BEFORE THE PUBLIC SERVICE COMMISSION FOR THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light)	
Company's Notice of Intent to File an)	File No. EO-2019-0132
Application for Authority to Establish a Demand-)	
Side Programs Investment Mechanism)	
In the Matter of KCP&L Greater Missouri)	
Operations Company's Notice of Intent to File an)	File No. EO-2019-0133
Application for Authority to Establish a Demand-)	
Side Programs Investment Mechanism)	

NON-UNANIMOUS STIPULATION AND AGREEMENT REGARDING STAFF CHANGE REQUEST FROM FINAL PY2021 EM&V

COMES NOW, Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("EMM"), Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("EMW"), (collectively the "Company") and Staff ("Staff") for the Missouri Public Service Commission ("Commission") (individually "Signatory" and collectively "Signatories" or the "Parties") have reached an agreement ("Agreement") that resolves between them three issues raised by the Commission's independent auditor, Evergreen Economics ("EE"), regarding the final PY2021 Evaluation, Measurement and Verification ("EM&V") report. Nothing in this Agreement prevents any of the Signatories from proposing changes to the provisions of this Agreement in any future case.

PURPOSE OF THE STIPULATION AND AGREEMENT

1. To help resolve future discrepancies in approaches for the change request items from the Commission's independent auditor for the PY2021 EM&V, the parties agree to take the

below approach for future EM&V efforts. All Parties still reserve the right to comment and discuss future EM&V processes.

2. Staff, the Office of the Public Counsel ("OPC"), the Company, ADM Associates ("ADM"), and EE conducted a meeting¹ that resulted in (i) establishing an appropriate non-participant spillover ("NPSO") methodology including the survey questions for non-participant spillover for the Heating Cooling and Home Comfort ("HCHC") Program; (ii) determined an appropriate participant spillover rate and/or methodology for the Energy Products Program; and (iii) confirmed that the approach used for PY2021 by ADM to update the existing heating types between gas and electric for the HCHC Program, including the use of the contractor and customer survey data to adjust the usage-based heating types, is acceptable for use in future program years.²

3. In addition, to resolve the three change request issues outlined by the Commission's independent auditor, Evergreen Economics, for PY2021 the parties agree to take the below approach.

NPSO for HCHC

4. The parties agree that the Company will utilize the NPSO for HCHC for PY2021 of 8 percent based on only like measures used from the program. The result of this NPSO adjustment is a reduction in kWh saved by the HCHC program in PY2021 of 213,568 kWh in EMM and 368,416 kWh in EMW West territories.

5. Future evaluations of this program will continue to remove non-like measures in the NPSO evaluation.

¹ Meeting notes attached as Exhibit 1.

² Details for each issue attached as Exhibit 2. Exhibit 2 refers to an Appendix A that is also attached.

Participation spillover ("PSO") for Energy Savings Products

6. The parties agree that the Company will adjust the PSO for PY2021 to 5.5 percent based on removing the older and CFL based benchmarking studies from the comparison. The result of this adjustment is a reduction in kWh saved in PY2021 by the Energy Savings Projects ("ESP") program of 355,310 kWh in EMM and 437,523 kWh in EMW territories. For PY2022 (the last year of retail residential LED offerings), the parties agree to use a 5.5 percent value for PSO for the ESP program. The parties agree that all spillover associated with lighting purchased from a retailer that participated in the ESP program will be removed.

> <u>Baseline heating assumptions impact</u> on air sealing and insulation portion of the HCHC program

7. The parties agree that the baseline heating assumptions will be adjusted for PY2021 based on a disaggregated fuel type analysis as below.

Territory	Electric Heating	Alternative Fuel Heating		
MO West	37%	63%		
MO Metro	20%	80%		

 Table 1.

 Existing residential customer primary heating fuel type breakout

The result of this adjustment is a reduction in kWh saved by the HCHC program in PY2021 of

59,159 kWh in EMM and 97,873 kWh in EMW territories.

8. The sum of the above PY2021 change impacts can be found in Table 2 below.

Issue	Metro kWh	West kWh	Total kWh
#1 – HCHC NPSO	-213,568	-368,416	-581,984
#2 – ESP PSO	-355,310	-437,523	-792,833
#3 – HCHC (Air/Ins) Heating Type	-59,419	-97,873	-157,292
Total	-628,297	-903,812	-1,532,109

 Table 2.

 Total Settlement Savings reduction from final report

GENERAL PROVISIONS

9. This Agreement is being entered into solely for the purpose of settling the issues in this case explicitly set forth above. Unless otherwise explicitly provided herein, none of the Signatories to this Agreement shall be deemed to have approved or acquiesced in any ratemaking or procedural principle, including, without limitation, any cost of service methodology or determination, depreciation principle or method, method of cost determination or cost allocation or revenue-related methodology. Except as explicitly provided herein, none of the Signatories shall be prejudiced or bound in any manner by the terms of this Agreement in this or any other proceeding, regardless of whether this Agreement is approved.

10. This Agreement is a negotiated settlement. Except as specified herein, the Signatories to this Agreement shall not be prejudiced, bound by, or in any way affected by the terms of this Agreement: (a) in any future proceeding; (b) in any proceeding currently pending under a separate docket; and/or (c) in this proceeding should the Commission decide not to approve this Agreement, or in any way condition its approval of same.

11. This Agreement has resulted from extensive negotiations among the Signatories, and the terms hereof are interdependent. If the Commission does not approve this Agreement unconditionally and without modification, then this Agreement shall be void and no Signatory shall be bound by any of the agreements or provisions hereof.

12. This Agreement embodies the entirety of the agreements between the Signatories in this case on the issues addressed herein, and may be modified by the Signatories only by a written amendment executed by all of the Signatories.

13. If approved and adopted by the Commission, this Agreement shall constitute a binding agreement among the Signatories. The Signatories shall cooperate in defending the

validity and enforceability of this Agreement and the operation of this Agreement according to its terms.

14. If the Commission does not approve this Agreement without condition or modification, and notwithstanding the provision herein that it shall become void, (1) neither this Agreement nor any matters associated with its consideration by the Commission shall be considered or argued to be a waiver of the rights that any Signatory has for a decision in accordance with RSMo. §536.080 or Article V, Section 18 of the Missouri Constitution, and (2) the Signatories shall retain all procedural and due process rights as fully as though this Agreement had not been presented for approval, and any suggestions, memoranda, testimony, or exhibits that have been offered or received in support of this Agreement shall become privileged as reflecting the substantive content of settlement discussions and shall be stricken from and not be considered as part of the administrative or evidentiary record before the Commission for any purpose whatsoever.

15. If the Commission accepts the specific terms of this Agreement without condition or modification, only as to the issues in these cases that are settled by this Agreement explicitly set forth above, the Signatories each waive their respective rights to present oral argument and written briefs pursuant to RSMo. §536.080.1, their respective rights to the reading of the transcript by the Commission pursuant to §536.080.2, their respective rights to seek rehearing pursuant to §536.500, and their respective rights to judicial review pursuant to §386.510. This waiver applies only to a Commission order approving this Agreement without condition or modification issued in this proceeding and only to the issues that are resolved hereby. It does not apply to any matters raised in any prior or subsequent Commission proceeding nor any matters not explicitly addressed by this Agreement.

- 16. The following parties have indicated that they do not oppose the Agreement:
 - OPC

WHEREFORE, the undersigned Signatories respectfully request the Commission to issue an order approving the Agreement subject to the specific terms and conditions contained therein.

