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Participant NEI Updates

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Prepared For:
ComEd and SAG NEI Working Group



Agenda



01

**Project Overview and
Schedule**

02

Progress Update

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Methods Update

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Closing and Questions



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Participant NEI Project Overview and Schedule

Guidehouse is researching participant non-energy impacts (NEIs) in ComEd's Income-Eligible (IE) Programs



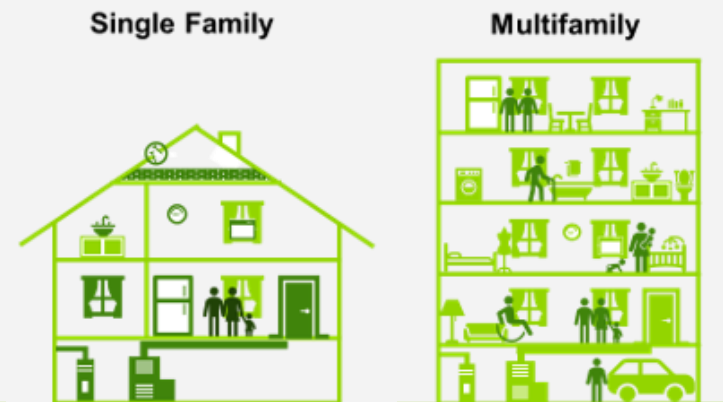
Single Family Energy Savings – CBA and IHWAP*



Multifamily Energy Savings - Income Eligible, Public Housing, and IHWAP*

Home energy upgrades include:

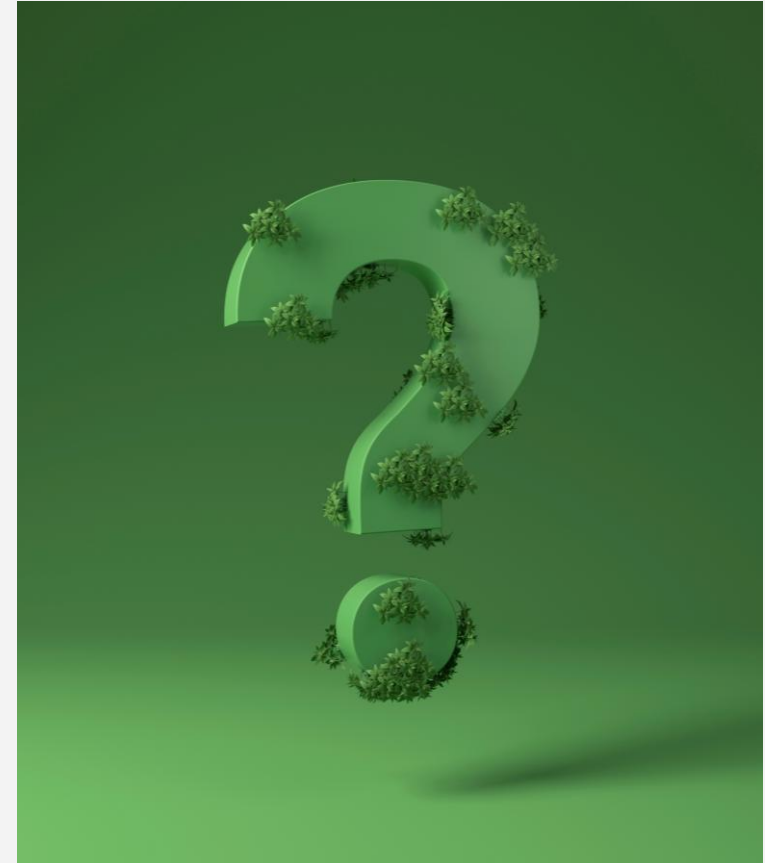
- HVAC system upgrades and replacements
- Energy efficient room air conditioners and refrigerators
- Smart thermostats and advanced power strips
- Energy efficient water heaters
- Low-flow faucet aerators
- Boiler replacement and tune ups
- Steam trap testing, repair and replacement
- Variable speed motor drives
- Air sealing and insulation
- Health and safety measures necessary to make the energy upgrades



Understanding Participant NEIs

What is an NEI?

