Residential Energy Efficiency Portfolio:
Volume 2

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Submitted by: ADM Associates, Inc.

ADM Associates, Inc
3239 Ramos Circle
Sacramento, CA 95827
916-363-8383

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1 Introduction

Under contract with Ameren Missouri, ADM Associates, Inc., (ADM) performed evaluation, measurement and verification (EM&V) activities to confirm the energy savings (kWh) and demand reduction (kW) realized through its energy efficiency programs.

This report is divided into two volumes providing information on the impact, process, and cost-effectiveness evaluation of the Ameren Missouri portfolio of residential programs implemented during the 2024 program year. Volume II contains chapters presenting detailed information regarding evaluation methodologies, data collection instruments, and evaluation results. Volume II is organized as follows:

- Chapter 2: Ex Post Gross Energy Savings Methodology
- Chapter 3: Efficient Products Participant Survey Instrument
- Chapter 4: Heating and Cooling Distributor Interview Guide
- Chapter 5: Heating and Cooling Participant and End-User Survey Instrument
- Chapter 6: Heating and Cooling Trade Ally Survey Instrument
- Chapter 7: Residential General Population Survey Instrument
- Chapter 9: Efficient Products Participant Survey Responses
- Chapter 8: Heating and Cooling Participant and End-User Survey Responses
- Chapter 9: Heating and Cooling Trade Ally Survey Responses
- Chapter 10: Residential Nonparticipant Survey Responses

See report Volume I for narrative and summary information pertaining to the evaluation methods and results.

2 Ex Post Gross Energy Savings Methodology

This chapter presents the ex post gross TRM calculation approaches and savings assumptions.

2.1 Efficient Products

Variable Type	*Variable Name*	*Variable Value*	*Variable Value Source*
Measure Name: Heat Pump Hot Water Heater			
Savings	*ΔkWh*		*((((1 / efbase) - (1 / efee)) * gpd * household * days * den * (hwt - cwt) * cp) / 3412) - (((((1 - 1 / efee) * gpd * household * days * den * (hwt - cwt) * cp) * lf * whfh / (copheat_resistance * 3412)) * %electricheat_ - _electric_resistance_saturation_) + ((((1 - 1 / efee) * gpd * household * days * den * (hwt - cwt) * cp) * lf * whfh / (copheat_hp * 3412) * %electricheat_ - _heat_pump_saturation))) + ((((1 - 1 / efee) * gpd * household * days * den * (hwt - cwt) * cp) * lf * whfc * lm / (copcool * 3412)) * %cool)*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*efbase*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 46. Equals 0.96 - (0.0003 * rated_volume_in_gallons).
Input	*efee*	Varies	Product specifications.
Input	*gpd*	17.6	Ameren Missouri TRM V7.0 Vol. 3, p. 46.
Input	*household*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 47. 2.65 for single family; 2.07 for multifamily.
Input	*days*	365.25	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*den*	8.33	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*hwt*	125	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*cwt*	57.898	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*cp*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*lf*	0.81	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*whfc*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*whfh*	0.43	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*copcool*	2.8	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*copheat_resistance*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
Input	*copheat_hp*	1.92	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
Input	*lm*	1.33	Ameren Missouri TRM V7.0 Vol. 3, p. 47.
Input	*%cool*	0.95	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
EUL		13	Ameren Missouri TRM V7.0 Vol. 3, p. 46.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Advanced Power Strip (Tier 2)			

Savings	*ΔkWh*		*baseline_kwh * energy_reduction_%*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*baseline_kwh*	432	Ameren Missouri TRM V7.0 Vol. 3, p. 34.
Input	*energy_reduction_%*	0.375	Ameren Missouri TRM V7.0 Vol. 3, p. 34. Average value.
Input	*CF*	0.00011482	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 33.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Smart Thermostat			
Savings	*ΔkWh*		*((Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction) + (%ElectricHeat * HeatingConsumption_Electric * HF * HeatingReduction) + (ΔTherms * Fe * 29.3)*
Savings	*ΔkW*		*(Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * CF*
Input	*%AC*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59. Unknown.
Input	*Capacity_cool*	36000	Ameren Missouri TRM V7.0 Vol. 3, p. 59. Unknown.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CoolingReduction*	0.08	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*SEER*	13	Ameren Missouri TRM V7.0 Vol. 3, p. 60. Unknown.
Input	*%ElectricHeat*	0.33	Ameren Missouri TRM V7.0 Vol. 3, p. 58. Unknown.
Input	*HeatingReduction*	0.06668718	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*HeatingConsumption_Electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 58.
Input	*HF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*ΔTherms*	Varies	ΔTherms = %FossilHeat * HeatingConsumption_Gas * HF * HeatingReduction
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 57.
Inc Cost		Varies	Applicable Appendix F reference value.

2.2 Multifamily Market Rate and Income Eligible

Variable Type	*Variable Name*	*Variable Value*	*Variable Value Source*
Measure Name: Air Source Heat Pump			

Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 63.
Input	*SEER2_exist*	Varies	Characteristics of applicable equipment, adjusted to SEER2 terms: SEER1 * 0.96 = SEER2.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
Input	*HSPF2_exist*	Varies	Characteristics of applicable equipment.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.000947418	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
Input	*fuel_switching*	Varies	If pre-existing heating non-electric, equals 1; otherwise equals 0.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Central Air Conditioner Tune-up			
Savings	*ΔkWh*		*(EFLH_cool * Capacity_cool_ee * (1 / SEER2_test_in - 1 / SEER2_test_out) / 1000)*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Capacity_cool_ee*	23832.9	Applicable Appendix F measure value.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.
Input	*SEER2_test_in*	11.9	Ameren Missouri TRM V7.0 Vol. 3, p. 79.

Input	*SEER2_test_out*	13.8	Ameren Missouri TRM V7.0 Vol. 3, p. 80.
Input	*CF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL		2	Ameren Missouri TRM V7.0 Vol. 3, p. 79.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Smart Thermostat			
Savings	*ΔkWh*		*((Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction) + (%ElectricHeat * HeatingConsumption_Electric * HF * HeatingReduction) + (ΔTherms * Fe * 29.3)*
Savings	*ΔkW*		*(Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * CF*
Input	*%AC*	1	Tracking Data
Input	*Capacity_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59, characteristics of applicable equipment, if known.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CoolingReduction*	0.08	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*SEER*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 60, characteristics of applicable equipment, if known.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HeatingReduction*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CF*	0.000947418	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*HeatingConsumption_Electric*	Varies	If electric heating equipment information known: (Capacity_heat / HSPF_ee) / 1000 * EFLH_heat * %ElectricHeat); otherwise, defaults Ameren Missouri TRM V7.0 Vol. 3, p. 58.
Input	*HF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*ΔTherms*	Varies	ΔTherms = %FossilHeat * HeatingConsumption_Gas * HF * HeatingReduction
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 57.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 58.
Measure Name: Dirty Filter Alarm			
Savings	*ΔkWh*		*%heating * kw * eflh_heat * ei + %ac * kw * eflh_cool * ei*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%heating*	1	Tracking Data
Input	*kw*	0.5	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*eflh_heat*	1496	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*ei*	0.15	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*%ac*	Varies	Tracking Data
Input	*eflh_cool*	869	Ameren Missouri TRM V7.0 Vol. 3, p. 88.

Input	*CF*	0.000466081	Ameren Missouri TRM V7.0 Vol. 3, p. 87.
EUL		14	Ameren Missouri TRM V7.0 Vol. 3, p. 87.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 87.
Measure Name: ECM Motor Fan			
Savings	*ΔkWh*		*(((1 - %_with_new_ashp) * wi_heating_savings * eflh_heating / wi_eflh_heating * hf) + ((1 - %_with_new_central_cooling) * wi_cooling_savings * eflh_cooling / wi_eflh_cooling * hf) + ((25 * eflh_cooling / wi_eflh_cooling + wi_circulation_savings * rt - standby_losses))) * savings_applicable*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%_with_new_ashp*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_heating_savings*	400	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*eflh_heating*	2009	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_eflh_heating*	2545.25	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*%_with_new_central_cooling*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_cooling_savings*	70	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*eflh_cooling*	1215	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_circulation_savings*	2960	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*rt*	0.088084612	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*standby_losses*	30	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*hf*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_eflh_cooling*	542.5	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*savings_applicable*	Varies	Equals 1 if retrofit to existing system or installed with new system with early replacement baseline; otherwise equals 0.
Input	*CF*	0.000466081	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		6	Ameren Missouri TRM V7.0 Vol. 3, p. 82. Adjusted to six years to match the remaining useful life of the existing furnace.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 82.
Measure Name: Showerhead			
Savings	*ΔkWh*		*%ElectricDHW * ((GPMbase * L_base - GPMlow * L_low) * Household * SPCD * 365.25 / SPH) * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*L_base*	8.66	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*GPMlow*	Varies	Tracking Data
Input	*L_low*	8.66	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*Household*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 41.

Input	*SPCD*	0.66	Ameren Missouri TRM V7.0 Vol. 3, p. 42.
Input	*SPH*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 42. Actual where available.
Input	*CF*	0.000088732	Ameren Missouri TRM V7.0 Vol. 3, p. 43.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
Input	*%ElectricDHW*	1	Program tracking data.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 40.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 40.
Measure Name: Faucet Aerator			
Savings	*ΔkWh*		*(GPMbase * L_base - GPMlow_as_used * L_low) * Household * 365.25 * DF / FPH * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	2.2	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*L_base*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*GPMlow_as_used*	Varies	Tracking data.
Input	*L_low*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*Household*	1.564	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*DF*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*FPH*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. Actual where available.
Input	*CF*	0.000088732	Ameren Missouri TRM V7.0 Vol. 3, p. 38.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 35.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 35.
Measure Name: Refrigerator			
Savings	*ΔkWh*		*(kWh_exist - (kWh_base * (1 - %Savings)) + (- (HF / ηHeatElectric) * %ElecHeat) + (CoolF / ηCool * %Cool) * (kWh_exist - (kWh_base * (1 - %Savings))))*
Savings	*ΔkW*		*ΔkWh_WasteHeatCooling * CF*
Input	*kWh_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Assumed top freezer, 1993-2001, 18 cu ft.
Input	*kWh_base*	574	Ameren Missouri TRM V7.0 Vol. 3, p. 25. Applicable to top freezer model.
Input	*%Savings*	0.1	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Applicable to Energy Star model.
Input	*HF*	0.58	Ameren Missouri TRM V7.0 Vol. 3, p. 24.
Input	*ηHeatElectric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Depends on heating type.
Input	*%ElecHeat*	Varies	Tracking Data

Input	*CoolF*	0.4	Ameren Missouri TRM V7.0 Vol. 3, p. 25.
Input	*ηCool*	2.8	Ameren Missouri TRM V7.0 Vol. 3, p. 25.
Input	*%Cool*	Varies	Tracking Data
Input	*CF*	0.000128525	Ameren Missouri TRM V7.0 Vol. 3, p. 26.
Input	*ΔkWh_WasteHeatCooling*	Varies	(CoolF / ηCool * %Cool) * (kWh_exist - (kWh_base * (1 - %Savings)))
EUL		17	Ameren Missouri TRM V7.0 Vol. 3, p. 23.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Standard LED			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Watt_EE*	Varies	Tracking Data
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours_res*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 100.
Input	*WHFeCool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.000149253	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 98.
Inc Cost		1.45	Ameren Missouri TRM V7.0 Vol. 3, p. 98.
Measure Name: LED Bulbs and Fixtures			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Project documentation, Ameren Missouri TRM V7.0 Vol. 2, p. 128-129.
Input	*Watt_EE*	Varies	Tracking Data
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*WHFeCool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.000149253	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
EUL		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 113.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 128-129.

Measure Name: LED Exit Sign			
Savings	*ΔkWh*		*((Watt_Base - Watt_EE) / 1000 * Hours * WHFe) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Tracking Data
Input	*Watt_EE*	Varies	Tracking Data
Input	*Hours*	8766	Ameren Missouri TRM V7.0 Vol. 2, p. 142.
Input	*WHFe*	1.14	Ameren Missouri TRM V7.0 Vol. 2, p. 112.
Input	*Heating_Penalty*	Varies	(Watt_Base - Watt_EE) / 1,000) * Hours * IF_kWh
Input	*CF*	0.000189964	Ameren Missouri TRM V7.0 Vol. 2, p. 142.
EUL		7	Ameren Missouri TRM V7.0 Vol. 2, p. 113.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 141.
Measure Name: Central Air Conditioner			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 86. SEER2 * (1-0.0144)^Age.
Input	*SEER2_base*	13.4	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.000947418	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Ductless Heat Pump			

Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74. Varies by pre-existing cooling system: adjusted to SEER2 terms. ASHP: 7.2 * 0.96 = 6.91; CAC: 6.8 * 0.96 = 6.53. Actual value if available.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74.
Input	*HSPF2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74. Varies by pre-existing heating system. Adjusted to HSPF2 terms. ASHP: 6.58 * 0.87 = 5.72; Electric Resistance: 3.41. Actual value if available.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.000947418	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
Input	*fuel_switching*	Varies	If pre-existing heating non-electric, equals 1; otherwise equals 0.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 73.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 73.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Variable Frequency Drives for Pumps and Fans on Hydronic HVAC Systems			
Savings	*ΔkWh*		*bhp / motor_efficiency * annual_hours * esf*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * cf*
Input	*bhp*	Varies	Tracking Data

Input	*motor_efficiency*	Varies	Tracking Data
Input	*annual_hours*	Varies	Tracking Data
Input	*esf*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 192.
Input	*cf*	0.000443983	Ameren Missouri TRM V7.0 Vol. 2, p. 183.
EUL		15	Ameren Missouri TRM V7.0 Vol. 2, p. 190.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 190.
Measure Name: Single-Package and Split System Unitary Air Conditioner			
Savings	*ΔkWh*		*kbtu_cool * (1 / eerbase - 1 / eer_ee) * eflh_cool*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * cf*
Input	*kbtu_cool*	Varies	Tracking Data
Input	*eerbase*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 101.
Input	*eer_ee*	Varies	Tracking Data
Input	*eflh_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 63 (Midrise Apartment - Building)
Input	*cf*	0.000910684	Ameren Missouri TRM V7.0 Vol. 2, p. 104.
EUL		15	Ameren Missouri TRM V7.0 Vol. 2, p. 98.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 98.
Measure Name: Commercial Heat Pump System			
Savings	*ΔkWh*		*kbtu_cool * (1 / eerbase - 1 / eer_ee) * eflh_cool + kbtu_heat / 3.412 * (1 / cop_base - 1 / cop_ee) * eflh_heat*
Savings	*ΔkW*		*kbtu_cool * (1 / eerbase - 1 / eer_ee) * eflh_cool * cf*
Input	*kbtu_cool*	Varies	Tracking Data
Input	*eerbase*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 89.
Input	*eer_ee*	Varies	Tracking Data
Input	*eflh_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 63 (Midrise Apartment - Building)
Input	*kbtu_heat*	Varies	Tracking Data
Input	*cop_base*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 90.
Input	*cop_ee*	Varies	Tracking Data
Input	*eflh_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 63 (Midrise Apartment - Building)
Input	*cf*	0.000910684	Ameren Missouri TRM V7.0 Vol. 2, p. 93.
EUL		15	Ameren Missouri TRM V7.0 Vol. 2, p. 84.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 2, p. 84.
Measure Name: Packaged Terminal Air Conditioner (PTAC) and Packaged Terminal Heat Pump (PTHP)			

Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF_base) - (Capacity_heat_ee / HSPF_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF_exist) - (Capacity_heat_ee / HSPF_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / EER_exist) - (Capacity_cool_ee / EER_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / EER_exist) - (Capacity_cool_ee / EER_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF_base) - (Capacity_heat_ee / HSPF_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	617	Ameren Missouri TRM V7.0 Vol. 3, p. 91.
Input	*EER_exist*	Varies	Tracking Data
Input	*EER_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 91.
Input	*EER_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	1040	Ameren Missouri TRM V7.0 Vol. 3, p. 90.
Input	*HSPF_exist*	Varies	Tracking Data
Input	*HSPF_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 90.
Input	*HSPF_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.000947418	Ameren Missouri TRM V7.0 Vol. 3, p. 91.
Input	*fuel_switching*	Varies	If pre-existing heating non-electric, equals 1; otherwise equals 0.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 89.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 89.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Ceiling Insulation			
Savings	*ΔkWh*		*(((1 / r_old - 1 / r_attic) * a_attic * (1 - framing_factor_attic) * cdd * 24 * dua) / (1000 * ηcool) * %AC) + ((((1 / r_old - 1 / r_attic) * a_attic * (1 - framing_factor_attic) * hdd * 24 * adjattic) / (3412 * ηheat) * %electric_heat)) + (ΔTherms * fe * 29.3 * (1 - %electric_heat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%AC*	Varies	Tracking Data
Input	*r_old*	Varies	Tracking Data

Input	*r_attic*	Varies	Tracking Data
Input	*a_attic*	Varies	Tracking Data
Input	*framing_factor_attic*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Input	*cdd*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Input	*dua*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηcool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*%electric_heat*	Varies	Tracking Data
Input	*hdd*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*adjattic*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηheat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*fe*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ΔTherms*	Varies	((1/R_old - 1/R_attic) * A_Attic* (1 - FramingFactorAttic)* HDD * 24 *ADJAtticHeat)/((ηHeat * 100,000)). Assume ηHeat is 0.71.
Input	*CF*	0.000466081	Ameren Missouri TRM V7.0 Vol. 3, p. 117.
EUL		1	n/a
Inc Cost		Varies	Total cost.
Measure Name: Ceiling Fan			
Savings	*ΔkWh*		*(Days * FanHours * ((%Lowbase * WattsLowbase) + (%Medbase * WattsMedbase) + (%Highbase * WattsHighbase)) / 1000) - (Days * FanHours * ((%LowES * WattsLowES) + (%MedES * WattsMedES) + (%HighES * WattsHighES)) / 1000) + Lighting_Savings*
Savings	*ΔkW*		*Lighting_Savings * CF*
Input	*Days*	365.25	Illinois TRM V12.0, Vol. 3, p. 200.
Input	*FanHours*	3	Illinois TRM V12.0, Vol. 3, p. 200.
Input	*%Lowbase*	0.4	Illinois TRM V12.0, Vol. 3, p. 200.
Input	*WattsLowbase*	15	Illinois TRM V12.0, Vol. 3, p. 200.
Input	*%Medbase*	0.4	Illinois TRM V12.0, Vol. 3, p. 200.
Input	*WattsMedbase*	34	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*%Highbase*	0.2	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*WattsHighbase*	67	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*%LowES*	0.4	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*WattsLowES*	5	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*%MedES*	0.4	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*WattsMedES*	14	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*%HighES*	0.2	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*WattsHighES*	32	Illinois TRM V12.0, Vol. 3, p. 201.
Input	*CF*	0.000149253	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*Lighting_Savings*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty

EUL		10	Illinois TRM V12.0, Vol. 3, p. 199.
Inc Cost		46	Illinois TRM V12.0, Vol. 3, p. 199.
Measure Name: LED Specialty Lamp			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 104.
Input	*Watt_EE*	Varies	Tracking Data
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours_res*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*WHFeCool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 103.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 103.

2.3 HVAC (Midstream and Downstream)

Variable Type	*Variable Name*	*Variable Value*	*Variable Value Source*
Measure Name: Ductless Heat Pump			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.

Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74. Varies by pre-existing cooling system: adjusted to SEER2 terms. ASHP: 7.2 * 0.96 = 6.91; CAC: 6.8 * 0.96 = 6.53.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74.
Input	*HSPF2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74. Varies by pre-existing heating system. Adjusted to HSPF2 terms. ASHP: 6.58 * 0.87 = 5.72; Electric Resistance: 3.41.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 74.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 75.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 73.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 73.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Air Source Heat Pump			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 63.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 64. Varies by pre-existing cooling system: adjusted to SEER2 terms. ASHP: 7.2 * 0.96 = 6.91; CAC: 6.8 * 0.96 = 6.53.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.

Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
Input	*HSPF2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 64. Varies by pre-existing heating system. Adjusted to HSPF2 terms. ASHP: 5.44 * 0.87 = 4.73; Electric Resistance: 3.41.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Central Air Conditioner			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 86. Assume 10 SEER, adjust to SEER2 terms and apply degradation factor based on assumed age of 12 years: 10*0.96*(1 - 0.0144)^12 = 8.07.
Input	*SEER2_base*	13.4	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Ground Source Heat Pump			

Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF_base) - (Capacity_heat_ee / HSPF_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF_exist) - (Capacity_heat_ee / HSPF_base)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_exist / EER_exist) - (Capacity_cool_ee / EER_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / EER_exist) - (Capacity_cool_ee / EER_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF_base) - (Capacity_heat_ee / HSPF_ee)) / 1000 * EFLH_heat * (1 - fuel_switching)) + (((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / EER_base) - (Capacity_cool_ee / EER_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 96.
Input	*EER_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 96. Varies by pre-existing cooling system: adjusted to SEER2 terms. ASHP: 7.2 * 0.96 = 6.91; CAC: 6.54 * 0.96 = 6.28.
Input	*EER_base*	14	Ameren Missouri TRM V7.0 Vol. 3, p. 96.
Input	*EER_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 97.
Input	*HSPF_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 97. Varies by pre-existing heating system. ASHP: 5.44; Electric Resistance: 3.41.
Input	*HSPF_base*	8.2	Ameren Missouri TRM V7.0 Vol. 3, p. 97.
Input	*HSPF_ee*	Varies	Characteristics of applicable equipment. COP * 3.412.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 97.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 95.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 95.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Smart Thermostat			
Savings	*ΔkWh*		*((Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * (1 - replacing_smart_thermostat)) + (%ElectricHeat * HeatingConsumption_Electric * HF * HeatingReduction * (1 - replacing_smart_thermostat)) + (ΔTherms * Fe * 29.3 * (1 - replacing_smart_thermostat))*
Savings	*ΔkW*		*(Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * (1 - replacing_smart_thermostat) * CF*
Input	*%AC*	Varies	Tracking Data

Input	*Capacity_cool*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CoolingReduction*	0.08	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*SEER*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HeatingReduction*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*HeatingConsumption_Electric*	Varies	If electric heating equipment information known: (Capacity_heat / HSPF_ee) / 1000 * EFLH_heat * %ElectricHeat); otherwise, defaults Ameren Missouri TRM V7.0 Vol. 3, p. 58.
Input	*HF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*ΔTherms*	Varies	ΔTherms = %FossilHeat * HeatingConsumption_Gas * HF * HeatingReduction
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*replacing_smart_thermostat*	Varies	This variable equals 1 if replacing a smart thermostat, 0 if not, and otherwise indicates the percentage of program smart thermostats replacing other smart thermostats.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 57.
Inc Cost		Varies	Applicable Appendix F reference value.

2.4 Pay as you Save® ("PAYS®")

Variable Type	*Variable Name*	*Variable Value*	*Variable Value Source*
Measure Name: Central Air Conditioner			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.

Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 (Vol. 3, p. 86). SEER is sourced from project documentation. The value is adjusted to SEER2 terms and factored by a degradation factor based on an assumed age of 12 years: Rated_SEER1*0.96*(1 - 0.0144)^12 = SEER2_exist.
Input	*SEER2_base*	13.4	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Air Source Heat Pump			
Savings - 1	*ΔkWh Baseline 1*		(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)
Savings - 2	*ΔkW Baseline 1*		((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF
Savings - 2	*ΔkWh* (Baseline 2)		(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)
Savings - 2	*ΔkW* (Baseline 2)		(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 63.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 (Vol. 3, p. 64). SEER is sourced from project documentation. The value is adjusted to SEER2 terms: Rated_SEER1*0.96 = SEER2_exist.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
Input	*HSPF2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 64. Varies by pre-existing heating system. Heat pump HSPF1 adjusted to HSPF2 terms.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.

Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Smart Thermostat			
Savings	*ΔkWh*		*((Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction) + (%ElectricHeat * HeatingConsumption_Electric * HF * HeatingReduction) + (ΔTherms * Fe * 29.3)*
Savings	*ΔkW*		*(Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * CF*
Input	*%AC*	Varies	Tracking Data
Input	*Capacity_cool*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CoolingReduction*	0.08	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*SEER*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HeatingReduction*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*HeatingConsumption_Electric*	Varies	Equals: (Capacity_heat / HSPF_ee) / 1000 * EFLH_heat * %ElectricHeat)
Input	*HF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*ΔTherms*	Varies	ΔTherms = %FossilHeat * HeatingConsumption_Gas * HF * HeatingReduction
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 57.
Inc Cost		125	Applicable Appendix F reference value.
Measure Name: Advanced Power Strip			
Savings	*ΔkWh*		*kWh_Office * Weighting_Office + kWh_Ent * Weighting_Ent*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*kWh_Office*	31	Ameren Missouri TRM V7.0 Vol. 3, p. 31.
Input	*Weighting_Office*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 31. Based on installation location indicated in tracking data.
Input	*kWh_Ent*	75.1	Ameren Missouri TRM V7.0 Vol. 3, p. 31.
Input	*Weighting_Ent*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 31. Based on installation location indicated in tracking data.
Input	*CF*	0.00011482	Ameren Missouri TRM V7.0 Vol. 3, p. 31.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 30.
Inc Cost		Varies	Applicable Appendix F reference value.