Respectfully submitted,

<u>|s| Roger W. Steiner</u>

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Attorney for the Staff of the Missouri Public Service Commission

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted

by facsimile or electronically mailed to all counsel of record this 1st day of December 2022.

<u>|s| Roger W. Steiner</u>

Attorney for Evergy Missouri Metro and Evergy Missouri West

Staff Change Request: File No. EO-2019-0132 10/12 PY22 Spillover Methodology Discussion

Meeting Date: 10/12/2022

11.22.2022 Updates are underlined

Program: Heating Cooling & Home Comfort

- A. Heating Fuel Type for all Air Sealing/Attic Insulation Projects
 - a) Look into educating trade allies in collecting accurate fuel types
 - 1. ADM to work with implementation team to help ensure accurately reported heating system fuel types are provided in program tracking data. Contractor coaching underway.
 - 2. This step will remove uncertainty of trade ally documentation.
 - b) ADM still supports methodology utilizing usage data to <u>corroborate analysis</u> for heating fuel type. Contractor gathered data can be used as an input to usage analysis.
 - c) <u>ADM will survey PY22 HCHC customers re: existing heating fuel type and use</u> the self-report data to adjust the usage-based heating type estimates reported in the data set.

<u>Action item:</u> ADM to provide write-up of proposed PY22/23 methodology to determine accurately reported heating system fuel type (supplemental to the meeting agenda). **Final write-up with SWE comments addressed delivered 11.22**

- B. Non-Participant Spillover
 - a) SWE and ADM in agreement to remove all spillover associated with lighting purchased from a retailer that participated in the ESP Program.
 - b) Updates being made to the general population survey for PY2022:
 - 1. Included additional questions related to program awareness and attribution.
 - a. ADM will add open-ended sentence asking survey participants how exactly the program influenced their decision to purchase additional efficiency equipment.
 - b. examples
 - i. Has the customer seen marketing materials for program?
 - ii. How important was program marketing materials to install additional equipment?
 - iii. How likely would have been to install additional equipment based on program marketing materials?
 - 2. Included questions to further quality "energy efficient".
 - i. How did you know the installed equipment was energy efficient?
 - ii. Why did you choose to install energy efficient equipment compared to normal efficiency?
 - 3. Included questions related to determining savings per measure

- i. Number installed, location of equipment, SEER/EER, square footage, etc.
- c) All measures in the 21 NPSO calculations were like measures include in the HCHC Program.
- d) PY22: Only measures included in each sub-program were allocated to that sub-program by program costs.
 - 1. Direct install kit measures reported as NPSO savings will be allocated to the Energy Savings Kit sub-program
 - i. Included LED lightbulbs, faucet aerators, low flow showerheads, pipe insulation, and smart power strips
 - 2. HVAC and air sealing/insulation measures reported as NPSO savings will be allocated to the Whole House Efficiency sub-program.
 - i. Included air sealing, attic insulation, central AC, air source heat pump, ground source heat pump, and ductless mini-split heat pump.

<u>Action item</u>: ADM to complete revised survey and provide to Evergy, SWE, and Staff for review. ADM will flag all questions added to survey for PY2022. COMPLETE <u>Survey</u> <u>delivered. Final survey for PY22 delivered 11.22.</u>

ADM to schedule follow up survey discussion as needed. COMPLETE **Email follow up complete. No meeting needed.**

<u>Action item</u>: ADM to provide non-Participant spillover methodology document for Evergy, SWE, and Staff Review. Document will include savings calculation approach and all measures suggested for inclusion. COMPLETE <u>Final write-up with SWE</u> <u>comments addressed delivered 11.22</u>

Program: Energy Savings Products (ESP)

- a) The spillover numbers reported in Table 1 are from the submitted/filed EM&V reports
 - 1. Per Staff "could have been from an originally submitted/filed EM&V reports but then resubmitted at a later date."
 - 2. In most territories, the changing/disallowance of spillover would prompt the action of report resubmittal.
- b) Using a spillover of 5.5% has not been agreed upon; still being negotiated by program staff
 - 1. ADM proposing using this for PY2021 Evergreen approved pending action items.

Referenced Study	Program Year	Study Year	Method	Reported Spillover	CFLs Included	Include
Progress Energy Carolinas ^{1,2}	2012	2013	General population	7%	Yes	No
Xcel Energy Minnesota ²	2012		Participant survey	10%	Yes	No
Public Service Company of NM ^{2,3}	2012	2013	Participant survey	11%	Yes	No
Xcel Energy Colorado ⁴	2015	2016	Lighting saturation trend analysis	8% ⁵	Yes	No
ComEd Illinois ⁶	2015/16	2016	In-store intercept	5.6% ⁷	No	Yes
Ameren Illinois ⁸	2015/16	2017	In-store intercept	7%	No	Yes
Ameren Missouri Lighting Impact and Process Evaluation: PY2019 ⁹	2019	2020	Participant survey	7.4%	No	Yes
ComED Programs NTG Approach for CY2020 ¹⁰	2020	2019	In-store intercept	2%	No	Yes
Original Average				7.4% ¹¹		
Proposed Revised Average				5.5%		

d) Table 1 - List of References for Spillover Benchmarking

¹EM&V Report for the 2012 Energy Efficient Lighting Program for Duke Energy (previously Progress Energy Carolinas), completed by Navigant Consulting, page 24.

https://dms.psc.sc.gov/Attachments/Matter/17A6EA48-155D-141F-237E958D1D5079F8

² Entergy Final Energy Efficiency Portfolio Evaluation Report 2015 Program Year, completed by Cadmus, page 50 (197 in pdf report).

http://www.apscservices.info/EEInfo/EEReports/Entergy%202015.pdf

³ Evaluation of 2012 Public Service Company of New Mexico Energy Efficiency & Demand Response Portfolio, completed by ADM Associates, page 6-11.

https://www.pnm.com/documents/396023/396157/ee-ar-12-mv.pdf/03cf1f66-af41-4c2b-b613-a99d9a090835

⁴ Evaluation of Xcel Energy's Home Lighting and Recycling Program, completed by The Cadmus Group, page 62. <u>https://www.xcelenergy.com/staticfiles/xe/PDF/Regulatory/CO-DSM/CO-Regulatory-DSM-Home-Lighting-and-Recycling-Evaluation.pdf</u>

⁵ This report includes market effect of 6 percent reported separately from the 8 percent spillover.

⁶ ComEd Residential Lighting Discounts Program Evaluation Report, completed by Navigant, page 40. <u>https://ilsag.s3.amazonaws.com/ComEd Residential Lighting Discounts PY8 Evaluation Report 2016-11-10 Final.pdf</u>

 ⁷ 5.6%= weighted average from PY2021 Evergy ESP gross verified kWh. (Standard LED spillover 7%, Specialty 3%)
 ⁸ Impact and Process Evaluation of the 2015 Illinois Power Agency Residential Lighting Program, completed by Opinion Dynamics, page 46.

https://ilsag.s3.amazonaws.com/AIC-IPA PY8 Residential Lighting Evaluation Report REVISED FINAL 2017-09-12.pdf

⁹ Ameren Missouri Program Year 2019 Annual EM&V Report Volume 2: Residential Portfolio Report, completed by Opinion Dynamics, page 62.

https://www.efis.psc.mo.gov/mpsc/commoncomponents/viewdocument.asp?DocId=936298055 ¹⁰ COMED PROGRAMS NTG APPROACH FOR CY2020, page 20.

https://ilsag.s3.amazonaws.com/ComEd NTG History and CY2020 Recs 2019-10-01.pdf

¹¹Rounded to 7 percent when filed in original report.

