



Memorandum

To: Elder Calderone, Erin Daughton ComEd, Elizabeth Horne, ICC
CC: Jeff Erickson, Natasha Herring, Parini Shah, Guidehouse
From: Amy Buege, Ethan Barquest, Senya Urbom, Verdant Associates
Date: September 22, 2025
Re: ComEd Retail Online Spray Foam Insulation 2025 Net-to-Gross Research Results

1. Executive Summary

This memo presents findings from the net-to-gross (NTG) study of Spray Foam Insulation sold through ComEd’s Retail Online Program. The NTG results for this measure are based on free ridership (FR) research gathered via in-store intercept surveys with customers who purchased ComEd-incentivized Spray Foam Insulation from a participating program retailer and on spillover (SO) research gathered via follow-up web surveys sent to customers interviewed during the in-store intercepts. These results will inform Guidehouse’s September 2025 recommendations to the Illinois Stakeholder Advisory Group (SAG) of NTG values to be used for this measure in CY2026.

Table 1 presents the FR and participant spillover (SO) research findings based on the in-store intercept surveys. This is the first time NTG research has been done for this measure within ComEd service territory. Prior to this research, a NTG ratio of 0.8 was used for all program sales sold through market rate (MR) stores that were not located in an economically-disadvantaged areas (DAC) and a NTG of 1.0 was used for sales at stores located within DACs. It should also be noted that the applicability of this research is specifically targeted towards “Do-it-Yourself” (DIY) store types. The program plans to move into additional retail locations in CY 2026 that may service different customer populations that have different motivations for purchasing canned spray foam.

Table 1. Net-to-Gross Research Results for Spray Foam Insulation

Measure	Free Ridership	Participant Spillover	NTG Ratio
Spray Foam Insulation (Non-DAC)	0.56	0.00	0.44
Spray Foam Insulation (DAC)			1.0

*Note: the NTG of 1.0 for stores located in DACs is based on the Illinois Energy Efficiency Policy Manual V3.0, Section 7.4.
Source: Evaluation Team Analysis.*

2. Free Ridership and Spillover Research Representation

2.1 Free Ridership Disposition

The approved in-store intercept FR surveys were programmed by Verdant Associates into web survey software. These intercept surveys were fielded by Pammer Research and managed by Verdant Associates. Pammer Research survey staff went into a sample of program store locations (including MR, IE, DAC and Non-DAC stores) and approached shoppers who had selected canned spray foam insulation products for purchase. Each of these shoppers were asked if they would like to complete a short survey in exchange for a \$10 gift card for the retailer where they were shopping. Customers were not pressured to do the survey, however customers who were unsure if they wanted to complete the survey were offered a second \$10 gift card (\$20 in total) to encourage their response. The survey staff reported that between 70% and 90% of customers approached who were purchasing a ComEd incentivized spray foam product completed a survey. Customers who agreed to complete the survey were shown a QR code which they could scan with their own cell phones and that would take them to the survey so they could complete it on their own.

Table 2 presents a summary of the FR in-store intercepts research showing the total number of surveys completed at program retailers, the number of surveys completed at MR non-DAC program retailers, and the number of surveys included within the FR analysis. In total 105 FR surveys were completed with spray foam purchasers. Of these 105, 4 were dropped as they were conducted at Lowe’s store locations which were recently removed from the ComEd Program, 2 were dropped as they purchased more than 10 cans of spray foam (and are thus considered “bulk purchasers” and are not included in program sales or claimed savings) and 18 were dropped as they were completed at a DAC or IE store.¹ Not all surveys were used in the NTG analysis; 12 surveys were excluded due to inconsistent responses to free-ridership questions where the evaluation team felt a FR estimate could not be confidently calculated and 5 surveys were dropped as the respondent was not asked the free-ridership questions because they indicated they were purchasing spray foam that was not incentivized by ComEd.

Table 2. Free Ridership Research Summary

Measure	Surveys Completed	Surveys at Home Depot MR Non-DAC Locations	Analyzed Surveys	Program Sales (Number of Cans Purchased)
Spray Foam	105	83	64	124

Table Source: Evaluation Team Analysis.

¹ All program sales in DAC or IE stores receive a NTG of 1.0 and so were not included in the NTG research. DAC and IE stores were included in the selection of retail stores included in the survey sample as the surveys also included a number of questions to assess gross program savings parameters (such as ISR, product use case, and leakage).