Measure Name: Air Sealing			
Savings	*ΔkWh*		*((((CFM50Pre - CFM50Post) / Ncool) * 60 * 24 * CDD * DUA * 0.018 * LM) / (1000 * ηCool) * %AC) + ((((CFM50Pre - CFM50Post) / Nheat) * 60 * 24 * HDD * 0.018) / (ηHeat * 3412) * %ElectricHeat) + (ΔTherms * Fe * 29.3 * (1 - %ElectricHeat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%AC*	Varies	Tracking Data
Input	*CFM50Pre*	Varies	Tracking Data
Input	*CFM50Post*	Varies	Tracking Data
Input	*Ncool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 111. Varies based on number of stories.
Input	*CDD*	1646	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*DUA*	0.75	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*LM*	3	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*ηCool*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*Nheat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 111. Varies based on number of stories.
Input	*HDD*	4486	Ameren Missouri TRM V7.0 Vol. 3, p. 112.
Input	*ηHeat*	Varies	Characteristics of applicable equipment.
Input	*Fe*	0.0314	0
Input	*ΔTherms*	Varies	(((CFM50Pre- CFM50Post)/ Nheat) * 60 * 24 * HDD * 0.018) / (ηHeat * 100,000) * (1 - %ElectricHeat). Assume ηHeat is 0.71.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		15	Ameren Missouri TRM V7.0 Vol. 3, p. 110.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Ceiling Insulation			
Savings	*ΔkWh*		*(((1 / R_Old - 1 / R_Attic) * Aattic * (1 - FramingFactorAttic) * CDD * 24 * DUA) / (1000 * ηCool) * %AC) + ((((1 / R_Old - 1 / R_Attic) * Aattic * (1 - FramingFactorAttic) * HDD * 24 * ADJAtticHeat) / (3412 * ηHeat) * %ElectricHeat)) + (ΔTherms * Fe * 29.3 * (1 - %ElectricHeat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%AC*	Varies	Tracking Data
Input	*R_Old*	Varies	Tracking data, plus 5 R-value of uninsulated assemblies (Ameren Missouri TRM V7.0 Vol. 3, p. 115).
Input	*R_Attic*	Varies	Tracking data, plus 5 R-value of uninsulated assemblies (Ameren Missouri TRM V7.0 Vol. 3, p. 115).
Input	*Aattic*	Varies	Tracking data, review of home characteristics.
Input	*FramingFactorAttic*	0.07	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Input	*CDD*	1646	Ameren Missouri TRM V7.0 Vol. 3, p. 115.

Input	*DUA*	0.75	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηCool*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HDD*	4486	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ADJAtticHeat*	0.74	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηHeat*	Varies	Characteristics of applicable equipment.
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ΔTherms*	Varies	((1/R_old - 1/R_attic) * A_Attic* (1 - FramingFactorAttic)* HDD * 24 *ADJAtticHeat)/((ηHeat * 100,000)). Assume ηHeat is 0.71.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 117.
EUL		25	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Specialty LED			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 104.
Input	*Watt_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 104.
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*Hours_res*	728	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*WHFeCool*	1.12	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.00014925	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 103.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Duct Sealing			
Savings	*ΔkWh*		*((((CFM25Pre - CFM25Post) / (CapacityCool / 12000 * 400)) * EFLH_cool * CapacityCool) / 1000 / SEER2) + (((((CFM25Pre - CFM25Post) / (CapacityHeat / 12000 * 400)) * EFLH_heat * CapacityHeat) / 100000 / COP) * %ElectricHeat) + (ΔTherms * Fe * 29.3 * (1 - %ElectricHeat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*CFM25Pre*	Varies	Tracking Data
Input	*CFM25Post*	Varies	Tracking Data
Input	*CapacityCool*	Varies	Characteristics of applicable equipment.
Input	*SEER2*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	869	Ameren Missouri TRM V7.0 Vol. 3, p. 68.

Input	*%ElectricHeat*	Varies	Tracking Data
Input	*CapacityHeat*	Varies	Characteristics of applicable equipment.
Input	*COP*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	1496	Ameren Missouri TRM V7.0 Vol. 3, p. 68.
Input	*Fe*	0.0314	0
Input	*ΔTherms*	Varies	(((CFM25Pre - CFM25Post) / (CapacityHeat / 12000 * 400) * EFLH_heat * CapacityHeat) / (100000 * COP)) * (1 - %ElectricHeat)
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		20	Ameren Missouri TRM V7.0 Vol. 3, p. 66.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Standard LED			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Watt_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours_res*	995.18	Ameren Missouri TRM V7.0 Vol. 3, p. 100.
Input	*WHFeCool*	1.12	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.00014925	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 98.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Hot Water Pipe Insulation			
Savings	*ΔkWh*		*%ElectricDHW * ((C_Base / R_Base - C_EE / R_EE) * L * ΔT * Hours) / (ηDHW_Elec * 3412)*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*C_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 50. pipe_diameter * PI() / 12
Input	*R_Base*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*C_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*R_EE*	3.6	Appendix F for applicable measure.
Input	*L*	Varies	Length of feet installed. Program tracking data.
Input	*ΔT*	60	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*Hours*	8766	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*ηDHW_Elec*	0.98	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*%ElectricDHW*	Varies	Program tracking data.

Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
EUL		12	Ameren Missouri TRM V7.0 Vol. 3, p. 50.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Faucet Aerator			
Savings	*ΔkWh*		*(GPMbase * L_base - GPMlow_as_used * L_low) * Household * 365.25 * DF / FPH * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	2.2	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*L_base*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*GPMlow_as_used*	1.5	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*L_low*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*Household*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. Actual where available.
Input	*DF*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*FPH*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 38.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 35.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Showerhead			
Savings	*ΔkWh*		*%ElectricDHW * ((GPMbase * L_base - GPMlow * L_low) * Household * SPCD * 365.25 / SPH) * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	2.2	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*L_base*	7.8	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*GPMlow*	1.5	Appendix F for applicable measure ID.
Input	*L_low*	7.8	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*Household*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 41. Actual where available.
Input	*SPCD*	0.832	Ameren Missouri TRM V7.0 Vol. 3, p. 42.
Input	*SPH*	2.05	Ameren Missouri TRM V7.0 Vol. 3, p. 42.
Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 43.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 42. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
Input	*%ElectricDHW*	Varies	Program tracking data.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 40.
Inc Cost		Varies	Applicable Appendix F reference value.

2.5 Single Family Income Eligible

Variable Type	Variable Name	Variable Value	Variable Value Source
Measure Name: Central Air Conditioner			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.
Input	*SEER2_exist*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 86. SEER2 * (1-0.0144)^Age.
Input	*SEER2_base*	13.4	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Central Air Conditioner Tune-up			
Savings	*ΔkWh*		*(EFLH_cool * Capacity_cool_ee * (1 / SEER2_test_in - 1 / SEER2_test_out) / 1000)*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment. If unknown, applied default from Ameren Missouri TRM V7.0 Vol. 3, p. 86.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 85.
Input	*SEER2_test_in*	Varies	Characteristics of applicable equipment.
Input	*SEER2_test_out*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 80. (SEER2_test-in * (1 + %_improvement))
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 86.
EUL		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 84.
Inc Cost		Varies	Applicable Appendix F reference value.

Measure Name: Smart Thermostat			
Savings	*ΔkWh*		*((Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction) + (%ElectricHeat * HeatingConsumption_Electric * HF * HeatingReduction) + (ΔTherms * Fe * 29.3)*
Savings	*ΔkW*		*(Capacity_cool / SEER) / 1000 * EFLH_cool * %AC * CoolingReduction * CF*
Input	*%AC*	Varies	Tracking Data
Input	*Capacity_cool*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CoolingReduction*	0.08	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*SEER*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HeatingReduction*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 60.
Input	*HeatingConsumption_Electric*	Varies	If electric heating equipment information known: (Capacity_heat / HSPF_ee) / 1000 * EFLH_heat * %ElectricHeat); otherwise, defaults Ameren Missouri TRM V7.0 Vol. 3, p. 58.
Input	*HF*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
Input	*ΔTherms*	Varies	ΔTherms = %FossilHeat * HeatingConsumption_Gas * HF * HeatingReduction
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 59.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 57.
Inc Cost		125	Applicable Appendix F reference value.
Measure Name: Room Air Conditioner			
Savings	*ΔkWh*		*((FLH_RoomAC * Capacity_cool * (1 / CEER_base - 1 / CEER_ee))) / 1000*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Capacity_cool*	Varies	Characteristics of applicable equipment, or if unknown 10,322 (Ameren Missouri Community Savers Evaluation PY2017 as cited for Appendix F measure 405900_2021_12_).
Input	*FLH_RoomAC*	860	Ameren Missouri TRM V7.0 Vol. 3, p. 94. Assume primary use.
Input	*CEER_base*	10.8336669	Ameren Missouri Community Savers Evaluation PY2017, as cited for Appendix F measure 405900_2021_12_.
Input	*CEER_ee*	11.9559723	Ameren Missouri Community Savers Evaluation PY2017, as cited for Appendix F measure 405900_2021_12_.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 94.
EUL		9	Ameren Missouri TRM V7.0 Vol. 3, p. 93.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: ECM Motor Fan			

Savings	*ΔkWh*		*(((1 - %_with_new_ashp) * wi_heating_savings * eflh_heating / wi_eflh_heating * hf) + ((1 - %_with_new_central_cooling) * wi_cooling_savings * eflh_cooling / wi_eflh_cooling * hf) + ((25 * eflh_cooling / wi_eflh_cooling + wi_circulation_savings * rt - standby_losses))) * savings_applicable*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%_with_new_ashp*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_heating_savings*	400	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*eflh_heating*	2009	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_eflh_heating*	2545.25	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*%_with_new_central_cooling*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_cooling_savings*	70	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*eflh_cooling*	1215	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_circulation_savings*	2960	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*rt*	0.08808461	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*standby_losses*	30	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*hf*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*wi_eflh_cooling*	542.5	Ameren Missouri TRM V7.0 Vol. 3, p. 83.
Input	*savings_applicable*	Varies	Equals 1 if retrofit to existing system or installed with new system with early replacement baseline; otherwise equals 0.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		6	Ameren Missouri TRM V7.0 Vol. 3, p. 82. Adjusted to six years to match the remaining useful life of the existing furnace.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Air Sealing			
Savings	*ΔkWh*		*((((CFM50Pre - CFM50Post) / Ncool) * 60 * 24 * CDD * DUA * 0.018 * LM) / (1000 * ηCool) * %AC) + ((((CFM50Pre - CFM50Post) / Nheat) * 60 * 24 * HDD * 0.018) / (ηHeat * 3412) * %ElectricHeat) + (ΔTherms * Fe * 29.3 * (1 - %ElectricHeat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%AC*	Varies	Tracking Data
Input	*CFM50Pre*	Varies	Tracking Data
Input	*CFM50Post*	Varies	Tracking Data
Input	*Ncool*	34.9	Ameren Missouri TRM V7.0 Vol. 3, p. 111. Assume single story home.
Input	*CDD*	1646	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*DUA*	0.75	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*LM*	3	Ameren Missouri TRM V7.0 Vol. 3, p. 111.
Input	*ηCool*	Varies	Characteristics of applicable equipment.

Input	*%ElectricHeat*	Varies	Tracking Data
Input	*Nheat*	24	Ameren Missouri TRM V7.0 Vol. 3, p. 111. Assume single story home.
Input	*HDD*	4486	Ameren Missouri TRM V7.0 Vol. 3, p. 112.
Input	*ηHeat*	Varies	Characteristics of applicable equipment.
Input	*Fe*	0.0314	0
Input	*ΔTherms*	Varies	(((CFM50Pre- CFM50Post)/ Nheat) * 60 * 24 * HDD * 0.018) / (ηHeat * 100,000) * (1 - %ElectricHeat). Assume ηHeat is 0.71.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		15	Ameren Missouri TRM V7.0 Vol. 3, p. 110.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Ceiling Insulation			
Savings	*ΔkWh*		*(((1 / R_Old - 1 / R_Attic) * Aattic * (1 - FramingFactorAttic) * CDD * 24 * DUA) / (1000 * ηCool) * %AC) + ((((1 / R_Old - 1 / R_Attic) * Aattic * (1 - FramingFactorAttic) * HDD * 24 * ADJAtticHeat) / (3412 * ηHeat) * %ElectricHeat)) + (ΔTherms * Fe * 29.3 * (1 - %ElectricHeat))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%AC*	Varies	Tracking Data
Input	*R_Old*	Varies	Tracking data, plus 5 R-value of uninsulated assemblies (Ameren Missouri TRM V7.0 Vol. 3, p. 115).
Input	*R_Attic*	Varies	Tracking data, plus 5 R-value of uninsulated assemblies (Ameren Missouri TRM V7.0 Vol. 3, p. 115).
Input	*Aattic*	Varies	Tracking data, review of home characteristics.
Input	*FramingFactorAttic*	0.07	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Input	*CDD*	1646	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Input	*DUA*	0.75	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηCool*	Varies	Characteristics of applicable equipment.
Input	*%ElectricHeat*	Varies	Tracking Data
Input	*HDD*	4486	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ADJAtticHeat*	0.74	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ηHeat*	Varies	Characteristics of applicable equipment.
Input	*Fe*	0.0314	Ameren Missouri TRM V7.0 Vol. 3, p. 116.
Input	*ΔTherms*	Varies	((1/R_old - 1/R_attic) * A_Attic* (1 - FramingFactorAttic)* HDD * 24 *ADJAtticHeat)/((ηHeat * 100,000)). Assume ηHeat is 0.71.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 117.
EUL		25	Ameren Missouri TRM V7.0 Vol. 3, p. 115.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Standard LED			

Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Watt_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*LKG*	0	Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours_res*	674.18	Ameren Missouri TRM V7.0 Vol. 3, p. 100.
Input	*WHFeCool*	1.12	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.00014925	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 98.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Specialty LED			
Savings	*ΔkWh*		*(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_res * WHFeCool) / 1000) - Heating_Penalty*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*Watt_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 104.
Input	*Watt_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 104.
Input	*LKG*	0	Applied Ameren Missouri TRM V7.0 Vol. 3, p. 99.
Input	*Hours_res*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*WHFeCool*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 106.
Input	*HF*	0.53	Ameren Missouri TRM V7.0 Vol. 3, p. 105.
Input	*Heating_Penalty*	Varies	(((Watt_Base - Watt_EE) * (1 - LKG) * Hours_RES) / 1,000) * ((HF / ηHeat) * %ElecHeat)
Input	*CF*	0.00014925	Ameren Missouri TRM V7.0 Vol. 3, p. 101.
EUL		19	Ameren Missouri TRM V7.0 Vol. 3, p. 103.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Faucet Aerator			
Savings	*ΔkWh*		*(GPMbase * L_base - GPMlow_as_used * L_low) * Household * 365.25 * DF / FPH * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	2.2	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*L_base*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*GPMlow_as_used*	1.5	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*L_low*	3.7	Ameren Missouri TRM V7.0 Vol. 3, p. 36.
Input	*Household*	1.564	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*DF*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 37.
Input	*FPH*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37.

Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 38.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 35.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Refrigerator			
Savings	*ΔkWh*		*(kWh_exist - (kWh_base * (1 - %Savings)) + (- (HF / ηHeatElectric) * %ElecHeat) + (CoolF / ηCool * %Cool) * (kWh_exist - (kWh_base * (1 - %Savings))))*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*kWh_exist*	962	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Assumed top freezer, 1993-2001, 18 cu ft.
Input	*kWh_base*	574	Ameren Missouri TRM V7.0 Vol. 3, p. 25. Applicable to top freezer model.
Input	*%Savings*	0.1	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Applicable to Energy Star model.
Input	*HF*	0.58	Ameren Missouri TRM V7.0 Vol. 3, p. 24.
Input	*ηHeatElectric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 24. Depends on heating type.
Input	*%ElecHeat*	Varies	Tracking Data
Input	*CoolF*	0.4	Ameren Missouri TRM V7.0 Vol. 3, p. 25.
Input	*ηCool*	Varies	Tracking Data
Input	*%Cool*	Varies	Tracking Data
Input	*CF*	0.00012853	Ameren Missouri TRM V7.0 Vol. 3, p. 26.
EUL		17	Ameren Missouri TRM V7.0 Vol. 3, p. 23.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Showerhead			
Savings	*ΔkWh*		*%ElectricDHW * ((GPMbase * L_base - GPMlow * L_low) * Household * SPCD * 365.25 / SPH) * EPG_electric*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*GPMbase*	2.2	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*L_base*	8.66	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*GPMlow*	1.5	Appendix F for applicable measure ID.
Input	*L_low*	8.66	Ameren Missouri TRM V7.0 Vol. 3, p. 41.
Input	*Household*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 41. Actual where available.
Input	*SPCD*	0.66	Ameren Missouri TRM V7.0 Vol. 3, p. 42.
Input	*SPH*	2.05	Ameren Missouri TRM V7.0 Vol. 3, p. 42.
Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 43.
Input	*EPG_electric*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 37. (8.33 * 1.0 * (WaterTemp - SupplyTemp)) / (RE_electric * 3412)
Input	*%ElectricDHW*	Varies	Program tracking data.

EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 40.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Hot Water Pipe Insulation			
Savings	*ΔkWh*		*%ElectricDHW * ((C_Base / R_Base - C_EE / R_EE) * L * ΔT * Hours) / (ηDHW_Elec * 3412)*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*C_Base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 50. pipe_diameter * PI() / 12
Input	*R_Base*	1	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*C_EE*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*R_EE*	3.6	Appendix F for applicable measure.
Input	*L*	Varies	Tracking Data
Input	*ΔT*	60	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*Hours*	8766	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*ηDHW_Elec*	0.98	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
Input	*%ElectricDHW*	Varies	Program tracking data.
Input	*CF*	8.8732E-05	Ameren Missouri TRM V7.0 Vol. 3, p. 51.
EUL		12	Ameren Missouri TRM V7.0 Vol. 3, p. 50.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Air Source Heat Pump			
Savings - 1	*ΔkWh Baseline 1*		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_heat_exist / HSPF2_exist) - (Capacity_heat_ee / HSPF2_base)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW Baseline 1*		*((((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) + (((Capacity_cool_exist / SEER2_exist) - (Capacity_cool_ee / SEER2_base)) / 1000 * EFLH_cool)) * CF*
Savings - 2	*ΔkWh* (Baseline 2)		*(((Capacity_heat_ee / HSPF2_base) - (Capacity_heat_ee / HSPF2_ee)) / 1000 * EFLH_heat * (1 - B83)) + (((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool)*
Savings - 2	*ΔkW* (Baseline 2)		*(((Capacity_cool_ee / SEER2_base) - (Capacity_cool_ee / SEER2_ee)) / 1000 * EFLH_cool) * CF*
Input	*Capacity_cool_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_cool_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_cool*	869	Ameren Missouri TRM V7.0 Vol. 3, p. 63.
Input	*SEER2_exist*	Varies	Characteristics of applicable equipment, adjusted to SEER2 terms: SEER1 * 0.96 = SEER2.
Input	*SEER2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.

Input	*SEER2_ee*	Varies	Characteristics of applicable equipment.
Input	*Capacity_heat_exist*	Varies	Assumed equivalent to new equipment.
Input	*Capacity_heat_ee*	Varies	Characteristics of applicable equipment.
Input	*EFLH_heat*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
Input	*HSPF2_exist*	Varies	Characteristics of applicable equipment.
Input	*HSPF2_base*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 61.
Input	*HSPF2_ee*	Varies	Characteristics of applicable equipment.
Input	*CF*	0.00094742	Ameren Missouri TRM V7.0 Vol. 3, p. 65.
EUL - 1		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
EUL - 2		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 62.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Duct Sealing			
Savings	*ΔkWh*		*(HeatSavingsPerUnit + CoolSavingsPerUnit) * Linear_feet_of_duct*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*HeatSavingsPerUnit*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 70.
Input	*CoolSavingsPerUnit*	Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 70.
Input	*Linear_feet_of_duct*	Varies	Tracking Data
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 113.
EUL		20	Ameren Missouri TRM V7.0 Vol. 3, p. 66.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Advanced Power Strip (Tier 2)			
Savings	*ΔkWh*		*baseline_kwh * energy_reduction_%*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*baseline_kwh*	432	Ameren Missouri TRM V7.0 Vol. 3, p. 34.
Input	*energy_reduction_%*	0.375	Ameren Missouri TRM V7.0 Vol. 3, p. 34. Average value.
Input	*CF*	0.00011482	Ameren Missouri TRM V7.0 Vol. 3, p. 48.
EUL		10	Ameren Missouri TRM V7.0 Vol. 3, p. 33.
Inc Cost		Varies	Applicable Appendix F reference value.
Measure Name: Dirty Filter Alarm			
Savings	*ΔkWh*		*%heating * kw * eflh_heat * ei + %ac * kw * eflh_cool * ei*
Savings	*ΔkW*		*per_unit_gross_ex_post_kwh_savings * CF*
Input	*%heating*	1.0	All systems provided heating.
Input	*kw*	0.5	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*eflh_heat*	1496	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*ei*	0.15	Ameren Missouri TRM V7.0 Vol. 3, p. 88.

Input	*%ac*	Varies	Tracking Data
Input	*eflh_cool*	869	Ameren Missouri TRM V7.0 Vol. 3, p. 88.
Input	*CF*	0.00046608	Ameren Missouri TRM V7.0 Vol. 3, p. 87.
EUL		14	Ameren Missouri TRM V7.0 Vol. 3, p. 87.
Inc Cost		Varies	Ameren Missouri TRM V7.0 Vol. 3, p. 87.

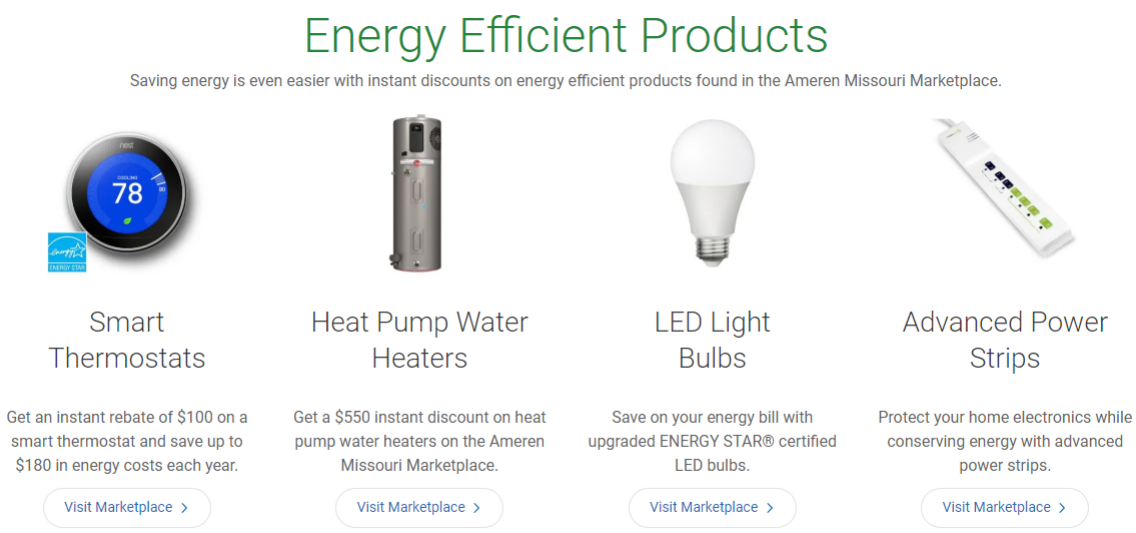
3 Efficient Products Participant Survey Instrument

Variable Name	Variable Definition
Address	Address of purchasing customer
Project_Description	Description of all rebated measures
APS_Quantity	Quantity of power strips purchased
APS_Tier	Tier 1 or Tier 2
HPWH_Quantity	Quantity of water heaters purchase
Thermostat	1 = thermostat purchased
Equipment	Equipment purchased through the program. This will be sampled if customer bought multiple items. Either: “advanced power strip”,“smart thermostat”, or “heat pump water heater”
Year	Year of participation

Research Topic	Survey Questions
Screening	Q1 – Q2
Program awareness and decision making	Q15 – Q18
Verification	Q3 – Q14
Program influence on measures	Q19 – Q54
Satisfaction	Q55 – Q61
Demographic and home characteristics	Q63 - Q73

3.1 Screening

1. Our records indicate that you or someone in your household participated in Ameren Missouri’s Efficient Products Program by buying [Project_Description] through Ameren Missouri’s marketplace.



This survey is about your experiences with the marketplace. Do you recall you or another person in your household buying the [Project_Description]?

1. Yes
2. No **[Terminate]**
98. I don't know **[Terminate]**

2. Are you the person in your household who made that purchase?

1. Yes
2. No **[Terminate]**
99. I don't know **[Terminate]**

3.2 Verification

[Display if APS_Quantity >0]

3. Just to confirm, our records say that you bought [APS_Quantity] advanced power strip(s) from the Ameren Missouri Online Marketplace. Is that correct?

1. Yes
2. No
98. Not sure

[Display if Q3 = 2]

4. How many advanced power strips did you buy from the Ameren Missouri Online Marketplace?

0. None

1. One
2. Two
3. Three
98. Not sure

[IF Q3 = 1, APS_Received = APS_Quantity,

If Q4= 1, APS_Received = 1

If Q4= 2, APS_Received = 2

If Q4= 3, APS_Received = 3

If Q3 = 98 or Q4 = 98 or Q4 = 0, APS_Received = 0]

[Display if APS_Received > 0]

5. How many advanced power strips are currently installed?

0. None
1. One
2. **[Display if APS_Received >1]** Two
3. **[Display if APS_Received >2]** Three
98. Not sure

[If Q5 = 1, APS_Installed = 1

If Q5 = 2, APS_Installed = 2

If Q5 = 3, APS_Installed = 3

If Q5 = 98 or Q5 = 0, APS_Installed = 0]

[Display if Q5 = 1 - 3]

6. What type of equipment are you using with the advanced power strip?

[Scale: 1 = Audio/visual/entertainment equipment, 2 = Computer/office equipment, 3 = Other types of equipment] [Multi-select]

a) **[Display if Q5>0]** First advanced power strip
b) **[Display if Q5>1]** Second advanced power strip
c) **[Display if Q5>2]** Third advanced power strip

[Display if APS_ Received > APS_Installed]

7. Why are you not using all the advanced power strip(s) that you bought? (Please select any that apply)

[Randomize 1- 6]

1. The power turned off while I was using equipment that was plugged into it
2. Not interested in it
3. Damaged/didn't work right
4. I did not know how to use it
5. I have not had the time to install it
6. I have not received the power strips
7. For another reason (Please describe)

[Display if Thermostat = 1]

8. Just to confirm, our records say that you bought a smart thermostat(s) from the Ameren Missouri Online Marketplace. Is that correct?

