

Two Steps Ahead: A smarter way to evaluate instant discount measures

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ABSTRACT

In 2024, PECO, a large electric and natural gas utility in Pennsylvania, implemented a \$1 instant in-store discount for canned spray foam to enable customers to make energy efficiency improvements. PECO's \$1 instant discount simplified customer participation but posed evaluation challenges. A lack of available research made it difficult to determine the typical use and installation habits of customers who purchase canned spray foam, and a lack of customer contact information left the evaluation team without a way to gather this information directly from customers.

Guidehouse's two-step survey—using in-store QR codes/tear-away flyers and a follow-up online survey—allowed the evaluation team to quantify savings (42.22 kWh/can) from 11 respondents for the evaluation that concluded in 2024 and gather insights directly from customers who received the instant discount. The evaluation team was able to gather an additional 17 follow-up survey responses included in the evaluation concluding 2025 for a total of 28 responses.

Tear-away flyers and staff engagement outperformed passive signage, offering a scalable, replicable model for evaluating point-of-purchase measures with minimal customer burden. This effort aligned the evaluation findings with Pennsylvania's Technical Reference Manual (TRM) and demonstrated one method for evaluating point-of-purchase instant discount measures in retail settings.

Introduction

In 2024, PECO, a large electric and natural gas utility in Pennsylvania, introduced a \$1 in-store instant discount for canned spray foam, leveraging a point-of-purchase (PoP) discount to promote energy efficiency. Our primary evaluation goals were to establish an average energy savings per can of spray foam to calculate a deemed savings value, and to collect customer experience and Net-to-Gross (NTG) data. While PoP discounts make energy efficiency accessible to a broader audience, they pose significant challenges for evaluators. No rebate form means no customer contact information; without customer data, utilities cannot verify savings. This posed a challenge for the PECO program.

In typical energy efficiency rebate programs, the evaluator can rely on rebate applications or even in-store interviews to gather data from customers. In this case, we didn't have a rebate application, and interviews would only tell us what customers planned to do with the spray foam – not how they *actually* used it. With no default savings values in the regional Technical Reference Manual (TRM), our evaluation team got creative.

To meet regulatory requirements and gather the insights we needed, we built a two-part in-store survey. Step one: collect contact information via customers scanning a QR code, which directed them to a contact information collection form (see Appendix for contact information form). Step two: send customers who provided their email a follow-up survey approximately four weeks later to ask how they used the spray foam and additional feedback on PECO's instant discount (see Appendix for follow-up survey). All customers who purchased qualifying canned spray foam products at participating retail

locations were eligible for the survey. Participating locations displayed in-store marketing materials including small signs near the spray foam products. However, the evaluation team found out that passive signage alone did not drive high engagement. In-store program staff interactions and tear-away flyers proved more effective and scalable.

Facing multiple challenges and learning best practices along the way, this approach gave us a new playbook for evaluating instant discount programs without significantly increasing customer burden or evaluation budget. Our success relied on close collaboration across the evaluation team, the implementers, multiple legal teams to ensure the data collection effort and incentive structure was in line with state and local laws, and PECO stakeholders such as the program staff and marketing team. In the end, this model offers a practical, replicable solution for evaluating point of purchase instant discount measures — balancing rigor, creativity, and customer engagement.

The average savings per can of spray foam results shared in this paper are from data collection efforts for the evaluation that concluded in 2024. The in-store surveys continued into 2025. This paper provides insights into response rates through 2025; however, an updated average savings per can of spray foam value is not available at the time of writing this paper and will be available at a later date.

Methodology

Surveys

To evaluate the point of purchase canned spray foam discount, the evaluation team developed a two-step survey in collaboration with survey research experts, evaluation experts, PECO, and the Pennsylvania Statewide Evaluator (SWE). The main goals of the survey were to collect inputs to inform a TRM-aligned deemed savings value for canned spray foam, and to collect process and NTG feedback. We originally launched the survey in 2024 with impact-related questions only. We updated the survey in 2025 to include process questions such as program satisfaction, net promoter score, program awareness, and NTG questions including program influence and intention to estimate free ridership and spillover. The projected population of customers who participated in PECO's canned spray foam discount was over 150,000, and the evaluation team acknowledges that the sample of 114 participants¹ who provided their contact information through the in-store QR code would not achieve the survey completes needed for statistical significance; however, any additional information from customers about their instant discount spray foam purchase helped to provide valuable insights for the evaluation team and PECO.