2.2 Spillover Disposition

All customers who completed an FR survey were given the opportunity to provide their email to participate in a follow-up survey to assess participant spillover as well as additional gross parameters (such as ISR, use cases, and leakage). A total of 51 customers provided their email in their response to the FR survey provided. The approved spray foam SO survey was programed in Qualtrics and distributed to these 51 customers. Of the 51 surveys delivered, 9 customers provided complete responses that could be used in the spillover analysis. An additional DAC respondent completed their survey (for gross research purposes) but was not included in the spillover analysis , as DAC customers receive a 1.0 NTG values per statewide policy. Table 2 presents a summary of the SO research customer disposition.

Table 3. Spillover Research Summary

Measure	Surveys Distributed	Surveys Completed	Analyzed Surveys	Program Sales (Number of Cans Purchased)
Spray Foam	51	10	9	14

Table Source: Evaluation Team Analysis.

3. Free Ridership and Spillover Protocols

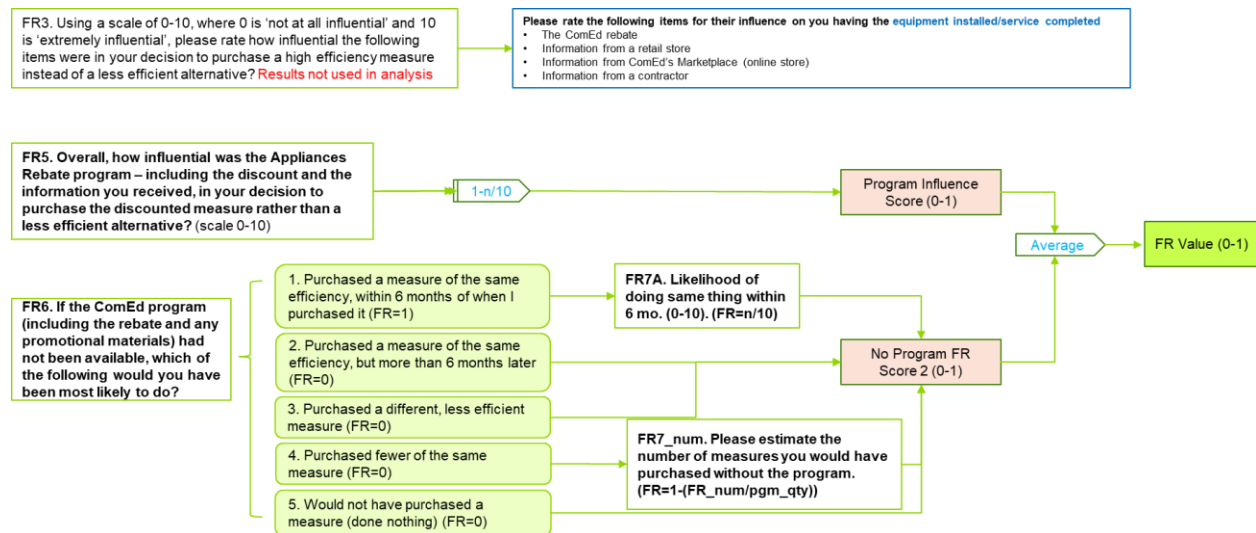
Below we present the FR and SO protocols used to estimate the NTG ratio for Spray Foam in the Appliance Rebates program. The evaluation team applied the participant FR and SO protocols developed by the Illinois SAG NTG Working Group. Details on the algorithms used for this research effort are presented below.

3.1 Participant Free Ridership Algorithms and Scoring

The algorithm used to estimate FR from the participant’s perspective for Spray Foam Insulation is outlined in Figure 1 below. This algorithm was documented in a deviation memo submitted to the IL SAG on 10/30/2024.² This memo outlined the evaluation team’s plans to deviate from the IL TRM NTG method for the Retail Online program and the rationale for this deviation. The figure below was included in this deviation memo.

² Free Ridership Protocol Deviation from Illinois Statewide Technical Reference Manual, Version 12.0, October 30, 2024.

Figure 1. Participant Free Ridership Algorithm



Source: Deviation memo submitted to SAG, October 30, 2024

3.1 Participant Spillover Estimation

The evaluation team calculated SO based on the methodology outlined in IL TRM v13. For a purchase to be considered spillover it must meet the following criteria:

1. Be a high efficiency measure
2. Not rebated by ComEd
3. Purchase decision must have been strongly influenced (spillover score > 5) by the Appliance Rebate component of the Retail Online Program

If these three criteria are met, participant spillover is calculated as dictated in the IL TRM using the following steps:

1. Calculate spillover savings for each surveyed participant installing an efficient measure not rebated through the program where the Spillover Score is greater than 5.
2. Calculate the total program savings for the surveyed participant population (regardless of whether they reported any spillover purchases).
3. Calculate the spillover percentage estimate as: Spillover Percentage Estimate = Sum of Spillover kWh savings / Sample Evaluated Program kWh savings.

