

# MEMORANDUM

To: Nick Warnecke and Nic Crowder, AIC; Seth Craigo-Snell, SCS Analytics; and Elizabeth Horne, ICC Staff

From: The Opinion Dynamics Evaluation Team

Date: June 25, 2025

Re: AIC 2024 Business Program Small Business Direct Install Channel Participant Free Ridership Results

## INTRODUCTION AND KEY FINDINGS

As part of the 2024 evaluation of the Ameren Illinois Company (AIC) Small Business Initiative, Opinion Dynamics conducted free-ridership (FR) research with participating end-use customers to inform the development of net-to-gross ratio (NTGR) recommendations for the Initiative's Small Business Direct Install (SBDI) channel for application in the 2026 program year. The evaluation team completed this research using the net-to-gross (NTG) protocols prescribed in version 13.0 of the Illinois Technical Reference Manual (IL-TRM V13.0) Attachment A (Illinois Statewide Net-to-Gross Methodologies). Specifically, we used the IL-TRM's Core Non-Residential Free-Ridership Protocol.<sup>1</sup> This memo presents FR estimates for electric savings resulting from that research effort. The evaluation team limited the scope of this research to only FR because we characterized the spillover (SO) rates associated with the SBDI channel through a previous research effort with participating trade allies.<sup>2</sup> The NTGRs presented throughout this memo reflect only the FR estimates developed through this research and do not include any SO estimates.

Based on the results of this research, the evaluation team plans to maintain the same NTGR recommendation for the SBDI channel from prior years due to the minimal savings coverage and small respondent sample size achieved through this research. In addition, the FR estimate developed through this research is consistent with the FR rates reflected in the NTGR recommendation for the channel in previous years.

## SUMMARY OF FREE RIDERSHIP RESULTS

The resulting channel-level FR score and NTGR for electric energy savings for the SBDI channel are summarized in Table 1.

| Channel                       | Elect   | Electric Energy Savings |                  |  |  |
|-------------------------------|---------|-------------------------|------------------|--|--|
| Channel                       | n FR (1 |                         | NTGR<br>(1 - FR) |  |  |
| Small Business Direct Install | 40      | 0.111                   | 0.889            |  |  |

 Table 1. Small Business Direct Install Channel Electric Savings NTG Results

<sup>&</sup>lt;sup>1</sup> IL-TRM V13.0 Attachment A: Illinois Statewide Net-to-Gross Methodologies, Section 3.1.1: Core Non-Residential Free Ridership Protocol.

<sup>&</sup>lt;sup>2</sup> https://www.ilsag.info/wp-content/uploads/AIC-2024-Small-Business-Direct-Install-Trade-Ally-Spillover-Memo-REVISED-FINAL-2024-09-25.pdf

## DATA COLLECTION AND SAMPLING METHODOLOGY

The evaluation team fielded a web survey with SBDI channel participants. The evaluation team drew the participant sample frame from the 2023 end-of-year and 2024 mid-year tracking data. Our key sample development and standardization steps included the following:

- Restricting the sample frame to the SBDI channel;
- Restricting the sample frame to projects completed after July 1, 2023 (through September 30, 2024);
- Restricting the sample frame to projects deemed as not eligible under the NTG Ratio for Disadvantaged Areas policy<sup>3</sup>;
- Restricting the sample frame to projects that produced electric energy savings;
- Reviewing customer names and email addresses to ensure consistent naming conventions, clean typos, and identify duplicates;
- Prioritization of non-lighting measures for projects that installed both lighting and non-lighting measures.

The resulting sample frame included 1,369 unique projects associated with 902 unique participants across both lighting and non-lighting measures. In cases where the same participant completed multiple projects within the same end-use category, the evaluation team sampled the project with the highest savings. Additionally, if a given participant completed both lighting and non-lighting projects, the evaluation team prioritized sampling the non-lighting project. Lastly, we limited the sample to participants with available email addresses. Based on this approach, the resulting sample included 854 unique contacts: 836 associated with lighting projects and 18 associated with non-lighting projects.

Survey outreach started in February 2025 and continued through April 2025. Participants received an initial survey invitation, up to three follow-up emails, and one final text message reminder. As presented in Table 2, we received 40 valid responses (i.e., participant responses that passed screening and equipment verification questions), for a response rate of 5% among all respondents.<sup>4</sup> Of those 40 responses, 39 were associated with lighting projects and one was associated with a non-lighting project, resulting in a 5% response rate for lighting projects and a 6% response rate for non-lighting projects. In total, respondents accounted for 4% of the total electric energy savings relative to the population.