   1. Yes
   2. No
   98. Not sure

[Display if Q8 = 1]

9. Is the smart thermostat that you bought currently installed?

   1. Yes
   2. No
   98. Not sure

[Display if Q9 = 2]

10. Why is the smart thermostat not currently installed? (Please select any that apply)

[Randomize 1- 5]

   1. You are planning to install it but have not had time to do it
   2. You don't know how to install it
   3. The thermostat is not working correctly
   4. You don't like the thermostat
   5. You have not received the thermostat
   98. For another reason (Please describe)

[Display if Q9 = 1]

11. What type of thermostat did the smart thermostat replace?

   1. A programmable thermostat that allows you to schedule the temperature settings for different times of the day
   2. A manual thermostat that lets you manually change the temperature and set on/off temperatures
   3. A different Wi-Fi smart thermostat

98. Don't know

[Display if HPWH_Quantity = 1]

12. Our records say that you bought a heat pump water heater from the Ameren Missouri Online Marketplace. Is that correct?

    1. Yes
    2. No
    98. I don't know

[Display if Q12 = 1]

13. Is the heat pump water heater currently installed?

    1. Yes
    2. No

[Display if Q13 = 1]

14. Why is the heat pump water heater not installed (Please select any that apply)

[Randomize 1- 5]

    1. It stopped working or failed
    2. You can't find a contractor to install it
    3. You don't know how to install it
    4. You have not had time to install it
    5. You have not received it
    6. For another reason (Please explain)
    98. Don't know

[IF Q3 = 2 or Q8 = 2 or Q12 = 2, Terminate Survey]

3.3 Program Awareness and Decision Making

15. How did you first learn of the Ameren Missouri Marketplace? **[Randomize 1- 9]**

    1. Social media (Facebook, Instagram)
    2. Ameren Missouri's website
    3. Friend, family member, or colleague
    4. Bill inserts or utility mailer
    5. Email from Ameren Missouri
    6. Internet search (e.g., Google search) or internet advertisement
    7. Print advertisement
    8. TV advertisement

9. Community event
96. Other (Please specify)
98. I don't know

16. The following questions are about the [Equipment] you bought through the program. You may have bought other items, but we would like you think about the [Equipment].

    Why did you buy the [Equipment] on the Ameren Missouri Marketplace website instead of somewhere else? (Please select any that apply)

[Multiselect] [Randomize 1- 4]

1. To get the Ameren Missouri discount
2. It was convenient / easy
3. The product selection was good
4. I would not have bought it elsewhere
96. Other (Please specify)
98. I don't know **[Exclusive]**

17. Where did you get information about the [Equipment] to help you decide which one to buy?

[Multiselect] [Randomize 2-11]

1. I did not seek additional information on the product **[Exclusive]**
2. Previous experience with this type of equipment or appliance
3. Tradesperson (e.g., Contractor, Plumber, etc.)
4. Ameren Missouri Representative
5. Ameren Missouri website
6. Friend, family member, or colleague
7. A retailer
8. Product manufacturer
9. Social media (e.g., Facebook, Instagram)
10. Internet search (e.g., Google search)
11. Consumer products magazine or website (e.g., Consumer Reports, Wirecutter)
12. Other (Please specify)
98. I don't know **[Exclusive]**

[Display if Q17 = 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12]

[Loop through for each item selected in Q17. Map the response option to the piped language as follows:

2. Previous experience with this type of equipment or appliance = your previous experience with the equipment or appliance
3. Tradesperson (e.g., Contractor, Plumber, etc.) = the tradesperson
4. Ameren Missouri Representative = the Ameren Missouri Representative
5. Ameren Missouri website = the Ameren Missouri website
6. Friend, family member, or colleague = your friend, family member, or colleague

7. A retailer = the retailer
8. Product manufacturer = the product manufacturer
9. Social media (e.g., Facebook, Instagram) = social media
10. Internet search (e.g., Google search) = your internet search results
11. Consumer products magazine or website (e.g., Consumer Reports, Wirecutter) = the consumer products magazine or website
12. Other (Please specify) = the other source of information used

18. How influential was [Q17 response] in your decision to purchase the [Equipment]?

[Response scale: 1 = Not at all influential to 5 = Very influential]

3.4 Free Ridership

19. Before learning about the incentives offered on the Ameren Missouri Marketplace, had you already planned to buy the energy efficient [Equipment]?

    1. Yes
    2. No

20. Would you have bought the same high efficiency [Equipment] without the Ameren Missouri incentive?

    1. Yes
    2. No

[Display if Equipment = smart thermostat]

21. If the Ameren Missouri Marketplace did not offer incentives on smart thermostats, what kind of thermostat would you have bought?

    1. The same thermostat or another smart learning thermostat.
    2. A programmable thermostat
    3. A manual thermostat
    4. Not bought anything

[Display if Equipment = advanced power strip]

22. If the Ameren Missouri Marketplace did not offer incentives on advanced power strips, what kind of power strip would you most likely have bought?

    1. A Tier 2 advanced power strip (A Tier 2 Advanced Power Strip improves upon Tier 1 features by adding a system that detects when you're not using your TV and turns it off along with other devices plugged into it.)
    2. A Tier 1 advanced power strip (A Tier 1 Advanced Power Strip operates on a master/switched principle, automatically powering off peripherals when the primary device, such as a TV or PC, is switched off, relying on user behavior for energy savings.)

3. Some other kind of power strip
4. Not bought anything

[Display if Equipment <> "advanced power strip" and Equipment <> "smart thermostat"]

23. If the Ameren Missouri Marketplace did not offer incentives, how efficient of a [Equipment] would you most likely have bought?

    1. The same efficient [Equipment] or one as efficient
    2. A lower efficiency [Equipment]
    3. The least efficient or least expensive [Equipment] available
    4. Not bought anything

24. If the Ameren Missouri Marketplace did not offer incentives, when would you most likely have bought the [Equipment]?

    1. At the same time
    2. Later, but within the same year
    3. One to two years out
    4. More than two years out or never

25. How important was each of the following in your decision to buy the energy efficient [equipment]?

[Scale = 1 (Not at all important), 2 (Slightly important), 3 (Moderately important), 4 (Very important), 5 (Extremely important), 99 = not applicable]

a) The Ameren Missouri incentive
b) Information about energy efficiency that Ameren Missouri provided
c) Information about the energy efficiency of the products provided by the Ameren Missouri Marketplace
d) The availability of the product in the Ameren Missouri Marketplace.

3.5 Spillover

26. We would like to know if you have installed any additional energy efficient equipment because of your experience with the program that you DID NOT receive an incentive or rebate for.

    Since participating in the Efficient Products program by buying the [Equipment] on the Ameren Missouri Marketplace, have you installed any ADDITIONAL energy efficient items in a household in Ameren Missouri's service territory without receiving an incentive or rebate?

    1. Yes
    2. No
    98. Don't know

[Display if Q26 = 1]

27. We would like to know what you installed because of your experience with the program that you did not get a rebate or discount for.
    Since participating in the program in [Year] have you done any of the following?

[Multiselect] [Randomize 1- 15]

1. Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer
2. Installed water heater pipe insulation
3. Installed water heater jacket, blanket, or insulation
4. Installed low flow faucet aerators
5. Installed low flow showerheads
6. Installed an ENERGY STAR® room air conditioner
7. Installed an energy efficient water heater, tankless water heater, or heat pump water heater
8. Installed a smart thermostat
9. Installed a high efficiency heating or cooling equipment
10. Insulated your attic or walls
11. Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)
12. Installed energy saving advanced power strips
13. Installed an ENERGY STAR® pool pump
14. Installed an ENERGY STAR® air purifier
15. Installed an ENERGY STAR® dehumidifier
16. Something else
17. None of the above **[Exclusive, Skip to end of block]**

[Display Q28 if Q27 = 7, 8, 9, or 12 and Loop through for each]

28. Why did you not get an Ameren Missouri incentive rebate or discount for the [Q27 response]?

    1. Did not know an incentive, rebate or discount was available
    2. Did not want to complete an application
    3. The application paperwork was too long or complicated
    4. I planned to but forgot
    5. Some other reason (please describe)
    6. I did get an incentive
    7. Don't know

3.5.1 Appliances

[Display if Q27 = 1]

29. What kind of appliance did you purchase?

[Multiselect]

1. Refrigerator
2. Freezer
3. Dishwasher

4. Clothes washer
5. Clothes dryer – Electric
6. Clothes dryer – Gas
7. Other (Please describe)
98. Don't know

[Display if Q27 = 1]

30. Does the appliance have an ENERGY STAR label?

1. Yes
2. No
98. Don't know

3.5.2 Low-Flow

[Display if Q27 = 4]

31. How many low flow faucet aerators did you install in bathroom sinks?

[Display if Q27 = 4]

32. How many low flow faucet aerators did you install in kitchen sinks?

[Display if Q27 = 5]

33. How many low flow showerheads did you install?

3.5.3 Room AC

[Display if Q27 = 6]

34. How many ENERGY STAR® room air conditioners did you install?

3.5.4 Water Heater

[Display if Q27 = 7]

35. How do you know that the water heater you installed is an energy efficient water heater?

[Display if Q27 = 7]

36. What type of water heater did you install? Was it a…

1. Natural gas storage tank water heater
2. Electric storage tank water heater
3. Heat pump water heater

4. A natural gas tank less water heater
5. Some other type of water heater (Specify)
98. Don't know

3.5.5 Wi-Fi Thermostat

[Display Q27 = 8]

37. What type of thermostat did the Wi-Fi thermostat replace?

1. A programmable thermostat that allows you to schedule the temperature settings for different times of the day
2. A manual thermostat that lets you manually change the temperature and set on/off temperatures
3. A different Wi-Fi smart thermostat
98. Don't know

[Display if Q27 = 8]

38. Does the thermostat control your heating system, cooling system, or both?

1. Heating system
2. Cooling system
3. Both

[Display if Q38 = 1 OR 3]

39. Do you have an electric heating system?

1. Yes
2. No
98. Don't know

[Display if Q39 = 1]

40. Is your heating system a heat pump?

1. Yes
2. No
98. Don't know

3.5.6 HVAC

[Display if Q27 = 9]

41. What type of heating or cooling equipment did you install?

1. Energy-efficient central air conditioner
2. Energy-efficient air source heat pump
3. Energy-efficient ground source heat pump
4. Energy-efficient ductless mini-split heat pump

5. Something else (please describe)

[Display if Q41 = 1]

42. What is the efficiency rating of the HVAC unit you purchased?

1. SEER: **[NUMERIC; OPEN-ENDED]**
2. EER: **[NUMERIC; OPEN-ENDED]**
98. Not sure

3.5.7 Insulation

[Display if Q27 = 10]

43. What is the R-value of the insulation you installed?

[Display if Q27 = 10]

44. Where did you install the new insulation?

[Multiselect]

1. Attic
2. Walls
98. Don't know

[Display if Q44 = 1]

45. Approximately what size (in square feet) is the attic where the insulation is installed?

1. Square feet: **[NUMERIC; OPEN-ENDED]**
98. Not sure

[Display if Q27 = 11]

46. What type of weatherization products did you install?

1. Door seals
2. Spray foam insulation
3. Door sweeps
4. Something else (please describe)

[Display if Q46 = 1 – 4, and loop and merge]

47. How many [Q46 RESPONSE] did you install?

3.5.8 Advanced Power Strips

[Display if Q27 = 12]

48. How many energy saving advanced power strips did you install?

    1. 1
    2. 2
    3. 3 or more

3.5.9 Air Purifiers

[Display if Q27 = 14]

49. How many ENERGY STAR® air purifiers did you install?

3.5.10 Dehumidifiers

[Display if Q27 = 15]

50. How many ENERGY STAR® dehumidifiers did you install?

3.5.11 Other

[Display if Q27 = 17]

51. What other energy efficient items did you install?

3.5.12 Attribution

[Loop and merge section for Q27 = 1 – 15, skip if did not install anything]

52. In approximately what month and year did you install the [Q27 response] that you did not receive an incentive for?

53. Using the scale below, how important was the experience with the program in your decision to install the [Q27 response]?

[SCALE: 0 = 0 (Not at all important), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely important), 98 = Don't know]

54. Using the scale below, how likely would you have been to install the [Q27 response] if you had not participated in the program?

[SCALE: 0 = 0 (Not at all likely), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely likely), 98 = Don't know]

3.6 Satisfaction

55. Using the scale below, how would you rate the ease of finding the product(s) you were interested in purchasing through the online marketplace?

[Response scale: 1 = Very difficult to 5 = Very easy]

56. Using the scale below, how clear was the information about the discount amount on the Ameren Missouri Online Marketplace?

[Response scale: 1 = Not at all clear to 5 = Very clear]

[Display if Q Error! Reference source not found. **< 3]**

57. What would have made the information about the discount clearer?

58. About how long did it take to receive the [Equipment] after purchase?

    1. 1 weeks or less
    2. 2 – 3 weeks
    3. 4 – 5 weeks
    6. More than 5 weeks
    7. I have not received the item(s) yet
    98. I don't know

59. Using the scale below, please rate how satisfied or dissatisfied you are with each of the following?

[Response scale: 1 = Very Dissatisfied to 5 = Very Satisfied]

    1. The energy efficient product(s) that you installed
    2. The variety of energy efficient equipment for which Ameren Missouri offers incentives
    3. The wait time to receive the item(s)
    4. The process to purchase the item(s)

[Display if any in Q59 <3]

60. Why were you dissatisfied?

61. Is there anything specific that Ameren Missouri can do to improve your experience with the marketplace?

3.7 Demographic and Home Characteristics

62. The following questions are about your household. Your responses are completely confidential and will be used to assess how well participants in this program resemble Ameren Missouri's customer population. These questions are optional.

63. Do you rent or own the residence located at [Address]?

    1. Rent
    2. Own
    99. Prefer not to answer

64. Is the residence located at [Address]…

    1. Your primary residence
    2. A residence that you rent to someone else

3. A vacation property that is not occupied year-round
4. Something else (please specify)
99. Prefer not to answer

65. Which of the following best describes the residence located at [Address]?

1. Single-family home
2. Manufactured or mobile home
3. Duplex or townhome
4. Apartment or condominium
5. Other (please specify)
98. I don't know
99. Prefer not to answer

66. Approximately when was your home built?

1. Before 1960
2. 1960 to 1979
3. 1980 to 1999
4. 2000 to 2009
5. 2010 to 2019
6. 2020 or later
98. I don't know
99. Prefer not to answer

67. What is the main fuel used for heating your home?

1. Electricity
2. Natural gas
3. Propane
4. Oil
5. Don't heat home
6. Something else (please specify)
98. I don't know
99. Prefer not to answer

68. What fuel does your main water heater use?

1. Electricity
2. Natural gas
3. Propane
4. Something else (please specify)
5. Do not have hot water
98. I don't know
99. Prefer not to answer

69. What is your age?

1. 18 – 24

2. 25 – 34
3. 35 – 44
4. 45 – 54
5. 55 – 64
6. 65 – 74
7. 75+
99. Prefer not to answer

70. What is the primary language used in your household?

1. English
2. Spanish
3. Other (please specify)
99. Prefer not to answer

71. Which of the following best describes your highest education level?

1. Some high school, no diploma
2. High school graduate, diploma or the equivalent (for example: GED)
3. Some college credit, no degree
4. Associate's degree (including trade school, technical or vocational training)
5. Bachelor's degree
6. Master's degree
7. Professional degree
8. Doctorate degree
99. Prefer not to answer

72. How many people reside in your household year-round?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8 or more
99. Prefer not to answer

[If Q72 = 1, set less_than =$45,000, between = $45,001 and $90,000, more_than = $90,000

If Q72 = 2, set less_than = $50,000, between = $50,001 and $100,000, more_than = $100,000

If Q72 = 3, set less_than = $60,000, between = $60,001 and $110,000, more_than = $110,000

If Q72 = 4, set less_than = $65,000, between = $65,001 and $125,000, more_than = $125,000

If Q72 = 5, set less_than = $70,000, between = $70,000 and $135, 000, more_than = $135, 000

If Q72 = 6, set less_than = $75,000, between = $75,001 and $140,000, more_than = $140,000

If Q72 = 7, set less_than = $80,000, between = $80,001 and $150,000, more_than = $150,000

If Q72 = 8, set less_than = $85,000, between = $85,001 and $160,000, more_than = $160,000]

[Display if Q72 = 1-8]

73. Which of the following best describes your household annual income?

1. Less than [less_than]
2. Between [between]
3. More than [more_than]
99. Prefer not to answer

4 Heating and Cooling Distributor Interview Guide

Variable Name	Variable Definition
CAC	1 = Central air conditioners
Minisplit	1 = Mini-split systems
Heatpump	1 = Heat pumps
HPWH	1 = Heat pump water heaters
Geothermal	1 = Geothermal heat pumps
Company	Name of distributor's company

Research Topic	Survey Questions
Business Background	Q1 – Q6
Training	Q7 - Q10
Program Influence	Q11 – Q24
Market Conditions	Q19– Q24
Satisfaction	Q25 - Q29

4.1 Business Background

Objective: Warm up and get additional background information on the business.

1. To begin with, can you tell me about your role in your business?

2. Could you tell me a little about your business and the types of equipment and services you provide?

3. Do you supply larger HVAC systems of greater than 5 tons? [*If yes, probe for the number of systems where they are greater than or less than 5 tons in the past 3 months*.]

4. How many locations does [Company] operate within Ameren Missouri's service territory? How many locations does [Company] operate outside of Ameren Missouri's service territory?

5. How did you first hear about Ameren Missouri's Heating and Cooling Program?

6. To your knowledge, how long has [Company] been a participating distributor in the program?

4.2 Training

Objective: Understand the adequacy of the program training and understand if there are opportunities for improvement.

7. Has Ameren Missouri or ICF provided any training or guidance on the program in the past year?

8. What kind of training did you receive?

    1. In-person
    2. Live online webinar
    3. Pre-recorded webinar
    4. Some other way (please specify)

9. How helpful was that training for understanding the program and what you needed to do to participate?

10. How could Ameren Missouri or ICF improve the training they provide to distributors?

4.3 Program Influence

11. I have a few questions about how the program might have affected your business practices. Can you tell me which of the following strategies the program team supported you on, if any, to sell more program-qualified units?

[Yes=1, No=2, and 98=Don't know]

    a) Encourage dealers to purchase program-qualified units
    b) Conduct training workshops for dealers
    c) Marketing of program-qualified units
    d) Discuss the benefits of program-qualified units with new home builders or purchasing agents
    e) Develop marketing or informational materials for dealers to use

12. Thinking about your sales over the past year, on a scale of 0 to 10, where 0 means "Not at all influential" and 10 means "Extremely influential", how influential was the program on your sales of program-incentivized equipment?

[Insert 0-10 scale as defined in the question]

a) High efficiency central air conditioners that qualify for the program (SEER 18+)
b) High efficiency air source heat pumps that qualify for the program (SEER 18+)
c) High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d) Advanced thermostats

13. We understand that many factors can affect your decisions about what equipment you choose to stock, but we are interested in understanding how the Ameren Missouri program may have affected your stocking practices of energy efficient, program-qualified equipment.

    If the Ameren Missouri Program was not offered next year, would you order less of the following types of equipment?

[Scale: 1 = Yes, 2 = No, 98 = Not sure]

a) High efficiency central air conditioners that qualify for the program (SEER 18+)
b) High efficiency air source heat pumps that qualify for the program (SEER 18+)
c) High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d) Advanced thermostats

[Display if any in Q13 = 1]

14. If the Ameren Missouri Program was not offered next year, how much would you decrease your orders or each of the following types of equipment?

[% Response]

a) **[If Q13a = 1]** High efficiency central air conditioners that qualify for the program (SEER 18+)
b) **[If Q13b = 1]** High efficiency air source heat pumps that qualify for the program (SEER 18+)
c) **[If Q13c = 1]** High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d) **[If Q13d = 1]** Advanced thermostats (Only ask about not efficient for rebates and eligible for distributor rebates)

15. Do you think that you sold more of the following types of equipment than you would have if the Ameren Missouri discounts were not available?

[Yes=1, No=2, and 98=Don't know]

a) High efficiency central air conditioners that qualify for the program (SEER 18+)
b) High efficiency air source heat pumps that qualify for the program (SEER 18+)
c) High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d) Advanced thermostats (Only ask about not efficient for rebates and eligible for distributor rebates)

16. For each of the following types of equipment, what percentage of your sales falls into each category (by quantity of units, not by dollar sales):

    Not efficient enough for program rebates
    Eligible for rebates through the traditional channel

Eligible for rebates through the distributor channel

Your best estimate is appreciated.

[Scale: % response, set up as matrix question with columns for the each of the categories above and rows for a – d below]

a. High efficiency central air conditioners that qualify for the program (SEER 18+)
b. High efficiency air source heat pumps that qualify for the program (SEER 18+)
c. High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d. Advanced thermostats

17. If the Ameren Missouri incentives were not available, what percentage of your sales would have fallen into each category (by quantity of units, not by dollar sales):

    Not efficient enough for program rebates
    Eligible for rebates through the traditional channel
    Eligible for rebates through the distributor channel

    Your best estimate is appreciated.

[Scale: % response, set up as matrix question with columns for the each of the categories above and rows for a – d below]

a. High efficiency central air conditioners that qualify for the program (SEER 18+)
b. High efficiency air source heat pumps that qualify for the program (SEER 18+)
c. High efficiency ductless heat pumps that qualify for the program (SEER 18+)
d. Advanced thermostats

18. Considering your responses to the previous questions and your overall experience, please describe in detail how you believe the program has influenced your sales of high-efficiency air conditioners and heat pumps. Feel free to discuss both positive and negative impacts.

4.4 Market Conditions

19. What are the most significant challenges or barriers to sales of efficient HVAC equipment as opposed to less efficient options that are available?

20. Can you identify any specific information gaps or misunderstandings about energy-efficient HVAC technologies among dealers? Do you have any feedback about gaps or misunderstandings among end-use customers?

21. Are there emerging or existing HVAC technologies that are not currently included in the program but should be considered?

22. Can you suggest any specific improvements or additions to the program that could increase customer acceptance of energy-efficient HVAC solutions?

23. Have the costs of program qualified equipment changed in the last 18 months? Have you seen similar cost changes for standard efficiency equipment?

24. How has participating in Ameren Missouri's Heating and Cooling Program impacted your business?

4.5 Satisfaction

25. Overall, what do you think is working well with the Ameren Missouri's Heating and Cooling Program?

26. What is your perspective on the program requirements as a participant?

27. What do you think could be improved about the program?

28. What could the program do to help you increase the percent of units that qualify for program rebates?

29. Is there anything else you would like to discuss about your experience as a distributor in Ameren Missouri's Heating and Cooling Program?

5 Heating and Cooling Participant and End-User Survey Instrument

Variable Name	Variable Definition
Project_Description	Description of project, for example, “heat pump and smart thermostat”
Channel	Either “Downstream” or “Midstream”
Equipment_1 / Equipment_2	One of these values: “heat pump”, “air conditioner”, or “smart thermostat”. For system replacements and thermostat projects, Equipment_1 should be the system replacement and Equipment_2 should be the smart thermostat.
Equipment_Count	Number of types of equipment, for example, if customer installed a heat pump and a smart thermostat, the value would be 2.
Address	Street address of the installation site.

Research Topic	Survey Questions
Screening	Q1 – Q2
Awareness	Q3
Appliance/HVAC Decision	Q4 – Q7
Free Ridership/Spillover	Q8 – Q44
Satisfaction	Q45– Q51
Demographics	Q52 – Q63

5.1 Screening

1. Program records indicate that your household installed a(n) [Project_Description] through the Ameren Missouri’s Heating and Cooling Program at [Address]. Do you recall this?

    1. Yes
    2. Yes, but information is incorrect **[Terminate after Q2]**
    3. No **[Terminate]**

[Display if Q1 = 2]

2. What do you think is incorrect about our records?

5.2 Awareness

[Display if Channel = Downstream]

3. How did you first learn of the Ameren Missouri Heating and Cooling Program?

[Randomize 1- 11]

1. Contractor
2. Internet search (e.g., Google search) or internet advertisement
3. Radio or television advertisement
4. Social media (Facebook, Instagram)
5. Ameren Missouri's website
6. Friend, family member, or colleague
7. Bill inserts or utility mailer
8. Email from Ameren Missouri
9. Print advertisement
10. TV advertisement
11. Community event
96. Other (Please specify)

5.3 Appliance/HVAC Decision

4. Why did you choose to install the high-efficiency [Equipment_1] instead of standard efficiency equipment in your home? Please select all that apply.

[Multiselect] [Randomize 1 -7]

1. **Energy Cost Savings:** I wanted to reduce my monthly energy bills.
2. **Environmental Concerns**: I am concerned about my environmental footprint.
3. **Incentives, Rebates, or Tax Credits:** I wanted to take advantage of incentives, rebates, or tax credits offered by Ameren Missouri, manufacturer, or government.
4. **Equipment Performance:** I desired better comfort levels, more consistent temperatures, or other performance-related benefits.
5. **Recommendation from HVAC Professional:** My decision was based on the advice of an HVAC professional or contractor.
6. **Home Value Improvement:** I wanted to increase the value of my home or make it more attractive to future buyers.
7. **Other:** Please specify.

[Display if Q4 = 3]

5. What incentives or rebates influenced your decision to install the high efficiency [Equipment_1]?

[Multiselect] [Randomize 1 -3]

1. Ameren Missouri incentives/discount

2. Federal tax credit (A tax credit directly reduces the amount of tax owed by an individual or business.)
3. State or federal rebates (A state or federal rebate is a payment or refund issued to individuals after certain conditions are met.)
4. Other rebates (Please describe)

6. When you were considering purchasing the [Equipment_1], from where did you look for information? Please select all that apply.