4. Participant Free Ridership Results

Using the algorithm detailed above, FR was estimated based on the data collected during the in-store intercept surveys conducted with purchasers of ComEd incentivized spray foam at non-DAC program retailers. Table 4 below presents the program influence (PI) and no program (NP) scores, FR estimate, and

the relative precision of the FR estimate. As this table shows, FR was estimated to be 0.56 for canned spray foam insulation. This level of FR is supported by the fact that 72% of customers surveyed reported that they came to the store planning to purchase canned spray foam (Q1) and did not know the store where they were shopping sold spray foam that was discounted by ComEd (Q3).³

Table 4. In-Store Intercept Free Ridership Results

Measure	Program Influence Score	No Program Score	Free Ridership	FR Relative Precision @ 90% CI
Spray Foam Insulation	0.60	0.51	0.56	6%

Note: FR score may not equate to the average of PI and NP scores due to underlying weights of respondent scores. Individual responses were weighted by the number of program spray foam insulation cans purchased.

Table Source: Evaluation Team Analysis.

5. Participant Spillover Results

Analysis of the survey response data found no respondent reported an SO of qualifying improvements (defined as high efficiency purchases that were not incentivized and were strongly influenced by the ComEd program). As such, the participant spillover value is 0.0, shown in Table 5

Table 5. In-Store Intercept Spillover Results

Measure	Spillover
Spray Foam Insulation	0.0

Table Source: Evaluation Team Analysis.

6. Final NTG Results and Recommendations

Table 6 summarizes Guidehouse’s draft recommendations for Spray Foam Insulation sold via ComEd’s Retail Online Program based on the research presented in this memo. These results are recommended for application starting in CY2026.

Table 6. Net-to-Gross Research Results for Spray Foam Insulation

Measure	Free Ridership	Participant Spillover	NTG Ratio
Spray Foam Insulation (Non-DAC) DIY Store Locations	0.56	0.0	0.44
Spray Foam Insulation (Non-DAC) Other Locations			0.8
Spray Foam Insulation (DAC)			1.00

Source: Evaluation Team Analysis.

³ Q1. Did you come to the store today planning to buy spray foam? And Q3. Prior to today, were you aware this store sold spray foam that was discounted by ComEd?

7. Summary of Data Collection and Data Cleaning

The evaluation team developed a sample of participant stores for in-store intercept data collection and sent the list of stores to ComEd to get the full store addresses and store manager contacts. While the stores selected represented locations with above average program sales (to maximize the number of completed surveys per store), care was taken to ensure the stores spanned a large portion of ComEd service territory. In total, 19 store locations were visited for in-store intercept data collection between June 16, 2024 and July 14, 2025, three of which are designated as DAC stores and 16 as non-DAC stores. A number of DAC stores were included in the sample as this research was intended to collect data for research on both gross parameters and net program savings.

Prior to approaching customers within the selected store locations, survey staff introduced themselves to store managers and asked for permission to collect survey responses from shoppers. In total 105 survey responses were collected at program retailers, 83 of which were conducted at non-DAC stores.

During the data cleaning, the evaluation team reviewed purchaser responses to free-ridership questions to verify consistency between responses and verified whether purchases were for program or non-program cans of spray foam. Based on this review 12 surveys were dropped due to inconsistencies in the responses. Dropping these 12 survey responses had little impact on the resulting FR estimate (with these included the FR estimate was 0.55). The FR score for all of these records was 0.5 they each have directly opposing responses to the program influence and likelihood questions. No consistency check open ended questions were asked in the survey to keep the survey very short.

No participant spillover was reported. As a result, no data cleaning efforts were needed for SO purposes.

8. Spray Foam Insulation NTG History

Program Year	NTG History
PY1 – CY2023	No Program
CY2024 – CY2025	0.80 Default NTG for measures that have not been previously researched Spray Foam Insulation - MR: 0.44, Free Ridership: 0.56, Spillover: 0.0
CY2026	NTG Research Sources: Free Ridership: CY2025 In-store Research Spillover: CY2025 Follow up Web Survey

Source: CY2025 Evaluation Team Research

9. Free Ridership Survey Instrument

The free-ridership survey is provided below.



Thank you for completing this brief survey about the canned spray foam you are purchasing today. If you complete this survey in its entirety, you will be provided with a \$10 gift card for this store. The survey should take less than 5 minutes to complete and will help ComEd better serve customers like you.