<sup>&</sup>lt;sup>3</sup> https://www.icc.illinois.gov/docket/P2023-0761/documents/344226/files/601129.pdf

<sup>&</sup>lt;sup>4</sup> We received 42 total responses, but one respondent associated with a lighting project did not pass the screening criteria and another respondent with a non-lighting project offered constantly conflicting answers that the evaluation team deemed unreliable. Both responses were excluded from the FR analysis and the results presented in Table 2. Opinion Dynamics

### Table 2. Representation of Savings in Sample and Survey Completes by End-Use

| Find the     | Population (Sample Frame) <sup>a</sup> |                                  | Sample |  | Completed Surveys |                        |                                   |
|--------------|--|----------------------------------|--------|--|-------------------|------------------------|-----------------------------------|
|              | n                                      | Total Electric Energy<br>Savings | n      | % of Electric<br>Energy Savings <sup>b</sup> | n                 | % of<br>Participants ° | % of Electric<br>Energy Savings b |
| Lighting     | 1,328                                  | 38,153,576                       | 836    | 74%  | 39                | 3%                     | 4%                                |
| Non-Lighting | 41                                     | 1,559,736                        | 18     | 68%  | 1                 | 2%                     | 3%                                |
| Total        | 1,369                                  | 39,713,312                       | 854    | 73%  | 40                | 3%                     | 4%                                |

<sup>a</sup> The sample frame represents the number of projects and savings associated with those projects available in the population, including multiple projects associated with an individual participant.

<sup>b</sup> Percentage of energy savings associated with projects captured in the sample and survey responses, relative to the total energy savings for the population.

° Relative to the population

## CORE NON-RESIDENTIAL FREE RIDERSHIP PROTOCOL

The evaluation team estimated FR using the methodology prescribed in the IL-TRM V13.0, Attachment A. In this methodology, FR is defined as the average of two FR sub-scores: the Program Influence (PI) FR Score and the Counterfactual (CF) FR Score, which can be further modified by applying a quantity and timing adjustment if applicable. We calculated these two FR sub-scores based on responses to an overall program influence question, and a scenario-based counterfactual question and a likelihood counterfactual question, respectively. Due to the structure of the SBDI channel, vendor (i.e., registered trade ally) recommendations were also considered as a program factor for all participants and, in addition to rating overall program influence, respondents rated the influence of their interactions with the vendor on their decision to complete their energy-saving project rather than a less efficient alternative. The evaluation team used the maximum influence score across the vendor influence and overall program influence questions (or equivalently, the minimum FR scores derived from those questions) to calculate the Efficiency FR Score, in accordance with IL-TRM guidance. Together, these questions gauged the relative influence of the channel, the influence of the vendor recommendations, and the likelihood of comparable outcomes in the absence of the channel. Additional details on the three sub-scores, how they are calculated, and any applicable adjustments are provided in Appendix A.

The SBDI channel Participant FR algorithm is graphically depicted in Figure 1. Per the algorithm, the evaluation team calculated an Efficiency FR Score for each respondent by averaging their PI FR Score, as derived from the overall program influence question and the vendor influence question, and the CF FR Score.<sup>5</sup> We then multiplied the Efficiency FR Score by a Quantity and Timing (Q&T) Adjustment value, which we calculated based on participant responses to questions related to the scope and timing of their energy-saving project in the absence of the channel.<sup>6</sup> The resulting final FR value is measured on a scale of 0 to 1, where 0 means the participant is a non-free rider and 1 means the participant is a full free rider.

<sup>6</sup> Additional details on the Q&T Adjustment values and how they are calculated is provided in Appendix A. Opinion Dynamics

<sup>&</sup>lt;sup>5</sup> The evaluation team employed several consistency check questions to determine if the PI FR Score, VI FR Score, and CF FR Score should be weighted equally in the calculation of the Efficiency FR Score.

Figure 1. Small Business Direct Install Participant Free Ridership Algorithm



The evaluation team calculated the SBDI channel FR score for electric energy savings as the average of respondents' individual FR scores, weighed by the energy savings associated with their project.