[Multiselect] [Randomize 1 – 8]

1. Retailers
2. Installation contractors
3. Friend, neighbor, relative or co-worker
4. Ameren Missouri's website
5. Researched on the internet
6. Consumer reports or other product magazines
7. Newspaper
8. Radio or television
9. Other (Please specify)
10. Did not look for any information about what to buy **[Exclusive]**
98. Don't know **[Exclusive]**

[Display Section if Channel = Midstream]

7. Did you know that you received a discount from Ameren Missouri for your [Equipment_1]?

1. Yes
2. No

5.4 Free Ridership

[Display Section if Channel = Downstream or Q7 = 1, repeat once if Equipment_Count > 1]

[Display if Equipment_1/_2 = heat pump or Equipment_1/_2 = air conditioner]

8. Before speaking with your contractor, were you aware of what sets high-efficiency HVAC systems apart from standard efficiency ones?

1. Yes
2. No

[Display if Equipment_1/_2 = heat pump or Equipment_1/_2 = air conditioner]

9. Before learning about the Ameren Missouri incentives, had you already planned to install a high-efficiency [Equipment_1/_2] as opposed to new standard efficiency equipment?

1. Yes

2. No

[Display if Equipment_1/_2 = smart thermostat]

10. Before learning about the Ameren Missouri incentives, had you already planned to install the smart thermostat?

    1. Yes
    2. No

11. Would you have installed the same high efficiency [Equipment_1/_2] without the Ameren Missouri incentive?

    1. Yes
    2. No

[Display if Equipment_1/_2 = heat pump or Equipment_1/_2 = air conditioner]

12. If the Ameren Missouri incentives were not available, would you have installed the same system you got the incentive for, a system that was less energy efficient, or a not installed any system at all?

    1. Would have installed the same system
    2. Would have installed a less energy efficient system
    3. Would have installed the least efficient / lowest cost system available
    4. Would not have installed a new system at this time

[Display if Equipment_1/_2 = smart thermostat]

13. If the incentives were not available, what kind of thermostat would you have most likely bought?

    1. The same thermostat or another smart learning thermostat.
    2. A programmable thermostat
    3. A manual thermostat
    4. Not bought anything

14. How important was each of the following in your decision to install the energy efficient [Equipment_1/_2]?

[Scale = 1 (Not at all important), 2 (Slightly important), 3 (Moderately important), 4 (Very important), 5 (Extremely important), not applicable]

    a) The Ameren Missouri incentive
    b) Recommendation from Ameren Missouri program staff
    c) Information about energy efficiency that Ameren Missouri provided
    d) Information or recommendation from your contractor

15. If the incentives were not available, when would you most likely have installed the [Equipment_1/_2]?

    1. At the same time
    2. Later, but within the same year
    3. One to two years out
    4. More than two years out or never

5.5 Spillover

[Display Section if Channel = Downstream]

16. We would like to know if you have installed any additional energy efficient equipment because of your experience with the program that you DID NOT receive an incentive or rebate for.

    Since participating in the Heating and Cooling program, have you installed any ADDITIONAL energy efficient items in a household in Ameren Missouri's service territory without receiving an incentive or rebate?

    1. Yes
    2. No
    98. Don't know

[Display if Q16 = 1]

17. We would like to know what you installed because of your experience with the program that you did not get a rebate or discount for.
    Since participating in the program in [Year] have you done any of the following?

[Multiselect]

1. Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer
2. Installed water heater pipe insulation
3. Installed water heater jacket, blanket, or insulation
4. Installed low flow faucet aerators
5. Installed low flow showerheads
6. Installed an ENERGY STAR® room air conditioner
7. Installed an energy efficient water heater, tankless water heater, or heat pump water heater
8. Installed a smart thermostat
9. Installed a high efficiency heating or cooling equipment
10. Insulated your attic or walls
11. Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)
12. Installed energy saving advanced power strips
13. Installed an ENERGY STAR® pool pump
14. Installed an ENERGY STAR® air purifier

15. Installed an ENERGY STAR® dehumidifier
16. Something else
17. None of the above **[Exclusive, Skip to end of block]**

[Display Q18 if Q17 = 7, 8, 9 or 12 and loop through for each]

18. Why did you not get an Ameren Missouri incentive rebate or discount for the [Q17 equipment]?

    1. Did not know an incentive, rebate or discount was available
    2. Did not want to complete an application
    3. The application paperwork was too long or complicated
    4. I planned to but forgot
    5. Some other reason (please describe)
    6. I did get an incentive [Skip to end of the block]
    7. Don't know

5.5.1 Appliances

[Display if Q17 = 1]

19. What kind of appliance did you purchase?

[Multiselect]

1. Refrigerator
2. Freezer
3. Dishwasher
4. Clothes washer
5. Clothes dryer – Electric
6. Clothes dryer – Gas
7. Other (Please describe)
98. Don't know

[Display if Q17 = 1]

20. Does the appliance have an ENERGY STAR label?

    1. Yes
    2. No
    98. Don't know

5.5.2 Low-Flow

[Display if Q17 = 4]

21. How many low flow faucet aerators did you install in bathroom sinks?

[Display if Q17 = 4]

22. How many low flow faucet aerators did you install in kitchen sinks?

[Display if Q17 = 5]

23. How many low flow showerheads did you install?

5.5.3 Room AC

[Display if Q17 = 6]

24. How many ENERGY STAR® room air conditioners did you install?

5.5.4 Water Heater

[Display if Q17 = 7]

25. How do you know that the water heater you installed is an energy efficient water heater?

[Display if Q17 = 7]

26. What type of water heater did you install? Was it a…

    1. Natural gas storage tank water heater
    2. Electric storage tank water heater
    3. Heat pump water heater
    4. A natural gas tank less water heater
    5. Some other type of water heater (Specify)
    98. Don't know

5.5.5 Wi-Fi Thermostat

[Display Q17 = 8]

27. What type of thermostat did the Wi-Fi thermostat replace?

    1. A programmable thermostat that allows you to schedule the temperature settings for different times of the day
    2. A standard thermostat that lets you set on/off temperatures
    3. A different Wi-Fi smart thermostat
    98. Don't know

[Display if Q17 = 8]

28. Does the thermostat control your heating system, cooling system, or both?

    1. Heating system
    2. Cooling system
    3. Both

[Display if Q28 = 1 OR 3]

29. Do you have an electric heating system?

1. Yes
2. No
98. Don't know

[Display if Q29 = 1]

30. Is your heating system a heat pump?

1. Yes
2. No
98. Don't know

5.5.6 HVAC

[Display if Q17 = 9]

31. What type of heating or cooling equipment did you install?

1. Energy-efficient central air conditioner
2. Energy-efficient air source heat pump
3. Energy-efficient ground source heat pump
4. Energy-efficient ductless mini-split heat pump
5. Something else (please describe)

[Display if Q31 = 1]

32. What is the efficiency rating of the HVAC unit you purchased?

1. SEER: **[NUMERIC; OPEN-ENDED]**
2. EER: **[NUMERIC; OPEN-ENDED]**
98. Not sure

5.5.7 Insulation

[Display if Q17 = 10]

33. What is the R-value of the insulation you installed?

[Display if Q17 = 10]

34. Where did you install the new insulation?

[Multiselect]

1. Attic
2. Walls
98. Don't know

[Display if Q34 = 1]

35. Approximately what size (in square feet) is the attic where the insulation is installed?

    1. Square feet: **[NUMERIC; OPEN-ENDED]**
    98. Not sure

[Display if Q17 = 11]

36. What type of weatherization products did you install?

    1. Door seals
    2. Spray foam insulation
    3. Door sweeps
    4. Something else (please describe)

[Display if Q36 = 1 – 4, and loop and merge]

37. How many [Q36 RESPONSE] did you install?

5.5.8 Advanced Power Strips

[Display if Q17 = 12]

38. How many energy saving advanced power strips did you install?

    1. 1
    2. 2
    3. 3 or more

5.5.9 Air Purifiers

[Display if Q17 = 14]

39. How many ENERGY STAR® air purifiers did you install?

5.5.10 Dehumidifiers

[Display if Q17 = 15]

40. How many ENERGY STAR® dehumidifiers did you install?

5.5.11 Other

[Display if Q17 = 17]

41. What other energy efficient items did you install?

5.5.12 Attribution

[Loop and merge section for Q17 = 1 – 15, skip if did not install anything]

42. In approximately what month and year did you install the [Q17 response] that you did not receive an incentive for?

43. Using the scale below, how important was the experience with the program in your decision to install the [Q17 response]?

[SCALE: 0 = 0 (Not at all important), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely important), 98 = Don't know]

44. Using the scale below, how likely would you have been to install the [Q17 response] if you had not participated in the program?

[SCALE: 0 = 0 (Not at all likely), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely likely), 98 = Don't know]

5.6 Satisfaction

45. How many contractors did you get a bid or cost estimate from when you decided to install the new [Project_Description]?

    1. A bid or cost estimate from one contractor
    2. A bid or cost estimate from two contractors
    3. A bid or cost estimate from three or more contractors
    98. Don't know

46. What factors influenced your decision to choose the contractor you worked with?

[Multiselect] [Randomize 1 -8]

    1. Listed on Ameren Missouri's website as participating contractor in the Heating and Cooling rebate program
    2. Cost/budget considerations
    3. Qualifications/expertise with equipment type
    4. Availability to complete project within a specific timeline
    5. Recommendation from someone you know
    6. Quality of work/brand recognition
    7. Online reviews (e.g., Yelp reviews)
    8. I have worked with this contractor before
    9. Other considerations (Please specify)
    98. Don't know

47. Did you obtain information about the contractor from the Ameren Missouri website during the selection process?

    1. Yes
    2. No
    98. Don't know

[Display if Q47 = 2]

48. Can you briefly tell us how you found the contractor you worked with?

49. If the contractor you selected didn't participate in Ameren Missouri's Heating and Cooling program, would you have still used them or selected a different contractor?

    1. I would have still used them
    2. I would have selected a different contractor
    98. Don't know

50. These next few questions ask about your satisfaction with several aspects of the program. Using a scale of 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied", how would you rate your satisfaction with the following? **[Randomize A-C]**

[Response scale: 1 = Very dissatisfied to 5 = Very satisfied]

    a. The quality of the contractors' work
    b. The performance of the equipment installed
    c. Your overall experience with the Heating and Cooling Program

[Display if any Q50 < 3]

51. Why were you dissatisfied with those aspects of the program you mentioned?

5.7 Demographics

52. The following questions are about your household. Your responses are completely confidential and will be used to assess how well participants in this program resemble Ameren Missouri's customer population. These questions are optional.

53. Do you rent or own the residence located at [Address]?

    1. Rent
    2. Own
    99. Prefer not to answer

54. Is the residence located at [Address]…

    1. Your primary residence
    2. A residence that you rent to someone else
    3. A vacation property that is not occupied year-round
    4. Something else (please specify)
    99. Prefer not to answer

55. Which of the following best describes the residence located at [Address]?

1. Single-family home
2. Manufactured or mobile home
3. Duplex or townhome
4. Apartment or condominium
5. Other (please specify)
98. I don't know
99. Prefer not to answer

56. Approximately when was your home built?

1. Before 1960
2. 1960 to 1979
3. 1980 to 1999
4. 2000 to 2009
5. 2010 to 2019
6. 2020 or later
98. I don't know
99. Prefer not to answer

57. What is the main fuel used for heating your home?

1. Electricity
2. Natural gas
3. Propane
4. Oil
5. Don't heat home
6. Something else (please specify)
98. I don't know
99. Prefer not to answer

58. What fuel does your main water heater use?

1. Electricity
2. Natural gas
3. Propane
4. Something else (please specify)
5. Do not have hot water
98. I don't know
99. Prefer not to answer

59. What is your age?

1. 18 – 24
2. 25 – 34
3. 35 – 44
4. 45 – 54
5. 55 – 64
6. 65 – 74

7. 75+
99. Prefer not to answer

60. What is the primary language used in your household?

1. English
2. Spanish
3. Other (please specify)
99. Prefer not to answer

61. Which of the following best describes your highest education level?

1. Some high school, no diploma
2. High school graduate, diploma or the equivalent (for example: GED)
3. Some college credit, no degree
4. Associate's degree (including trade school, technical or vocational training)
5. Bachelor's degree
6. Master's degree
7. Professional degree
8. Doctorate degree
99. Prefer not to answer

62. How many people reside in your household year-round?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8 or more
99. Prefer not to answer

[If Q62 = 1, set less_than =$45,000, between = $45,001 and $90,000, more_than = $90,000

If Q62 = 2, set less_than = $50,000, between = $50,001 and $100,000, more_than = $100,000

If Q62 = 3, set less_than = $60,000, between = $60,001 and $110,000, more_than = $110,000

If Q62 = 4, set less_than = $65,000, between = $65,001 and $125,000, more_than = $125,000

If Q62 = 5, set less_than = $70,000, between = $70,000 and $135, 000, more_than = $135, 000

If Q62 = 6, set less_than = $75,000, between = $75,001 and $140,000, more_than = $140,000

If Q62 = 7, set less_than = $80,000, between = $80,001 and $150,000, more_than = $150,000

If Q62 = 8, set less_than = $85,000, between = $85,001 and $160,000, more_than = $160,000]

[Display if Q62 = 1-8]

63. Which of the following best describes your household annual income?

1. Less than [less_than]
2. Between [between]
3. More than [more_than]
99. Prefer not to answer

6 Heating and Cooling Trade Ally Survey Instrument

Variable Name	Variable Definition
Contractor Company	Business name of contractor/trade ally
Project_Count	Number of program applications associated with the company

Research Topic	Survey Questions
Background information	Q1 - Q5
Participation in and effectiveness of program training and communications	Q8 - Q11
Barriers to installing high efficiency equipment, benefits of high efficiency equipment, and effectiveness of program in encouraging adoption of high efficiency equipment	Q12 - Q19
Project financing	Q20
Satisfaction and feedback	Q22 - Q24

6.1 Background

1. Which of the following best describes your position at your organization?

    1. Owner
    2. Executive or decision maker
    3. Manager
    4. Sales role
    5. Installer or service technician
    6. Customer service representative
    7. Office/Administrative role
    96. Other (Please specify)

2. How long have you been an active trade ally (or builder) with Ameren Missouri's Heating and Cooling Program?

    1. Less than 1 year
    2. 1 to 2 years
    3. 3 to 5 years
    5. More than 5 years
    98. Don't know

3. Has the number of projects you completed through the Heating and Cooling Program this year increased, decreased, or stayed about the same compared to previous years?

    1. Increased
    2. Stayed the same
    3. Decreased
    98. Don't know

4. What type of work does your company specialize in? **[Multiselect]**

    1. Residential HVAC installation
    2. Commercial HVAC installation
    2. HVAC maintenance and repair
    3. Insulation
    4. Air quality / ventilation systems
    96. Other (Please specify)

5. Does your company provide financing options for your customers?

    1. Yes
    2. No
    98. Don't know

6. What percent of your residential customers purchase equipment that qualifies for rebates for the Ameren Missouri Heating and Cooling program?

    1. Percent:
    98. Don't know

7. What percentage of equipment you install does not qualify for a rebate due to its efficiency rating, as opposed to being an equipment type not covered by the program (e.g., attic insulation)?

    1. Percent:
    98. Don't know

6.2 Program Training and Communications

8. Have you attended any program training or information sessions, including program-reenrollment training the last 12 months?

    1. Yes
    2. No

[Display if Q8 = 2]

9. Has anyone else at your company attended any program training or information sessions, including program-reenrollment training in the last 12 months?

    1. Yes
    2. No
    98. Not sure

[Display if Q8 = 1]

10. How clear was the information on the following topics? If you do not recall a topic, please mark "Do not recall topic."

[Scale: 1 (Not at all clear) – 5 (Completely clear), 98 = Do not recall topic]

    a. The process for submitting applications.
    b. The customer eligibility requirements.
    c. The equipment eligibility requirements.
    d. The marketing materials available to help contractors promote the rebates.
    e. How to get assistance from program representatives if needed.

[Display if Q8 = 1]

11. What other topics or training should the program offer?

6.3 Equipment and Barriers to High Efficiency Equipment

12. Of the following, which benefits of installing high efficiency HVAC equipment are of most interest to your customers? (Please select up to 3)

[Multiselect, randomize, limit to 3 options]

    1. Utility bill cost savings
    2. Improved home comfort
    3. Enhanced indoor air quality
    4. Reduced operational noise
    5. Lower maintenance
    6. Lower repair frequency
    7. More favorable warranty terms compared to standard efficiency equipment
    8. Environmental benefits from reduced energy consumption
    9. Increased property value
    10. Compatibility with smart home technologies
    11. Potential eligibility for rebates and tax incentives

13. Are there any other benefits to installing high efficiency equipment that customers are interested in?

14. What do you think are the most important reasons why a customer would decide NOT to install high efficiency equipment and instead choose to install the standard or lowest efficiency equipment? Please select up to 3 of the following.

[Multiselect, randomize, limit to 3 options]

1. **Higher initial cost**: High-efficiency models are more expensive upfront.
2. **Longer delivery times:** High-efficiency models may take longer to receive.
3. **Doubts about savings:** Doubt about the long-term cost-effectiveness.
4. **Reliability concerns:** Perceived as more prone to issues due to complexity.
5. **Comfort concerns:** Belief that it won't keep their home comfortable.
6. **System complexity:** Concerns over the complexity of high-efficiency systems.
7. **Lack of information:** Insufficient understanding of high-efficiency benefits.
8. **Plan to move soon:** Not staying long enough in the home to benefit from savings.

15. Are there any other reasons why someone would choose to install standard efficiency equipment over high efficiency equipment?

16. We would like to know how promptly you are able to obtain the equipment for your customers. For each type, please mark if it is readily available, available within 1-2 weeks, available within 3-4 weeks, wait time 5 weeks or longer.

[Scale: 1 = available within 1 week, 2 = available within 2 – 3 weeks, 3 = available within 4 – 5 weeks, 4 = wait time is more than 5 weeks]

a. 13 – 14.99 SEER2 central air conditioners
b. 15.0 – 17.99 SEER2 central air conditioners
c. 18.0+ SEER2 central air conditioners
d. 15.0 – 17.99 SEER2 air source heat pumps
e. 18.0+ SEER2 air source heat pumps
f. 19 + SEER2 mini-splits

17. Are you aware that Ameren Missouri provides incentives for the following equipment, available through local distributors?

[1 = Yes, 2 = No]

a. 18.0+ SEER2 central air conditioners
b. 18.0+ SEER2 air source heat pumps
c. 19 + SEER2 mini-splits

18. How effective do you think the program is in promoting the following actions?

[1 = Not at all effective – 5 = Very effective]

a. Encouraging the installation of efficient equipment (SEER2 15 – 17.99)
b. Encouraging the installation of very efficient equipment (SEER2 18+)
c. Encouraging the replacement of older, still functional or low-cost repairable systems with new, efficient systems.

[Repeat question for each in Q18 rated as < 3]

19. How could the program be more effective in [Q18 item]?

6.4 Project Financing

20. How often do you recommend the following actions to your customers to help finance a new HVAC system?

[Scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Most of the time, 5 = Always]

a. Applying for tax credits for energy-efficient equipment.
b. Applying for government rebates or incentives for energy-efficient equipment.
c. Seeking financing options.
d. Applying for utility incentives.

21. What percent of your residential customers use the following payment mechanisms?

1. Pay full cost up front **[Open-ended]**
2. Spire financing **[Open-ended]**
3. Loan through banking institution **[Open-ended]**
4. Home equity line of credit **[Open-ended]**
5. Use credit card as loan (e.g., opening a credit card with 0% interest for 18 months in lieu of pursuing a loan) **[Open-ended]**

6.5 Satisfaction and Program Feedback

22. How would you rate the following factors?

[Response scale: 1 = Not at all satisfied to 5 = Extremely satisfied, 98 = Not applicable]

1. Interactions with a program account manager
2. The application process
3. The marketing support provided by the program
4. Training or other information provided on program procedures and requirements
5. The timeliness of program response to inquiries
6. The timeliness of payment of program incentives
7. The program overall

[Display if any in Q22 < 3]

23. What are the reasons for your dissatisfaction with those aspects of the program?

24. Do you have any suggestions for improving the Heating and Cooling Program

7 General Population Survey Instrument

Variable Name	Variable Definition
Address	Customer address

Research Topic	Survey Questions
Screening and background information	Q1 – Q4
Program awareness	Q5 – Q8
Space and water heating equipment	Q10 – Q19
Spillover	Q20 – Q51
Media use and awareness of Ameren Missouri communications	Q52 – Q55
Demographic and home characteristics	Q56 – Q65

7.1 Screening

1. Our records indicate that Ameren Missouri is your electricity service provider at [Address]. Is this correct?

    1. Yes
    2. No **[Terminate]**
    98. I don't know **[Terminate]**

2. Do you rent or own the residence located at [Address]?

    1. Rent
    2. Own
    99. Prefer not to answer

3. Is the residence located at [Address]…

    1. Your primary residence
    2. A residence that you rent to someone else
    3. A vacation property that is not occupied year-round
    4. Something else (please specify)
    99. Prefer not to answer

4. Which of the following best describes the residence located at [Address]?

    1. Single-family home
    2. Manufactured or mobile home

3. Duplex or townhome
4. Apartment or condominium
5. Other (please specify)
98. I don't know
99. Prefer not to answer

7.2 Program Awareness

5. Have you received a rebate or financial incentive from Ameren Missouri for installing energy efficient equipment or making energy efficiency improvements at this residence in the last three years?

    1. Yes
    2. No / Not that you are aware of

6. Before taking this survey, had you heard of these Ameren Missouri programs?

[Scale: 1 = Yes, 2 = No]

1. Energy Efficient Products Program that provides an online marketplace with discounts on smart thermostats, heat pump water heaters, and advanced power strips
2. Heating and Cooling Program that provides rebates for new air conditioning and heat pump systems
3. Pay as You Save (PAYS) Program that provides free home energy assessments and a plan to finance energy efficiency improvements over time through your bill
4. CommunitySavers®, a program that provides home energy assessments to help qualifying, income-eligible customers learn how their homes use energy and help them lower their monthly electric bills.
5. Peak Time Savings, a program that provides a $25 a year incentive and works with your smart thermostat to make temporary adjustments to ease energy demand during periods of peak energy use.
6. Multifamily Programs that offers low- or no-cost energy-saving upgrades for properties with four or more attached units.

[Display if any in Q6 = 1]

7. How did you learn about the Ameren Missouri program(s)? Please select all that apply.

[Multiselect. Randomize 1 - 11]

1. Social media (Facebook, Instagram)
2. Ameren Missouri's website
3. Friend, family member, or colleague
4. Bill inserts or utility mailer
5. Email from Ameren Missouri
6. Internet search (e.g., Google search)
7. Internet advertisement

8. Print advertisement
9. TV advertisement
10. Community event
11. Through my landlord
96. Other (Please specify)

8. What are the best ways for Ameren Missouri to share information with you about its energy efficiency programs? Please select up to two.

[Multiselect, select up to 2 responses. Randomize]

1. Posting information on its website
2. Email
3. Mailing information to my home
4. Posting information on social media
5. Webinars or virtual meetings
6. Online videos
7. In-person workshops or information sessions
8. Information provided through a community organization or at a community event

9. What do you think are the most trustworthy sources of information on how to save energy in your home? Please select up to 3.

[Multiselect, select up to 3 responses. Randomize]

1. Contractors that provide equipment installation or home improvement services
2. Local government
3. State government
4. Ameren Missouri
5. Neighbor, relative or friend
6. Place of worship
7. Community Action Program agency
8. Other community or neighborhood organization
9. Other utilities/other utility websites
10. Retailers who sell efficient products
11. Online forums, blogs, or other websites

7.3 Space and Water Heating Equipment

10. The next questions are about the types of equipment you may have in your home.
11. Does your home have a central heating system, cooling system, or both?

1. No, it does not have central heating or cooling.
2. Has central heating only (a heating system that provides heat to your whole house).

3. Has central cooling only (an air conditioner or heat pump that provides cooling to your whole house).
4. Has both central heating and cooling.

[Display if Q11 = 2, 3, or 4]

12. What kind of thermostat do you use to control the temperature of your home?

1. A programmable thermostat (not connected to Wi-Fi) that allows you to schedule the temperature settings for different times of the day
2. A manual thermostat that lets you adjust the temperature manually, and set on/off temperatures
3. A Wi-Fi smart thermostat
98. Not sure

[Display if Q11 = 2 or 4]

13. What type of central heating system do you have in your home?

1. Gas furnace
2. Electric furnace
3. Electric baseboard heating
4. Electric heating cables
5. Heat pump
6. Boiler (radiant heating)
7. Other (Please describe)
98. Not sure

14. What type of water heater do you have installed in your home? Please select the most appropriate option from the following choices:

1. Gas tank water heater
2. Electric tank water heater
3. Heat pump water heater
4. Solar water heater
5. Gas tankless water heater
6. Electric tankless water heater
7. Other (please specify)
8. Do not have water heating
98. Not sure

[Display if Q11 = 3 or 4]

15. How old is your central air conditioning system? Your best guess is fine.

[Display if Q11 = 2 or 4]

16. How old is your central heating system? Your best guess is fine.

[Display if Q11 = 2, 3, or 4]

17. What would be most important to you if you were deciding to buy a new heating/cooling system for your home? Please choose up to 3.

[Multiselect. Randomize. Limit to 3 choices]

1. Energy cost savings
2. Improved home comfort from more consistent heating and cooling
3. Enhanced indoor air quality
4. Reduced operational noise
5. Lower maintenance
6. Lower repair frequency
7. The cost to install the new system
8. Environmental benefits from reduced energy consumption
9. Increased property value
10. Compatibility with smart home technologies
11. Potential eligibility for rebates and tax incentives
12. How quickly the new equipment could be installed

[Display if Q2 = 1 (Rents home)]

18. If the following appliances broke, would you and your household be responsible for replacing it or would someone else like a landlord be responsible?