PURCHASING INVENTORY

STORE. Retail Store where purchase is being made:

1. Home Depot
2. Lowes

BRAND. What brands of canned spray foam are you purchasing today?

1. Great Stuff
2. (If retailer = Home Depot) Loctite
3. (If retailer = Lowes) GE
4. (If retailer = Lowes) HandiFoam
5. (If retailer = Lowes) Enerfoam
6. (If retailer = Lowes) Gorilla
7. (If retailer = Lowes) OSI
8. Other, please specify

Type. Which types of spray foam are you purchasing?

1. Gaps & Cracks
2. Windows & Doors
3. Big Gap
4. Fireblock
5. Pestblock
6. Other, please specify

Cans. How many cans of spray foam are you purchasing? [Only display those selected in Type above and collect numeric response for each]

1. Gaps and Cracks
2. Windows and Doors
3. Big Gap
4. Fireblock
5. Other, please specify

Calculate the total number of cans purchased. Total_Cans = sum of Cans1-Cans7

ComEd. How many of the cans of spray foam are discounted by ComEd?

NOTE: If you are unsure, please ask the survey attendant for assistance. [In-store staff will present a pamphlet that shows photos of which products are discounted by ComEd].

Cans Discounted by ComEd: [Record #]

Cans Not Discounted by ComEd: [Record #]

Undetermined: [Record #]

[If purchasing cans that are not discounted by ComEd]

Why. Why are you purchasing spray foam that is not discounted by ComEd?

1. The type of spray foam I need is not discounted
2. The brand of spray foam I selected is not discounted
3. I thought this spray foam was discounted by ComEd
4. Other, please specify [Open End]

PURCHASING PLANS

Q1. Did you come to the store today planning to buy spray foam?

1. Yes
2. No

[If Q1 = No]

Q2. Why did you decide to purchase canned spray foam today? [Rotate]

1. I saw it was discounted and decided to purchase it
2. I saw it in the store and was reminded that I needed it
3. A store employee recommended it for my project
4. Other, please specify

Q3. Prior to today, were you aware this store sold spray foam that was discounted by ComEd?

1. Yes
2. No

INTENDED USE

Use1. Do you intend to use the spray foam you are purchasing in a home application?

Home applications: *sealing of window/door frames, filling in gaps or cracks around ductwork or plumbing/electrical holes. into your home.*

Non-home applications: *use in businesses, RVs, boats, crafts projects, etc.*

1. Yes, I intend to use some or all of the cans in a home application
2. No, I do not intend to use any of the cans in a home application
3. Don't know

[IF Use1 = 1]

Use2. How do you plan to use the spray foam? [Multiple response, rotate]

1. To seal around a window or door
2. To fill in a gap or crack in a wall, attic or foundation
3. To fill in a gap around a pipe or cable
4. To seal around duct work
5. To block pest entry
6. Fireproofing
7. Other, please specify [Open End]
8. I am unsure where the spray foam will be used

[IF Use2 = 1, 2, 3, 4, 6]

Use3. Will the spray foam be used to insulate, seal or fill in a gap.... [Multiple response]

1. Between heated and unheated spaces (such as in an exterior wall of a home)
2. Between heated spaces (such as in an interior wall of a home)
3. Between unheated spaces (such as in a garage or unfinished basement)
4. Don't know

[IF Use1 = 1]

Use4. Are you purchasing the spray foam for a project at your home? (Home may include outbuildings and garages) [Allow multiple response]

1. Yes, I am purchasing the spray foam for use in my home
2. No, I am purchasing the spray foam for use in a different home

X1. Are you currently a ComEd customer?

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

[IF Use4 = 2]

X2. Do you plan to use the spray foam in a location within ComEd service territory?

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

[IF Use4 = 2]

Use5. Are you a contractor?

1. Yes
2. No

PROGRAM INFLUENCE

[If Cans Discounted by ComEd or undetermined cans >0 ASK FR Questions]

FR3. On 0 to 10, where 0 is 'not at all influential and 10 is 'extremely influential, how influential were the following factors in your decision to purchase spray foam today?

1. The ComEd rebate
2. Information from retail store staff

3. Materials from ComEd regarding the benefits of spray foam
4. A project where this product is needed

FR4a. Have you previously used canned spray foam?

1. Yes
2. No

FR4b. Have you previously received a ComEd rebate for an air sealing product (such as weatherstripping, door sweep, gasket covers)?