<u>Action Item:</u> ADM to verify final reported spillover numbers specific to Ameren studies. Confirm final filed agreed upon values, with no change order requests.

COMPLETE: ADM was able to confirm Ameren Illinois and Ameren Missouri Lighting Impact and Process Evaluation studies.

Program: Next Steps for PY2023/Additional Items

- a) ADM completed review and updating 2023 Evergy TRM.
- b) ADM will set up call to discuss after Staff and SWE review. Lighting baseline for direct install and new lighting program as some are based on prior filings
- c) ADM to develop specific EM&V plan for the income-qualified lighting program. (Including the NTG methodology)

<u>Action item:</u> Evergy to send 2023 Evergy TRM. COMPLETE. ADM to set up review discussion.

ADM to send EM&V plan for income-qualified lighting program for review. **<u>PY2023 task</u>** <u>deliver expected Q1.</u>



PY22 Methodolgy Clarification Document:

HCHC & ESP

November 11th, 2022

PREPARED BY

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

PREPARED FOR

- **PUCO Staff**
- Evergreen

Evergy

1 Summary

On October 12th, 2022, ADM, Evergreen Economics, and PSC staff participated in a collaborative meeting to discuss PY22 methodology for the Heating Cooling & Home Comfort (HCHC) heating fuel type verification, HCHC non -participant spillover, and spillover estimates for the Energy Savings Products (ESP) program.

An action item from this discussion was the generation of a methodology document, providing updates and clarification for aforementioned topics. The information in the sections below fulfills this requirement.

2 HCHC: Heating Fuel Type

Heating fuel type: applicable to air sealing/attic insulation projects.

2.1 Primary data collection: Customer Survey

The PY22 HCHC survey includes a question to determine the heating fuel type. This question is asked as part of the demographic question battery.

What is the primary fuel type used to heat your home?

- 1. Electricity
- 2. Natural Gas
- 3. Propane
- 96. Other (Please Specify) [OPEN-ENDED]
- 98. Not sure
- 99. Prefer not to answer

ADM will use the data collected from survey respondents in the HCHC participant population to calculate the percent of each heating fuel type from. Customer participation for air sealing and attic insulation projects will create a barrier to survey data collection specifically targeting those attic measures. Table 1 below shows the measure level contribution to savings for air sealing and attic insulation measures installed in PY21 and PY22 YTD, as well as survey completes by measure for the first three quarters of PY22. The survey is administered to a census of program participants.

Measure Name	Percent of Program Savings: PY21	Percent of Program Savings: PY22 (Through 9/22)	PY 22 (Q1 -Q3) Survey Complete Count
Air Sealing	3%	3%	6
Attic Insulation	2%	2%	10
Central AC	46%	48%	305
A/C Minisplit	0%	0%	11
Ductless Mini-Split Heat Pump	2%	2%	11
Ground Source Heat Pump	8%	9%	10
Heat pump	34%	35%	
DI Kits	4%	2%	138
Total	100%	100%	533

Table 1

The priority will be to compare the heat type survey responses with the contractor data. If these are close (i.e., not statistically significantly different), then the survey results will be used to adjust the contractor tracking data to determine heating type. If the survey responses do not align with the contractor collected data ADM will perform a usage analysis. This analysis will corroborate the survey results and ensure the validity of extrapolation of the HCHC participant survey respondent heating fuel type to the air sealing and insulation customers.

Both survey response analysis and usage analysis methodology results will be provided in the annal report.

2.2 Corroborative usage analysis

ADM will obtain usage data from program participants who received air sealing and insulation measures through the program in the applicable evaluation year (2022 or 2023). Next, ADM will review the consumption data for homes which program contractors and survey respondents reported having an electric heating source. ADM will use the minimum average daily consumption in January from the electric heating customers as a threshold value to determine if customers have either electric heating or alternative fuel heating. (Natural gas, propone, other). January mean average daily consumption for the home above the threshold denotes a home with electric heat as a primary heating source. January mean average daily consumption for the home was below the threshold denotes a home with natural gas, propane, or other as a primary heating fuel type.

Based on the disaggregated fuel type analysis, ADM will determine the percentage of customers in each service territory that can be identified as having electric heating versus an alternative fuel source.

Both survey response analysis and usage analysis methodology results will be provided in the annal report.

2.3 Review of contractor reported data

ADM will review contractor reported data to help support data collection and reporting activities. Data will be reviewed at the contractor level to evaluate existing trends. Premise level results will be shared with implementation and program staff.

3 HCHC – Non- participant Spillover

3.1 Identifying non-participants

ADM will administer the survey to a random sample of Evergy residential customers. Respondents who answer "No" to the following question will be considered non-participants.

Have you received an incentive, discount, and/or rebate from Evergy or participated in a program through Evergy in the past 3 years?

3.2 Identifying non-participant spillover measures

Estimates of spillover will be based on a series of questions answered by non-participant respondents. The questions are intended to:

- Identify efficiency measures implemented by program non-participants.
- Collect measure specific information for use in estimating saving due to the measure; and
- Collect information to substantiate attribution of the savings to the Evergy programs and marketing.

The survey administered to participants will ask participants they implemented any of the following energy efficiency measures during 2022. There is value in understanding the scope of measures being purchased by Evergy customers, so a broad range of measure information will be gathered. However, only measures in bold will be considered for the non-participant spillover calculations. These measures are all currently offered as part of the HCHC program.

- Energy-efficient central air conditioner
- Energy-efficient air source heat pump
- Energy-efficient ground source heat pump
- Energy-efficient ductless mini-split heat pump
- Attic insulation
- Air sealing (e.g., weather stripping for doors/windows, door sweeps)
- Faucet aerators
- Low-flow shower heads
- Advanced power strips that control energy use
- Hot water pipe insulation
- Refrigerator
- Freezer
- Dishwasher
- Clothes washer
- Clothes dryer
- Air purifier
- Dehumidifier
- Another type of home insulation (not attic insulation)
- Smart thermostat
- Other energy efficient equipment/upgrade

For each measure selected, the respondent is asked additional questions to 1) confirm that the measure implemented is an energy efficiency improvement, and 2) collect additional information to estimate the savings associated with the measure.

3.3 Assessing program attribution

For each measure type respondents report implementing, respondents will answer a series of questions to determine if the Evergy program influenced the implementation of the measure. To count as spillover, the respondent needs to indicate that 1) they considered information from an Evergy source when deciding to implement the measure and 2) provide ratings that indicate that the Evergy information was important in their decision and that they would have been unlikely to implement the measure if they had not seen that information.

The questions asked of respondents are as follows:

SO1: When you were deciding to install the [Measure], did you consider any of the following sources of information? (Yes or No scale)

- 1. Emails from Evergy about saving energy
- 2. Information on Evergy's website
- 3. Bill inserts or other mailings from Evergy
- 4. Information from Evergy social media sources
- 5. a contractor or retailer of Evergy's incentives

6. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

Respondents who answer "yes" to one or more of the above, will be asked the following:

- SO2: How important was that information in your decision to install the [Measure]? (Answered on a 0 (Not at all important) to 10 (Very important) scale)
- SO3: How likely would you have been to install the [Measure] if you had not seen that information from Evergy? (Answered on a 0 (Not at all likely) to 10 (Very likely) scale)

A measure will be considered spillover if the respondent answers "Yes" to one or more of the sources of information in SO1 and if the average of SO2 and 10-SO3 is greater than 7. For HVAC system replacements, respondents are also asked to describe in their own words how the information from Evergy influenced their decision to install the efficient equipment. ADM will review these responses and only count as spillover those measures for which a credible explanation of program influence is provided.