[Response scale: 1 = Your household would replace it, 2 = Someone else would replace it]

a) **[Display if Q11 = 2 or 4]** Your heating system
b) **[Display if Q11 = 3 or 4]** Your cooling system
c) Your water heater

[Display if Q11 = 2, 3, or 4 and (Q2 = 2 (Own/buying home) or Q18a = 1) or Q18b = 1]

19. If your central heating or cooling system stopped working, which do you think you most likely do?

1. Replace it with the lowest cost unit even if it was the least energy efficient
2. Replace it with a more efficient unit

7.4 Spillover

20. We would like to know if you or anyone else in your household made any energy efficiency improvements to your home in the last 12 months.

    In the last 12 months, did you or anyone else in your household make any of the following energy saving improvements?

1. Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer
2. Installed water heater pipe insulation
3. Installed water heater jacket, blanket, or insulation
4. Installed low flow faucet aerators
5. Installed low flow showerheads
6. Installed an ENERGY STAR® room air conditioner
7. Installed an energy efficient water heater, tankless water heater, or heat pump water heater
8. Installed a smart thermostat
9. Installed a high efficiency heating or cooling equipment
10. Insulated your attic or walls
11. Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)
12. Installed energy saving advanced power strips
13. Installed an ENERGY STAR® pool pump
14. Installed an ENERGY STAR® air purifier
15. Installed an ENERGY STAR® dehumidifier
16. Installed ENERGY STAR® certified windows
17. Installed ENERGY STAR® certified doors
18. Something else
19. No, have not made any of these energy efficient improvements **[EXCLUSIVE; SKIP TO END OF BLOCK]**

[Loop for each of Q20 7,8,9, or 12 selected]

21. Why did you not get a rebate or incentive from Ameren Missouri for the [Q20 response]?

1. Was not aware of the rebate
2. There was not a rebate
3. Did not have time to complete the rebate application
4. Found out about the rebate too late
5. Did not think my equipment was eligible
6. Submitted an application that was rejected
7. Some other reason
98. Don't know

7.4.1 Appliances

[Display if Q20 = 1]

22. What kind of appliance did you purchase?

[Multiselect]

1. Refrigerator
2. Freezer
3. Dishwasher
4. Clothes washer

5. Clothes dryer – Electric
6. Clothes dryer – Gas
7. Other (Please describe)
98. Don't know

[Display if Q20 = 1]

23. Does the appliance have an ENERGY STAR label?

    1. Yes
    2. No
    98. Don't know

7.4.2 Low Flow

[Display if Q20 = 4]

24. How many low flow faucet aerators did you install in bathroom sinks?

[Display if Q20 = 4]

25. How many low flow faucet aerators did you install in kitchen sinks?

[Display if Q20 = 5]

26. How many low flow shower heads did you install?

7.4.3 Room AC

[Display if Q20 = 6]

27. How many ENERGY STAR® room air conditioners did you install?

[Display if Q20 = 6]

28. How many square feet is the room that the ENERGY STAR® air conditioner is installed in? (If multiple units installed, ask how many square feet on average are the rooms you installed the air conditioners in)

7.4.4 Water Heater

[Display if Q20 = 7]

29. How do you know that the water heater you installed is an energy efficient water heater?

[Display if Q20 = 7]

30. What type of water heater did you install? Was it a…

    1. Natural gas storage tank water heater
    2. Electric storage tank water heater

3. Heat pump water heater
4. A natural gas tank less water heater
5. Some other type of water heater (Specify)
98. Don't know

7.4.5 Wi-Fi Thermostat

[Display if Q20 = 8]

31. What type of thermostat did the Wi-Fi thermostat replace?

    1. A programmable thermostat that allows you to schedule the temperature settings for different times of the day
    2. A standard thermostat that lets you set on/off temperatures
    3. A different Wi-Fi smart thermostat
    98. Don't know

[Display if Q20 = 8]

32. Does the thermostat control your heating system, cooling system, or both?

    1. Heating system
    2. Cooling system
    3. Both

[Display if Q38 = 1]

33. Do you have an electric heating system?

    1. Yes
    2. No
    98. Don't know

[Display if Q39 = 1]

34. Is your heating system a heat pump?

    1. Yes
    2. No
    98. Don't know

7.4.6 HVAC

[Display if Q20 = 9]

35. What type of heating or cooling equipment did you install?

    1. Energy-efficient central air conditioner
    2. Energy-efficient air source heat pump
    3. Energy-efficient ground source heat pump

4. Energy-efficient ductless mini-split heat pump
5. Something else (please describe)

36. What is the efficiency rating of the HVAC unit you purchased?

1. SEER
2. EER
98. Not sure

7.4.7 Insulation

[Display if Q20 = 10]

37. What is the R-value of the insulation you installed?

[Display if Q20 = 10]

38. Where did you install the new insulation?

[Multiselect]

1. Attic
2. Walls
98. Don't know

[Display if Q38 = 1]

39. Approximately what size (in square feet) is the attic where the insulation is installed?

1. Square feet: **[NUMERIC; OPEN-ENDED]**
98. Not sure

[Display if Q20 = 11]

40. What type of weatherization products did you install?

1. Door seals
2. Spray foam insulation
3. Door sweeps
4. Something else (please describe)

41. How many [Q40 RESPONSE] did you install?

7.4.8 Advanced Power Strips

[Display if Q20 = 12]

42. How many energy saving advanced power strips did you install?

1. 1

2. 2
3. 3 or more

7.4.9 Air Purifiers

[Display if Q20 = 14]

43. How many ENERGY STAR® air purifiers did you install?

7.4.10 Dehumidifiers

[Display if Q20 = 15]

44. How many ENERGY STAR® dehumidifiers did you install?

7.4.11 Windows and Doors

[Display if Q20 = 16]

45. How many ENERGY STAR® certified windows did you install?

[Display if Q20 = 17]

46. How many ENERGY STAR® certified door did you install?

7.4.12 Other

[Display if Q20 = 18]

47. What other energy efficient items did you install?

7.4.13 Attribution

[Loop and merge section for Q20 = 1 – 15, skip if did not install anything]

48. In approximately what month and year did you install the [Q20 response] that you did not receive an incentive for?

49. When you were deciding to install the [Q20 response], did you consider any of the following sources of information? (Yes or No scale)

[Loop and merge section for Q20 = 1 – 15, skip if did not install anything]

1. Emails from Ameren Missouri about saving energy
2. Information on Ameren Missouri's website
3. Bill inserts or other mailings from Ameren Missouri
4. Information from Ameren Missouri social media sources
5. A contractor or retailer of Ameren Missouri's incentives
6. Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades

[Display if any in Q49 = 1] [Loop and merge section for Q20 = 1 – 15, skip if did not install anything]

50. Using the scale below, how important was that information in your decision to install the [Q20 response]?

[Scale: 0 = 0 (Not at all important), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely important), 98 = Don't know]

51. [Display if any in Q49 = 1] [Loop and merge section for Q20 = 1 – 15, skip if did not install anything]Using the scale below, how likely would you have been to install [Q20 response] if you had not seen that information from Ameren Missouri?

[Scale: 0 = 0 (Not at all likely), 1= 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6, 7 = 7, 8 = 8, 9 = 9, 10 = 10 (Extremely likely), 98 = Don't know]

7.5 Media

52. Over the past month, how often have you engaged with the following types of media?

[Scale: 1 = Never, 2 = Less than once a week, 3 = A few times a week, 4 = Every day or nearly every day]

a. YouTube
b. Social media websites or apps
c. Broadcast TV
d. Broadcast radio
e. Streaming music services
f. Local or regional newspaper websites or apps
g. Podcasts
h. Online magazines, blogs, or other periodicals
i. Print magazines, newspapers, or other periodicals

53. In the last year, have you visited the Ameren Missouri website regarding their energy efficiency rebate programs?

1. Yes
2. No / Cannot recall

54. In the last year, have you received any information from Ameren Missouri by email or postal mail about their energy efficiency rebate programs?

1. Yes
2. No

55. In the last year, have you heard or seen any advertisements about Ameren Missouri's energy efficiency rebate programs?

1. Yes
2. No

7.6 Demographic and Home Characteristics

56. The next few questions are about you and your home. Your responses are completely confidential and will be used to assess how well participants in this program resemble Ameren Missouri's customer population. It is okay to not answer any of these questions.
57. Approximately when was your home built?

    1. Before 1960
    2. 1960 to 1979
    3. 1980 to 1999
    4. 2000 to 2009
    5. 2010 to 2019
    6. 2020 or later
    98. I don't know
    99. Prefer not to answer

58. About how many square feet is your home? If you are unsure, an estimate is okay.

    1. Less than 1,000 square feet
    2. 1,000 – 1,999 square feet
    3. 2,000 – 2,999 square feet
    4. 3,000 – 3,999 square feet
    5. 4,000 – 4,999 square feet
    6. 5,000 or greater square feet
    98. I don't know
    99. Prefer not to answer

59. What is the main fuel used for heating your home?

    1. Electricity
    2. Natural gas
    3. Propane
    4. Oil
    5. Don't heat home
    6. Something else (please specify)
    98. I don't know
    99. Prefer not to answer

60. What fuel does your main water heater use?

    1. Electricity

2. Natural gas
3. Propane
4. Something else (please specify)
5. Do not have hot water
98. I don't know
99. Prefer not to answer

61. What is your age?

1. 18 – 24
2. 25 – 34
3. 35 – 44
4. 45 – 54
5. 55 – 64
6. 65 – 74
7. 75+
99. Prefer not to answer

62. What is the primary language used in your household?

1. English
2. Spanish
3. Other (please specify)
99. Prefer not to answer

63. Which of the following best describes your highest education level?

1. Some high school, no diploma
2. High school graduate, diploma or the equivalent (for example: GED)
3. Some college credit, no degree
4. Associate's degree (including trade school, technical or vocational training)
5. Bachelor's degree
6. Master's degree
7. Professional degree
8. Doctorate degree
99. Prefer not to answer

64. How many people reside in your household year-round?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8 or more
99. Prefer not to answer

[If Q64 = 1, set less_than =$45,000, between = $45,001 and $90,000, more_than = $90,000

If Q64 = 2, set less_than = $50,000, between = $50,001 and $100,000, more_than = $100,000

If Q64 = 3, set less_than = $60,000, between = $60,001 and $110,000, more_than = $110,000

If Q64 = 4, set less_than = $65,000, between = $65,001 and $125,000, more_than = $125,000

If Q64 = 5, set less_than = $70,000, between = $70,000 and $135, 000, more_than = $135, 000

If Q64 = 6, set less_than = $75,000, between = $75,001 and $140,000, more_than = $140,000

If Q64 = 7, set less_than = $80,000, between = $80,001 and $150,000, more_than = $150,000

If Q64 = 8, set less_than = $85,000, between = $85,001 and $160,000, more_than = $160,000]

[Display if Q64 = 1-8]

65. Which of the following best describes your household annual income?

1. Less than [less_than]
2. Between [between]
3. More than [more_than]
99. Prefer not to answer

8 Efficient Products Participant Survey Responses

QID1 - Our records indicate that you or someone in your household participated in Ameren Missouri's Efficient Products Program by buying [Field-Project_Description] through Ameren Missouri's marketplace. This survey is about your experiences with the marketplace. Do you recall you or another person in your household buying [Field-Project_Description]?

#	Answer	%	Count
1	Yes	94.3%	50
2	No	3.8%	2
3	I don't know	1.9%	1
	Total	100%	53

QID54 - Are you the person in your household who made that purchase?

#	Answer	%	Count
1	Yes	96.0%	48
2	No	4.0%	2
3	I don't know	0.0%	0
	Total	100%	50

QID3 - Just to confirm, our records say that you bought [Field-APS_Quantity] advanced power strip(s) from the Ameren Missouri Online Marketplace. Is that correct?

#	Answer	%	Count
1	Yes	100.0%	1

2	No	0.0%	0
98	Not sure	0.0%	0
	Total	100%	1

QID55 - How many advanced power strips did you buy from the Ameren Missouri Online Marketplace?

#	Answer	%	Count
0	None	0.0%	0
1	One	0.0%	0
2	Two	0.0%	0
3	Three	0.0%	0
98	Not sure	0.0%	0
	Total		0

QID56 - How many advanced power strips are currently installed?

#	Answer	%	Count
0	None	0.0%	0
1	One	100.0%	1
2	Two	0.0%	0
3	Three	0.0%	0
98	Not sure	0.0%	0
	Total	100%	1

QID57 - What type of equipment are you using with the advanced power strip?

#	Question	Audio/visual/entertainment equipment		Computer/office equipment		Other types of equipment		Total
1	First advanced power strip	100.0%	1	0.0%	0	0.0%	0	1
2	Second advanced power strip	0.0%	0	0.0%	0	0.0%	0	undefined
3	Third advanced power strip	0.0%	0	0.0%	0	0.0%	0	undefined

QID58 - Why are you not using all the advanced power strip(s) that you bought? (Please select all that apply)

#	Answer	%	Count
1	The power turned off while I was using equipment that was plugged into it	0.0%	0
2	Not interested in it	0.0%	0
3	Damaged/didn’t work right	0.0%	0
4	I did not know how to use it	0.0%	0
5	I have not had the time to install it	0.0%	0
6	I have not received the power strips	0.0%	0
7	For another reason (Please describe)	0.0%	0
	Total		0

QID59 - Just to confirm, our records say that you bought a smart thermostat(s) from the Ameren Missouri Online Marketplace. Is that correct?

#	Answer	%	Count
1	Yes	97.9%	46
2	No	0.0%	0
98	Not sure	2.1%	1
	Total	100%	47

QID60 - Is the smart thermostat that you bought currently installed?

#	Answer	%	Count
1	Yes	69.6%	32
2	No	30.4%	14
98	Not sure	0.0%	0
	Total	100%	46

QID61 - Why is the smart thermostat not currently installed? (Please select all that apply)

#	Answer	%	Count
1	You are planning to install it but have not had time to do it	35.7%	5
2	You don’t know how to install it	21.4%	3
3	The thermostat is not working correctly	7.1%	1
4	You don’t like the thermostat	0.0%	0
5	You have not received the thermostat	7.1%	1
6	For another reason (Please describe)	42.9%	6

	Total	100%	14

QID62 - What type of thermostat did the smart thermostat replace?

#	Answer	%	Count
1	A programmable thermostat that allows you to schedule the temperature settings for different times of the day	59.4%	19
2	A manual thermostat that lets you manually change the temperature and set on/off temperatures	21.9%	7
3	A different Wi-Fi smart thermostat	15.6%	5
98	Don’t know	3.1%	1
	Total	100%	32

QID63 - Just to confirm, our records say that you bought a heat pump water heater from the Ameren Missouri Online Marketplace. Is that correct?

#	Answer	%	Count
1	Yes	0.0%	0
2	No	0.0%	0
98	I don't know	0.0%	0
	Total		0

QID64 - Is the heat pump water heater currently installed?

#	Answer	%	Count
1	Yes	0.0%	0
2	No	0.0%	0
	Total		0

QID65 - Why is the heat pump water heater not installed (Please select any that apply)

#	Answer	%	Count
1	It stopped working or failed	0.0%	0
2	You can’t find a contractor to install it	0.0%	0
3	You don’t know how to install it	0.0%	0
4	You have not had time to install it	0.0%	0
5	You have not received it	0.0%	0
6	For another reason (Please explain)	0.0%	0
98	Don’t know	0.0%	0
	Total		0

QID2 - How did you first learn of the Ameren Missouri Marketplace?

#	Answer	%	Count
1	Social media (Facebook, Instagram)	0.0%	0
2	Ameren Missouri’s website	10.4%	5
3	Friend, family member, or colleague	10.4%	5
4	Bill inserts or utility mailer	16.7%	8
5	Email from Ameren Missouri	58.3%	28
6	Internet search (e.g., Google search) or internet advertisement	0.0%	0
7	Print advertisement	0.0%	0
8	TV advertisement	0.0%	0
9	Community event	0.0%	0
10	Other (Please specify)	0.0%	0
11	I don’t know	4.2%	2

	Total	100%	48

QID66 - The following questions are about the [Field-Equipment] you bought through the program. You may have bought other items, but we would like you think about the [Field-Equipment] . Why did you buy the [Field-Equipment] on the Ameren Missouri Marketplace website instead of somewhere else? (Please select any that apply)

#	Answer	%	Count
1	To get the Ameren Missouri discount	83.3%	40
2	It was convenient / easy	35.4%	17
3	The product selection was good	6.3%	3
4	I would not have bought it elsewhere	4.2%	2
5	Other (Please specify)	4.2%	2
6	I don’t know	2.1%	1
	Total	100%	48

QID67 - Where did you get information about the [Field-Equipment] to help you decide which one to buy?

#	Answer	%	Count
1	I did not seek additional information on the product	22.9%	11
2	Previous experience with this type of equipment or appliance	10.4%	5
3	Tradesperson (e.g., Contractor, Plumber, etc.)	6.3%	3
4	Ameren Missouri Representative	0.0%	0
5	Ameren Missouri website	41.7%	20
6	Friend, family member, or colleague	12.5%	6

7	A retailer	0.0%	0
8	Product manufacturer	8.3%	4
9	Social media (e.g., Facebook, Instagram)	0.0%	0
10	Internet search (e.g., Google search)	14.6%	7
11	Consumer products magazine or website (e.g., Consumer Reports, Wirecutter)	0.0%	0
12	Other (Please specify)	0.0%	0
13	I don’t know	2.1%	1
	Total	100%	48

1_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

2_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	40.0%	2

4	4	20.0%	1
5	5 (Very influential)	40.0%	2
	Total	100%	5

3_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	33.3%	1
4	4	33.3%	1
5	5 (Very influential)	33.3%	1
	Total	100%	3

4_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

5_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	15.0%	3
4	4	15.0%	3
5	5 (Very influential)	70.0%	14
	Total	100%	20

6_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	33.3%	2
5	5 (Very influential)	66.7%	4
	Total	100%	6

7_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0

2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

8_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	25.0%	1
4	4	50.0%	2
5	5 (Very influential)	25.0%	1
	Total	100%	4

9_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

10_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	28.6%	2
4	4	42.9%	3
5	5 (Very influential)	28.6%	2
	Total	100%	7

11_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

12_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0

2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

13_QID68 - How influential was [Field-2] in your decision to purchase the [Field-Equipment]?

#	Answer	%	Count
1	1 (Not at all influential)	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5 (Very influential)	0.0%	0
	Total		0

QID4 - Before learning about the incentives offered on the Ameren Missouri Marketplace, had you already planned to buy the energy efficient [Field-Equipment]?

#	Answer	%	Count
1	Yes	35.4%	17
2	No	64.6%	31
	Total	100%	48

QID5 - Would you have bought the same high efficiency [Field-Equipment] without the Ameren Missouri incentive?

#	Answer	%	Count
1	Yes	28.3%	13
2	No	71.7%	33
	Total	100%	46

QID6 - If the Ameren Missouri Marketplace did not offer incentives on smart thermostats, what kind of thermostat would you have bought?

#	Answer	%	Count
1	The same thermostat or another smart learning thermostat	34.0%	16
2	A programmable thermostat	27.7%	13
3	A manual thermostat	2.1%	1
4	Not bought anything	36.2%	17
	Total	100%	47

QID7 - If the Ameren Missouri Marketplace did not offer incentives on advanced power strips, what kind of power strip would you most likely have bought?

#	Answer	%	Count
1	A Tier 2 advanced power strip (A Tier 2 Advanced Power Strip improves upon Tier 1 features by adding a system that detects when you're not using your TV and turns it off along with other devices plugged into it.)	100.0%	1
2	A Tier 1 advanced power strip (A Tier 1 Advanced Power Strip operates on a master/switched principle, automatically powering off peripherals when the primary device, such as a TV or PC, is switched off, relying on user behavior for energy savings.)	0.0%	0
3	Some other kind of power strip	0.0%	0

4	Not bought anything	0.0%	0
	Total	100%	1

QID8 - If the Ameren Missouri Marketplace did not offer incentives, how efficient of a [Field-Equipment] would you most likely have bought?

#	Answer	%	Count
1	The same efficient ${e://Field/Equipment} or one as efficient	0.0%	0
2	A lower efficiency ${e://Field/Equipment}	0.0%	0
3	The least efficient or least expensive ${e://Field/Equipment} available	0.0%	0
4	Not bought anything	0.0%	0
	Total		0

QID9 - If the Ameren Missouri Marketplace did not offer incentives, when would you most likely have bought the [Field-Equipment]?

#	Answer	%	Count
1	At the same time	6.4%	3
2	Later, but within the same year	36.2%	17
3	One to two years out	14.9%	7
4	More than two years out or never	42.6%	20
	Total	100%	47

QID10 - How important was each of the following in your decision to buy the energy efficient [Field-Equipment]?

#	Question	Extremely important		Not at all important		Not applicable		Slightly important		Moderately important		Very important		Total
1	The Ameren Missouri incentive	47.9%	23	0.0%	0	2.1%	1	2.1%	1	18.8%	9	29.2%	14	48
2	Information about energy efficiency that Ameren Missouri provided	25.5%	12	0.0%	0	6.4%	3	19.1%	9	25.5%	12	23.4%	11	47
3	Information about the energy efficiency of the products provided by the Ameren Missouri Marketplace	27.7%	13	0.0%	0	8.5%	4	14.9%	7	25.5%	12	23.4%	11	47
4	The availability of the product in the Ameren Missouri Marketplace.	40.4%	19	2.1%	1	2.1%	1	4.3%	2	21.3%	10	29.8%	14	47

QID11 - We would like to know if you have installed any additional energy efficient equipment because of your experience with the program that you DID NOT receive an incentive or rebate for. Since participating in the Efficient Products program by buying the [Field-Equipment] on the Ameren Missouri Marketplace, have you installed any ADDITIONAL energy efficient items in a household in Ameren Missouri's service territory without receiving an incentive or rebate?

#	Answer	%	Count
1	Yes	20.8%	10
2	No	72.9%	35
98	Don't know	6.3%	3
	Total	100%	48

QID12 - We would like to know what you installed because of your experience with the program that you did not get a rebate or discount for. Since participating in the program in [Field-Year] have you done any of the following?

#	Answer	%	Count
1	Purchased an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer	40.0%	4
2	Installed water heater pipe insulation	10.0%	1
3	Installed water heater jacket, blanket, or insulation	10.0%	1
4	Installed low flow faucet aerators	10.0%	1
5	Installed low flow showerheads	20.0%	2
6	Installed an ENERGY STAR® room air conditioner	0.0%	0
7	Installed an energy efficient water heater, tankless water heater, or heat pump water heater	20.0%	2
8	Installed a smart thermostat	20.0%	2
9	Installed a high efficiency heating or cooling equipment	30.0%	3

10	Insulated your attic or walls	30.0%	3
11	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)	30.0%	3
12	Installed energy saving advanced power strips	30.0%	3
13	Installed an ENERGY STAR® pool pump	0.0%	0
14	Installed an ENERGY STAR® air purifier	10.0%	1
15	Installed an ENERGY STAR® dehumidifier	0.0%	0
16	Something else	40.0%	4
17	None of the above	0.0%	0
	Total	100%	10

QID13 - Why did you not get an Ameren Missouri incentive rebate or discount for the water heater?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	50.0%	1
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	0.0%	0
98	Don’t know	50.0%	1
	Total	100%	2

QID81 - Why did you not get an Ameren Missouri incentive rebate or discount for the smart thermostat?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	50.0%	1
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	50.0%	1
98	Don’t know	0.0%	0
	Total	100%	2

QID80 - Why did you not get an Ameren Missouri incentive rebate or discount for the heating or cooling equipment?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	0.0%	0
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	33.3%	1
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	33.3%	1
6	I did get an incentive	0.0%	0
98	Don’t know	33.3%	1
	Total	100%	3

QID79 - Why did you not get an Ameren Missouri incentive rebate or discount for the advanced power strips?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	66.7%	2
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	33.3%	1
98	Don’t know	0.0%	0
	Total	100%	3

QID14 - What kind of appliance did you purchase?

#	Answer	%	Count
1	Refrigerator	75.0%	3
2	Freezer	0.0%	0
3	Dishwasher	75.0%	3
4	Clothes washer	75.0%	3
5	Clothes dryer – Electric	50.0%	2
6	Clothes dryer – Gas	0.0%	0
7	Other (Please describe)	0.0%	0
	Total	100%	4

QID15 - Does the appliance have an ENERGY STAR label?

#	Answer	%	Count
1	Yes	100.0%	4
2	No	0.0%	0
98	Don’t know	0.0%	0
	Total	100%	4

QID22 - What type of water heater did you install? Was it a…

#	Answer	%	Count
1	Natural gas storage tank water heater	50.0%	1
2	Electric storage tank water heater	50.0%	1
3	Heat pump water heater	0.0%	0
4	A natural gas tank less water heater	0.0%	0
5	Some other type of water heater (Specify)	0.0%	0
98	Don’t know	0.0%	0
	Total	100%	2

QID21 - What type of thermostat did the Wi-Fi thermostat replace?

#	Answer	%	Count
1	A programmable thermostat that allows you to schedule the temperature settings for different times of the day	50.0%	1
2	A standard thermostat that lets you set on/off temperatures	0.0%	0
3	A different Wi-Fi smart thermostat	50.0%	1
98	Don’t know	0.0%	0

	Total	100%	2

QID23 - Does the thermostat control your heating system, cooling system, or both?

#	Answer	%	Count
1	Heating system	0.0%	0
2	Cooling system	0.0%	0
3	Both	100.0%	2
	Total	100%	2

QID24 - Do you have an electric heating system?

#	Answer	%	Count
1	Yes	100.0%	2
2	No	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

QID25 - Is your heating system a heat pump?

#	Answer	%	Count
1	Yes	50.0%	1
2	No	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

QID26 - What type of heating or cooling equipment did you install?

#	Answer	%	Count
1	Energy-efficient central air conditioner	66.7%	2
2	Energy-efficient air source heat pump	0.0%	0
3	Energy-efficient ground source heat pump	0.0%	0
4	Energy-efficient ductless mini-split heat pump	0.0%	0
5	Something else (please describe)	33.3%	1
	Total	100%	3

QID27 - What is the efficiency rating of the HVAC unit you purchased?