1. Yes
2. No

FR5. Overall, how influential was ComEd’s Energy Efficiency Program (which provides the spray foam rebate and promotional/educational materials), in your decision to purchase spray foam today? **[Scale 0 to 10 not at all influential to extremely influential, N/A]**

FR6. If the ComEd Program (including the rebate and promotional/educational materials) were not available, which of the following alternatives would you have been most likely to do:

1. I would have purchased the same canned spray foam at full price within the next 6 months
2. I would have purchased the same canned spray foam at full price but more than 6 months later
3. **[If cans > 1]** I would have purchased fewer cans of the same spray foam within the next 6 months
4. **[If cans > 1]** I would have purchased fewer cans of the same spray foam but more than 6 months later
5. I would have purchased a different type of canned spray foam
6. I would not have purchased any canned spray foam

[If FR6 = 1 ASK FR7A]

FR7A. If the ComEd program was not available, what is the likelihood you would have purchased the same spray foam within the next 6 months? **[Scale 0 = Not At All Likely and 10 = Extremely Likely]**

[IF FR6 = 3 or 4 ASK FR7B]

FR7B. Please estimate the number of cans of spray foam you would have purchased if the program did not exist and the spray foam was full price? **[OPEN END, force numeric response, MAX of TOTAL_CANS]**

[If FR6 = 3 ASK FR7C]

FR7C. What is the likelihood you would have purchased the spray foam within the next 6 months? **[Scale 0 = Not At All Likely and 10 = Extremely Likely]**

[IF FR6 = 5 ASK FR7D]

FR7D. What type of spray foam would you have purchased? **[OPEN END]**

CUSTOMER EMAIL

X3. Next month we will be conducting a brief follow-up survey via email with spray foam purchasers. Customers who respond to the email survey will receive an additional \$20 e-gift card. Are you interested in this email survey?

NOTE: Your email will ONLY be used for sending you the survey and e-gift card.

1. Yes, please send the survey and gift card to this email: [Record]
2. No, I am not interested in participating in further spray foam research

X4. Those are all of the questions we have for you today. Please record a short video of the spray foam cans you are purchasing and then the survey staff will give you the \$10 gift card.

We thank you for your time spent taking this survey.
Your response has been recorded.

10. Spillover and Gross Parameters Survey Instrument



Thank you for agreeing to be a part of this brief survey! The purpose of this survey is to assess how you used the canned spray foam you purchased. Please know your responses will be kept confidential and no responses will be attributed to specific individuals. This short survey will take less than 5 minutes to complete and you will receive a \$20 e-gift card for completing the survey.

Q1. According to our records, you purchased [CANS] can(s) of spray foam insulation from [RETAILER] on [Date]. Does that sound correct?

1. Yes
2. No

Q2. How many cans of spray foam do you recall purchasing at [RETAILER] on [Date]?

1. 1
2. 2
3. 3
4. 4
5. 5
6. Other, please specify: [Numeric Validation; force response between 1-200]
7. I do not recall purchasing any cans of spray foam [TERMINATE]
8. Don't know [TERMINATE]

[IF (CANS = 1 and Q1 = 1) or Q2 = 1]

Q3. Have you used the canned spray foam you recently purchased?

1. Yes – I have used the can I recently purchased
2. No – I have not used the can I recently purchased
3. Don't know [SKIP to END1]

[IF (CANS > 1 and Q1 = 1) or Q2 =2-6]

Q4. Have you used all [if Q1 = 1 then “[CANS]”, else if Q1 = 2 then “[Q2]”] cans of spray foam you recently purchased?

1. Yes – I have used all of the cans I recently purchased
2. No – I have used only a portion of the cans I recently purchased
3. No – I have not used any of the cans I recently purchased
4. Don't know [SKIP to END1]

[If Q3 = 1 or Q4 = 1 or 2]

Use1. Did you use the canned spray foam you recently purchased to insulate/seal a home?

***Home applications** could include sealing of window or door frames or filling gaps around HVAC ductwork or plumbing/electrical entry points. Entry points are areas such as a hole around an internet cable that travels through an external wall into your home.*

***Non-home applications** include use in businesses, RVs, boats, crafts, etc.*

1. Yes, I used the spray foam in a home application
2. No, I did not use the spray foam in a home application
3. Don't know

[IF Use1 = 1]

Use2. Please select the response(s) below that best describe where you used the canned spray foam?