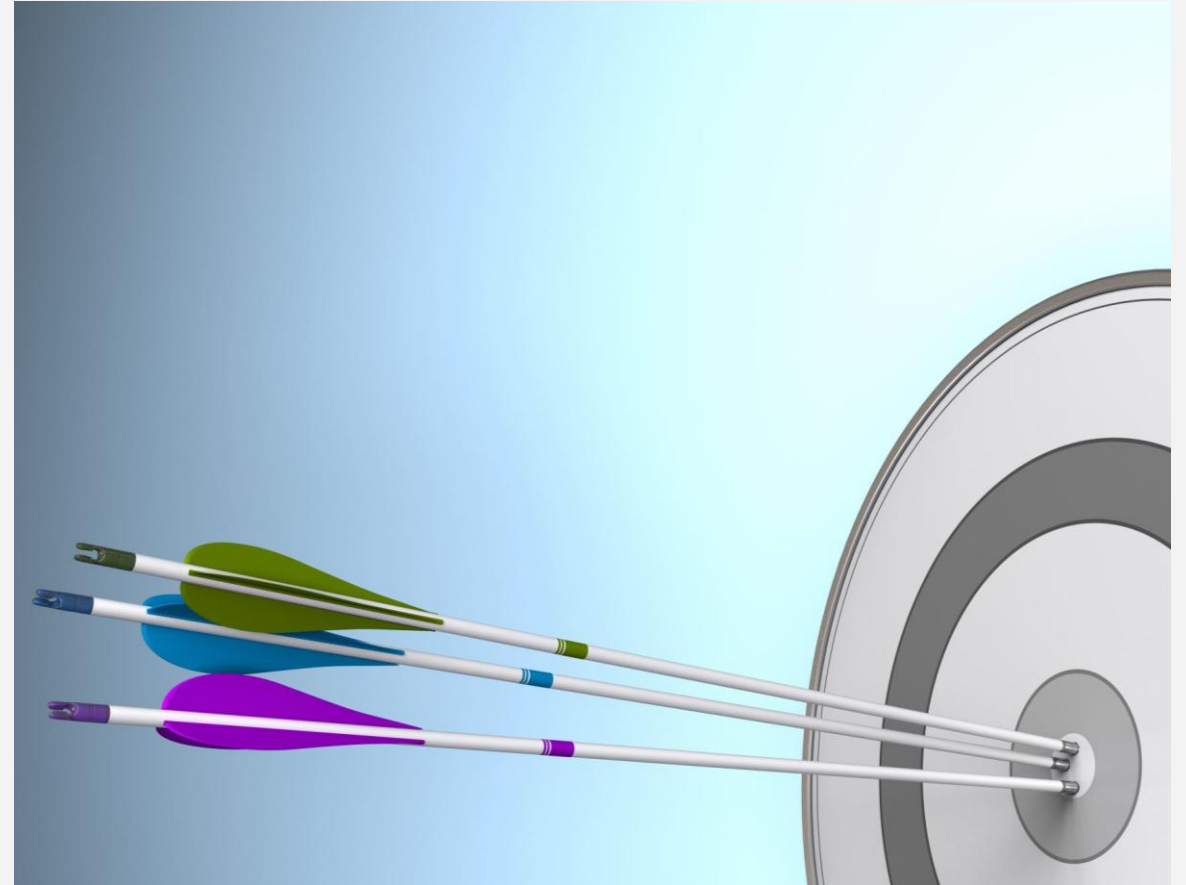
A Non-Energy Impact (NEI) refers to the additional benefits or outcomes that occur as a result of energy efficiency improvements, beyond just energy savings. These can include health, comfort, financial, and operational advantages that participants experience after upgrades.



Our Research Goal

Through pre- and post-upgrade surveys with participants and interviews with property managers, our research seeks to **identify, measure, and assign value to these NEIs**. By doing so, we aim to:

- Capture improvements in health, comfort, and productivity
- Quantify cost savings and other benefits that enhance overall program value
- Strengthen cost-effectiveness tests for energy efficiency programs by including these broader impacts



Evaluating Participant NEIs

Anticipated Participant NEIs

- ✓ Reduced medical costs associated with asthma and arthritis, and from improvements to air sealing, insulation, and HVAC
- ✓ Fewer missed days of work
- ✓ Less reliance on loans for household necessities
- ✓ Reduced O&M costs for multifamily buildings