In 2024, we fielded the survey in eight waves from July through November so that customers could take the survey approximately one month after purchasing their canned spray foam and providing their contact information. We fielded the survey in one wave in 2025 to the remaining participants who provided their contact information after the last 2024 wave was fielded. The surveys included the following approach:

Step 1: In-store contact collection

¹ This includes contact form submissions from 2024 and 2025.



Image 2: In-store tear-away materials. *Source:* CLEARresult.

Although survey responses fluctuated with seasonal weather patterns, the engagement of implementer staff starting in June 2024 and the introduction of tear-away flyers in November 2024 led to an increase in completed contact information forms as shown in Table 1.

Table 1: Number of valid responses to the in-store contact collection by month. *Source:* Guidehouse analysis.

Month and Year	Number of responses to contact information form
May 2024	2
June 2024	36
July 2024	27
August 2024	3
September 2024	0
October 2024	1
November 2024	5
December 2024	8
January 2025	10
February 2025	9
March 2025	6
April 2025	5
May 2025	2
June 2025	0

Step 2: Follow-up survey

About a month after customers filled out the digital contact information form, we reached out with a follow-up online survey developed in Qualtrics. We conducted basic data cleaning of the contact list generated via the in-store QR code survey prior to fielding the follow-up survey. This included deduplication of email addresses to help ensure each participant received only one invitation to the follow-up survey.

This survey was designed to understand how customers actually used the spray foam they purchased. We asked questions like:

- Did you use the spray foam in a home or commercial space?
- What kinds of gaps did you seal - windows, doors, pipes, wires?

To show our appreciation, respondents received a \$20 e-gift card for completing the survey.

In 2025, our evaluation team reached out to additional customers who filled out the digital contact information form since the last wave was fielded. The follow-up survey fielded in 2025 included additional process and net-to-gross (NTG) questions. We added questions like:

- How likely are you to recommend the PECO-provided instant discount on canned spray foam to others?
- How did you learn about the PECO-provided instant discount on canned spray foam?
- To what extent did program elements influence your decision to purchase any cans of spray foam?
- What would you have done if the PECO instant discount was not offered for the canned spray foam?
- Since purchasing the canned spray foam, have you installed any additional energy efficient technologies or made any energy efficiency improvements to your home for which you did not receive a PECO rebate?
- What was the most important factor in your decision to use canned spray foam insulation in your home?

Respondents received a \$15 e-gift card for completing the updated survey to conserve budget.

Data Processing and Interpretation

This measure aligns with the Pennsylvania TRM's guidelines on Weather Stripping, Caulking, and Outlet Gaskets (State of Pennsylvania 2019, 151-156), which specify that spray foam sealant must be applied to window frames, door frames, or penetrations. The TRM measure includes deemed savings values (kWh and kW) or leakage values (CFM) for sealing applications. Our team aimed to identify spray foam applications that fit within these categories, including windows, doors, and penetrations. For this evaluation, we classified sliding glass doors as windows due to their framing, perimeter, replacement methods, and operation. We collaborated with the Pennsylvania Statewide Evaluator (SWE) to interpret the 2018 Pennsylvania Baseline Study (NMR Group, Inc. 2019) and estimated the average percentage of homes with different heating and cooling types. Our team then assigned typical population average heating and cooling savings for each canned spray foam air sealing application.

Additionally, we gathered information on other uses of canned spray foam in residential air sealing applications, such as the attic floor or perimeter and along the basement, crawlspace, or foundation perimeter.

Our research specifically targeted electrical savings because of the nature of the Pennsylvania regulatory environment. The average percentage of homes with non-electric heating types and typical non-electric heating system efficiencies could be used to estimate energy savings from other heating fuel types, but these estimates were out of the scope of this study.