Estimating savings associated with the measures determined to be spillover

ADM will reference the Evergy MEEIA 3 Technical Resource Manual when estimating the savings of the spillover measures. As part of the savings estimation. We will confirm that the reported measure resulted in electricity savings by collecting and reviewing data on the fuel type used by the measure or

systems affected by the measure (e.g., that the respondent has an electric water heater or an electric heating system).

Extrapolating spillover to the population of non-participants

ADM will extrapolate the sample reported non-participant spillover to the population of non-participants. The steps to extrapolate the spillover will be as follows:

- Sum the total savings associated with the non-participant spillover measures reported by respondents.
- Calculate the per non-participant spillover savings as equal to the sum of the program nonparticipant spillover savings divided by the total number of respondents who indicate they have not received an incentive, rebate, or discount in the past three years.
- Estimate the number of non-participants by calculating the percent of survey respondents who
 indicate they are non-participants and multiplying this value by the number of residential
 customers Evergy provides service to.
- Calculate the total spillover by multiplying the estimate of the number of non-participant Evergy customers by the per participant spillover value.

3.4 PY2022 General population survey:

The revised general population survey is attached in appendix A. The general population survey is the mechanism for HCHC non-participant spillover data collection.

4 ESP – Participant Spillover

4.1 Proposed value for program participant spillover.

PY22 will utilize a spillover value of of 5.5%. The benchmarking references are listed in the table below. All values have been pulled from final filed sources. It has been confirmed that no values referenced in benchmarking table contain market effects.

Referenced Study	Program Year	Study Year	Method	Reported Spillover	CFLs Included	Include
ComEd Illinois ¹	2015/16	2016	In-store intercept	5.6% ²	No	Yes
Ameren Illinois ³	2015/16	2017	In-store intercept	7%	No	Yes
Ameren Missouri Lighting Impact and Process Evaluation: PY2019 ⁴	2019	2020	Participant survey	7.4%	No	Yes
ComED Programs NTG Approach for CY2020 ⁵	2020	2019	In-store intercept	2%	No	Yes
Average				5.5% ⁶		

Table 2 - List of References for Spillover Benchmarking

¹ ComEd Residential Lighting Discounts Program Evaluation Report, completed by Navigant, page 40. <u>https://ilsag.s3.amazonaws.com/ComEd Residential Lighting Discounts PY8 Evaluation Report 2016-11-10 Final.pdf</u>

² 5.6%= weighted average from PY2021 Evergy ESP gross verified kWh. (Standard LED spillover 7%, Specialty 3%)

³ Impact and Process Evaluation of the 2015 Illinois Power Agency Residential Lighting Program, completed by Opinion Dynamics, page 46.

https://ilsag.s3.amazonaws.com/AIC-IPA PY8 Residential Lighting Evaluation Report REVISED FINAL 2017-09-12.pdf

⁴ Ameren Missouri Program Year 2019 Annual EM&V Report Volume 2: Residential Portfolio Report, completed by Opinion Dynamics, page 62.

https://www.efis.psc.mo.gov/mpsc/commoncomponents/viewdocument.asp?DocId=936298055

⁵ COMED PROGRAMS NTG APPROACH FOR CY2020, page 20.

https://ilsag.s3.amazonaws.com/ComEd_NTG_History_and_CY2020_Recs_2019-10-01.pdf

⁶Rounded to 7 percent when filed in original report.

5 Appendix A : General Population Survey

Appendix A is the final revised and approved survey for PY22.

Exhibit 2

8 Exhibit 2 Page 9 of 9 Client: Evergy Program Year: 2022 Survey Type: General Population Survey Group: General Customer Population Mode: Email

INTRODUCTORY MESSAGE

Evergy is conducting a survey regarding their customers' energy efficient product purchases. If you are an Evergy customer who purchased energy efficient products in 2022, we would appreciate your feedback. Upon completion of this survey, you will receive a \$5 electronic gift card where you can choose from a variety of retailers to thank you for your time. On average this survey will should take around 15 minutes to complete.

If you have questions about this survey or require technical assistance, please reach out to us at survey2026@surveys.admenergy.com. Click below to see if you qualify for the survey.

Thank you in advance for your time!



SCREENING

- 1. Who is your current electricity service provider?
 - 1. Evergy
 - 2. Ameren [TERMINATE SURVEY]
 - 96. Other (Please specify) [OPEN ENDED] [TERMINATE SURVEY]
 - 98. Do not recall [TERMINATE SURVEY]
- 2. Did you purchase ENERGY STAR® certified LED lightbulbs in 2022? We have included an example image of an LED lightbulb and the ENERGY STAR® logo below to help you remember what this item would look like.
 - 1. Yes
 - 2. No [SKIP TO Q36]
 - 3. Do not recall [SKIP TO Q36]



[SHOW Q3 AND Q4 IF Q2 = 1]

- 3. What type of LED lightbulbs did you purchase? We have included an example image of standard and specialty LED lightbulbs below to help you remember what they would look like. Please select all that apply. [MULTI-SELECT]
 - 1. Standard LED bulb(s)
 - 2. Specialty LED bulb(s)
 - 96. Other (Please specify) [OPEN ENDED]
 - 98. Do not recall



- 4. Where did you buy LED lightbulbs in 2022? [MULTI-SELECT]
 - 1. Ace Hardware
 - 2. Batteries Plus
 - 3. Costco
 - 4. Do It Best
 - 5. Dollar Tree
 - 6. Goodwill
 - 7. Habitat Restore
 - 8. Lowe's
 - 9. Sam's Club
 - 10. Target
 - 11. The Home Depot
 - 12. True Value
 - 13. Walmart
 - 96. Other (Please specify) [OPEN-ENDED]
 - 98. Do not recall

[SHOW Q5 - Q34 IF Q4 = 1 - 96]

STANDARD BULBS MEASURE QUESTIONS

[SHOW Q5 - Q17 IF Q3 = 1]

- 5. In total, about how many standard LED lightbulbs did you purchase in 2022?
 - 1. Number purchased: [NUMERIC; OPEN-ENDED]
 - 98. Do not recall

[SHOW Q6 AND Q7 IF Q5(1) >0]

- How many of the [Q5 Response] standard LED lightbulbs you purchased in 2022 are currently installed in the following areas? [INCLUDE VALIDATION-TOTAL MUST EQUAL Q5 RESPONSE]
 - 1. Indoor Single-family home [NUMERIC OPEN-ENDED]
 - 2. Indoor Multi-family (e.g., apartment, duplex) [NUMERIC OPEN-ENDED]
 - 3. Outdoor Residential or Multifamily [NUMERIC OPEN-ENDED]
 - 4. Commercial Space [NUMERIC OPEN-ENDED]
 - 5. Not Installed/In Storage [NUMERIC OPEN-ENDED]
 - 6. Do not recall [NUMERIC OPEN-ENDED]

[SHOW Q7 IF SUM(Q6[1-4]) >0]