Participant NEI Research: Ongoing and Evolving

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Research Planning and Survey/Interview Instrument Development	Active	Active	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Single Family IE Pre-Survey	Completed	Completed	Active	Active	Active	Active	Active	Completed	Completed
Single Family IE Post-Survey	Completed	Completed	Completed	Active	Active	Active	Active	Active	Completed
Multifamily IE Pre-Survey	Completed	Completed	Active	Active	Active	Active	Active	Active	Completed
Multifamily IE Post-Survey	Completed	Completed	Completed	Completed	Active	Active	Active	Active	Active
Building Owner and Property Manager Interviews	Completed	Completed	Active	Active	Completed	Completed	Completed	Completed	Completed
Data Analysis and Monetization	Completed	Completed	Completed	Active	Active	Active	Active	Active	Active

Participant NEI Multifamily Survey Distribution Efforts

Our research approach for multifamily participants has evolved over time to address and overcome survey distribution challenges. Additional updates were made in 2025 and are covered later in this presentation.

2020

- Q1 – Guidehouse Presentations to Implementation Contractor (IC) on Multifamily (MF) survey card distribution

2021

- Q2 – MF pre-survey distribution begins via IC leave behind
- Q4 – MF pre-survey cards mailed to tenants
- Q4 – Posters hung in common area as reminder of survey

2022

- Q1 – Home Energy Savings Retrofits (IHWAP) Community Action Agencies (CAA) kick-off
- Q2 – MF post-survey distribution begins
- Q1-Q4 – Survey reminder cards mailed to potential participants

2023

- Q1 – Mailing of survey invitation and reminder cards stops due to returned cards (i.e. unable to be delivered)
- Q2 – Leave behind survey invitations mailed to community organization offices for distribution

2024

- Q1 – Guidehouse MF survey distribution Training with ComEd Energy Efficiency Service Providers (EESPs)
- Q1 – Franklin training and campaign to increase MF survey responses; Franklin hand delivered 900 survey invitation cards through March 31, 2024