[Multiple response]

1. To seal around a window or door
2. To fill in a gap or crack in a wall/floor junction
3. To fill in a gap or crack in the foundation of a home
4. To insulate an attic space
5. To fill in a gap around a pipe, plumbing, or cable penetration
6. To seal around HVAC duct work
7. To block pest entry
8. To fireproof around a fireplace
9. Other, Please specify [Open End]
10. I am not sure yet where I will use it

[IF Use 2 = 1, 2,3, 4,5,6]

Use3. Did you use the canned spray foam to insulate, seal or fill in a gap.... [Multiple response]

1. Between heated and unheated spaces (such as in an exterior wall of a home)
2. Between heated spaces (such as in an interior wall of a home)
3. Between unheated spaces (such as in a garage or unfinished basement)

[If Use2 = 1 - 6]

Use3_openend. Please describe specifically where the product was used: [open end]

[IF Use2 = 1]

Use4. How many of the following did you seal within heated spaces using the spray foam you recently purchased? Please provide the number sealed for each of the home areas listed below.

Note: If you did not seal one of these areas, please place a zero in the response box.

1. Windows [Numerical Validation]
2. Doors (excluding sliding glass doors) [Numerical Validation]
3. Sliding glass doors [Numerical Validation]
4. Piping/Plumbing/Wiring wall entry points [Numerical Validation]

Entry points include any area where there is a gap in an external or internal wall, such as a hole around an internet cable that travels through an external wall into your home.

[IF Use2 = 1 or 2 or 3 or 4]

Use5. Approximately how many linear feet would you estimate you sealed around windows or doors, or along a wall, foundation or attic with the spray foam you purchased?

[Numerical Validation] Feet

[IF Use2 = 5]

Use6. Approximately how many other gaps or holes did you seal in heated spaces using the spray foam you purchased?

[Numerical Validation]

[IF Use2 = 5]

Use6a. What was the average size (in inches) each of the gaps or holes you filled with the spray foam you purchased?

[Numerical Validation]

[IF Q3 = 1]

Use7. What percentage of the spray foam would you estimate was used versus being left in the can?

1. 0-10%
2. 11-20%
3. 21-30%
4. 31-40%
5. 41-50%
6. 51-60%
7. 61-70%
8. 71-80%
9. 81-90%
10. 91-100%

[IF Q4 = 1 or 2]

Use8. On average across the cans of spray foam you used, what percentage of the spray foam would you estimate was used versus being left in the can?

1. 0-10%

2. 11-20%
3. 21-30%
4. 31-40%
5. 41-50%
6. 51-60%
7. 61-70%
8. 71-80%
9. 81-90%
10. 91-100%

[IF Q3 = 2 or Q4 = 2 or 3]

Q5. What is your best guess when you will use can(s) of spray foam you have not yet used?

11. Within the next 6 months
12. More than 6 months from now
13. Never
14. Don't know

Spillover

SO1. Since the time you purchased the canned spray foam have you purchased any additional high efficiency products to install in [If not contractor “your home”, else if contractor “one of your customer’s homes”] without a ComEd rebate?

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

[If SO1 = 1 ask SO1a, else D1]

SO1a. Which of the following high efficiency products have you purchased at full price?

1. Advanced power strip
2. Air conditioner – central
3. Air conditioner – room
4. Air sealing (e.g., weatherstripping, caulk, door sweeps, window film)
5. Clothes dryer
6. Clothes washer
7. Dishwasher
8. Faucet aerator
9. Freezer
10. Furnace
11. Heat pump (for space heating and cooling)
12. Insulation
13. LED light bulbs or fixtures
14. Refrigerator
15. Low-flow Showerhead
16. Smart Thermostat
17. Water heater (including heat pump water heaters)
- 97 Other, please specify _____
98. Don't Know

[Ask SO3 for if all measures selected in SO1 = 2, 3,]

SO3. Can you confirm this product/these products were not marked down in the store by ComEd (aka a “Lower Price”) nor did you receive a ComEd instant coupon or mail-in rebate?

(Response Matrix: Measure selected in SO1 by No ComEd discount was provided ComEd discount was provided, Don’t know)

[For all measures where SO3 = No ComEd discount was provided ask SOPI1 and SOPI2, if there are no measures where SO3 = No ComEd discount was provided then skip to D1]

Display: Next, we would like to ask you a few questions about the non-rebated high efficiency product(s) that you purchased.

SOPI1. Using a 0 to 10 scale, where 0 is *not at all important* and 10 is *extremely important*, how important was your recent purchase of canned spray foam insulation on your decision to purchase and install the following non-rebated high efficiency products?

(Response Matrix: Measure where SO3 = No by 0-10 scale)

SOPI2. Using a 0 to 10 scale, where 0 means extremely unlikely and 10 means extremely likely, how likely is it that you would purchased and installed the non-rebated energy efficient product(s) if you had not purchased the ComEd incentivized canned spray foam?