#	Answer	%	Count
1	SEER:	0.0%	0
2	EER:	0.0%	0
98	Not sure	100.0%	1
	Total	100%	1

QID28 - What is the R-value of the insulation you installed?

What is the R-value of the insulation you installed?
38
R40

QID29 - Where did you install the new insulation?

#	Answer	%	Count
1	Attic	100.0%	3
2	Walls	0.0%	0
	Total	100%	3

QID30 - Approximately what size (in square feet) is the attic where the insulation is installed?

#	Answer	%	Count
1	Square feet:	66.7%	2
98	Not sure	33.3%	1
	Total	100%	3

#	Answer	%	Count
1700	1700	50.0%	1
1800	1800	50.0%	1
	Total	100%	2

QID31 - What type of weatherization products did you install?

#	Answer	%	Count
1	Door seals	66.7%	2
2	Spray foam insulation	33.3%	1

3	Door sweeps	100.0%	3
4	Something else (please describe)	0.0%	0
	Total	100%	3

QID33 - How many energy saving advanced power strips did you install?

#	Answer	%	Count
1	1	0.0%	0
2	2	100.0%	3
3	3 or more	0.0%	0
	Total	100%	3

QID36 - What other energy efficient items did you install?

What other energy efficient items did you install?
Led light bulbs
LED bulbs
Light bulbs
Bulbs

1_QID37 - In approximately what month and year did you install the [Field-2] that you did not receive an incentive for?

Purchased an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - In approximately what month and year did you install the [Field-2] that you did not receive an incentive for?
2020
1/2024

June 2023

1_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	66.7%	2
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	33.3%	1
98	Don't know	0.0%	0
	Total	100%	3

1_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	66.7%	2
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	33.3%	1
98	Don't know	0.0%	0
	Total	100%	3

2_QID37 - In approximately what month and year did you install the [Field-2] that you did not receive an incentive for?

Installed water heater pipe insulation - In approximately what month and year did you install the [Field-2] that you did not receive an incentive for?
02/2024

2_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	100.0%	1
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0

9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

2_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	100.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

3_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0

1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

3_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0

98	Don't know	0.0%	0
	Total		0

4_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	100.0%	1
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

4_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0

3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	100.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

5_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	50.0%	1
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	50.0%	1
	Total	100%	2

5_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	50.0%	1
	Total	100%	2

6_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

6_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

7_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	100.0%	2
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

7_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	50.0%	1
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

8_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	50.0%	1
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

8_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	50.0%	1
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

9_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	50.0%	1
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	50.0%	1
	Total	100%	2

9_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	100.0%	2
	Total	100%	2

10_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	33.3%	1
4	4	0.0%	0
5	5	33.3%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	33.3%	1
	Total	100%	3

10_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	33.3%	1
6	6	0.0%	0
7	7	33.3%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	33.3%	1
	Total	100%	3

11_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	33.3%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	66.7%	2
	Total	100%	3

11_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	33.3%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	66.7%	2
	Total	100%	3

12_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	50.0%	1
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	50.0%	1
	Total	100%	2

12_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	50.0%	1
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

13_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

13_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

14_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	100.0%	1
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

14_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	100.0%	1
	Total	100%	1

15_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

15_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

16_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	25.0%	1
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	25.0%	1
8	8	25.0%	1
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	25.0%	1
	Total	100%	4

16_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	25.0%	1
6	6	0.0%	0
7	7	25.0%	1
8	8	0.0%	0
9	9	25.0%	1
10	10 (Extremely likely)	0.0%	0
98	Don't know	25.0%	1
	Total	100%	4

17_QID38 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

17_QID40 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

QID41 - Using the scale below, how would you rate the ease of finding the product(s) you were interested in purchasing through the online marketplace?

#	Answer	%	Count
1	1 (Very difficult)	0.0%	0
2	2	4.3%	2
3	3	17.0%	8
4	4	36.2%	17
5	5 (Very easy)	42.6%	20

	Total	100%	47

QID69 - Using the scale below, how clear was the information about the discount amount on the Ameren Missouri Online Marketplace?

#	Answer	%	Count
1	1(Not at all clear)	0.0%	0
2	2	4.3%	2
3	3	15.2%	7
4	4	26.1%	12
5	5(Very clear)	54.3%	25
	Total	100%	46

QID71 - About how long did it take to receive the [Field-Equipment] after purchase?

#	Answer	%	Count
1	1 weeks or less	34.0%	16
2	2 – 3 weeks	40.4%	19
3	4 – 5 weeks	2.1%	1
4	More than 5 weeks	4.3%	2
5	I have not received the item(s) yet	2.1%	1
98	I don’t know	17.0%	8
	Total	100%	47

QID73 - Using the scale below, please rate how satisfied or dissatisfied you are with each of the following?

#	Question	1 (Very dissatisfied)		2		3		4		5 (Very satisfied)		Total
1	The energy efficient product(s) that you installed	4.8%	2	4.8%	2	19.0%	8	19.0%	8	52.4%	22	42
2	The variety of energy efficient equipment for which Ameren Missouri offers incentives	0.0%	0	0.0%	0	45.2%	19	21.4%	9	33.3%	14	42
3	The wait time to receive the item(s)	2.3%	1	7.0%	3	18.6%	8	23.3%	10	48.8%	21	43
4	The process to purchase the item(s)	2.3%	1	0.0%	0	16.3%	7	27.9%	12	53.5%	23	43

QID43 - Do you rent or own the residence located at [Field-Address]?

#	Answer	%	Count
1	Rent	11.4%	5
2	Own	81.8%	36
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID44 - Is the residence located at [Field-Address]…

#	Answer	%	Count
1	Your primary residence	81.8%	36

2	A residence that you rent to someone else	0.0%	0
3	A vacation property that is not occupied year-round	9.1%	4
4	Something else (please specify)	2.3%	1
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID45 - Which of the following best describes the residence located at [Field-Address]?

#	Answer	%	Count
1	Single-family home	72.7%	32
2	Manufactured or mobile home	6.8%	3
3	Duplex or townhome	4.5%	2
4	Apartment or condominium	9.1%	4
5	Other (please specify)	0.0%	0
98	I don’t know	0.0%	0
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID46 - Approximately when was your home built?

#	Answer	%	Count
1	Before 1960	13.6%	6
2	1960 to 1979	22.7%	10
3	1980 to 1999	25.0%	11
4	2000 to 2009	13.6%	6

5	2010 to 2019	9.1%	4
6	2020 or later	4.5%	2
98	I don’t know	4.5%	2
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID47 - What is the main fuel used for heating your home?

#	Answer	%	Count
1	Electricity	38.6%	17
2	Natural gas	52.3%	23
3	Propane	2.3%	1
4	Oil	0.0%	0
5	Don’t heat home	0.0%	0
6	Something else (please specify)	0.0%	0
98	I don’t know	0.0%	0
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID82 - What type of heating system is your main heating system?

#	Answer	%	Count
1	Electric furnace	64.7%	11
2	Heat pump	23.5%	4
3	Baseboard heaters	0.0%	0
4	Radiant floor heating	0.0%	0
5	Other (Please describe)	11.8%	2

6	Not sure	0.0%	0
	Total	100%	17

QID48 - What fuel does your main water heater use?

#	Answer	%	Count
1	Electricity	36.4%	16
2	Natural gas	52.3%	23
3	Propane	2.3%	1
4	Something else (please specify)	0.0%	0
5	Do not have hot water	2.3%	1
98	I don’t know	0.0%	0
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID49 - What is your age?

#	Answer	%	Count
1	18 – 24	2.3%	1
2	25 – 34	2.3%	1
3	35 – 44	13.6%	6
4	45 – 54	11.4%	5
5	55 – 64	20.5%	9
6	65 – 74	27.3%	12
7	75+	13.6%	6
99	Prefer not to answer	9.1%	4
	Total	100%	44

QID50 - What is the primary language used in your household?

#	Answer	%	Count
1	English	95.5%	42
2	Spanish	0.0%	0
3	Other (please specify)	0.0%	0
99	Prefer not to answer	4.5%	2
	Total	100%	44

QID51 - Which of the following best describes your highest education level?

#	Answer	%	Count
1	Some high school, no diploma	0.0%	0
2	High school graduate, diploma or the equivalent (for example: GED)	11.4%	5
3	Some college credit, no degree	22.7%	10
4	Associate’s degree (including trade school, technical or vocational training)	15.9%	7
5	Bachelor’s degree	25.0%	11
6	Master’s degree	13.6%	6
7	Professional degree	0.0%	0
8	Doctorate degree	4.5%	2
99	Prefer not to answer	6.8%	3
	Total	100%	44

QID52 - How many people reside in your household year-round?

#	Answer	%	Count
1	1	18.2%	8
2	2	47.7%	21
3	3	9.1%	4
4	4	11.4%	5
5	5	4.5%	2
6	6	0.0%	0
7	7	0.0%	0
8	8 or more	0.0%	0
99	Prefer not to answer	9.1%	4
	Total	100%	44

QID53 - Which of the following best describes your household annual income?

#	Answer	%	Count
1	Less than ${e://Field/less_than}	10.0%	4
2	Between ${e://Field/between}	42.5%	17
3	More than ${e://Field/more_than}	25.0%	10
99	Prefer not to answer	22.5%	9
	Total	100%	40

9 Heating and Cooling Participant and End-User Survey Responses

QID1 - Program records indicate that your household installed a(n) [Field-Project_Description] through the Ameren Missouri's Heating and Cooling Program at [Field-Address]. Do you recall this?

#	Answer	%	Count
1	Yes	100.0%	25
2	Yes, but information is incorrect	0.0%	0
3	No	0.0%	0
	Total	100%	25

QID2 - How did you first learn of the Ameren Missouri Heating and Cooling Program?

#	Answer	%	Count
1	Contractor	0.0%	0
2	Internet search (e.g., Google search) or internet advertisement	0.0%	0
3	Radio or television advertisement	0.0%	0
4	Social media (Facebook, Instagram)	0.0%	0
5	Ameren Missouri's website	0.0%	0
6	Friend, family member, or colleague	0.0%	0
7	Bill inserts or utility mailer	0.0%	0
8	Email from Ameren Missouri	0.0%	0
9	Print advertisement	0.0%	0
10	TV advertisement	0.0%	0
11	Community event	0.0%	0

12	Other (Please specify)	0.0%	0
	Total		0

QID3 - Why did you choose to install the high-efficiency [Field-Equipment_1] instead of standard efficiency equipment in your home? Please select all that apply.

#	Answer	%	Count
1	Energy Cost Savings: I wanted to reduce my monthly energy bills.	72.0%	18
2	Environmental Concerns: I am concerned about my environmental footprint.	36.0%	9
3	Incentives, Rebates, or Tax Credits: I wanted to take advantage of incentives, rebates, or tax credits offered by Ameren Missouri, manufacturer, or government.	68.0%	17
4	Equipment Performance: I desired better comfort levels, more consistent temperatures, or other performance-related benefits.	64.0%	16
5	Recommendation from HVAC Professional: My decision was based on the advice of an HVAC professional or contractor.	48.0%	12
6	Home Value Improvement: I wanted to increase the value of my home or make it more attractive to future buyers.	36.0%	9
7	Other: Please specify	4.0%	1
	Total	100%	25

QID60 - What incentives or rebates influenced your decision to install the high efficiency [Field-Equipment_1]?

#	Answer	%	Count
1	Ameren Missouri incentives/discount	100.0%	16
2	Federal tax credit (A tax credit directly reduces the amount of tax owed by an individual or business.)	87.5%	14
3	State or federal rebates (A state or federal rebate is a payment or refund issued to individuals after certain conditions are met.)	62.5%	10
4	Other rebates (Please describe)	0.0%	0

	Total	100%	16

QID61 - When you were considering purchasing the [Field-Equipment_1], from where did you look for information? Please select all that apply.

#	Answer	%	Count
1	Retailers	0.0%	0
2	Installation contractors	60.0%	15
3	Friend, neighbor, relative or co-worker	20.0%	5
4	Ameren Missouri’s website	12.0%	3
5	Researched on the internet	52.0%	13
6	Consumer reports or other product magazines	24.0%	6
7	Newspaper	0.0%	0
8	Radio or television	0.0%	0
9	Other (Please specify)	8.0%	2
10	Did not look for any information about what to buy	4.0%	1
11	Don’t know	0.0%	0
	Total	100%	25

QID62 - Did you know that you received a discount from Ameren Missouri for your [Field-Equipment_1]?

#	Answer	%	Count
1	Yes	84.0%	21
2	No	16.0%	4
	Total	100%	25

QID4 - Before speaking with your contractor, were you aware of what sets high-efficiency HVAC systems apart from standard efficiency ones?

#	Answer	%	Count
1	Yes	65.0%	13
2	No	35.0%	7
	Total	100%	20

QID5 - Before learning about the Ameren Missouri incentives, had you already planned to install a high-efficiency [Field-Equipment_1] as opposed to new standard efficiency equipment?

#	Answer	%	Count
1	Yes	85.0%	17
2	No	15.0%	3
	Total	100%	20

QID71 - Before learning about the Ameren Missouri incentives, had you already planned to install the smart thermostat?

#	Answer	%	Count
1	Yes	0.0%	0
2	No	100.0%	1
	Total	100%	1

QID6 - Would you have installed the same high efficiency [Field-Equipment_1] without the Ameren Missouri incentive?

#	Answer	%	Count
1	Yes	52.4%	11
2	No	47.6%	10
	Total	100%	21

QID7 - If the Ameren Missouri incentives were not available, would you have installed the same system you got the incentive for, a system that was less energy efficient, or a not installed any system at all?

#	Answer	%	Count
1	Would have installed the same system	60.0%	12
2	Would have installed a less energy efficient system	25.0%	5
3	Would have installed the least efficient / lowest cost system available	10.0%	2
4	Would not have installed a new system at this time	5.0%	1
	Total	100%	20

QID8 - If the incentives were not available, what kind of thermostat would you have most likely bought?

#	Answer	%	Count
1	The same thermostat or another smart learning thermostat.	0.0%	0
2	A programmable thermostat	0.0%	0
3	A manual thermostat	0.0%	0
4	Not bought anything	100.0%	1

	Total	100%	1

QID9 - How important was each of the following in your decision to install the energy efficient [Field-Equipment_1]?

#	Question	Extremely important		Not at all important		Not applicable		Slightly important		Moderately important		Very important		Total
1	The Ameren Missouri incentive	21.1%	4	0.0%	0	0.0%	0	31.6%	6	15.8%	3	31.6%	6	19
2	Recommendation from Ameren Missouri program staff	10.0%	2	15.0%	3	50.0%	10	0.0%	0	15.0%	3	10.0%	2	20
3	Information about energy efficiency that Ameren Missouri provided	15.0%	3	10.0%	2	40.0%	8	0.0%	0	20.0%	4	15.0%	3	20
4	Information or recommendation from your contractor	52.4%	11	0.0%	0	0.0%	0	0.0%	0	14.3%	3	33.3%	7	21

QID10 - If the incentives were not available, when would you most likely have installed the [Field-Equipment_1]?

#	Answer	%	Count
1	At the same time	57.1%	12
2	Later, but within the same year	14.3%	3

3	One to two years out	19.0%	4
4	More than two years out or never	9.5%	2
	Total	100%	21

QID11 - Before speaking with your contractor, were you aware of what sets high-efficiency HVAC systems apart from standard efficiency ones?

#	Answer	%	Count
1	Yes	0.0%	0
2	No	0.0%	0
	Total		0

QID12 - Before learning about the Ameren Missouri incentives, had you already planned to install a high-efficiency [Field-Equipment_2] as opposed to new standard efficiency equipment?

#	Answer	%	Count
1	Yes	0.0%	0
2	No	0.0%	0
	Total		0

QID72 - Before learning about the Ameren Missouri incentives, had you already planned to install the smart thermostat?

#	Answer	%	Count
1	Yes	52.9%	9
2	No	47.1%	8
	Total	100%	17

QID13 - Would you have installed the same high efficiency [Field-Equipment_2] without the Ameren Missouri incentive?

#	Answer	%	Count
1	Yes	64.7%	11
2	No	35.3%	6
	Total	100%	17

QID14 - If the Ameren Missouri incentives were not available, would you have installed the same system you got the incentive for, a system that was less energy efficient, or a not installed any system at all?

#	Answer	%	Count
1	Would have installed the same system	0.0%	0
2	Would have installed a less energy efficient system	0.0%	0
3	Would have installed the least efficient / lowest cost system available	0.0%	0
4	Would not have installed a new system	0.0%	0
	Total		0

QID15 - If the incentives were not available, what kind of thermostat would you have most likely bought?

#	Answer	%	Count
1	The same thermostat or another smart learning thermostat.	47.1%	8
2	A programmable thermostat	41.2%	7
3	A manual thermostat	5.9%	1

4	Not bought anything	5.9%	1
	Total	100%	17

QID16 - How important was each of the following in your decision to install the energy efficient [Field-Equipment_2]?

#	Question	Extremely important		Not at all important		Slightly important		Moderately important		Very important		Total
1	The Ameren Missouri incentive	17.6%	3	5.9%	1	29.4%	5	23.5%	4	23.5%	4	17
2	Recommendation from Ameren Missouri program staff	0.0%	0	25.0%	2	12.5%	1	37.5%	3	25.0%	2	8
3	Information about energy efficiency that Ameren Missouri provided	11.1%	1	33.3%	3	11.1%	1	22.2%	2	22.2%	2	9
4	Information or recommendation from your contractor	33.3%	5	0.0%	0	0.0%	0	33.3%	5	33.3%	5	15

QID17 - If the incentives were not available, when would you most likely have installed the [Field-Equipment_2]?

#	Answer	%	Count
1	At the same time	76.5%	13
2	Later, but within the same year	5.9%	1
3	One to two years out	5.9%	1
4	More than two years out or never	11.8%	2

	Total	100%	17

QID18 - We would like to know if you have installed any additional energy efficient equipment because of your experience with the program that you DID NOT receive an incentive or rebate for. Since participating in the Heating and Cooling program, have you installed any ADDITIONAL energy efficient items in a household in Ameren Missouri's service territory without receiving an incentive or rebate?

#	Answer	%	Count
1	Yes	14.3%	3
2	No	76.2%	16
3	Don't know	9.5%	2
	Total	100%	21

QID19 - We would like to know what you installed because of your experience with the program that you did not get a rebate or discount for. Since participating in the program in [Field-Year] have you done any of the following?

#	Answer	%	Count
1	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer	100.0%	2
2	Installed water heater pipe insulation	0.0%	0
3	Installed water heater jacket, blanket, or insulation	0.0%	0
4	Installed low flow faucet aerators	0.0%	0
5	Installed low flow showerheads	0.0%	0
6	Installed an ENERGY STAR® room air conditioner	0.0%	0
7	Installed an energy efficient water heater, tankless water heater, or heat pump water heater	50.0%	1
8	Installed a smart thermostat	100.0%	2

9	Installed a high efficiency heating or cooling equipment	0.0%	0
10	Insulated your attic or walls	0.0%	0
11	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)	0.0%	0
12	Installed energy saving advanced power strips	0.0%	0
13	Installed an ENERGY STAR® pool pump	0.0%	0
14	Installed an ENERGY STAR® air purifier	0.0%	0
15	Installed an ENERGY STAR® dehumidifier	0.0%	0
16	Something else	0.0%	0
17	None of the above	0.0%	0
	Total	100%	2

QID20 - Why did you not get an Ameren Missouri incentive rebate or discount for the water heater?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	0.0%	0
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	0.0%	0
7	Don’t know	100.0%	1
	Total	100%	1

QID73 - Why did you not get an Ameren Missouri incentive rebate or discount for the smart thermostat?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	50.0%	1
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	0.0%	0
7	Don’t know	50.0%	1
	Total	100%	2

QID74 - Why did you not get an Ameren Missouri incentive rebate or discount for the heating or cooling equipment?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	0.0%	0
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	0.0%	0
7	Don’t know	0.0%	0
	Total		0

QID75 - Why did you not get an Ameren Missouri incentive rebate or discount for the advanced power strips?

#	Answer	%	Count
1	Did not know an incentive, rebate or discount was available	0.0%	0
2	Did not want to complete an application	0.0%	0
3	The application paperwork was too long or complicated	0.0%	0
4	I planned to but forgot	0.0%	0
5	Some other reason (please describe)	0.0%	0
6	I did get an incentive	0.0%	0
7	Don’t know	0.0%	0
	Total		0

QID21 - What kind of appliance did you purchase?

#	Answer	%	Count
1	Refrigerator	50.0%	1
2	Freezer	0.0%	0
3	Dishwasher	100.0%	2
4	Clothes washer	0.0%	0
5	Clothes dryer – Electric	0.0%	0
6	Clothes dryer – Gas	0.0%	0
7	Other (Please describe)	0.0%	0
	Total	100%	2

QID22 - Does the appliance have an ENERGY STAR label?

#	Answer	%	Count
1	Yes	50.0%	1
2	No	0.0%	0
3	Don’t know	50.0%	1
	Total	100%	2

QID28 - What type of water heater did you install? Was it a…

#	Answer	%	Count
1	Natural gas storage tank water heater	100.0%	1
2	Electric storage tank water heater	0.0%	0
3	Heat pump water heater	0.0%	0
4	A natural gas tank less water heater	0.0%	0
5	Some other type of water heater (Specify)	0.0%	0
6	Don’t know	0.0%	0
	Total	100%	1

QID29 - What type of thermostat did the Wi-Fi thermostat replace?

#	Answer	%	Count
1	A programmable thermostat that allows you to schedule the temperature settings for different times of the day	50.0%	1
2	A standard thermostat that lets you set on/off temperatures	50.0%	1
3	A different Wi-Fi smart thermostat	0.0%	0
4	Don’t know	0.0%	0

	Total	100%	2

QID30 - Does the thermostat control your heating system, cooling system, or both?

#	Answer	%	Count
1	Heating system	0.0%	0
2	Cooling system	0.0%	0
3	Both	100.0%	2
	Total	100%	2

QID31 - Do you have an electric heating system?

#	Answer	%	Count
1	Yes	50.0%	1
2	No	50.0%	1
3	Don't know	0.0%	0
	Total	100%	2

QID32 - Is your heating system a heat pump?

#	Answer	%	Count
1	Yes	100.0%	1
2	No	0.0%	0
3	Don't know	0.0%	0
	Total	100%	1

QID33 - What type of heating or cooling equipment did you install?

#	Answer	%	Count
1	Energy-efficient central air conditioner	0.0%	0
2	Energy-efficient air source heat pump	0.0%	0
3	Energy-efficient ground source heat pump	0.0%	0
4	Energy-efficient ductless mini-split heat pump	0.0%	0
5	Something else (please describe)	0.0%	0
	Total		0

QID34 - What is the efficiency rating of the HVAC unit you purchased?

#	Answer	%	Count
1	SEER:	0.0%	0
2	EER:	0.0%	0
3	Not sure	0.0%	0
	Total		0

QID36 - Where did you install the new insulation?

#	Answer	%	Count
1	Attic	0.0%	0
2	Walls	0.0%	0
	Total		0

QID37 - Approximately what size (in square feet) is the attic where the insulation is installed?

#	Answer	%	Count
1	Square feet:	0.0%	0
2	Not sure	0.0%	0
	Total		0

QID38 - What type of weatherization products did you install?

#	Answer	%	Count
1	Door seals	0.0%	0
2	Spray foam insulation	0.0%	0
3	Door sweeps	0.0%	0
4	Something else (please describe)	0.0%	0
	Total		0

QID39 - How many energy saving advanced power strips did you install?

#	Answer	%	Count
1	1	0.0%	0
2	2	0.0%	0
3	3 or more	0.0%	0
	Total		0

1_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	50.0%	1
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	50.0%	1
	Total	100%	2

1_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

2_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

2_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

3_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

3_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

4_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

4_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

5_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

5_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

6_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

6_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

7_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

7_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

8_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	100.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

8_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

9_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

9_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

10_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

10_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

11_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

11_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

12_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

12_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

13_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

13_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

14_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

14_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

15_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

15_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

16_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

16_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

17_QID45 - Using the scale below, how important was the experience with the program in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

17_QID46 - Using the scale below, how likely would you have been to install the [Field-2] if you had not participated in the program?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

QID63 - How many contractors did you get a bid or cost estimate from when you decided to install the new [Field-Project_Description]?

#	Answer	%	Count
1	A bid or cost estimate from one contractor	50.0%	12
2	A bid or cost estimate from two contractors	20.8%	5
3	A bid or cost estimate from three or more contractors	29.2%	7
4	Don’t know	0.0%	0
	Total	100%	24

QID64 - What factors influenced your decision to choose the contractor you worked with?

#	Answer	%	Count
1	Listed on Ameren Missouri's website as participating contractor in the Heating and Cooling rebate program	20.8%	5
2	Cost/budget considerations	16.7%	4
3	Qualifications/expertise with equipment type	41.7%	10
4	Availability to complete project within a specific timeline	25.0%	6
5	Recommendation from someone you know	25.0%	6
6	Quality of work/brand recognition	45.8%	11
7	Online reviews (e.g., Yelp reviews)	12.5%	3
8	I have worked with this contractor before	66.7%	16
9	Other considerations (Please specify)	12.5%	3
98	Don't know	0.0%	0
	Total	100%	24

QID65 - Did you obtain information about the contractor from the Ameren Missouri website during the selection process?

#	Answer	%	Count
1	Yes	8.7%	2
2	No	87.0%	20
98	Don't know	4.3%	1
	Total	100%	23

QID67 - If the contractor you selected didn't participate in Ameren Missouri's Heating and Cooling program, would you have still used them or selected a different contractor?

#	Answer	%	Count
1	I would have still used them	41.7%	10
2	I would have selected a different contractor	20.8%	5
3	Don't know	37.5%	9
	Total	100%	24

QID69 - These next few questions ask about your satisfaction with several aspects of the program. Using a scale of 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied", how would you rate your satisfaction with the following?