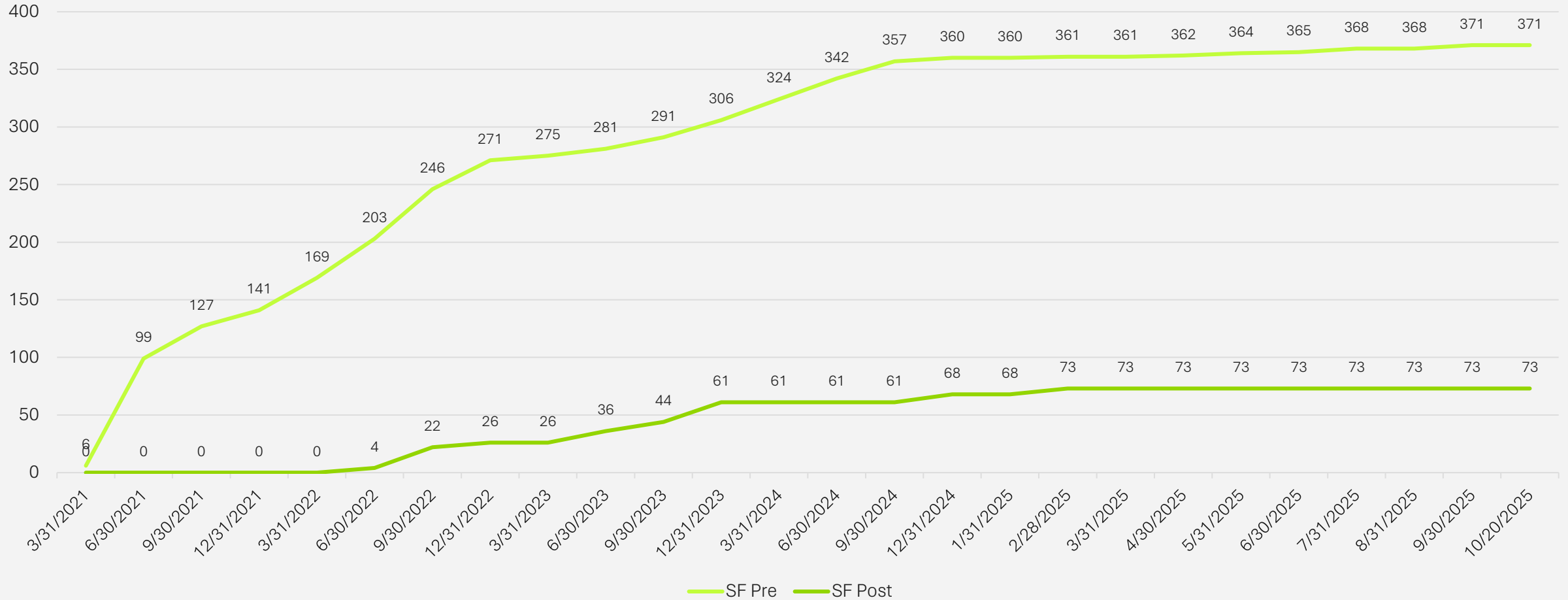
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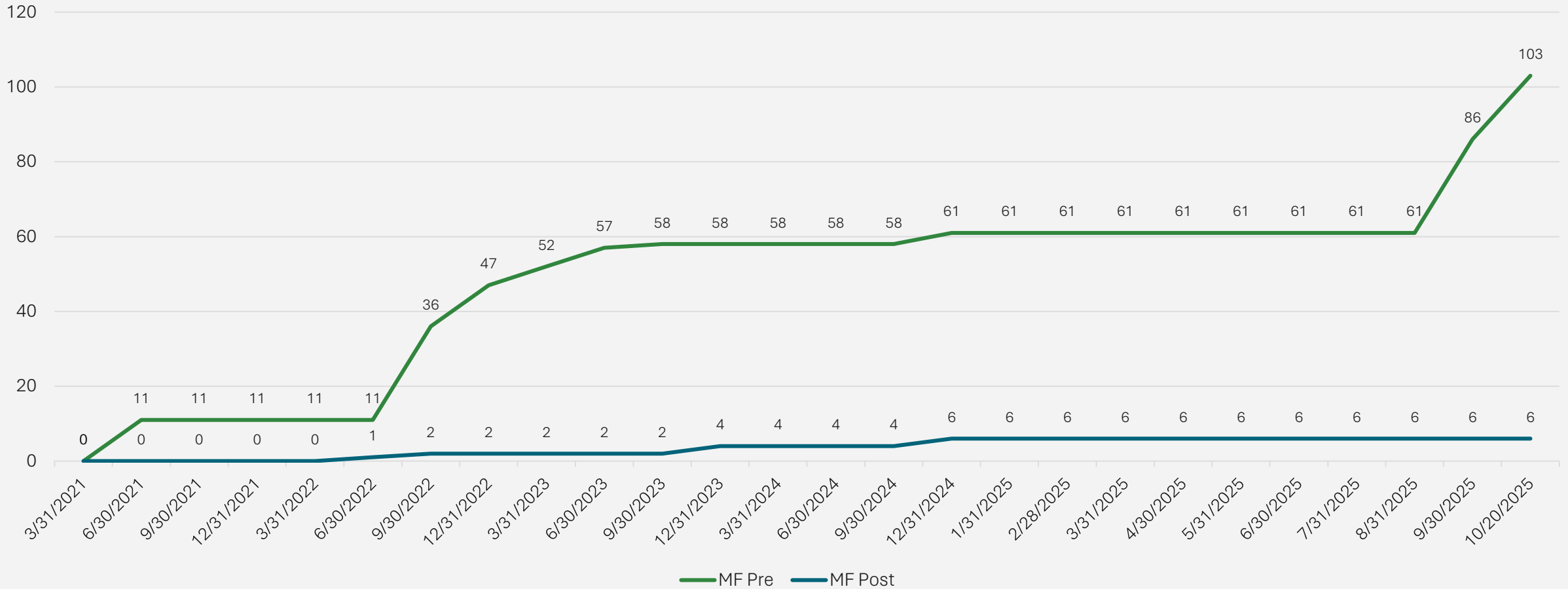


Participant NEI Progress Update

Participant NEI Survey Status: Single Family





Participant NEI Survey Status: Multifamily



Participant NEI Survey Statistics: Single Family Baseline


In 4+ years of data collection, respondents reported cases of asthma, arthritis, and thermal stress (n= 347 completed/allowable partially completed surveys)


 **83** households with asthma


 **174** households with arthritis

90 adults  **14** children

204 adults  **2** children

 **65%**
of households used an emergency inhaler at least once in the last year


 **63%**
of households with arthritis went to urgent care or their doctor at least once in the last year

 **35-45%** of households struggled to pay energy bills, their mortgage, medical expenses, or food expenses over the past 12 months

Participant NEI Survey Statistics: Multifamily Baseline


In 4+ years of data collection, respondents reported cases of asthma, arthritis, and thermal stress (n= 75 completed/allowable partially completed surveys)