- 7. How many of each of the following types of lightbulbs did you replace with new standard LED lightbulbs? [INCLUDE VALIDATION: TOTAL MUST EQUAL Q6[1-4] RESPONSE]
 - 1. Traditional incandescent/halogen [OPEN-ENDED]
 - 2. CFLs [OPEN-ENDED]
 - 3. LED [OPEN-ENDED]
 - 4. I installed bulbs in fixture or socket where there was none before [OPEN-ENDED]
 - 98. Do not recall [NUMERIC OPEN-ENDED]
- 8. Why did you buy the standard LED lightbulbs? (Please select all that apply) [MULTI-SELECT]
 - 1. Replace burned out bulbs
 - 2. Replace old, inefficient bulbs
 - 3. Replace working bulbs with a different color or brightness
 - 4. Install new light fixture or lamp socket
 - 5. To have spare bulbs on hand
 - 96. Other (Please specify) [OPEN-ENDED]
- 9. Which is the most important characteristic you consider when purchasing standard lightbulbs? **[RANDOMIZE 1-8]**
 - 1. Price
 - 2. Energy efficiency
 - 3. ENERGY STAR® certification
 - 4. Brightness of the bulb
 - 5. How long the bulb lasts
 - 6. The ability to dim the bulb
 - 7. Color of the light
 - 96. Other (Please specify) [OPEN-ENDED]
 - 98. Do not recall

AWARENESS OF ENERGY EFFICIENCY INCENTIVE / PROGRAM AWARENESS

- 10. Were any of the standard LED lightbulbs you bought in 2022 discounted from their normal pricing?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q11 IF Q10 = 1]

- 11. Were any of the standard LED lightbulbs you bought in 2022 discounted by Evergy?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q12 IF Q11 = 1]

12. Using the scale below, how important was the Evergy discount in your decision to buy standard LED lightbulbs instead of another type of standard lightbulb? [INSERT 1-5 SCALE WITH 1 = NOT AT ALL IMPORTANT AND 5 = EXTREMELY IMPORTANT, WITH 98 = NOT SURE, 99 = NOT APPLICABLE]

COST SENSITIVITY

- 13. Would you have bought the standard LED lightbulbs instead of a less efficient type of standard lightbulb if the LEDs had cost \$1.00 more per bulb?
 - 1. Definitely would have purchased
 - 2. Probably would have purchased
 - 3. Not sure if you would have purchased
 - 4. Probably would <u>not</u> have purchased
 - 5. Definitely would <u>not</u> have purchased

[SHOW Q14 IF Q13 = 1 OR 2]

- 14. Would you have bought the standard LED lightbulbs instead of a less efficient type of standard lightbulb if the LEDs had cost \$1.00 more per bulb?
 - 1. I would have bought fewer standard LED lightbulbs
 - 2. I would have bought the same quantity
 - 98. Not sure

[SHOW Q15 IF Q5(1) >0 AND Q14 = 1]

- 15. About how many standard LED lightbulbs would you have bought if the LEDs had cost \$1.00 more per bulb?
 - 1. Number of bulbs: [NUMERIC; OPEN-ENDED; INCLUDE VALIDATION-CANNOT BE MORE THAN Q5(1) RESPONSE]
 - 98. Not sure
- 16. Had you ever bought standard LED lightbulbs before 2022?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q17 IF Q16 = 1]

- 17. Were the standard LED lightbulbs you bought before 2022 discounted by Evergy from the normal pricing?
 - 1. Yes
 - 2. No
 - 98. Do not recall

SPECIALTY BULBS MEASURE QUESTIONS

[SHOW Q18 - Q30 IF Q3 = 2]

18. In total, how many specialty LED lightbulbs did you purchase in 2022?

- 1. Number purchased: [NUMERIC; OPEN-ENDED]
- 98. Do not recall

[SHOW Q19 AND Q20 IF Q18(1) >0]

- 19. How many of the [Q18 RESPONSE] specialty LED lightbulbs you purchased in 2022 are currently installed in the following areas? [INCLUDE VALIDATION: TOTAL MUST EQUAL Q18 RESPONSE]
 - 1. Indoor Residential [NUMERIC OPEN-ENDED]
 - 2. Indoor Multifamily [NUMERIC OPEN-ENDED]
 - 3. Outdoor Residential or Multifamily [NUMERIC OPEN-ENDED]
 - 4. Commercial Space [NUMERIC OPEN-ENDED]
 - 5. Not Installed/In Storage [NUMERIC OPEN-ENDED]
 - 98. Do not recall [NUMERIC OPEN-ENDED]
- 20. How many of each of the following types of lightbulbs did you replace with new specialty LED lightbulbs? [INCLUDE VALIDATION: TOTAL MUST EQUAL SUM OF Q19[1-4] RESPONSE]
 - 1. Traditional incandescent/halogen [OPEN-ENDED]
 - 2. CFLs [OPEN-ENDED]
 - 3. LED [OPEN-ENDED]
 - 4. I installed bulbs in fixture or socket where there was none before [OPEN-ENDED]
 - 98. Do not recall [NUMERIC OPEN-ENDED]
- 21. Why did you buy the specialty LED lightbulbs? (Please select all that apply) [MULTI-SELECT]
 - 1. Replace burned out bulbs
 - 2. Replace old, inefficient bulbs
 - 3. Replace working bulbs with a different color or brightness
 - 4. Install new light fixture or lamp socket
 - 5. Stock up
 - 96. Other (Please specify) [OPEN-ENDED]
- 22. Which is the most important characteristic you consider when purchasing specialty lightbulbs? **[RANDOMIZE 1-8]**
 - 1. Price
 - 2. Energy efficiency
 - 3. ENERGY STAR® certification
 - 4. Brightness of the bulb
 - 5. How long the bulb lasts
 - 6. The ability to dim the bulb
 - 7. Color of the light

- 97. Other (Please specify) [OPEN-ENDED]
- 98. Not sure

AWARENESS OF EE INCENTIVE / PROGRAM AWARENESS

- 23. Were any of the specialty LED lightbulbs you bought in 2022 discounted from their normal pricing?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q24 IF Q23 = 1]

- 24. Were any of the specialty LED lightbulbs you bought in 2022 discounted by Evergy?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q25 IF Q24 = 1]

25. Using the scale below, how important was the Evergy discount in your decision to buy specialty LED lightbulbs instead of another type of specialty lightbulb?
[INSERT 1-5 SCALE WITH 1 = NOT AT ALL IMPORTANT AND 5 = EXTREMELY IMPORTANT, WITH 98 = NOT SURE, 99 = NOT APPLICABLE]

COST SENSITIVITY

- 26. Would you have bought the specialty LED lightbulbs instead of a less efficient type of specialty lightbulb if the LEDs had cost \$1.50 more per bulb?
 - 1. Definitely would have purchased
 - 2. Probably would have purchased
 - 3. Not sure if you would have purchased
 - 4. Probably would <u>not</u> have purchased
 - 5. Definitely would <u>not</u> have purchased

[SHOW Q27 IF Q26 = 1 OR 2]

- 27. If the specialty LED lightbulbs had cost \$1.50 more per bulb would you have bought the same number of LEDs?
 - 1. I would have bought fewer LED lightbulbs
 - 2. I would have bought the same quantity
 - 98. Not sure

[SHOW Q28 IF Q18 >0 AND Q27 = 1]

- 28. About how many of the specialty LED lightbulbs would you have bought if the LEDs had cost \$1.50 more per bulb?
 - 1. Number of bulbs: [NUMERIC; OPEN-ENDED; INCLUDE VALIDATION-CANNOT BE MORE THAN Q18 (1) RESPONSE]

98. Not sure

- 29. Had you ever bought specialty LED lightbulbs before 2022?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q30 IF Q29 = 1]

- 30. Were the specialty LED lightbulbs you bought before 2022 discounted by Evergy from the normal pricing?
 - 1. Yes
 - 2. No
 - 98. Do not recall

[SHOW Q31 IF Q11 = 1 OR Q17 = 1 OR Q24 = 1 OR Q30 = 1]

