duct sealing, attic, floor and wall insulation, hot water measures, and efficient light bulbs.

<u>Assumption</u>	<u>Source</u>
<p>Load Impacts Before Participant 11,286 kWh, 8.81 kW (coincident with winter system peak), 3.45 kW (summer), 750 therms</p> <p>After Participant 6,555 kWh, 7.37 kW (coincident with winter system peak), 2.73 kW (summer), 691 therms</p>	<p>HVAC loads for a typical heat pump in typical residence. Note: the program savings are based on a mix of homes with different primary heating systems: electric furnace, wood, heat pump, and other non-electric heat. Plus gas furnace.</p> <p>HVAC loads for a typical heat pump home reduced by 4,731 kWh. Savings estimate is a weighted average based on measure packages and baseline HVAC consumption of the different participation categories. Weighted gas savings of 59 therms.</p>
<p>Lifetime of savings</p> <p>Generation Capacity Cost - EE = combined cycle, 100% summer Avoided Electricity Energy Costs - PJM Market Avoided Gas Commodity Costs - Participant Costs \$ 2,012</p>	<p>15 years</p> <p>Combined Cycle Baseload unit. 100% allocation to summer.</p> <p>based on ACES energy forward curve for AEP_Dayton. Based on Forward Curve for Fuel at Smith Station</p> <p>This is the Kentucky Housing share of measure costs, modeled to calculate a true TRC</p>
<p>Administrative Cost EK \$20,000 fixed annual (2015-2019) 2% esx</p> <p>Co-op \$1,320 per new participant</p>	<p>0.1 FTE for implementation admin, plus M&V</p> <p>This includes the rebate to the CAA (avg will be \$1,220) but since it does not go to the consumer it is treated as a program cost. Plus coop admin cost (\$100 per participant).</p>
<p>Rate Schedule - Retail Average Residential Rate for Co-ops Cust chrg \$9.62, Energy Rate \$.08966</p> <p>Rate Schedule - Wholesale East Kentucky E-2 rate.</p>	<p>Current rates in effect.</p> <p>Current rates in effect.</p>
<p>Participation - Year by year, 2015-2019: 250, 300, 350, 350, 350. 0% Free Riders</p>	<p>Based on current DSM 5 year plan.</p>
<p>Rebates Co-op to Participant \$0 EK to Co-op \$1,910</p>	<p>Direct installation program - no participant out of pocket costs 100% reimbursement of program costs plus 5 years net lost revenue</p>