(Response Matrix: Measure where SO3 = No by 0-10 scale)

Calculate Spray Foam Spillover Score for each measure

Spillover Score = (SOPI1 + (10-SOPI2))/2

SO4 = SO1a measures with Spillover Score > 5

[IF SO4 = 2 ask SO6a and SO6b] (AC-central)

SO6a. How do you know your new central air conditioning system is more efficient than other models?

(Select all that apply)

1. It has a SEER rating higher than 20
2. It is ENERGY STAR certified
3. Other [Record]
98. Don’t Know

SO6b. How did you cool your home previously?

1. Central air conditioner
2. Heat pump
3. Room air conditioner
4. No air conditioning
5. Other [Record]
98. Don’t Know

[IF SO4 = 3 ask SO7a] (AC-Room)

SO7a. How do you know your new room air conditioner is more efficient than other models? (Select all that apply)

1. It has a CEER rating higher than 9.8
2. It is ENERGY STAR certified
3. Other [Record]
98. Don't Know

[IF S04 = 3 and S04 ne 2 ask S07b]

S07b. How did you cool your home previously?

1. Central air conditioner
2. Heat pump
3. Room air conditioner
4. No air conditioning
5. Other [Record]
98. Don't Know

[IF S04 = 4 ask S08a] (Air Sealing)

S08a. What type of air sealing did you install? [Select all that apply]

1. Window Sealing
2. Door Sealing
3. Duct Sealing
4. Door Sweep
5. Other, please specify [Record]
98. Don't Know

[IF S04 = 5 ask S010a and S010b] (Clothes dryer)

S010a. Is your new clothes dryer ENERGY STAR certified?

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

S010b. Is it a gas, electric, or heat pump clothes dryer?

1. Gas Clothes Dryer
2. Electric Clothes Dryer
3. Heat Pump Clothes Dryer
98. Don't Know

[IF S04 = 6 ask S011a and S011b] (Clothes washer)

S011a. Is your new clothes washer ENERGY STAR certified?

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

S011b. What type of water heater do you have?

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1. Heat pump water heater
2. Gas Tank water heater
3. Electric Tank water heater
4. Gas Tankless water heater
5. Other [Record]
98. Don't Know

[IF S04 = 7 ask S012a] (Dishwasher)

S012a. Is your new dishwasher ENERGY STAR certified?

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

[IF S04 = 7 and S04 NE 6 ask S012b]

S012b. What type of water heater do you have?

1. Heat pump water heater
2. Gas Tank water heater
3. Electric Tank water heater
4. Gas Tankless water heater
5. Other [Record]
98. Don't Know

[IF S04 = 8 ask S013a] (Faucet Aerators)

S013a. How many faucet aerators did you install? **[Record Number]**

[IF S04 = 8 and S04 NE 7 or 6 ask S013b]

S013b. What type of water heater do you have?

1. Heat pump water heater
2. Gas Tank water heater
3. Electric Tank water heater
4. Gas Tankless water heater
5. Other [Record]
98. Don't Know

[IF S04 = 9 ask S014] (Freezer)

S014. Is your new freezer ENERGY STAR certified?

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

[IF S04 = 10 ask S015 and S015a] (Furnace)

S015. How do you know your new furnace is more efficient than other models? (Select all that apply)

1. It has a CEER rating higher than 9.8
2. It is ENERGY STAR certified
3. Other [Record]
98. Don't Know

S015a. How did you heat your home previously? **[Allow multiple]**

1. Natural Gas
2. Electric
3. Wood
4. Propane
5. Heat Pump
6. Other [Record]
98. Don't Know

[IF S04 = 11 ask SO16a - SO16d if not asked questions previously] (Heat Pump)

SO16a. What is the efficiency of the new heat pump?

1. SEER rating [Record]
98. Don't Know

SO16b. Is the heat pump geothermal/ground source or air source?

1. Geothermal
2. Air source
3. Other
98. Don't Know

SO16c. How did you cool your home previously?

1. Central air conditioner
2. Heat pump
3. Room air conditioner
4. No air conditioning
5. Other [Record]
98. Don't Know

SO16d. How did you heat your home previously? [Allow multiple]

1. Natural Gas
2. Electric
3. Wood
4. Propane
5. Heat Pump
6. Other [Record]
98. Don't Know

[IF S04 = 12 AND S04 ne 2,3,11 ask SO17a] (Insulation)

SO17a. How is your house cooled?

1. Central air conditioning
2. Heat pump
3. Room AC
4. No air conditioning
5. Other [Record]
98. Don't Know

[IF S04 = 12 AND S04 ne 10,11 ask SO17b]

SO17b. How is your home heated?