31. How did you first learn about Evergy's lighting discounts? [RANDOMIZE 1-13]

- 1. Newspaper/magazine/print media
- 2. In-store display
- 3. Bill inserts
- 4. Message printed on your bill
- 5. Evergy website
- 6. Friend or relative (word-of-mouth)
- 7. TV ad
- 8. Evergy representative
- 9. Evergy newsletter
- 10. Community event
- 11. Social media (such as Facebook or Twitter)
- 12. Home Energy Report
- 13. Salesperson
- 14. I wasn't aware that Evergy provided lighting discounts
- 96. Other (Please specify) [OPEN-ENDED]
- 98. Do not recall

LEAKAGE EVALUATION

32. Please indicate how long you would be willing to drive (in minutes) to reach each of the following retail location types to purchase lightbulbs. [GRID SHOW] DIY store (e.g., Home Depot, Lowe's) Big box retailer (e.g., Walmart, Target)

Wholesale membership club (e.g., Costco, Sam's Club)

- 1. 0-4 minutes
- 2. 5-9 minutes
- 3. 10-14 minutes
- 4. 15-19 minutes
- 5. 20-24 minutes
- 6. 25-29 minutes

- 7. 30-39 minutes
- 8. 40-49 minutes
- 9. 50-59 minutes
- 10. 60 minutes or more
- 97. Not applicable
- 98. Not sure
- 33. Using the scale below, please rate how satisfied you are with each of the following. [INSERT SCALE AS DEFINED AS 1=VERY DISSATISFIED TO 5=VERY SATISFIED, WITH 98 = NOT SURE]
 - 1. The savings on your electricity bills since installing the LED lightbulbs
 - 2. Quality of LED lightbulbs you purchased
 - 3. The discount amount on the LED lightbulbs you purchased

[SHOW Q34 IF ANY IN Q33 <3]

- 34. Why were you dissatisfied with some aspects of the LED lightbulbs you purchased? [OPEN-ENDED]
- 35. Approximately what percentage of total lightbulbs in your home are currently LED lightbulbs?

Percentage: [OPEN-ENDED; NUMERIC VALUE]
 98. Not sure

SPILLOVER INTRODUCTION

- 36. Have you had any of the following energy-efficient equipment installed or made any of the following energy-saving upgrades to your home in 2022? (Please select all that apply) [MULTI-SELECT]
 - 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. Attic insulation
 - 6. Air sealing (e.g., weather stripping for doors/windows, door sweeps)
 - 7. Faucet aerators
 - 8. Low-flow showerheads
 - 9. Advanced power strips that control energy use
 - 10. Hot water pipe insulation
 - 11. Refrigerator
 - 12. Freezer
 - 13. Dishwasher
 - 14. Clothes washer
 - 15. Clothes dryer
 - 16. Air purifier
 - 17. Dehumidifier

- 18. Other type of home insulation (not attic insulation)
- 19. Smart thermostat
- 96. Other energy efficient equipment/upgrade (Please specify) [OPEN-ENDED]
- 98. Do not recall

[SHOW Q37 IF Q36 = 1 – 19 OR 96 OR IF Q4 = 96]

- 37. Did you know that Evergy offers incentives, discounts, and rebates for qualifying energy-efficient equipment/upgrades?
 - 1. Yes
 - 2. No
 - 98. Not sure

[SHOW Q38 IF Q37 = 1]

- 38. Did you receive a discount or rebate from Evergy for any of the following energyefficient equipment/upgrades that were installed in your home in 2022? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. [SHOW IF Q36 = 1] Energy-efficient central air conditioner
 - 2. [SHOW IF Q36 = 2] Energy-efficient air source heat pump
 - 3. [SHOW IF Q36 = 3] Energy-efficient ground source heat pump
 - 4. [SHOW IF Q36 = 4] Energy-efficient ductless mini-split heat pump
 - 5. [SHOW IF Q36 = 5] Attic insulation
 - 6. [SHOW IF Q36 = 6] Air sealing (e.g., weather stripping for doors/windows, door sweeps)
 - 7. [SHOW IF Q36 = 7] Faucet aerators
 - 8. [SHOW IF Q36 = 8] Low-flow showerheads
 - 9. [SHOW IF Q36 = 9] Advanced power strips that control energy use
 - 10. [SHOW IF Q36 = 10] Hot water pipe insulation
 - 11. **[SHOW IF Q36 = 19]** Smart thermostat
 - 96. [SHOW IF Q36 = 96] Other energy efficient equipment/upgrade

[SHOW Q39 IF ANY IN Q38 = 2]

- 39. What is the main reason you did not receive an Evergy incentive, rebate, or discount for the energy-efficient equipment/upgrades you made?
 - 1. Did not have the time to complete rebate application

2. Did not think the rebate amount was worth the time it took to complete a rebate application

- 3. Found out about rebate too late
- 4. Contractor I worked with did not offer Evergy rebates/discounts
- 5. Submitted a rebate application that was rejected
- 6. Equipment did not meet Evergy's qualifications to receive a rebate
- 96. For some other reason (Please describe) [OPEN-ENDED]
- 98. Do not recall

[SHOW Q40 IF ANY IN Q38 = 2]

- 40. Have you received an incentive, discount, and/or rebate from Evergy or participated in a program through Evergy in the past 3 years?
 - 1. Yes
 - 2. No
 - 98. Not sure

SPILLOVER MEASURE CHARACTERISTICS

[SHOW Q41 IF Q38(1 –4) = 2] <IF 1 OR 2 < PROGRAM QUALIFIACTION QUIDELINES NO SPILLOVER SAVINGS ASSINGED.

- 41. What is the efficiency rating of the HVAC unit that was installed?
 - 1. SEER: [NUMERIC; OPEN-ENDED]
 - 2. EER: [NUMERIC; OPEN-ENDED]
 - 98. Not sure

[SHOW Q42 – Q46 IF Q38(5) = 2]

- 42. Approximately, what size (in square feet) is the attic where the insulation is installed?
 - 1. Square feet: [NUMERIC; OPEN-ENDED]
 - 98. Not sure
- 43. What type of insulation was installed in the attic?
 - 1. Blown-in (loose)
 - 2. Rolls or batts of insulation
 - 3. Foam sprayed insulation
 - 98. Not sure
- 44. What is the R-value of the insulation that was installed?
 - 1. R-value: [NUMERIC; OPEN-ENDED]
 - 98. Not sure
- 45. About how many inches of insulation were in the attic before the new insulation was added?
 - 1. None
 - 2. About 1' to 3" thickness of insulation
 - 3. 4" to 8" insulation
 - 4. 8" to 15" Insulation
 - 5. More than 15" of insulation
 - 98. Not sure
- 46. How many inches of insulation were added to the attic?
 - 1. About 1' to 3" thickness of insulation
 - 2. 4" to 8" insulation
 - 3. 8" to 15" Insulation
 - 4. More than 15" of insulation
 - 98. Not sure

[SHOW Q47 IF Q38(6) = 2]

- 47. What type of air sealing did you have installed in your home? (Please select all that apply) [MULTI-SELECT]
 - 1. Installed weather stripping on exterior doors
 - 2. Installed weather stripping on windows
 - 3. Installed door sweeps on exterior doors
 - 4. Spray foamed holes
 - 5. Added caulked edges/seams
 - 96. Something else (Please describe) [OPEN-ENDED]
 - 98. Not sure

[SHOW Q48 IF Q4= 96]