#	Question	1(Very dissatisfied)		2		3		4		5 (Very satisfied)		Total
1	The quality of the contractors' work	0.0%	0	4.2%	1	0.0%	0	4.2%	1	91.7%	22	24
2	The performance of the equipment installed	0.0%	0	0.0%	0	4.2%	1	8.3%	2	87.5%	21	24
3	Your overall experience with the Heating and Cooling Program	0.0%	0	4.2%	1	8.3%	2	16.7%	4	70.8%	17	24

QID48 - Do you rent or own the residence located at [Field-Address]?

#	Answer	%	Count
1	Rent	0.0%	0
2	Own	90.9%	20
99	Prefer not to answer	9.1%	2

	Total	100%	22

QID49 - Is the residence located at [Field-Address]…

#	Answer	%	Count
1	Your primary residence	95.2%	20
2	A residence that you rent to someone else	0.0%	0
3	A vacation property that is not occupied year-round	0.0%	0
4	Something else (please specify)	0.0%	0
99	Prefer not to answer	4.8%	1
	Total	100%	21

QID50 - Which of the following best describes the residence located at [Field-Address]?

#	Answer	%	Count
1	Single-family home	90.5%	19
2	Manufactured or mobile home	0.0%	0
3	Duplex or townhome	0.0%	0
4	Apartment or condominium	0.0%	0
5	Other (please specify)	0.0%	0
98	I don’t know	0.0%	0
99	Prefer not to answer	9.5%	2
	Total	100%	21

QID51 - Approximately when was your home built?

#	Answer	%	Count
1	Before 1960	33.3%	7
2	1960 to 1979	33.3%	7
3	1980 to 1999	19.0%	4
4	2000 to 2009	9.5%	2
5	2010 to 2019	0.0%	0
6	2020 or later	4.8%	1
98	I don’t know	0.0%	0
99	Prefer not to answer	0.0%	0
	Total	100%	21

QID52 - What is the main fuel used for heating your home?

#	Answer	%	Count
1	Electricity	38.1%	8
2	Natural gas	61.9%	13
3	Propane	0.0%	0
4	Oil	0.0%	0
5	Don’t heat home	0.0%	0
6	Something else (please specify)	0.0%	0
98	I don’t know	0.0%	0
99	Prefer not to answer	0.0%	0
	Total	100%	21

QID53 - What fuel does your main water heater use?

#	Answer	%	Count
1	Electricity	30.0%	6
2	Natural gas	70.0%	14
3	Propane	0.0%	0
4	Something else (please specify)	0.0%	0
5	Do not have hot water	0.0%	0
98	I don’t know	0.0%	0
99	Prefer not to answer	0.0%	0
	Total	100%	20

QID54 - What is your age?

#	Answer	%	Count
1	18 – 24	0.0%	0
2	25 – 34	0.0%	0
3	35 – 44	4.8%	1
4	45 – 54	19.0%	4
5	55 – 64	23.8%	5
6	65 – 74	19.0%	4
7	75+	14.3%	3
99	Prefer not to answer	19.0%	4
	Total	100%	21

QID55 - What is the primary language used in your household?

#	Answer	%	Count
1	English	90.5%	19
2	Spanish	0.0%	0
3	Other (please specify)	0.0%	0
99	Prefer not to answer	9.5%	2
	Total	100%	21

QID56 - Which of the following best describes your highest education level?

#	Answer	%	Count
1	Some high school, no diploma	0.0%	0
2	High school graduate, diploma or the equivalent (for example: GED)	0.0%	0
3	Some college credit, no degree	4.8%	1
4	Associate’s degree (including trade school, technical or vocational training)	4.8%	1
5	Bachelor’s degree	28.6%	6
6	Master’s degree	28.6%	6
7	Professional degree	4.8%	1
8	Doctorate degree	9.5%	2
99	Prefer not to answer	19.0%	4
	Total	100%	21

QID57 - How many people reside in your household year-round?

#	Answer	%	Count
1	1	19.0%	4

2	2	28.6%	6
3	3	19.0%	4
4	4	0.0%	0
5	5	4.8%	1
6	6	4.8%	1
7	7	0.0%	0
8	8 or more	0.0%	0
99	Prefer not to answer	23.8%	5
	Total	100%	21

QID58 - Which of the following best describes your household annual income?

#	Answer	%	Count
1	Less than ${e://Field/less_than}	0.0%	0
2	Between ${e://Field/between}	18.8%	3
3	More than ${e://Field/more_than}	43.8%	7
99	Prefer not to answer	37.5%	6
	Total	100%	16

10 Heating and Cooling Trade Ally Survey Responses

Q1 - Which of the following best describes your position at your organization?

#	Answer	%	Count
1	Owner	14.3%	3
2	Executive or decision maker	19.0%	4
3	Manager	4.8%	1
4	Sales role	38.1%	8
5	Installer or service technician	4.8%	1
6	Customer service representative	0.0%	0
7	Office/Administrative role	9.5%	2
8	Other (Please specify)	9.5%	2
	Total	100%	21

Q2 - How long have you been an active trade ally (or builder) with Ameren Missouri's BizSavers® Program?

#	Answer	%	Count
1	Number of years:	76.2%	16
98	Don't know	23.8%	5
	Total	100%	21

#	Answer	%	Count
1	1	6.7%	1

2	2	13.3%	2
3	3	13.3%	2
5	5	13.3%	2
7	7	6.7%	1
8	8	6.7%	1
9	9	6.7%	1
10	10	13.3%	2
12	12	6.7%	1
14	14	6.7%	1
15	15	6.7%	1
	Total	100%	15

Q3 - What are your primary reasons for your company's involvement with the Ameren Missouri BizSavers Program? Please select all that apply.

#	Answer	%	Count
1	Make more money or increase profit: Participate to increase business and profitability.	65.0%	13
2	Market Differentiation: To differentiate our services from competitors by leveraging the program's recognition.	65.0%	13
3	Customer Demand: Responding to customer demand for more sustainable and energy-efficient solutions.	70.0%	14
4	Technical Support: Access to technical support and resources provided by the program.	25.0%	5
5	Training Opportunities: Opportunities for staff training and development in energy efficiency practices.	25.0%	5
6	Marketing and Visibility: Increased marketing and visibility provided by the program.	45.0%	9
7	Environmental Impact: Commitment to reducing our environmental impact.	60.0%	12
8	For some other reason (Please describe)	5.0%	1
	Total	100%	20

Q4 - What type of work does your company specialize in? Please select all that apply.

#	Answer	%	Count
1	Building Automation Systems/Controls	57.1%	12
2	HVAC	61.9%	13
3	Lighting	85.7%	18
4	Lighting Controls	85.7%	18
5	General Contractor	23.8%	5
6	Refrigeration/Commercial Kitchens	14.3%	3
7	PC Power Management	19.0%	4
8	Compressed Air Systems	23.8%	5
9	Chillers	38.1%	8
10	Other (Please specify)	14.3%	3
	Total	100%	21

Q5 - What areas of Ameren Missouri's service area do you provide services to? Please select all that apply.

#	Answer	%	Count
1	St Louis Metro	90.5%	19
2	Outer St Louis suburbs	81.0%	17
3	North or Central Missouri	71.4%	15
4	Southeastern Missouri	81.0%	17
	Total	100%	21

Q6 - Does your business participate in any of these utility electricity energy efficiency programs? Please select all that apply.

#	Answer	%	Count
1	Evergy Missouri Programs	68.4%	13
2	Empire District Electric Company/Liberty Utilities	31.6%	6
3	Ameren Illinois Efficiency Programs	100.0%	19
4	Other programs outside of Missouri	47.4%	9
	Total	100%	19

Q7 - About what share of the projects you work on for commercial and industrial organizations include Ameren Missouri incentives? Your best guess is fine.

#	Answer	%	Count
1	0 - 10%	28.6%	6
2	11% - 35%	33.3%	7
3	36% - 65%	14.3%	3
4	65% - 90%	19.0%	4
5	91% - 100%	4.8%	1
	Total	100%	21

Q8 - Thinking about all the projects you work on for commercial and industrial organizations, including those outside of Ameren Missouri's service area, what share of the projects that you work include utility incentives? Your best guess is fine.

#	Answer	%	Count
1	0 - 10%	9.5%	2
2	11% - 35%	28.6%	6
3	36% - 65%	19.0%	4
4	65% - 90%	28.6%	6
5	91% - 100%	14.3%	3
6	Do not do work outside of Ameren Missouri's service area	0.0%	0
	Total	100%	21

Q9 - How effectively do the Ameren Missouri Programs meet the specific needs of each type of customer listed below?

#	Question	1 (Not effective)		2		3		4		5 (Highly effective)		Don't know / No experience with customer type		Total
1	Small Businesses	0.0%	0	10.5%	2	15.8%	3	26.3%	5	36.8%	7	10.5%	2	19
2	Midsized Commercial Organizations	0.0%	0	0.0%	0	5.3%	1	42.1%	8	47.4%	9	5.3%	1	19
3	Large Commercial Organizations	0.0%	0	5.3%	1	0.0%	0	52.6%	10	31.6%	6	10.5%	2	19
4	Large Industrial	0.0%	0	5.6%	1	11.1%	2	38.9%	7	33.3%	6	11.1%	2	18

	Organizations													
5	Nonprofit Organizations	0.0%	0	11.8%	2	17.6%	3	29.4%	5	35.3%	6	5.9%	1	17
6	Government Entities	6.3%	1	6.3%	1	25.0%	4	18.8%	3	18.8%	3	25.0%	4	16
7	Franchises	0.0%	0	12.5%	2	6.3%	1	12.5%	2	18.8%	3	50.0%	8	16
8	Rural Businesses	6.3%	1	18.8%	3	12.5%	2	6.3%	1	31.3%	5	25.0%	4	16
9	Urban Businesses	0.0%	0	0.0%	0	23.5%	4	23.5%	4	41.2%	7	11.8%	2	17
10	Technology and Start-Up Companies	5.9%	1	5.9%	1	11.8%	2	11.8%	2	17.6%	3	47.1%	8	17
11	Manufacturing Plants (Light and Heavy)	0.0%	0	11.1%	2	5.6%	1	22.2%	4	44.4%	8	16.7%	3	18
12	Hospitality	0.0%	0	16.7%	3	5.6%	1	38.9%	7	27.8%	5	11.1%	2	18
13	Schools	0.0%	0	0.0%	0	27.8%	5	16.7%	3	44.4%	8	11.1%	2	18
14	Restaurants / Food services	5.9%	1	5.9%	1	17.6%	3	35.3%	6	23.5%	4	11.8%	2	17
15	Retailers	0.0%	0	5.6%	1	22.2%	4	33.3%	6	27.8%	5	11.1%	2	18

1_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	2
2	Incentives are too low	100.0%	4
3	Limited financial benefits for saving energy	50.0%	2
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	0.0%	0

6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	25.0%	1
	Total	100%	4

2_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	100.0%	3
3	Limited financial benefits for saving energy	66.7%	2
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	0.0%	0
	Total	100%	3

3_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	33.3%	1
2	Incentives are too low	0.0%	0
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	33.3%	1
5	Too much disruption to business	0.0%	0

6	Program equipment is not a good fit for the business	33.3%	1
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	33.3%	1
	Total	100%	3

4_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	33.3%	1
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	66.7%	2
5	Too much disruption to business	33.3%	1
6	Program equipment is not a good fit for the business	33.3%	1
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	33.3%	1
	Total	100%	3

7_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	33.3%	1
3	Limited financial benefits for saving energy	33.3%	1
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	33.3%	1

6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	33.3%	1
	Total	100%	3

8_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	33.3%	1
2	Incentives are too low	33.3%	1
3	Limited financial benefits for saving energy	33.3%	1
4	Few opportunities improve energy efficiency	33.3%	1
5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	33.3%	1
	Total	100%	3

9_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	50.0%	1
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	0.0%	0

6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

10_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	1
2	Incentives are too low	0.0%	0
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	50.0%	1
5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

11_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	1
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	0.0%	0

5	Too much disruption to business	50.0%	1
6	Program equipment is not a good fit for the business	50.0%	1
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

12_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	1
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	50.0%	1
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	50.0%	1
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	0.0%	0
	Total	100%	2

13_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	1
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	0.0%	0

5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

14_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	50.0%	1
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

15_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	0.0%	0
2	Incentives are too low	50.0%	1
3	Limited financial benefits for saving energy	0.0%	0
4	Few opportunities improve energy efficiency	50.0%	1

5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	50.0%	1
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	50.0%	1
	Total	100%	2

16_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	50.0%	1
2	Incentives are too low	0.0%	0
3	Limited financial benefits for saving energy	50.0%	1
4	Few opportunities improve energy efficiency	0.0%	0
5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	0.0%	0
	Total	100%	2

17_Q10 - Why do you say that the Ameren Missouri programs and incentives are not very effective for [Field-2]? Please select all that apply.

#	Answer	%	Count
1	Not enough interest in energy efficiency	33.3%	1
2	Incentives are too low	33.3%	1
3	Limited financial benefits for saving energy	33.3%	1
4	Few opportunities improve energy efficiency	0.0%	0

5	Too much disruption to business	0.0%	0
6	Program equipment is not a good fit for the business	0.0%	0
7	Language or cultural barriers for typical business owners/decision makers	0.0%	0
8	Lack of internal resources to plan and manage projects	33.3%	1
	Total	100%	3

Q11 - Are there energy efficient equipment or services that would help business customers save energy that are not currently incentivized in the Ameren Missouri Programs?

#	Answer	%	Count
1	Yes	38.9%	7
2	No	11.1%	2
98	Not sure	50.0%	9
	Total	100%	18

Q14 - Did you participate in any Ameren Missouri BizSavers training in the last 12 months?

#	Answer	%	Count
1	Yes	61.1%	11
2	No	27.8%	5
98	Don't know	11.1%	2
	Total	100%	18

Q15 - How useful do you think that training was?

#	Answer	%	Count
1	1 (Not at all useful)	0.0%	0
2	2	0.0%	0
3	3	10.0%	1
4	4	50.0%	5
5	5 (Very useful)	40.0%	4
	Total	100%	10

Q17 - Do you think additional training opportunities should be provided to trade allies?

#	Answer	%	Count
1	Yes, please provide examples:	31.3%	5
2	No	68.8%	11
	Total	100%	16

Q19 - Which form of communication is most effective for providing information to you about program changes/updates?

#	Answer	%	Count
1	Email	83.3%	15
2	Phone calls from program representatives	5.6%	1
3	Presentations at events or conferences	5.6%	1
4	Website updates	5.6%	1

5	In person visits	0.0%	0
6	Other (Please Specify)	0.0%	0
	Total	100%	18

Q20 - How would you rate the following factors?

#	Question	1 (Not at all satisfied)		2		3		4		5 (Extremely satisfied)		Don't know		Total
1	Communication with Ameren Missouri or TRC BizSavers program staff	0.0%	0	0.0%	0	0.0%	0	27.8%	5	72.2%	13	0.0%	0	18
2	Required paperwork for projects	0.0%	0	11.1%	2	11.1%	2	38.9%	7	38.9%	7	0.0%	0	18
3	The incentive amounts	0.0%	0	11.1%	2	33.3%	6	22.2%	4	33.3%	6	0.0%	0	18
4	The range of program-qualifying equipment	5.6%	1	16.7%	3	22.2%	4	27.8%	5	27.8%	5	0.0%	0	18
5	Project turnaround time	0.0%	0	0.0%	0	11.1%	2	38.9%	7	50.0%	9	0.0%	0	18
6	The BizSavers® Program, overall	0.0%	0	0.0%	0	11.1%	2	44.4%	8	44.4%	8	0.0%	0	18

11 Residential Nonparticipant Survey Responses

QID1 - Our records indicate that Ameren Missouri is your electricity service provider at [Field-Address]. Is this correct?

#	Answer	%	Count
1	Yes	100.0%	287
2	No	0.0%	0
3	I don't know	0.0%	0
	Total	100%	287

QID47 - Do you rent or own the residence located at [Field-Address]?

#	Answer	%	Count
1	Rent	22.2%	62
2	Own	77.8%	217
	Total	100%	279

QID48 - Is the residence located at [Field-Address]…

#	Answer	%	Count
1	Your primary residence	88.9%	255
2	A residence that you rent to someone else	1.4%	4
3	A vacation property that is not occupied year-round	4.5%	13
4	Something else (please specify)	3.1%	9
5	Prefer not to answer	2.1%	6
	Total	100%	287

QID49 - Which of the following best describes the residence located at [Field-Address]?

#	Answer	%	Count
1	Single-family home	69.7%	200
2	Manufactured or mobile home	2.1%	6
3	Duplex or townhome	4.9%	14
4	Apartment or condominium	19.5%	56
5	Other (please specify)	3.1%	9
6	I don’t know	0.0%	0
7	Prefer not to answer	0.7%	2
	Total	100%	287

QID2 - Have you received a rebate or financial incentive from Ameren Missouri for installing energy efficient equipment or making energy efficiency improvements at this residence in the last three years?

#	Answer	%	Count
1	Yes	15.3%	44
2	No / Not that you are aware of	84.7%	243
	Total	100%	287

QID50 - Before taking this survey, had you heard of these Ameren Missouri programs?

#	Question	Yes		No		Total
1	Energy Efficient Products Program that provides an online marketplace with discounts on smart thermostats, heat pump water heaters, and advanced power strips.	57.3%	164	42.7%	122	286
2	Heating and Cooling Program that provides rebates for new air conditioning and heat pump systems.	49.8%	142	50.2%	143	285
3	Pay as You Save (PAYS) Program that provides free home energy assessments and a plan to finance energy efficiency improvements over time through your bill.	31.1%	88	68.9%	195	283
4	CommunitySavers®, a program that provides home energy assessments to help qualifying, income-eligible customers learn how their homes use energy and help them lower their monthly electric bills.	27.5%	78	72.5%	206	284
5	Peak Time Savings, a program that provides a $25 a year incentive and works with your smart thermostat to make temporary adjustments to ease energy demand during periods of peak energy use.	57.5%	164	42.5%	121	285
6	Multifamily Programs that offers low- or no-cost energy-saving upgrades for properties with four or more attached units.	8.9%	25	91.1%	257	282

QID51 - How did you learn about the Ameren Missouri program(s)? Please select all that apply.

#	Answer	%	Count
1	Social media (Facebook, Instagram)	5.7%	12
2	Ameren Missouri's website	30.6%	64
3	Friend, family member, or colleague	10.5%	22
4	Bill inserts or utility mailer	37.8%	79
5	Email from Ameren Missouri	46.9%	98
6	Internet search (e.g., Google search)	4.3%	9
7	Internet advertisement	6.2%	13

8	Print advertisement	9.6%	20
9	TV advertisement	6.2%	13
10	Community event	1.4%	3
11	Through my landlord	0.5%	1
12	Other (Please specify)	10.5%	22
	Total	100%	209

QID52 - What are the best ways for Ameren Missouri to share information with you about its energy efficiency programs? Please select up to two.

#	Answer	%	Count
1	Posting information on its website	20.6%	59
2	Email	71.1%	204
3	Mailing information to my home	51.6%	148
4	Posting information on social media	8.0%	23
5	Webinars or virtual meetings	0.7%	2
6	Online videos	3.1%	9
7	In-person workshops or information sessions	2.1%	6
8	Information provided through a community organization or at a community event	2.4%	7
	Total	100%	287

QID53 - What do you think are the most trustworthy sources of information on how to save energy in your home? Please select up to 3.

#	Answer	%	Count
1	Contractors that provide equipment installation or home improvement services	24.2%	67
2	Local government	11.6%	32

3	State government	12.3%	34
4	Ameren Missouri	80.1%	222
5	Neighbor, relative or friend	24.2%	67
6	Place of worship	2.9%	8
7	Community Action Program agency	15.2%	42
8	Other community or neighborhood organization	8.3%	23
9	Other utilities/other utility websites	15.5%	43
10	Retailers who sell efficient products	18.1%	50
11	Online forums, blogs, or other websites	18.4%	51
	Total	100%	277

QID54 - Does your home have a central heating system, cooling system, or both?

#	Answer	%	Count
1	No, it does not have central heating or cooling.	3.2%	9
2	Has central heating only (a heating system that provides heat to your whole house).	1.1%	3
3	Has central cooling only (an air conditioner or heat pump that provides cooling to your whole house).	1.8%	5
4	Has both central heating and cooling.	94.0%	265
	Total	100%	282

QID55 - What kind of thermostat do you use to control the temperature of your home?

#	Answer	%	Count
1	A programmable thermostat (not connected to Wi-Fi) that allows you to schedule the temperature settings for different times of the day	30.0%	81
2	A manual thermostat that lets you adjust the temperature manually, and set on/off temperatures	35.9%	97

3	A Wi-Fi smart thermostat	32.2%	87
4	Not sure	1.9%	5
	Total	100%	270

QID56 - What type of central heating system do you have in your home?

#	Answer	%	Count
1	Gas furnace	58.2%	156
2	Electric furnace	25.4%	68
3	Electric baseboard heating	0.0%	0
4	Electric heating cables	0.0%	0
5	Heat pump	8.2%	22
6	Boiler (radiant heating)	1.5%	4
7	Other (Please describe)	1.5%	4
8	Not sure	5.2%	14
	Total	100%	268

QID57 - What type of water heater do you have installed in your home? Please select the most appropriate option from the following choices:

#	Answer	%	Count
1	Gas tank water heater	51.6%	148
2	Electric tank water heater	33.8%	97
3	Heat pump water heater	2.1%	6
4	Solar water heater	0.0%	0
5	Gas tankless water heater	1.7%	5
6	Electric tankless water heater	0.7%	2

7	Other (please specify)	2.1%	6
8	Do not have water heating	0.7%	2
98	Not sure	7.3%	21
	Total	100%	287

QID60 - What would be most important to you if you were deciding to buy a new heating/cooling system for your home? Please choose up to 3.

#	Answer	%	Count
1	Energy cost savings	73.5%	194
2	Improved home comfort from more consistent heating and cooling	28.8%	76
3	Enhanced indoor air quality	13.6%	36
4	Reduced operational noise	7.2%	19
5	Lower maintenance	18.9%	50
6	Lower repair frequency	14.8%	39
7	The cost to install the new system	50.4%	133
8	Environmental benefits from reduced energy consumption	12.9%	34
9	Increased property value	8.7%	23
10	Compatibility with smart home technologies	7.2%	19
11	Potential eligibility for rebates and tax incentives	33.3%	88
12	How quickly the new equipment could be installed	5.3%	14
	Total	100%	264

QID61 - If the following appliances broke, would you and your household be responsible for replacing it or would someone else like a landlord be responsible?

#	Question	Your household would replace it		Someone else would replace it		Total
1	Your heating system	3.7%	2	96.3%	52	54
2	Your cooling system	5.5%	3	94.5%	52	55
3	Your water heater	3.3%	2	96.7%	58	60

QID67 - If your central heating or cooling system stopped working, which do you think you most likely do?

#	Answer	%	Count
1	Replace it with the lowest cost unit even if it was the least energy efficient	12.8%	27
2	Replace it with a more efficient unit	87.2%	184
	Total	100%	211

QID4 - We would like to know if you or anyone else in your household made any energy efficiency improvements to your home in the last 12 months. In the last 12 months, did you or anyone else in your household make any of the following energy saving improvements?

#	Answer	%	Count
1	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer	15.2%	42
2	Installed water heater pipe insulation	3.6%	10
3	Installed water heater jacket, blanket, or insulation	1.1%	3
4	Installed low flow faucet aerators	3.3%	9

5	Installed low flow showerheads	9.1%	25
6	Installed an ENERGY STAR® room air conditioner	1.1%	3
7	Installed an energy efficient water heater, tankless water heater, or heat pump water heater	5.1%	14
8	Installed a smart thermostat	11.6%	32
9	Installed a high efficiency heating or cooling equipment	6.9%	19
10	Insulated your attic or walls	8.0%	22
11	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps)	8.7%	24
12	Installed energy saving advanced power strips	4.0%	11
13	Installed an ENERGY STAR® pool pump	0.4%	1
14	Installed an ENERGY STAR® air purifier	1.8%	5
15	Installed an ENERGY STAR® dehumidifier	2.5%	7
16	Installed ENERGY STAR® certified windows	3.6%	10
17	Installed ENERGY STAR® certified doors	3.3%	9
18	Something else	3.3%	9
19	No, have not made any of these energy efficient improvements	59.8%	165
	Total	100%	276

QID5 - Why did you not get an Ameren Missouri incentive rebate or discount for the water heater you installed?

#	Answer	%	Count
1	Was not aware of the rebate	64.3%	9
2	There was not a rebate	0.0%	0
3	Did not have time to complete the rebate application	0.0%	0
4	Found out about the rebate too late	0.0%	0
5	Did not think my equipment was eligible	21.4%	3
6	Submitted an application that was rejected	0.0%	0

7	Some other reason	0.0%	0
98	Don’t know	14.3%	2
	Total	100%	14

QID69 - Why did you not get an Ameren Missouri incentive rebate or discount for the smart thermostat you installed?

#	Answer	%	Count
1	Was not aware of the rebate	41.9%	13
2	There was not a rebate	0.0%	0
3	Did not have time to complete the rebate application	0.0%	0
4	Found out about the rebate too late	3.2%	1
5	Did not think my equipment was eligible	0.0%	0
6	Submitted an application that was rejected	0.0%	0
7	Some other reason	19.4%	6
98	Don’t know	35.5%	11
	Total	100%	31

QID71 - Why did you not get an Ameren Missouri incentive rebate or discount for the heating and cooling equipment you installed?

#	Answer	%	Count
1	Was not aware of the rebate	35.3%	6
2	There was not a rebate	5.9%	1
3	Did not have time to complete the rebate application	0.0%	0
4	Found out about the rebate too late	0.0%	0
5	Did not think my equipment was eligible	0.0%	0
6	Submitted an application that was rejected	5.9%	1

7	Some other reason	23.5%	4
98	Don’t know	29.4%	5
	Total	100%	17

QID70 - Why did you not get an Ameren Missouri incentive rebate or discount for the advanced power strip you installed?