1. Natural Gas
2. Electric
3. Wood
4. Propane
5. Heat Pump
6. Other [Record]
98. Don't Know

[IF S04 = 12 ask S017c and S017e]

S017c. In what location was the new insulation installed? [Allow multiple]

1. Attic
2. Crawlspace
3. Walls
- 97 Other
98. Don't Know

S017d. How many square feet of insulation were installed? [Record sq/ft, don't know]

S017e. What was the R-value of the insulation installed? [Record r-value, don't know]

[IF S04 = 13 ask S018a and S018b] (LEDs)

S018a. What is your best estimate for the number of LED bulbs or fixtures installed?

- LED Bulbs [Record #]
- LED Fixtures [Record #]

S018b. What type of bulbs or fixtures did they replace? [Allow multiple]

1. LED
2. Halogen
3. Incandescent
4. CFL
5. Other
6. Did not replace anything
7. Don't Know

[IF S04 = 14 ask S019] (Refrigerator)

S019. Is your new refrigerator ENERGY STAR certified?

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

[IF S04 = 15 ask S020a] (Showerheads)

S020a. How many showerheads did you install? [OPEN END]

1. One
2. Two
3. Three
97. Other [Open Ended]
98. DK

[IF S04 = 15 and S04 NE 6 or 7 or 8 ask S020b]

S020b. What type of water heater do you have?

1. Heat pump water heater
2. Gas Tank water heater
3. Electric Tank water heater
4. Gas Tankless water heater
5. Other [Record]
98. Don't Know

[IF S04 = 1 ask S021a and S021b] (Power strips)

S021a. How many advanced power strips did you install?

1. One
2. Two
3. Three
97. Other [Open Ended]
98. DK

S021b. What devices are connected to your advanced power strip? [Multi-select]

1. Large electronics (TV, sound system, computer, etc.)
2. Small electronics (phone chargers, table lamps, etc.)
3. Room lights
4. Other, please describe [Record]
5. No devices are connected

[IF S04 = 16 ask S022a and S022b] (Smart Thermostat)

S022a. Is your new thermostat a “learning” or “smart” thermostat? (e.g., Nest, Ecobee, Amazon, etc.)

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

S022b. Is your thermostat programmed to adjust the temperature of your home at certain times of the day?

1. Yes, please describe [Record]
2. No
98. Don't Know

[IF S04 = 16 AND S04 ne 2,3,11,12 ask S022c]

S022c. How is your home cooled?

1. Central air conditioning
2. Heat pump
3. Room AC
4. No air conditioning
5. Other [Record]
98. Don't Know

[IF S04 = 16 AND S04 ne 10,11,12 ask S022d]

S022d. How is your home heated?

1. Natural Gas
2. Electric
3. Wood
4. Propane
5. Heat Pump
6. Other [Record]
98. Don't Know

[IF SO4 = 17 ask SO23a and SO23b and SO23c] (Water heater)

SO23a. Is your new water heater ENERGY STAR certified?

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

[IF SO4 = 17 and SO4 ne 6,7,8,15 ask SO23b and SO23c]

SO23b. What type of water heater is it?

1. Heat pump water heater
2. Gas tank water heater
3. Electric tank water heater
4. Gas tankless water heater
- 97 Other
98. Don't Know

Demographics

These final questions are for classification purposes only.

D1. Do you own or rent your home?

1. Own
2. Rent
3. Don't know
4. Prefer not to answer

D2. Which of the following best describes your home?

1. Single-family home
2. Twin, duplex or two-family unit
3. Apartment/condo in a 2-4-unit building
4. Apartment/condo in a >4-unit building
5. Townhouse or row house (adjacent walls to another house)
6. Mobile home, house trailer
7. Other, please describe: _____
8. Don't know
9. Prefer not to answer

D3. How many people, including yourself, live in your home full-time at least six months of the year?

1. _____ [NUMERIC VALUE]
2. Don't know
3. Prefer not to answer

End of Survey

END1. Thank you for taking the survey. Is there anything else that you would like to share about your experience with your canned spray foam purchase?

1. Yes: [Open Ended]
2. No

END2. Please confirm the email address where you would like to receive your \$10 Tango e-gift card. Note that your contact information will not be shared or sold for any reason.

1. [EMAIL]
2. A different email: [TEXT BOX, EMAIL VALIDATION]
3. I do not want to receive a gift card

EOS. Survey Closing Message

Thank you for your participation in this survey! ComEd appreciates your response and will use this feedback to improve the program.

Termination Message

Unfortunately, you do not qualify to complete this survey. On behalf of ComEd, thank you for your time.