- 48. Earlier you said you purchased LEDs lightbulbs from a different retailer listed. How many of the LED lightbulbs did you purchase AND install from [ANSWER TO Q4(96)] in 2022?
 - 1. [OPEN-ENDED]
 - 98. Do not recall

[SHOW Q48 IF Q38(7) = 2]

49. How many faucet aerator(s) did you install on a kitchen or bathroom faucet in your home?

1. Number installed on a kitchen faucet: [OPEN-ENDED; NUMERIC VALUE]

2. Number installed on a bathroom faucet: [OPEN-ENDED; NUMERIC VALUE]

[SHOW Q50 IF Q49(1) > 0]

- 50. Is the flow rate for the faucet aerator(s) you installed less than 2.2 gallons per minute (GPM)?
 - 1. Yes
 - 2. No
 - 98. Not sure

[SHOW Q51 IF Q38(8) = 2]

51. How many low-flow showerhead(s) did you install in your home? [OPEN-ENDED; NUMERIC VALUE]

[SHOW Q52 IF Q51 > 0]

- 52. Is the flow rate for the low-flow showerhead(s) you installed less than 2.0 gallons per minute (GPM)?
 - 1. Yes 2. No 98. Not sure

[SHOW Q53 - Q55 IF Q38(9) = 2]

- 53. You mentioned that you installed advanced power strip(s). Just to clarify, does the power strip(s) that you installed automatically shut off power to other devices to help you save energy?
 - 1. Yes
 - 2. No
 - 98. Not sure
- 54. How many outlets are in the power strip(s)? Please select all that apply. [MULTI-SELECT]
 - 1. 5 outlets
 - 2.7 outlets
 - 96. A different number of outlets (Please specify) [OPEN-ENDED]
- 55. What kind of equipment do you have plugged into the <u>control</u> outlet of the smart power strip? (Please select more than one if you are using more than one smart power strip for different uses) [MULTI-SELECT]
 - 1. A computer
 - 2. A television
 - 3. Something else (Please describe) [OPEN-ENDED]
 - 4. Nothing
 - 98. Not sure

[SHOW Q56 IF Q38(10) = 2]

56. How many feet of hot water pipe insulation were installed?

1. [OPEN-ENDED; NUMERIC VALUE]

98. Not sure

[SHOW Q57 IF Q36(= 11 – 17]

- 57. Were the following appliance(s) that were installed ENERGY STAR® certified? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. [SHOW IF Q36 = 11] Refrigerator
 - 2. [SHOW IF Q36 = 12] Freezer
 - 3. [SHOW IF Q36 = 13] Dishwasher
 - 4. [SHOW IF Q36 = 14] Clothes washer
 - 5. [SHOW IF Q36 = 15] Clothes dryer
 - 6. [SHOW IF Q36 = 16] Air purifier
 - 7. [SHOW IF Q36 = 17] Dehumidifier

[SHOW Q58 IF Q36 = 15]

- 58. Does the clothes dryer that was installed use electricity or gas to dry your clothes?
 - 1. Electricity
 - 2. Gas
 - 98. Not sure

[SHOW Q59 - Q64 IF Q36 = 18]

- 59. You mentioned that you had insulation installed somewhere in your home other than your attic. About what square footage in your home does the new insulation cover?
 - 1. Square feet [NUMERIC VALUE; OPEN-ENDED]
 - 98. Not sure
- 60. Where is the insulation installed in your home?
 - 1. Walls
 - 2. Floor (above crawlspace)
 - 3. Basement sidewall
 - 4. Rim/Band joist
 - 96. Some other location (Please specify)
- 61. What type of insulation was installed?
 - 1. Blown-in (loose)
 - 2. Rolls or batts of insulation
 - 3. Foam sprayed insulation
 - 98. Not sure
- 62. What is the R-value of the insulation that was installed?

1. R-value: [NUMERIC; OPEN-ENDED] 98. Not sure

- 63. About how many inches of insulation were there before the new insulation was added?
 - 1. None
 - 2. About 1' to 3" thickness of insulation
 - 3. 4" to 8" insulation
 - 4. 8" to 15" Insulation
 - 5. More than 15" of insulation
 - 98. Not sure

64. How many inches of insulation were added?

1. About 1' to 3" thickness of insulation

- 2. 4" to 8" insulation
- 3. 8" to 15" Insulation
- 4. More than 15" of insulation
- 98. Not sure

[SHOW Q65- Q66 IF Q38(11) = 2]

65. Is the smart thermostat that was installed connected to the internet?

Yes
 No
 Not sure

- 66. Does the smart thermostat control a central air conditioning system, a central heating system, or both?
 - 1. Central air conditioning only
 - 2. Central heating only
 - 3. Both central air conditioning and heating
 - 98. Not sure

SPILLOVER ATTRIBUTION – HVAC EQUIPMENT

[SHOW Q67 - Q71 IF Q38(1 - 4) = 2]

- 67. When you were deciding to have the energy efficient heating/cooling equipment you mentioned installed, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event
 - 6. Information from a contractor or retailer of Evergy's incentives
 - 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q68 - Q71 IF ANY IN Q67=1]

- 68. How important was that information in your decision to have the energy efficient heating/cooling equipment installed? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT, WITH 98 = NOT SURE]
- 69. How likely would you have been to have the energy efficient heating/cooling equipment installed if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY, WITH 99 = NOT APPLICABLE]
- 70. In your own words, please tell us how the information from Evergy influenced your decision to have the energy efficient heating and cooling equipment installed.
- 71. Why did you choose to install energy efficient heating and cooling equipment instead of standard efficiency equipment? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. It was the only option recommended or available
 - 4. The price was good
 - 5. To make my home more comfortable
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – INSULATION

[SHOW Q72 - Q75 IF Q38(5) = 2 OR Q36 = 18]

72. When you were deciding to have the insulation you mentioned installed, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]

- 1. Emails from Evergy about saving energy
- 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
- 3. Bill inserts or other mailings from Evergy
- 4. Evergy call center or Connect call center referral
- 5. Information from a community event
- 6. Information from a contractor or retailer of Evergy's incentives
- 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q73 - Q75 IF ANY IN Q72=1]

- 73. How important was that information in your decision to have the insulation installed? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT
- 74. How likely would you have been to have the insulation installed if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 75. Why did you choose to have the insulation installed? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 4. To make my home more comfortable
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – AIR SEALING

[SHOW Q76 - Q79 IF Q38(6) = 2]

- 76. When you were deciding to make the air sealing improvements you mentioned, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement

- 3. Bill inserts or other mailings from Evergy
- 4. Evergy call center or Connect call center referral
- 5. Information from a community event
- 6. Information from a contractor or retailer of Evergy's incentives
- 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q77- Q79 IF ANY IN Q76= 1]

- 77. How important was that information in your decision to make the air sealing improvements? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 78. How likely would you have been to make the air sealing improvements if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 79. Why did you choose to make the air sealing improvements? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 4. To make my home more comfortable
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – LED LIGHTBULBS

[SHOW Q80 - Q83 IF Q48 > 0]

- 80. When you were deciding to buy the LED lightbulbs from [ANSWER TO Q4(96)], did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event
 - 6. Information from a contractor or retailer of Evergy's incentives
 - 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q81 - Q83 IF ANY IN Q80= 1]

- 81. How important was that information in your decision to buy the LED lightbulbs? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 82. How likely would you have been to buy the LED lightbulbs if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 83. Why did you choose to buy LED lightbulbs instead of another type of lightbulb? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – FAUCET AERATORS AND LOW-FLOW SHOWERHEADS

[SHOW Q84 - Q87 OF Q38(7) = 2 OR Q38(8) = 2]