#	Answer	%	Count
1	Was not aware of the rebate	45.5%	5
2	There was not a rebate	27.3%	3
3	Did not have time to complete the rebate application	0.0%	0
4	Found out about the rebate too late	9.1%	1
5	Did not think my equipment was eligible	0.0%	0
6	Submitted an application that was rejected	0.0%	0
7	Some other reason	0.0%	0
98	Don’t know	18.2%	2
	Total	100%	11

QID6 - What kind of appliance did you purchase?

#	Answer	%	Count
1	Refrigerator	55.0%	22
2	Freezer	12.5%	5
3	Dishwasher	45.0%	18
4	Clothes washer	52.5%	21
5	Clothes dryer – Electric	40.0%	16
6	Clothes dryer – Gas	7.5%	3

7	Other (Please describe)	10.0%	4
	Total	100%	40

QID7 - Does the appliance have an ENERGY STAR label?

#	Answer	%	Count
1	Yes	82.9%	34
2	No	2.4%	1
3	Don’t know	14.6%	6
	Total	100%	41

QID13 - What type of water heater did you install? Was it a…

#	Answer	%	Count
1	Natural gas storage tank water heater	50.0%	6
2	Electric storage tank water heater	16.7%	2
3	Heat pump water heater	0.0%	0
4	A natural gas tank less water heater	16.7%	2
5	Some other type of water heater (Specify)	0.0%	0
6	Don’t know	16.7%	2
	Total	100%	12

QID14 - What type of thermostat did the Wi-Fi thermostat replace?

#	Answer	%	Count
1	A programmable thermostat that allows you to schedule the temperature settings for different times of the day	51.7%	15
2	A standard thermostat that lets you set on/off temperatures	27.6%	8
3	A different Wi-Fi smart thermostat	10.3%	3
4	Don’t know	10.3%	3
	Total	100%	29

QID15 - Does the thermostat control your heating system, cooling system, or both?

#	Answer	%	Count
1	Heating system	0.0%	0
2	Cooling system	3.4%	1
3	Both	96.6%	28
	Total	100%	29

QID16 - Do you have an electric heating system?

#	Answer	%	Count
1	Yes	42.9%	12
2	No	53.6%	15
3	Don't know	3.6%	1
	Total	100%	28

QID17 - Is your heating system a heat pump?

#	Answer	%	Count
1	Yes	66.7%	6
2	No	33.3%	3
3	Don't know	0.0%	0
	Total	100%	9

QID18 - What type of heating or cooling equipment did you install?

#	Answer	%	Count
1	Energy-efficient central air conditioner	44.4%	8
2	Energy-efficient air source heat pump	38.9%	7
3	Energy-efficient ground source heat pump	0.0%	0
4	Energy-efficient ductless mini-split heat pump	0.0%	0
5	Something else (please describe)	16.7%	3
	Total	100%	18

QID19 - What is the efficiency rating of the HVAC unit you purchased?

#	Answer	%	Count
1	SEER:	52.9%	9
2	EER:	5.9%	1
3	Not sure	41.2%	7
	Total	100%	17

#	Question	10		13		14		16		18		23		12.5		Total
SEER: - Text	SEER: - Text	14.3 %	1	14.3 %	1	14.3 %	1	14.3 %	1	28.6 %	2	14.3 %	1	0.0%	0	7
EER: - Text	EER: - Text	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	100.0 %	1	1

QID21 - Where did you install the new insulation?

#	Answer	%	Count
1	Attic	95.0%	19
2	Walls	40.0%	8
	Total	100%	20

QID22 - Approximately what size (in square feet) is the attic where the insulation is installed?

#	Answer	%	Count
1	Square feet:	72.2%	13
2	Not sure	27.8%	5
	Total	100%	18

#	Answer	%	Count
40	40	7.7%	1
400	400	7.7%	1
800	800	7.7%	1
900	900	23.1%	3

1200	1200	15.4%	2
1700	1700	7.7%	1
1900	1900	7.7%	1
2000	2000	15.4%	2
2400	2400	7.7%	1
	Total	100%	13

QID23 - What type of weatherization products did you install?

#	Answer	%	Count
1	Door seals	81.0%	17
2	Spray foam insulation	28.6%	6
3	Door sweeps	52.4%	11
4	Something else (please describe)	19.0%	4
	Total	100%	21

QID24 - How many energy saving advanced power strips did you install?

#	Answer	%	Count
1	1	30.0%	3
2	2	20.0%	2
3	3 or more	50.0%	5
	Total	100%	10

19_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - Emails from Ameren Missouri about saving energy	10.8%	4	89.2%	33	37
2	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - Information on Ameren Missouri's website	16.2%	6	83.8%	31	37
3	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - Bill inserts or other mailings from Ameren Missouri	8.1%	3	91.9%	34	37
4	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - Information from Ameren Missouri social media sources	5.4%	2	94.6%	35	37
5	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - A contractor or retailer of Ameren Missouri's incentives	13.2%	5	86.8%	33	38
6	Installed an ENERGY STAR® appliance such as refrigerator, dishwasher, clothes washer, or clothes dryer - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	8.1%	3	91.9%	34	37

19_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	11.1%	1
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	11.1%	1
6	6	0.0%	0
7	7	22.2%	2
8	8	33.3%	3
9	9	0.0%	0

10	10 (Extremely important)	22.2%	2
98	Don't know	0.0%	0
	Total	100%	9

19_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	33.3%	3
6	6	0.0%	0
7	7	11.1%	1
8	8	11.1%	1
9	9	0.0%	0
10	10 (Extremely likely)	44.4%	4
98	Don't know	0.0%	0
	Total	100%	9

20_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed water heater pipe insulation - Emails from Ameren Missouri about saving energy	11.1%	1	88.9%	8	9

2	Installed water heater pipe insulation - Information on Ameren Missouri's website	0.0%	0	100.0%	8	8
3	Installed water heater pipe insulation - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	8	8
4	Installed water heater pipe insulation - Information from Ameren Missouri social media sources	0.0%	0	100.0%	8	8
5	Installed water heater pipe insulation - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	100.0%	7	7
6	Installed water heater pipe insulation - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	7	7

20_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	100.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

20_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	100.0%	1
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

21_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed water heater jacket, blanket, or insulation - Emails from Ameren Missouri about saving energy	0.0%	0	100.0%	3	3
2	Installed water heater jacket, blanket, or insulation - Information on Ameren Missouri’s website	0.0%	0	100.0%	3	3
3	Installed water heater jacket, blanket, or insulation - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	3	3
4	Installed water heater jacket, blanket, or insulation - Information from Ameren Missouri social media sources	0.0%	0	100.0%	3	3
5	Installed water heater jacket, blanket, or insulation - A contractor or retailer of Ameren Missouri’s incentives	0.0%	0	100.0%	3	3

6	Installed water heater jacket, blanket, or insulation - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	3	3

21_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

21_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0

3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

22_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed low flow faucet aerators - Emails from Ameren Missouri about saving energy	14.3%	1	85.7%	6	7
2	Installed low flow faucet aerators - Information on Ameren Missouri’s website	14.3%	1	85.7%	6	7
3	Installed low flow faucet aerators - Bill inserts or other mailings from Ameren Missouri	14.3%	1	85.7%	6	7
4	Installed low flow faucet aerators - Information from Ameren Missouri social media sources	14.3%	1	85.7%	6	7
5	Installed low flow faucet aerators - A contractor or retailer of Ameren Missouri’s incentives	28.6%	2	71.4%	5	7
6	Installed low flow faucet aerators - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	16.7%	1	83.3%	5	6

22_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	100.0%	2
98	Don't know	0.0%	0
	Total	100%	2

22_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	50.0%	1
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

23_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed low flow showerheads - Emails from Ameren Missouri about saving energy	9.5%	2	90.5%	19	21
2	Installed low flow showerheads - Information on Ameren Missouri's website	5.0%	1	95.0%	19	20
3	Installed low flow showerheads - Bill inserts or other mailings from Ameren Missouri	10.0%	2	90.0%	18	20
4	Installed low flow showerheads - Information from Ameren Missouri social media sources	5.0%	1	95.0%	19	20
5	Installed low flow showerheads - A contractor or retailer of Ameren Missouri's incentives	5.0%	1	95.0%	19	20
6	Installed low flow showerheads - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	10.0%	2	90.0%	18	20

23_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	25.0%	1

2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	25.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	25.0%	1
9	9	0.0%	0
10	10 (Extremely important)	25.0%	1
98	Don't know	0.0%	0
	Total	100%	4

23_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	25.0%	1
1	1	25.0%	1
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	25.0%	1
9	9	0.0%	0
10	10 (Extremely likely)	25.0%	1
98	Don't know	0.0%	0

	Total	100%	4

24_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an ENERGY STAR® room air conditioner - Emails from Ameren Missouri about saving energy	0.0%	0	100.0%	2	2
2	Installed an ENERGY STAR® room air conditioner - Information on Ameren Missouri's website	0.0%	0	100.0%	2	2
3	Installed an ENERGY STAR® room air conditioner - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	2	2
4	Installed an ENERGY STAR® room air conditioner - Information from Ameren Missouri social media sources	0.0%	0	100.0%	1	1
5	Installed an ENERGY STAR® room air conditioner - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	100.0%	2	2
6	Installed an ENERGY STAR® room air conditioner - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	2	2

24_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0

9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

24_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

25_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - Emails from Ameren Missouri about saving energy	0.0%	0	100.0%	10	10
2	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - Information on Ameren Missouri's website	0.0%	0	100.0%	10	10
3	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - Bill inserts or other mailings from Ameren Missouri	9.1%	1	90.9%	10	11
4	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - Information from Ameren Missouri social media sources	0.0%	0	100.0%	10	10
5	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	100.0%	10	10
6	Installed an energy efficient water heater, tankless water heater, or heat pump water heater - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	10	10

25_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0

7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

25_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

26_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed a smart thermostat - Emails from Ameren Missouri about saving energy	26.9%	7	73.1%	19	26
2	Installed a smart thermostat - Information on Ameren Missouri's website	20.8%	5	79.2%	19	24
3	Installed a smart thermostat - Bill inserts or other mailings from Ameren Missouri	8.3%	2	91.7%	22	24
4	Installed a smart thermostat - Information from Ameren Missouri social media sources	4.2%	1	95.8%	23	24
5	Installed a smart thermostat - A contractor or retailer of Ameren Missouri's incentives	25.0%	6	75.0%	18	24
6	Installed a smart thermostat - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	4.2%	1	95.8%	23	24

26_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	8.3%	1
5	5	0.0%	0
6	6	0.0%	0
7	7	16.7%	2
8	8	16.7%	2
9	9	33.3%	4

10	10 (Extremely important)	25.0%	3
98	Don't know	0.0%	0
	Total	100%	12

26_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	8.3%	1
1	1	16.7%	2
2	2	8.3%	1
3	3	0.0%	0
4	4	0.0%	0
5	5	8.3%	1
6	6	8.3%	1
7	7	16.7%	2
8	8	16.7%	2
9	9	8.3%	1
10	10 (Extremely likely)	8.3%	1
98	Don't know	0.0%	0
	Total	100%	12

27_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed a high efficiency heating or cooling equipment - Emails from Ameren Missouri about saving energy	11.8%	2	88.2%	15	17

2	Installed a high efficiency heating or cooling equipment - Information on Ameren Missouri's website	17.6%	3	82.4%	14	17
3	Installed a high efficiency heating or cooling equipment - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	16	16
4	Installed a high efficiency heating or cooling equipment - Information from Ameren Missouri social media sources	0.0%	0	100.0%	16	16
5	Installed a high efficiency heating or cooling equipment - A contractor or retailer of Ameren Missouri's incentives	43.8%	7	56.3%	9	16
6	Installed a high efficiency heating or cooling equipment - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	12.5%	2	87.5%	14	16

27_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	14.3%	1
5	5	0.0%	0
6	6	0.0%	0
7	7	14.3%	1
8	8	14.3%	1
9	9	0.0%	0
10	10 (Extremely important)	57.1%	4
98	Don't know	0.0%	0
	Total	100%	7

27_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	14.3%	1
6	6	14.3%	1
7	7	0.0%	0
8	8	14.3%	1
9	9	0.0%	0
10	10 (Extremely likely)	42.9%	3
98	Don't know	14.3%	1
	Total	100%	7

28_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Insulated your attic or walls - Emails from Ameren Missouri about saving energy	6.3%	1	93.8%	15	16
2	Insulated your attic or walls - Information on Ameren Missouri's website	6.3%	1	93.8%	15	16
3	Insulated your attic or walls - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	16	16
4	Insulated your attic or walls - Information from Ameren Missouri social media sources	0.0%	0	100.0%	16	16

5	Insulated your attic or walls - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	100.0%	16	16
6	Insulated your attic or walls - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	15	15

28_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	100.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

28_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0

1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	100.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	1

29_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - Emails from Ameren Missouri about saving energy	5.6%	1	94.4%	17	18
2	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - Information on Ameren Missouri’s website	5.6%	1	94.4%	17	18
3	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - Bill inserts or other mailings from Ameren Missouri	0.0%	0	100.0%	17	17
4	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - Information from Ameren Missouri social media sources	5.9%	1	94.1%	16	17
5	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - A contractor or retailer of Ameren Missouri’s incentives	0.0%	0	100.0%	17	17
6	Air sealing (e.g., attic sealing, door seals, foam insulation, or door sweeps) - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	17	17

29_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	100.0%	2
98	Don't know	0.0%	0
	Total	100%	2

29_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	100.0%	2
4	4	0.0%	0

5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

30_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed energy saving advanced power strips - Emails from Ameren Missouri about saving energy	14.3%	1	85.7%	6	7
2	Installed energy saving advanced power strips - Information on Ameren Missouri’s website	28.6%	2	71.4%	5	7
3	Installed energy saving advanced power strips - Bill inserts or other mailings from Ameren Missouri	14.3%	1	85.7%	6	7
4	Installed energy saving advanced power strips - Information from Ameren Missouri social media sources	14.3%	1	85.7%	6	7
5	Installed energy saving advanced power strips - A contractor or retailer of Ameren Missouri’s incentives	28.6%	2	71.4%	5	7
6	Installed energy saving advanced power strips - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	14.3%	1	85.7%	6	7

30_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0

2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	33.3%	1
9	9	0.0%	0
10	10 (Extremely important)	66.7%	2
98	Don't know	0.0%	0
	Total	100%	3

30_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	33.3%	1
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	33.3%	1
98	Don't know	33.3%	1

	Total	100%	3

31_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an ENERGY STAR® pool pump - Emails from Ameren Missouri about saving energy	0.0%	0	0.0%	0	0
2	Installed an ENERGY STAR® pool pump - Information on Ameren Missouri's website	0.0%	0	0.0%	0	0
3	Installed an ENERGY STAR® pool pump - Bill inserts or other mailings from Ameren Missouri	0.0%	0	0.0%	0	0
4	Installed an ENERGY STAR® pool pump - Information from Ameren Missouri social media sources	0.0%	0	0.0%	0	0
5	Installed an ENERGY STAR® pool pump - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	0.0%	0	0
6	Installed an ENERGY STAR® pool pump - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	0.0%	0	0

31_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0

9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

31_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

32_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an ENERGY STAR® air purifier - Emails from Ameren Missouri about saving energy	25.0%	1	75.0%	3	4
2	Installed an ENERGY STAR® air purifier - Information on Ameren Missouri's website	25.0%	1	75.0%	3	4
3	Installed an ENERGY STAR® air purifier - Bill inserts or other mailings from Ameren Missouri	25.0%	1	75.0%	3	4
4	Installed an ENERGY STAR® air purifier - Information from Ameren Missouri social media sources	25.0%	1	75.0%	3	4
5	Installed an ENERGY STAR® air purifier - A contractor or retailer of Ameren Missouri's incentives	25.0%	1	75.0%	3	4
6	Installed an ENERGY STAR® air purifier - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	25.0%	1	75.0%	3	4

32_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	100.0%	1
98	Don't know	0.0%	0

	Total	100%	1

32_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

33_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed an ENERGY STAR® dehumidifier - Emails from Ameren Missouri about saving energy	16.7%	1	83.3%	5	6
2	Installed an ENERGY STAR® dehumidifier - Information on Ameren Missouri's website	16.7%	1	83.3%	5	6
3	Installed an ENERGY STAR® dehumidifier - Bill inserts or other mailings from Ameren Missouri	16.7%	1	83.3%	5	6

4	Installed an ENERGY STAR® dehumidifier - Information from Ameren Missouri social media sources	16.7%	1	83.3%	5	6
5	Installed an ENERGY STAR® dehumidifier - A contractor or retailer of Ameren Missouri's incentives	16.7%	1	83.3%	5	6
6	Installed an ENERGY STAR® dehumidifier - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	16.7%	1	83.3%	5	6

33_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

33_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	100.0%	1
98	Don't know	0.0%	0
	Total	100%	1

34_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed ENERGY STAR® certified windows - Emails from Ameren Missouri about saving energy	25.0%	2	75.0%	6	8
2	Installed ENERGY STAR® certified windows - Information on Ameren Missouri’s website	25.0%	2	75.0%	6	8
3	Installed ENERGY STAR® certified windows - Bill inserts or other mailings from Ameren Missouri	12.5%	1	87.5%	7	8
4	Installed ENERGY STAR® certified windows - Information from Ameren Missouri social media sources	12.5%	1	87.5%	7	8

5	Installed ENERGY STAR® certified windows - A contractor or retailer of Ameren Missouri's incentives	12.5%	1	87.5%	7	8
6	Installed ENERGY STAR® certified windows - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	12.5%	1	87.5%	7	8

34_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

34_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0

1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	50.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

35_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Installed ENERGY STAR® certified doors - Emails from Ameren Missouri about saving energy	28.6%	2	71.4%	5	7
2	Installed ENERGY STAR® certified doors - Information on Ameren Missouri's website	28.6%	2	71.4%	5	7
3	Installed ENERGY STAR® certified doors - Bill inserts or other mailings from Ameren Missouri	14.3%	1	85.7%	6	7
4	Installed ENERGY STAR® certified doors - Information from Ameren Missouri social media sources	14.3%	1	85.7%	6	7
5	Installed ENERGY STAR® certified doors - A contractor or retailer of Ameren Missouri's incentives	14.3%	1	85.7%	6	7
6	Installed ENERGY STAR® certified doors - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	14.3%	1	85.7%	6	7

35_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	50.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

35_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0

5	5	50.0%	1
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	50.0%	1
98	Don't know	0.0%	0
	Total	100%	2

36_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	Something else - Emails from Ameren Missouri about saving energy	20.0%	1	80.0%	4	5
2	Something else - Information on Ameren Missouri’s website	0.0%	0	100.0%	5	5
3	Something else - Bill inserts or other mailings from Ameren Missouri	20.0%	1	80.0%	4	5
4	Something else - Information from Ameren Missouri social media sources	20.0%	1	80.0%	4	5
5	Something else - A contractor or retailer of Ameren Missouri’s incentives	0.0%	0	100.0%	4	4
6	Something else - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	100.0%	4	4

36_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0

2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	50.0%	1
6	6	0.0%	0
7	7	50.0%	1
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total	100%	2

36_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	50.0%	1
4	4	50.0%	1
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0

	Total	100%	2

37_QID33 - When you were deciding to install the [Field-2], did you consider any of the following sources of information?

#	Question	Yes		No		Total
1	No, have not made any of these energy efficient improvements - Emails from Ameren Missouri about saving energy	0.0%	0	0.0%	0	0
2	No, have not made any of these energy efficient improvements - Information on Ameren Missouri's website	0.0%	0	0.0%	0	0
3	No, have not made any of these energy efficient improvements - Bill inserts or other mailings from Ameren Missouri	0.0%	0	0.0%	0	0
4	No, have not made any of these energy efficient improvements - Information from Ameren Missouri social media sources	0.0%	0	0.0%	0	0
5	No, have not made any of these energy efficient improvements - A contractor or retailer of Ameren Missouri's incentives	0.0%	0	0.0%	0	0
6	No, have not made any of these energy efficient improvements - Information from people who received a rebate from Ameren Missouri for installing energy-efficient equipment/home upgrades	0.0%	0	0.0%	0	0

37_QID34 - Using the scale below, how important was that information in your decision to install the [Field-2]?

#	Answer	%	Count
0	0 (Not at all important)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0

9	9	0.0%	0
10	10 (Extremely important)	0.0%	0
98	Don't know	0.0%	0
	Total		0

37_QID35 - Using the scale below, how likely would you have been to install [Field-2] if you had not seen that information from Ameren Missouri?

#	Answer	%	Count
0	0 (Not at all likely)	0.0%	0
1	1	0.0%	0
2	2	0.0%	0
3	3	0.0%	0
4	4	0.0%	0
5	5	0.0%	0
6	6	0.0%	0
7	7	0.0%	0
8	8	0.0%	0
9	9	0.0%	0
10	10 (Extremely likely)	0.0%	0
98	Don't know	0.0%	0
	Total		0

QID36 - Over the past month, how often have you engaged with the following types of media?

#	Question	Never		Less than once a week		A few times a week		Every day or nearly every day		Total
1	YouTube	21.9%	57	37.3%	97	21.2%	55	19.6%	51	260
2	Social media websites or apps	20.2%	53	12.6%	33	24.8%	65	42.4%	111	262
3	Broadcast TV	26.3%	68	14.7%	38	19.3%	50	39.8%	103	259
4	Broadcast radio	35.0%	89	24.8%	63	24.0%	61	16.1%	41	254
5	Streaming music services	34.4%	87	15.4%	39	24.5%	62	25.7%	65	253
6	Local or regional newspaper websites or apps	40.8%	104	20.0%	51	22.7%	58	16.5%	42	255
7	Podcasts	64.2%	163	16.9%	43	12.2%	31	6.7%	17	254
8	Online magazines, blogs, or other periodicals	64.6%	164	20.5%	52	11.4%	29	3.5%	9	254
9	Print magazines, newspapers, or other periodicals	56.5%	144	26.3%	67	12.9%	33	4.3%	11	255

QID62 - In the last year, have you visited the Ameren Missouri website regarding their energy efficiency rebate programs?

#	Answer	%	Count
1	Yes	23.4%	64
2	No / Cannot recall	76.6%	209
	Total	100%	273

QID63 - In the last year, have you received any information from Ameren Missouri by email or postal mail about their energy efficiency rebate programs?

#	Answer	%	Count
1	Yes	50.2%	134
2	No	49.8%	133
	Total	100%	267

QID64 - In the last year, have you heard or seen any advertisements about Ameren Missouri's energy efficiency rebate programs?

#	Answer	%	Count
1	Yes	43.7%	117
2	No	56.3%	151
	Total	100%	268

QID38 - Approximately when was your home built?

#	Answer	%	Count
1	Before 1960	22.5%	60
2	1960 to 1979	22.5%	60
3	1980 to 1999	18.0%	48
4	2000 to 2009	8.2%	22
5	2010 to 2019	12.0%	32
6	2020 or later	4.5%	12
98	I don’t know	11.6%	31
99	Prefer not to answer	0.7%	2

	Total	100%	267

QID46 - About how many square feet is your home? If you are unsure, an estimate is okay.

#	Answer	%	Count
1	Less than 1,000 square feet	13.5%	36
2	1,000 – 1,999 square feet	45.1%	120
3	2,000 – 2,999 square feet	19.9%	53
4	3,000 – 3,999 square feet	7.9%	21
5	4,000 – 4,999 square feet	1.5%	4
6	5,000 or greater square feet	0.4%	1
98	I don’t know	9.4%	25
99	Prefer not to answer	2.3%	6
	Total	100%	266

QID39 - What is the main fuel used for heating your home?

#	Answer	%	Count
1	Electricity	40.7%	107
2	Natural gas	53.6%	141
3	Propane	1.1%	3
4	Oil	0.0%	0
5	Don’t heat home	0.0%	0
6	Something else (please specify)	1.1%	3
98	I don’t know	2.7%	7
99	Prefer not to answer	0.8%	2

	Total	100%	263

QID40 - What fuel does your main water heater use?

#	Answer	%	Count
1	Electricity	39.8%	104
2	Natural gas	52.1%	136
3	Propane	0.8%	2
4	Something else (please specify)	0.4%	1
5	Do not have hot water	0.8%	2
98	I don’t know	6.1%	16
99	Prefer not to answer	0.0%	0
	Total	100%	261

QID41 - What is your age?

#	Answer	%	Count
1	18 – 24	1.1%	3
2	25 – 34	5.7%	15
3	35 – 44	10.6%	28
4	45 – 54	14.8%	39
5	55 – 64	17.0%	45
6	65 – 74	26.9%	71
7	75+	18.2%	48
99	Prefer not to answer	5.7%	15
	Total	100%	264

QID42 - What is the primary language used in your household?

#	Answer	%	Count
1	English	97.3%	257
2	Spanish	0.0%	0
3	Other (please specify)	0.0%	0
99	Prefer not to answer	2.7%	7
	Total	100%	264

QID43 - Which of the following best describes your highest education level?

#	Answer	%	Count
1	Some high school, no diploma	1.5%	4
2	High school graduate, diploma or the equivalent (for example: GED)	12.5%	33
3	Some college credit, no degree	16.3%	43
4	Associate's degree (including trade school, technical or vocational training)	13.6%	36
5	Bachelor's degree	30.3%	80
6	Master's degree	17.0%	45
7	Professional degree	1.5%	4
8	Doctorate degree	3.0%	8
99	Prefer not to answer	4.2%	11
	Total	100%	264

QID44 - How many people reside in your household year-round?

#	Answer	%	Count
1	1	29.3%	77

2	2	44.5%	117
3	3	9.5%	25
4	4	7.2%	19
5	5	3.8%	10
6	6	0.8%	2
7	7	0.0%	0
8	8 or more	0.4%	1
99	Prefer not to answer	4.6%	12
	Total	100%	263

QID45 - Which of the following best describes your household annual income?

#	Answer	%	Count
1	Less than ${e://Field/less_than}	29.2%	73
2	Between ${e://Field/between}	28.4%	71
3	More than ${e://Field/more_than}	22.8%	57
4	Prefer not to answer	19.6%	49
	Total	100%	250