Results

For the evaluation concluding in 2024, we reached out to 38 customers who bought canned spray foam and filled out the contact information form. From that group, 13 completed the follow-up survey between July 11, 2024 and August 2, 2024, and 11 of those responses were valid² (29% response rate) – providing new insights into how customers were using the product. We reached out to an additional 31 customers and received an additional 5 responses to the follow-up survey between August 22, 2024 and November 7, 2024 which were not included in the evaluation that concluded in 2024 due to timing constraints. In 2025, the evaluation team received an additional 45 responses to the QR code and 17

² One respondent was screened out as a PECO employee or relative thereof. One customer started the survey then exited the survey without completing any of the impact questions.

responses to the follow-up survey, resulting in an overall response rate of 25% for the follow-up survey. The final results of these surveys were not able to be included in this paper, but will be part of the final analysis included in PECO's PY16 Final Annual Report to the Pennsylvania Public Utility Commission (PUC).

From 11 valid responses available at the time of this paper, 25 cans sealed 30 windows, 3 sliding glass doors, 8 doors, and 69 penetrations, yielding 1,075.5 kWh and 0.01243 kW in savings. Each survey respondent was treated as a unique data point, giving us 11 sets of savings-per-can values. On average, each can saved 42.22 kWh and 0.00049 kW, with relative precisions of 24% for kWh and 25% for kW at the 90% confidence interval. Respondents also reported using the spray foam to seal approximately 258 linear feet of basement, crawlspace, or foundation perimeter. However, there is no mechanism within the Pennsylvania TRM to estimate deemed savings for this application, so our evaluation team could not factor these savings into our calculations.³

Lessons Learned and Considerations

Lessons Learned

The evaluation team learned the following about this data collection method:

Passive signage alone may be insufficient to engage customers: Initially, we relied on shelf-side signs for our in-store surveying strategy. However, this approach resulted in a low volume of responses to the contact form. When program representatives interacted with customers who already had spray foam in their cart, response rates increased. Unfortunately, due to labor, budget, and logistical considerations, maintaining in-store program staff presence was not a long-term solution.

We considered adding stickers with the QR code directly to the cans of spray foam. However, we identified potential liability issues if the sticker covered critical health and safety information printed on the product packages, and decided the time required to place stickers in an appropriate spot on each can would have been a barrier and not sustainable in the long term.

The addition of tear-away flyers with the same information included on the in-store signs proved to be the best long-term solution for distributing the contact information QR code and URL. These pads gave customers the opportunity to take the survey information with them and provided a physical reminder to complete the survey later.

Coordination and collaboration across multiple stakeholders is critical to success: This survey effort required collaboration across multiple stakeholders including the:

- **Evaluation team** to design the survey methodology, field the follow-up survey, and analyze the results
- **PECO program managers** to oversee compliance with PECO program standards
- **PECO Marketing and Promotions team** to develop the in-store materials according to PECO marketing standards
- **Implementation contractor** to post and update in-store materials in various store locations and deploy program staff to encourage customer responses to the contact information form
- **PECO and Guidehouse legal teams** to review the sweepstakes terms and conditions
- **Pennsylvania Statewide Evaluator** to review the follow-up survey evaluation methodology

³ These results are based on the 2024 evaluation only. Additional data was collected as part of the 2025 evaluation, and will be published later this year.

We found the most success coordinating across multiple stakeholders through brief virtual check-in calls where we could gather representatives from across the different stakeholder groups to communicate in real time.

Considerations

Some additional considerations evaluators should keep in mind when looking to implement a similar approach include:

Response rate: To ensure that an adequate amount of data was collected, the implementer posted staff within the retail stores to encourage customers who looked to be purchasing spray foam to scan the QR code and give their contact information. This was more successful than the static display, but was ultimately determined to be unsustainable for the long term. At this point, the shift was made to tear-away flyers where customers could take the QR code home with them to scan at their convenience. Although the tear-away approach was not as successful as the in-store staff directing customers, it was more successful than the static display, and ultimately a sufficient alternative.

Contact form incentive: We wanted to include an incentive for respondents who provided their contact information through the QR code or URL to increase response rates and build a list of customer contacts for the follow-up survey. However, it was important to consider the price of the spray foam when deciding the incentive structure for the in-store contact form. The average retail price for a can of spray foam is approximately \$5. Offering in-store customers a guaranteed incentive of less than \$5 for completing the initial contact form was unlikely to motivate them. However, providing an incentive of \$5 or higher introduced the risk of customers purchasing the spray foam just to receive the incentive, which could impact program attribution.

To mitigate these risks and responsibly manage the budget, we implemented a sweepstakes model. This approach allowed for controlled incentive disbursement while still offering a compelling reward (monthly \$50 e-gift card drawings) to encourage customers to complete the contact information collection form. The sweepstakes model provided more predictability in the budget, as incentive costs remained stable even as customer engagement levels varied.