## NTG RESULTS BY END-USE

The evaluation team calculated the final SBDI channel NTGRs for electric energy savings as 1 – FR. Table 3 summarizes the FR and NTGR results by end-use and channel.

| End-Use      | Number of<br>Completes | % of<br>Participants<br>Covered in<br>Survey ª | % of Electric<br>Energy Savings<br>Covered in<br>Survey <sup>a</sup> | Electric Energy Savings |                  |
|--------------|------------------------|--|--|-------------------------|------------------|
|              |                        |  |  | FR                      | NTGR<br>(1 – FR) |
| Lighting     | 39                     | 3%   | 4%   | 0.095                   | 0.905            |
| Non-Lighting | 1                      | 2%   | 3%   | 0.650                   | 0.350            |
| Total        | 40                     | 3%   | 4%   | 0.111                   | 0.889            |

Table 3. Small Business Direct Install Channel Electric Savings NTG Results by End-Use

<sup>a</sup> Relative to the population.

## APPENDIX A. PARTICIPANT FREE RIDERSHIP DETAILED ANALYSES

## **FREE RIDERSHIP SUB-SCORES**

The following sections detail how the participant survey captured participant FR sub-scores (including extracts from the survey instrument) and any adjustments made to sub-scores due to inconsistencies in responses. Throughout these sections, we will refer to the SBDI channel as the Small Business Direct Install program or "the program" to align with the language used in the survey instrument.

### **PROGRAM INFLUENCE FR SCORE**

The first section of the survey reminded respondents of the energy-saving measures/equipment included in the energyefficiency project they completed through the Small Business Direct Install program at a given facility and in a given time frame.

Next, the survey prompted respondents to think about the reasons why their business decided to complete their energysaving project, whether they consulted with a contractor or vendor regarding the planning and execution of their project and the selection of the equipment, and who the most influential actor was in identifying and recommending their project. We also asked some additional questions regarding the circumstances surrounding the respondent's participation in the program, specifically, whether they learned about the program before or after finalizing the details of their project, and whether their business ever received incentives from an AIC offering prior to completing the project in question. These questions were meant to remind participants of the context around their project prior to answering the FR-related questions, as well as to provide the evaluation team with more information about the factors that went into the participant's decision-making process. S1. Our records indicate that <PARTICIPANT\_BUSINESS> participated in the Small Business Direct Install Program for a project completed at <PARTICIPANT\_ADDRESS> in <PARTICIPANT\_CITY>, Illinois around <COMPLETION\_DATE>. Are you the best-informed person at your company regarding your company's work with Ameren Illinois' Small Business Direct Install Program to accurately answer questions regarding the decision-making process behind your participation in the program?

1. Yes

- 2. No, someone else is more informed about my company's participation
- 98. My company did not participate in the program [TERMINATE 1]

#### [ASK IF S1=2; THEN TERMINATE 2; DO NOT FORCE RESPONSE]

- S2. Who at your company is most familiar with your participation in the Small Business Direct Install Program? [OPEN-END]
- S3. This survey will focus on the project you completed through the Small Business Direct Install Program around <COMPLETION\_DATE>. [IF INSTALLEDBOTH = 1: "Program records indicate your project included both refrigeration and lighting equipment. For the purposes of this survey, please only think about the refrigeration equipment installed as part of your project."] Your energy-saving project involved <PROJECT\_DESCRIPTION>. Does this align with your understanding of your company's participation in the Small Business Direct Install Program?
  - 1. Yes
  - 2. No [TERMINATE 3]
  - 98. Unsure [TERMINATE 3]

Moving forward, we will refer to the project you completed through the Small Business Direct Install Program as your "energysaving project". **[IF INSTALLEDBOTH = 1:** "Again, please only think about the refrigeration equipment installed as part of your project when answering our questions."] We are interested in hearing about your experience participating in the Small Business Direct Install Program, and how it influenced your decision to complete your energy-saving project.

Q1. Please briefly describe why your company chose to complete the energy-saving project in the first place. [OPEN-END]

Q1a. And why did your company choose to complete an energy-saving project through the Small Business Direct Install Program? [OPEN-END]

- Q2. Did you consult with <PROGRAM\_ALLY\_NAME>, a vendor or contractor associated with the program, in the planning or implementation of your energy-saving project?
- 1. Yes
- 2. No
- 98. Unsure
- Q3. Who was most influential in identifying and recommending the energy-efficient elements of your energy-saving project? [RANDOMIZE 1-4]
- 1. Me
- 2. Someone else at my company
- 3. <PROGRAM\_ALLY\_NAME>
- 4. An Ameren Illinois representative
- 0. Other, please specify: [OPEN-END]
- 98. Unsure
- Q4. Did you learn about the Small Business Direct Install Program before or after finalizing the details of your energy-saving project (including selecting the exact equipment that would be installed)?
- 1. Before
- 2. After
- 98. Unsure
- Q5. Prior to completing this energy-saving project, had <PARTICIPANT\_BUSINESS> participated in or received incentives from an Ameren Illinois program for another energy-efficient project?
- 1. Yes
- 2. No
- 98. Unsure

### **PROGRAM INFLUENCE**

Next, participants reviewed a list of program elements that may or may not have influenced their decision to complete their energy-saving project. This list identified key components of the program designed to directly influence participant decision-making. The list was included to prime participants to think about the various elements of their participation that may have influenced their decision to complete their energy-saving project and prepared them for the mention of such influence in subsequent questions.