- 84. When you were deciding to install the faucet aerators or low-flow showerheads you mentioned, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event
 - 6. Information from a contractor or retailer of Evergy's incentives
 - 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q85 - Q87 IF ANY IN Q67=1]

- 85. How important was that information in your decision to install the faucet aerators or low-flow showerheads? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 86. How likely would you have been to install the faucet aerators or low-flow showerheads if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 87. Why did you choose to install the faucet aerators or low-flow showerheads? (Please select all that apply) [MULTI-SELECT]

- 1. To save energy
- 2. To save water
- 3. To save on energy/water costs
- 4. The price was good
- 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – ADVANCED POWER STRIPS

[SHOW Q88 - Q91 IF Q38(9) = 2]

88. When you were deciding to install the advanced power strips you mentioned, did you consider any of the following sources of information? **[INSERT OPTIONS**

DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]

- 1. Emails from Evergy about saving energy
- 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
- 3. Bill inserts or other mailings from Evergy
- 4. Evergy call center or Connect call center referral
- 5. Information from a community event
- 6. Information from a contractor or retailer of Evergy's incentives
- 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q89 - Q91 IF ANY IN Q88= 1]

- 89. How important was that information in your decision to install the advanced power strips? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 90. How likely would you have been to install the advanced power strips if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 91. Why did you choose to install the advanced power strips? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – HOT WATER PIPE INSULATION

[SHOW Q92 - Q95 IF Q38(10) = 2]

92. When you were deciding to install the hot water pipe insulation you mentioned, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]

- 1. Emails from Evergy about saving energy
- 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
- 3. Bill inserts or other mailings from Evergy
- 4. Evergy call center or Connect call center referral
- 5. Information from a community event
- 6. Information from a contractor or retailer of Evergy's incentives
- 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q93 - Q95 IF ANY IN Q92=1]

- 93. How important was that information in your decision to have the hot water pipe insulation installed? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 94. How likely would you have been to have the hot water pipe insulation installed if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 95. Why did you choose to install the advanced power strips? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – APPLIANCES

[SHOW Q96 - Q99 IF Q36 = 11 - 17]

- 96. When you were deciding to have the ENERGY STAR® appliance(s) you mentioned installed, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event

[SHOW Q97- Q99 IF ANY IN Q96 = 1]

- 97. How important was that information in your decision to have the ENERGY STAR® appliance(s) installed? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 98. How likely would you have been to have the ENERGY STAR® appliance(s) installed if you had not seen that information from Evergy? [INSERT 0-10 SCALE;
 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 99. Why did you choose to install the ENERGY STAR® appliance(s)? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 4. You liked the features or appearance of the appliance
 - 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION - SMART THERMOSTAT

[SHOW Q100 - Q103 IF Q38(19) = 2]

- 100. When you were deciding to have the smart thermostat you mentioned installed, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event
 - 6. Information from a contractor or retailer of Evergy's incentives
 - 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q101 - Q103 IF ANY IN Q100=1]

- 101. How important was that information in your decision to have the smart thermostat installed? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 102. How likely would you have been to have the smart thermostat installed if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 103. Why did you choose to install the smart thermostat? (Please select all that apply) [MULTI-SELECT]

- 1. To save energy
- 2. To save on energy costs
- 3. The price was good
- 4. You liked the features or appearance of the thermostat
- 96. For some other reason (Please describe) [OPEN-ENDED]

SPILLOVER ATTRIBUTION – OTHER EQUIPMENT

[SHOW Q104 - Q107 IF Q38(96) = 2]

- 104. When you were deciding on the other energy efficient upgrades you mentioned, did you consider any of the following sources of information? [INSERT OPTIONS DEFINED AS 1 = YES, 2 = NO, AND 98 = NOT SURE]
 - FINED AS I = YES, 2 = NO, AND 96 = NOI SURI
 - 1. Emails from Evergy about saving energy
 - 2. Information from a general online search, Evergy or Spire's website, social media advertisement, television or radio advertisement, or billboard advertisement
 - 3. Bill inserts or other mailings from Evergy
 - 4. Evergy call center or Connect call center referral
 - 5. Information from a community event
 - 6. Information from a contractor or retailer of Evergy's incentives
 - 7. Information from people who received a rebate from Evergy for installing energy-efficient equipment/home upgrades

[SHOW Q105 – Q107 IF ANY IN Q104=1]

- 105. How important was that information in your decision to make those energy efficiency improvements? [INSERT 0-10 SCALE; 0 = NOT AT ALL IMPORTANT, 10 = VERY IMPORTANT]
- 106. How likely would you have been to make those energy efficiency improvements if you had not seen that information from Evergy? [INSERT 0-10 SCALE; 0 = NOT AT ALL LIKELY, 10 = VERY LIKELY]
- 107. Why did you choose to make those energy efficiency improvements? (Please select all that apply) [MULTI-SELECT]
 - 1. To save energy
 - 2. To save on energy costs
 - 3. The price was good
 - 4. To improve home comfort
 - 96. For some other reason (Please describe) [OPEN-ENDED]

DEMOGRAPHICS

Please answer the following questions about your household and residence. Your responses will remain confidential and will be used to assess how well participants in this program resemble Evergy's customer population. Please select "Prefer not to answer" if you do not wish to answer any one of the following demographic questions.

- 108. Do you rent or own your home?
 - 1. Rent
 - 2. Own
 - 99. Prefer not to answer
- 109. Which of the following best describes your home?
 - 1. Single-family home
 - 2. Manufactured or mobile home
 - 3. Condominium or townhome
 - 4. Apartment or duplex
 - 96. Other (Please specify) [OPEN-ENDED]
 - 98. Not sure
 - 99. Prefer not to answer
- 110. What fuel does your main hot water heater use?
 - 1. Electricity
 - 2. Natural gas
 - 3. Propane
 - 4. Heating oil
 - 5. Something else (Please describe) [OPEN-ENDED]
 - 98. Prefer not to answer

111. What fuel does your main heating system use?

- 1. Electricity
- 2. Natural gas
- 3. Propane
- 4. Heating oil
- 5. Something else (Please describe) [OPEN-ENDED]
- 98. Prefer not to answer

112. What type of heating system do you have?

- 1. Air source heat pump
- 2. Ground source heat pump
- 3. Ductless heat pump system
- 4. Electric forced air furnace
- 5. Baseboard heaters
- 96. Something else (Please describe) [OPEN-ENDED]
- 98. Prefer not to answer
- 113. Approximately, when was your home built?
 - 1. Before 1960
 - 2. 1960 to 1979

- 3. 1980 to 1999
- 4. 2000 to 2019
- 5. 2019 or newer
- 98. Not sure
- 99. Prefer not to answer
- 114. 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 square feet or great
 - 98. Not sure
 - 99. Prefer not to answer

GIFT CARD INFORMATION

We appreciate you completing this customer survey regarding energy efficient product purchases you made. We would like to send you a \$5 electronic gift card to thank you for your time. Please provide an email address below where we can send you the gift card. You should receive an email with a link to your electronic gift card within 5 business days.

1. Email: [OPEN-ENDED]

99. Do not wish to receive a gift card

THANK YOU MESSAGE

If you have any questions regarding this survey or would like to know the status of your gift card, please send an email to survey2026@surveys.admenergy.com. On behalf of Evergy, thank you for participating. Have a great day!

DISQUALIFICATION MESSAGE

Sorry, but you do not qualify to take this survey. This survey is for Evergy customers who purchased qualifying energy efficient products in 2022. Thank you for your time, have a great day!