Spam Contact Entries: Despite the sweepstakes model mitigating many risks, it also invited the opportunity for fraudulent users to enter the drawing without purchasing a can of spray foam or for users to enter multiple times. Our team diligently monitored responses as they came in and on a monthly basis when submitting the sweepstakes winner. We reviewed data from the contact information collection form to identify duplicate email addresses and manually excluded these entries from the drawing before choosing a winner each month.

Customer Eligibility and Leakage: To ensure relevance to PECO's service area, all retail locations displaying the QR code were located in the heart of PECO's service territory, not in bordering towns. However, we recognized that customers purchasing the product might live outside PECO's service territory and may not use the product in a home served by PECO. To address this, the follow-up survey included a question to determine whether the respondent was a PECO electric customer. All respondents, regardless of their answer to this question, were permitted to complete the full survey under the assumption that a non-PECO customer would likely interact with the spray foam the same as a PECO customer. This inclusive approach supports comprehensive data collection, allows for an estimation of

leakage outside the service territory, and enables comparison of measure installation between PECO electric customers and non-PECO electric customers.

Local Sweepstakes Laws: To ensure full compliance with local sweepstakes regulations, we proactively engaged the legal teams at both Guidehouse and PECO. We first sought guidance from the Guidehouse legal team, followed by a comprehensive review and approval of the sweepstakes terms and conditions by both Guidehouse and PECO legal teams. This oversight helped ensure that all sweepstakes language and any associated survey screening questions adhered to applicable laws before the in-store launch.

Limitations of Sample Size: The in-store intercept survey method cannot capture every customer who purchased discounted canned spray foam through the PECO point-of-purchase program, leading the population size to be much larger than the sample size. The evaluation team acknowledged that survey responses would likely not achieve the target completes necessary to achieve statistical significance.

Possible Pathways for Future Implementations

Some additional forward-looking innovative pathways for scaling the survey model and addressing limitations include:

Digital Integration: Develop a mobile app or chatbot to replace QR codes, allowing customers to submit contact details and usage data seamlessly. For example, a PECO-branded app could offer instant sweepstakes entry and track spray foam purchases via receipt uploads.

- **Implementation consideration:** Partner with retail chains to promote the app at checkout.

Health and Safety Considerations: Address potential health benefits associated with keeping pests out of the home or decreasing mold susceptibility. This aligns with IEPEC's focus on holistic program impacts.

- **Implementation consideration:** Collaborate with environmental health experts to design questions and share findings with regulators to inform safety guidelines.

Response Rate Improvement: Increase sample size by offering tiered incentives (*e.g.*, \$5 gift card for contact submission, \$25 for follow-up survey) while maintaining budget control. Use A/B testing to optimize incentive structures.

- **Implementation consideration:** Develop a pilot to test incentives, targeting 100+ valid responses.

Broader Application: Extend the two-step survey model to other measures (*e.g.*, LED bulbs, smart thermostats). Develop a standardized toolkit for utilities, including templates for signage, surveys, and data analysis.

- **Implementation consideration:** Publish the toolkit via IEPEC's resource hub with workshops for evaluators.

Conclusion

PECO's \$1 in-store discount for spray foam delivered energy savings and simplified customer participation—but it also challenged our traditional evaluation methods. Without collecting customer

data at the point of purchase, the evaluation team got creative. Our team designed a two-step survey strategy to close the data gap. We first captured contact information through the QR code and URL published on tear-away flyers, then followed up with a usage survey approximately four weeks later. This approach allowed us to measure real-world spray foam applications and calculate average savings per can.

We tested different engagement tactics, learned what worked (tear-away flyers), and what didn't (passive signage). We collaborated closely with PECO staff, the implementation team, marketing team, legal experts, and regulators to ensure compliance, consistency, and clarity every step of the way.

PECO's spray foam discount program proves that utilities can evaluate instant discount measures with creativity and rigor. Our two-step survey model—scalable, low-cost, and customer-friendly—offers a blueprint for utilities to verify savings, meet regulatory requirements, and expand PoP programs to advance energy efficiency goals.

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We also want to thank CLEAResult for posting the in-store materials and actively engaging customers to provide their contact information.