The next few questions ask about the role the Small Business Direct Install Program played in your decision to complete your energy-saving project.

When thinking about the Small Business Direct Install Program, please consider the following program elements:

- The program incentive of \$<INCEN\_AMT> (paid to <PROGRAM\_ALLY\_NAME> and passed through to you)
- Interactions with <PROGRAM\_ALLY\_NAME>, a vendor or contractor associated with the Small Business Direct Install Program
- The energy assessment completed at your facility
- Information from the Small Business Direct Install Program materials, application, and energy assessment report
- Interactions with an Ameren Illinois representative, including an Energy Advisor or Key Account Executive
- [SHOW IF Q5=1] Previous experience with an Ameren Illinois program

The survey captured program influence by asking respondents about the influence of all applicable program elements on their decision to complete their energy-saving project.

[DISPLAY THE LIST OF PROGRAM ELEMENTS ABOVE AND Q6 ON THE SAME SCREEN] Q6. Overall, how influential was the Small Business Direct Install Program (including the program elements listed above) in your decision to complete your energy-saving project—rather than a less efficient alternative?

The evaluation team calculated each participant's Program Influence FR Score as PI FR SCORE = 1 - (Q6/10).

### **VENDOR INFLUENCE**

In accordance with the IL-TRM, the evaluation team determined that the Small Business Direct Install program has a qualifying trade ally network that includes pre-approved, registered trade allies who are an integral component of program delivery and who receive program-sponsored training. As such, vendor recommendations are considered a program factor because all participants would have interacted with a registered trade ally prior to completing the project in question as part of the channel participation requirements. The survey captured vendor influence by asking respondents how much their interaction with their vendor influenced their decision to complete their energy-saving project.

Q7. And thinking specifically about your interactions with <PROGRAM\_ALLY\_NAME>, how much did those influence your decision to complete your energy-saving project – rather than a less efficient alternative?

The evaluation team calculated each participant's Vendor Influence FR Score as VI FR SCORE = 1 - (Q7/10).

### FINAL PROGRAM INFLUENCE FREE-RIDERSHIP SCORE

As outlined in the IL-TRM, the evaluation team used the minimum of the PI FR Score and the VI FR SCORE – or equivalently, the maximum influence score of Q6 and Q7—as the final score used to calculate the Efficiency FR Score.

### **COUNTERFACTUAL FR SCORE**

The evaluation team assessed the CF FR Score by asking respondents to consider how their decision to complete their energy-saving project would have differed if the Small Business Direct Install program had not been available. We first asked respondents to consider what alternative action they would have taken in the absence of the program.

The next questions are going to ask you to think about what you would have done regarding your energy-saving project if the Small Business Direct Install Program had not been available.

Again, when thinking about the Small Business Direct Install Program, please consider the following program elements:

- The program incentive of \$<INCEN\_AMT> (paid to <PROGRAM\_ALLY\_NAME> and passed through to you)
- Interactions with <PROGRAM\_ALLY\_NAME>, a vendor or contractor associated with the Small Business Direct Install Program
- The energy assessment completed at your facility
- Information from the Small Business Direct Install Program materials, application, and energy assessment report
- Interactions with an Ameren Illinois representative, including an Energy Advisor or Key Account Executive
- [SHOW IF Q5=1, "Previous experience with an Ameren Illinois program"]

Q8. If the Small Business Direct Install Program had not been available, which of the following alternatives would you have most likely done?

- 1. I would have completed the same exact energy-saving project
- 2. I would have installed equipment of the same efficiency level, but on a smaller scale or at a later time
- 3. I would have installed lower-efficiency equipment
- 4. I would not have completed the energy-saving project at all
- 5. I would have done something else: [REQUIRED OPEN-END]

Depending on the respondent's answer to Q8, the survey prompted them to clarify the likelihood of two different outcomes in the absence of the program:

- If the respondent answered that they would have decided to complete the same exact energy-saving project or that they would have decided to complete the same energy-saving project in terms of efficiency, but on a smaller scale or at a later time, the survey prompted the respondent to indicate the likelihood that they would have decided to complete a less energy-efficient project than they did through the program (or no energy-saving project at all).
- If the respondent answered that they would have decided to complete a less energy-efficient project, decided not to complete the energy-saving project at all, or done something else, the survey prompted them to indicate the likelihood that they would have decided to complete the exact same energy-saving project (in terms of energy efficiency) as they did through the program.