 **12** households with asthma


 **17** households with arthritis

13 adults  **2** children

19 adults  **2** children

 **100%**
of households with asthma used an emergency inhaler at least once in the last year

 **30%**
of households with arthritis went to urgent care or their doctor at least once in the last year

 **25-35%** of households struggled to pay energy bills, their mortgage, medical expenses, or food expenses over the past 12 months



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Participant NEI Methods Update

Survey Instrument Update

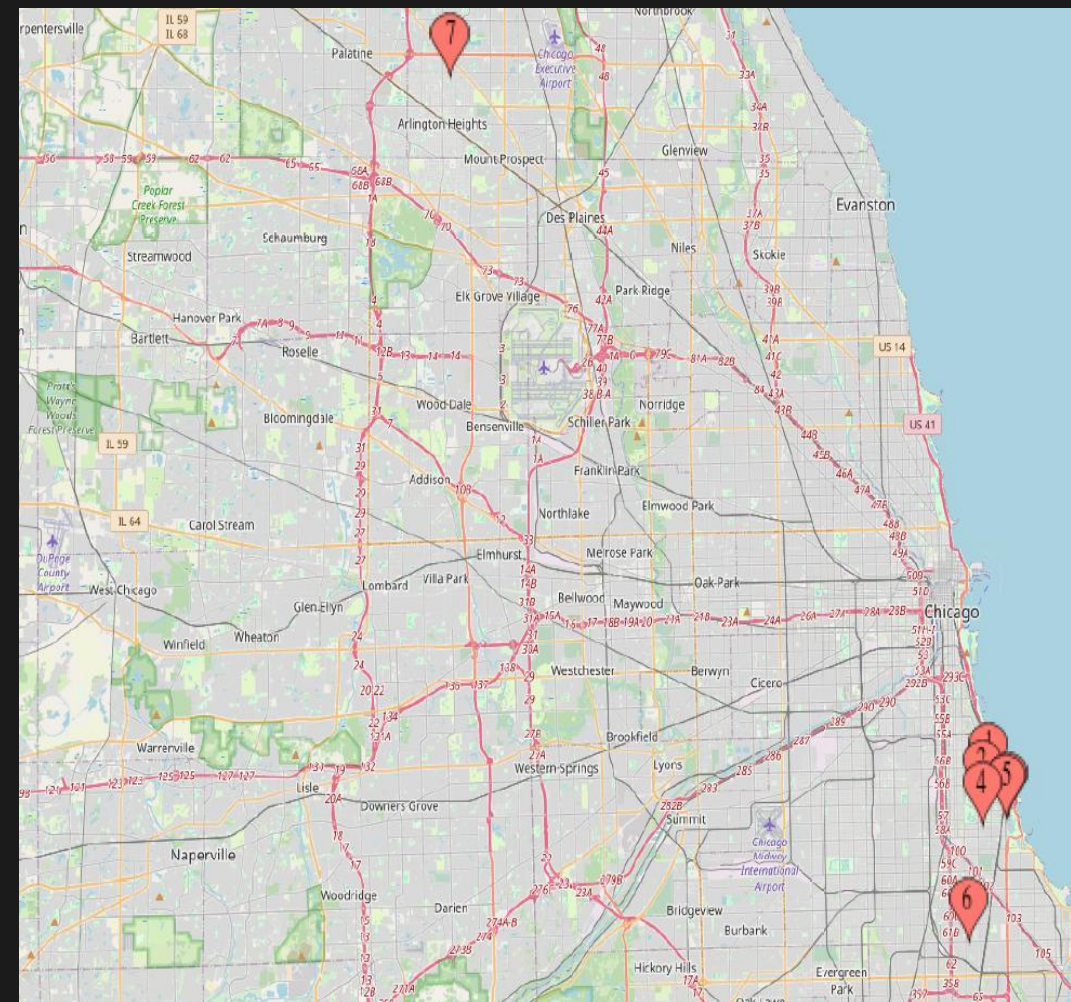
In 2025, Guidehouse implemented several modifications to the pre- and post-surveys to improve response rates and reduce survey burden and complexity

- Removed questions exclusively tied to heat or cold stress conditions
 - These conditions lag significantly behind asthma and arthritis for reported cases amongst participants due to low incidence and are difficult to monetize.
- Removed questions exclusively related to Covid-19 due to less relevance.
- Added a screening question to the pre survey for both SF and MF to ask if the participant is planning to move within the next 12 months and screen these respondents out.
- Increased survey incentive from \$25 to \$75