Alongside PECO and CLEAResult, the evaluation team was able to take a complex challenge and provide a data-driven solution.

References

NMR Group, Inc. 2019. *2018 Pennsylvania Statewide Act 129 Residential Baseline Study*.

State of Pennsylvania. 2019. *Technical Reference Manual, Volume 2: Residential Measures*.

Appendix 1

Programming notes are displayed in **bolded purple** and were not visible to respondents. Question numbers and response option recode values (indicated by the numbered list) likewise did not display for respondents.

In-store QR Code Survey

[DISPLAY Q1-3 ON ONE PAGE]

Q1. Please enter the contact information for the person most familiar with the use of the canned spray foam.

Note: This is the same contact information we will use to notify winners of the sweepstakes.

1. Name: _____
2. Email address: _____ **[EMAIL VALIDATION]**

Q2. Thank you for providing your contact information so we can send you a survey about your canned spray foam. Upon providing your contact information, **you will be entered into a monthly sweepstakes to receive a \$50 Tango e-gift card**, redeemable at a variety of retailers through Rewards Genius and Tango Card. You can review the official rules of the sweepstakes here. **[HYPERLINK “here” TO TERMS AND CONDITIONS]**

Please confirm that you meet the eligibility requirements* of the sweepstakes terms and conditions

Yes, I meet the eligibility requirements **[HYPERLINK “eligibility requirement” TO TERMS AND CONDITIONS]**

Q3. You should receive an email confirming your contact information has been successfully submitted.

Note: Your contact information will be used solely for the purposes of inviting you to take the survey and to participate in the drawing; it will not be shared or sold for any reason.

**Drawings are open to anyone over the age of 18. Employees, agents and representatives of PECO and its subsidiaries and affiliates are not eligible to win, nor are the parents, siblings or children of any such employee, agent or representative or any person. No purchase is necessary to enter or win.*

Follow-up Survey

INTRO. Where did you purchase your canned spray foam?

1. Home Depot
2. Lowes

SF1. Are you a PECO electric customer?

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

SF2. Has anyone living in the home ever been employed by PECO?

1. Yes [TERMINATE]
2. No

SF3. How many cans of spray foam did you purchase?

1. 1
2. 2
3. 3
4. 4
5. 5
97. Other, please specify: [Numeric Validation; force response between 1-200]
7. I did not purchase any cans of spray foam [TERMINATE]
98. Don't know [TERMINATE]

SF4. Did you use any of the canned spray foam for **insulation/sealing in a home?**

Home applications include sealing of window frames, door frames, and gaps around plumbing/electrical entry points. 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.

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

1. Yes, I used some or all of the cans in a home
2. No, I did not use any of the cans in a home [SKIP TO END1]
98. Don't know [SKIP TO END1]

[IF SF4 = 1]

SF4a. Please select the response(s) below that best describe where you used the spray foam?

[Multiple response]

Heated and/or air conditioned spaces include rooms and exterior walls of spaces that are heated and/or cooled.

1. Areas of my home that are heated and/or cooled or exterior walls of these areas
2. Areas of my home that are **not** heated and not cooled

[IF SF4a = 1]

SF5. How many of the following did you seal in heated and/or air conditioned spaces using spray foam? 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.

SF6. Please select any additional heated and/or air conditioned locations you sealed using spray foam. **[Multiple response]**

1. Along foundation (*e.g.*, where the ground floor or basement ceiling meets the wall)
2. Attic floor or perimeter
3. Other gaps or holes
4. I did not use spray foam to seal any additional areas in heated and/or air conditioned spaces

[Mutually exclusive]

[IF SF6 = 1 or 2]

SF7. Approximately how many feet along your foundation and/or attic did you seal using spray foam?

[Numerical Validation]

[IF SF6 = 3]

SF8. Approximately how many other gaps or holes did you seal in heated and/or air conditioned spaces using spray foam?

[Numerical Validation]

These final questions are for classification purposes only.

D1. Do you own or rent your home?

1. Own
2. Rent
98. Don't know
99. 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
97. Other, please describe: _____
98. Don't know
99. 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]
98. Don't know
99. Prefer not to answer

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 provide your email address below where you would like to receive your \$20 Tango e-gift card. You also have the option to decline the gift card. Note that your contact information will not be shared or sold for any reason.

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