#### [ASK IF Q8=1 OR 2]

Q9. You responded that if the Small Business Direct Install Program had not been available, you most likely <INITIAL\_CF>. Thinking about it in another way, if the program had not been available, what is the likelihood that you would have installed LOWER-EFFICIENCY equipment than what you did through the program (or completed no energy-saving project at all)?

#### [ASK IF Q8=3, 4, OR 5]

Q10. You responded that if the Small Business Direct Install Program had not been available, you most likely <INITIAL\_CF>. Thinking about it in another way, if the program had not been available, what is the likelihood you would have installed equipment of the **SAME EFFICIENCY** level as you did through the program?

The evaluation team calculated each participant's Counterfactual FR Score as:

- If Q8 = 1 or 2: CF FR SCORE = 1 (Q9/10)
- If Q8 = 3, 4, or 5: CF FR SCORE = Q10/10.

### CONSISTENCY CHECKS

We asked respondents to answer consistency check questions if their PI FR Score or VI FR Score contradicted their CF FR Score. In alignment with the IL-TRM, this contradiction was defined as (1) a PI FR Score or VI FR Score greater than 0.6 (suggesting high FR) and CF FR Score less than 0.4 (suggesting low FR), or (2) a PI FR Score or VI FR Score less than 0.4 (suggesting low FR) and CF FR Score greater than 0.6 (suggesting high FR).<sup>7</sup>

We also asked respondents a timing consistency check question if they (1) reported learning about the program after finalizing the details of their energy-saving project and (2) had a PI FR Score less than 0.4, VI FR Score less than 0.4, and/or CF FR Score less than 0.4 (all of which suggest low FR).

### PROGRAM INFLUENCE CONSISTENCY CHECK

If the PI consistency check was triggered, respondents answered one of two questions regarding the program's influence on their decision to complete their energy-saving project, depending on the direction of the inconsistency.

### IASK IF PI FR SCORE<0.4 AND CF FR SCORE>0.61

Q11. When asked how influential the Small Business Direct Install Program was on your decision to complete your energy-saving project (rather than a less efficient alternative) you provided a response of <Q6 RESPONSE>, suggesting the program was highly influential. However, your responses to the questions regarding what you would have done if the program had not been available suggest that you would have installed equipment of the same efficiency level as you did through the program regardless of the program's availability.

In your own words, can you describe how the program did or did not influence your decision to complete your energy-saving project? [OPEN-ENDED RESPONSE]

### [ASK IF PI\_FR\_SCORE>0.6 AND CF\_FR\_SCORE<0.4]

012. When asked how influential the Small Business Direct Install Program was on your decision to complete your energy-saving project (rather than a less efficient alternative) you provided a response of <Q6 RESPONSE>, suggesting the program was not influential. However, your responses to the questions regarding what you would have done if the program had not been available suggest that you would have installed lower-efficiency equipment (or no energy-efficient equipment at all) in the absence of the program.

In your own words, can you describe how the program did or did not influence your decision to complete your energy-saying project? [OPEN-ENDED RESPONSE]

To add additional clarification, respondents also answered a straightforward, binary question as to whether the program did or did not positively influence their decision to complete their energy-saving project.

[ASK IF (PI\_FR\_SCORE<0.4 AND CF\_FR\_SCORE>0.6) OR (PI\_FR\_SCORE>0.6 AND CF\_FR\_SCORE<0.4)]

- Q13. Overall, did the Small Business Direct Install Program positively influence your decision to complete your energy-saving project?
- Yes 1.
- 2. No

The evaluation team used the responses to the PI consistency check questions to contextualize the respondent's scores and determine which of their scores-the PI FR Score or CF FR Score-more accurately aligned with what they described.

<sup>&</sup>lt;sup>7</sup> The IL-TRM suggests the use of 0.3 and 0.7 as the threshold to trigger consistency check questions; however, the evaluation team implemented a wider range (0.4 and 0.6) to gather additional context from respondents whose scores were on the initial limits and adjust their scores to more accurately represent what they describe in their consistency check responses. **Opinion Dynamics** 

### VENDOR INFLUENCE CONSISTENCY CHECK

If the VI consistency check was triggered, respondents answered one of two questions regarding the vendor's influence on their decision to complete their energy-saving project, depending on the direction of the inconsistency.