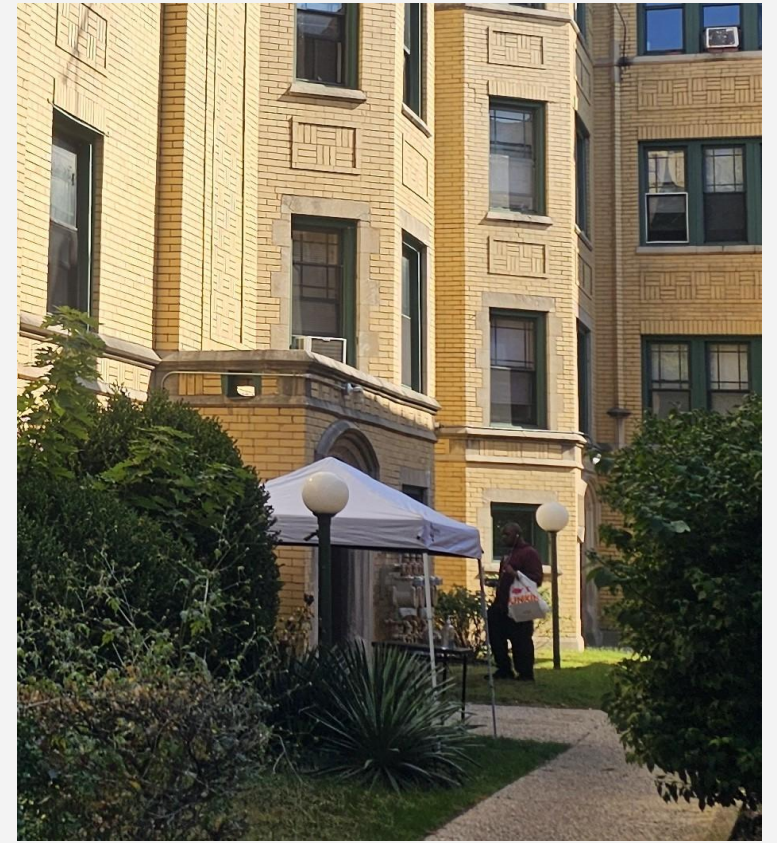
High Touch Methodology for Multifamily Tenants

- Guidehouse worked with ComEd and implementation contractor Franklin Energy to design multifamily in-person survey events that would better engage potential respondents
- Through several working sessions, event siting criteria, timeline, protocol, and materials were designed to engage multifamily tenants to take the survey.
- Site events at seven multifamily properties were conducted in September and October 2025



Multifamily In-Person Events

Franklin Energy, the implementation contractor, and Utilivate, on behalf of the Evaluation Team, conducted in person events at several sites in Sept and Oct 2025



Multifamily In-Person Survey Events

Contractor	Date	Location	Number of Units
Franklin Energy	September 10 th	4455 S Greenwood	43
Franklin Energy	September 15 th	515 Circle Hill	140
Franklin Energy	September 23 rd	4850 S Drexel – Paramour	42
Franklin Energy	September 29 th	5120 S Hyde Park	41
Utilivate	October 3 rd	8015 S Vernon Ave	14
Franklin Energy	October 9 th	5043 S Drexel (Drexel Terrace)	25
Franklin Energy	October 20 th	5202 S Cornell Ave	27

Next Steps

PARTICIPANT NEI RESEARCH

Two main tasks remain to complete Participant NEI research

- Complete data collection and survey fielding
- Analyze survey responses and conduct monetization analysis

DATA COLLECTION

- In Person events to collect multifamily pre-survey responses are ongoing and have successfully improved response rates.
- Guidehouse will send reminders to multifamily pre-survey respondents at 3, 6, and 9 months to maintain engagement.
- Additional approaches may be used to boost responses to the survey, such as mailing post cards directly to tenants
- Surveys will be fielded until we reach 80 responses per condition of interest (Asthma and Arthritis) are collected across both multifamily and single-family cohorts.

SURVEY ANALYSIS AND MONETIZATION

- In 2026, Guidehouse will begin working with single family survey data to update and refine the analysis plan, including adjustments to monetization values.
- Data collection is expected to be conclude in June 2027, with results available by December 2027.
 - Preliminary results from the single-family cohort will be complete may be ready in early 2027, as data collection for that group will finish before multifamily.



Thank You

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