### [ASK IF PI\_FR\_SCORE>PA\_FR\_SCORE AND (PA\_FR\_SCORE<0.4 AND CF\_FR\_SCORE>0.6)]

Q14. When asked how influential your interactions with <PROGRAM\_ALLY\_NAME> were on your decision to complete your energy-saving project, you provided a response of <Q7 RESPONSE>, suggesting that your interactions with <PROGRAM\_ALLY\_NAME> were highly influential. However, your responses to the questions regarding what you would have done if the program (including your interactions with <PROGRAM\_ALLY\_NAME>) had not been available suggest that you would have installed equipment of the same efficiency level as you did through the program regardless of the program's availability.

In your own words, can you describe how your interactions with <PROGRAM\_ALLY\_NAME> did or did not influence your decision to complete your energy-saving project? [OPEN-ENDED RESPONSE]

#### [ASK IF PI\_FR\_SCORE>PA\_FR\_SCORE AND (PA\_FR\_SCORE>0.6 AND CF\_FR\_SCORE<0.4)]

Q15. When asked how influential your interactions with <PROGRAM\_ALLY\_NAME> were on your decision to complete your energy-saving project, you provided a response of <Q7 RESPONSE>, suggesting that your interactions with <PROGRAM\_ALLY\_NAME> were **not influential**. However, your responses to the questions regarding what you would have done if the program (including your interactions with <PROGRAM\_ALLY\_NAME>) had not been available suggest that you would have **installed lower-efficiency equipment (or no energy-efficient equipment at all)** in the absence of the program.

In your own words, can you describe how your interactions with <PROGRAM\_ALLY\_NAME> did or did not influence your decision to complete your energy-saving project? [OPEN-ENDED RESPONSE]

To add additional clarification, respondents also answered a straightforward, binary question as to whether the vendor did or did not positively influence their decision to complete their energy-saving project.

## [ASK IF PI\_FR\_SCORE>PA\_FR\_SCORE AND ((PA\_FR\_SCORE<0.4 AND CF\_FR\_SCORE>0.6) OR (PA\_FR\_SCORE>0.6 AND CF\_FR\_SCORE<0.4))]

Q16. Overall, did your interactions with <PROGRAM\_ALLY\_NAME>, a vendor or contractor associated with the Small

Business Direct Install Program, positively influence your decision to complete your energy-saving project?

1. Yes 2. No

The evaluation team used the responses to the VI consistency check questions to contextualize the respondent's scores and determine which of their scores—the PI FR Score or CF FR Score—more accurately aligned with what they described.

### PROGRAM/VENDOR INFLUENCE CONSISTENCY CHECK OUTCOMES

Of the 40 respondents, five triggered the PI consistency check questions, and none triggered the VI consistency check questions. The evaluation team compared each respondent's PI FR Score to their CF FR Score, and their VI FR Score to their CF FR Score, as applicable. The evaluation team then used the additional context from the consistency checks to identify if, within each PI FR Score/CF FR Score and VI FR Score/CF FR Score combination, there was sufficient evidence to suggest that one score more accurately reflected the program's level of influence and should therefore be weighted more heavily in calculating the respondent's Efficiency FR Score. For respondents whose scores were consistent or whose consistency checks did not suggest one score was a more accurate reflection than the other, their scores were weighted equally. After weighing the respondent's scores accordingly, the evaluation team then determined which combination of weighted scores—the weighted PI FR Score and its corresponding weighted CF FR Score. Just

calculating the minimum between the PI FR Score and the VI FR Score, now that these scores were weighted relative to their corresponding CF FR Score, would not always result in the most accurate reflection of program influence. Therefore, the evaluation team used the combination of weighted scores that would result in the lower Efficiency FR Score, and calculated the Efficiency FR Score as the sum of (1) the weighted PI FR Score or weighted VI FR Score and (2) the corresponding weighted CF FR Score.

### TIMING CONSISTENCY CHECK

If the timing consistency check was triggered, respondents answered one of two questions related to clarifying when they learned about the program (relative to finalizing the details of their energy-saving project) and the influence of the program or vendor on their decision to complete their energy-saving project.

#### [ASK IF Q4=2 AND (PI\_FR\_SCORE<=PA\_FR\_SCORE) AND (PI\_FR\_SCORE<0.4 OR CF\_FR\_SCORE<0.4)]

Q17. When asked when you learned about the program relative to finalizing the details of your energy-saving project, you indicated that **the details of your energy-saving project were finalized before you learned about the program.** 

However, you [IF PI\_FR\_SCORE<0.4, "provided a response of <Q6 RESPONSE> for how influential the program was on your decision to complete your energy-saving project"] [IF PI\_FR\_SCORE<0.4 AND CF\_FR\_SCORE<0.4, "and"] [IF CF\_FR\_SCORE<0.4, "provided responses that suggest you would have installed lower-efficiency equipment (or no energy-efficient equipment at all) if the program had not been available"], suggesting the program was highly influential.

In your own words, can you describe **when** you learned about the program relative to finalizing the details of your energysaving project, and how the program did or did not influence your decision to complete your energy-saving project? **[OPEN-ENDED RESPONSE]** 

### [ASK IF Q4=2 AND (PI\_FR\_SCORE>PA\_FR\_SCORE) AND (PA\_FR\_SCORE<0.4 OR CF\_FR\_SCORE<0.4)]

Q18. When asked when you learned about the program relative to finalizing the details of your energy-saving project, you indicated that **the details of your energy-saving project were finalized before you learned about the program.** 

However, you **[IF PA\_FR\_SCORE<0.4,** "provided a response of <Q7 RESPONSE> for how influential your interactions with <PROGRAM\_ALLY\_NAME>, a vendor or contractor associated with the program, were on your decision to complete your energy-saving project"] **[IF PA\_FR\_SCORE<0.4 AND CF\_FR\_SCORE<0.4,** "and"**] [IF CF\_FR\_SCORE<0.4,** "provided responses that suggest you would have installed lower-efficiency equipment (or no energy-efficient equipment at all) if the program had not been available"], suggesting the program (including your interactions with <PROGRAM\_ALLY\_NAME>) was **highly influential.** 

In your own words, can you describe **when** you learned about the program relative to finalizing the details of your energysaving project, and how your interactions with <PROGRAM\_ALLY\_NAME> did or did not influence your decision to complete your energy-saving project? **[OPEN-ENDED RESPONSE]** 

The evaluation team used the responses to the timing consistency check questions to contextualize the participant's responses, determine whether they had finalized project details prior to learning about the program, and decide if either the PI FR Score, VI FR Score, or CF FR Score needed to be modified.

Of the 40 respondents, one participant triggered the timing consistency check questions. Based on the respondent's answers, the evaluation team concluded they had not finalized all the details of their project before learning about the program; therefore, their previous FR scores remained unchanged.

### **QUANTITY AND TIMING ADJUSTMENT**

The Quantity and Timing (Q&T) adjustment is a multiplicative factor that decreases the Efficiency FR Score if the respondent indicated that the program expedited all or some of the scope of their energy-saving project. In the Q&T

survey section, we asked respondents to consider if they would have completed the full scale of their energy-saving project at the same time they did (i.e., around the same time they participated in the program) had the program not been available.8

Respondents who indicated they would have scaled down their project without the program were asked what percentage of the total scale of their project they would have completed at the same time they did through the program. We also asked these respondents if they would have completed the remaining portion of their project at a later time, and if so, how much later relative to when they completed their project through the program. Participants who indicated they would not have completed any part of their energy-saving project at the same time they did through the program, had the program not been available, were asked if they would have completed the entirety of their project at a later time. If respondents indicated they would have completed the project at a later time, they were asked how much later relative to when they completed it through the program.

<sup>&</sup>lt;sup>8</sup> Respondents did not receive the Q&T section of the survey if their existing PI FR Score, VR FR Score, and CF FR Score would result in a FR value of 0, as their final FR value could not be decreased any further. **Opinion Dynamics** 

### [IF TOT\_FR\_SCORE=0 AND CF\_FR\_SCORE=0, SKIP TO SATISFACTION SECTION]

### [ASK IF QUANTITY > 1]

Q19. Please think about the **number of units** included in your energy-saving project and the **timing** of your energy-saving project when answering the following questions. [IF INSTALLEDBOTH = 1: "Remember to only focus on the refrigeration equipment you installed when thinking of your energy-saving project."].

If the Small Business Direct Install Program had not been available, which of the following would you have done **around** <COMPLETION\_DATE> (i.e., **at the same time as you did through the program**)?

- 1. I would have installed the same number of units of the energy-efficient equipment around <COMPLETION\_DATE> [SKIP TO SATISFACTION SECTION]
- 2. I would have installed fewer units of the energy-efficient equipment around <COMPLETION\_DATE>
- I would not have installed any units of the energy-efficient equipment around <COMPLETION\_DATE> [SKIP TO Q22a]
   Unsure [SKIP TO SATISFACTION SECTION]

### [ASK IF Q19=2]

Q20. Thinking about the total number of units included in your energy-saving project around <COMPLETION\_DATE>, what percentage of those units would you have installed **at the same time you did** (i.e., around the same date) without the Small Business Direct Install Program? *Please provide your response as an estimated percentage*. **[0-100 NUMERIC RESPONSE; 998=Unsure]** 

### [ASK IF Q20<100]

Q21. If the Small Business Direct Install Program had not been available, would you have installed the **remaining** <100 - Q20 RESPONSE>% of those units of the energy-efficient equipment at a later time?

- 1. Yes
- 2. No
- 98. Unsure

### [ASK IF Q19=3]

Q22a. You indicated that if the Small Business Direct Install Program was unavailable, you would not have installed any units of the energy-efficient equipment at the time you did. Would you have installed the energy-efficient equipment at a later time or never have installed the energy-efficient equipment?

- 1. Would have installed the energy-efficient equipment at a later time
- 2. Would never have installed the energy-efficient equipment

98. Unsure

### [ASK IF QUANTITY = 1]

Q22. If the Small Business Direct Install Program had not been available, would you have completed your energy-saving project at the same time (i.e., **around** <COMPLETION\_DATE>) or at a later time?

- 1. Same time
- 2. Later
- 98. Unsure

### [ASK IF Q21=1 OR Q22a=1 OR Q22=2]

Q23. Which date range represents your best estimate of when you would have [IF Q21=1, "installed the remaining <100 - Q20 RESPONSE>% of units of the energy-efficient equipment"] [IF Q22a=1, "installed the energy-efficient equipment"] [IF Q22=2, "completed the energy-saving project"] if the Small Business Direct Install Program had not been available? *Please answer relative to the date that you actually completed the project*.

- 1. Within 6 months
- 2. Between 6 months 1 year
- 3. Between 1 2 years
- 4. 2 years or more
- 96. I would not have installed the energy-efficient equipment at all
- 98. Unsure

The Q&T Adjustment value could range from 0 to 1 and could only reduce the final FR value. The Timing Adjustment was calculated using a midpoint of the date range selected by the respondent, also known as the "number of months expedited." The midpoint was estimated within a time frame between six months and two years, consistent with IL-TRM guidance, and was calculated using the following formula:

### 2 - year Time Horizon Adjustment = 1 - (Number of Months Expedited - 6)/18

Table 4 provides details on the Timing Adjustment values corresponding to the date ranges respondents could choose from.

| Participant Survey Response                   | Timing Adjustment<br>(2-year Time Horizon Adjustment) |
|---|---|
| Within 6 months                               | 1.0   |
| Between 6 months - 1 year                     | 0.83  |
| Between 1-2 years                             | 0.33  |
| 2 years or more                               | 0   |
| I would not have completed the project at all | 0   |
| Don't know                                    | 1 - (Average Number of Months Expedited - 6)/18       |

Four respondents selected "Unsure" when asked whether, in the absence of the program, they would have completed the remaining percentage of their energy-saving project at a later time. Three additional respondents who indicated they would not have done any part of their project at the same time as they had through the program if it were not available indicated they were "Unsure" if they would have *ever* completed the project, or would have completed it later. Lastly, one respondent was "Unsure" about how much later they would have completed the remaining percentage of their energy-saving project in the absence of the program when presented with different time ranges. For these eight respondents, the evaluation team used the average number of months expedited to calculate the Timing Adjustment.<sup>9</sup>

The evaluation team calculated the final Q&T Adjustment value for each participant using the following formula:

### *Q&T Adjustment* = (% *Not Installed at the Same Time \* Timing Adjustment*) + % *Installed at Same Time*

Respondents who reported that, in the absence of the program, they would have completed the full scale of their energy-saving project at the same time they did through the program or that they were otherwise unsure what they would have done in the absence of the program, received a Q&T Adjustment of 1. This means that their FR value remained the same (i.e., was not reduced). Respondents who indicated that they never would have completed their energy-saving project in the absence of the program received a Q&T Adjustment of 0, meaning that their FR value would then also be 0. Finally, one respondent did not qualify for the Q&T Adjustment based on their responses to Q19; however, they triggered the PI consistency check question, and their response to the CF scenario-based question suggested an influence of the program incentive on the quantity and/or timing of the project. Therefore, the evaluation team decided to apply an average Q&T Adjustment value for this respondent.

<sup>&</sup>lt;sup>9</sup> The average number of months expedited was 20.18 for electric energy savings. Opinion Dynamics