



To: Erin Daughton ComEd, Elizabeth Horne, ICC
CC: Jeff Erickson, Natasha Herring, Parini Shah, Guidehouse, Mike Frischmann, EcoMetric
From: Theresa Wells, Grace Choi, EcoMetric
Date: August 18, 2025
Re: ComEd Electric Homes New Construction Participant Free Ridership Survey Results

1. Executive Summary

This memo presents findings from the net-to-gross (NTG) study of the ComEd Electric Homes New Construction Program. The participant free ridership (FR) results for this program are estimated according to the FR core non-residential methodology specified in the Illinois Technical Resource Manual (IL-TRM). The team gathered FR information via telephone surveys to participating builders¹ to assess the impact of the program on the decision to pursue energy efficient upgrades. Guidehouse surveyed builders who participated in the program between January 2024 and December 2024.

Table 1 summarizes the Electric Homes New Construction FR research findings based on the participant research. The NTG ratio of 0.96 is for all measures in the program.

Table 1. Net-to-Gross Research Results for Electric Homes New Construction Program

Program	Free Ridership	NTG Ratio
Electric Homes New Construction	0.04	0.96

Source: Evaluation team analysis

2. Free Ridership Research Sample Disposition

EcoMetric and Guidehouse administered the participant survey via telephone. Invitations were emailed to individuals who took part in the Electric Homes New Construction Program between January and December 2024. To maximize response rates, follow-up outreach included additional emails, phone calls, and text messages, with texting prioritized based on builder preferences.

All participants were asked a series of FR questions. To encourage participation, a \$100 incentive was offered to respondents who qualified for and completed the survey. Following the initial invitation, four to five reminder messages were sent via email and phone. Additional outreach efforts were made to participants whose projects contributed significantly to the program's total energy savings. The survey was open from June 18 to August 5, 2025.

¹ In this memo we use the term "participant" to refer to the builders who participant in the program.

Table 2 presents the sample disposition. Note that completes as indicated in these tables also include partial surveys in the event the respondent answered the required questions.

Table 2. Participant Free Ridership Sample Disposition

Population	Total Population of Unique Participants	Target Completes	Actual Completes	Analyzed Completes	Response Rate	Respondent Share of Program Savings (kWh)
Participant	22	10	12	12	55%	34%

Source: Evaluation team analysis.

3. Free Ridership Protocol

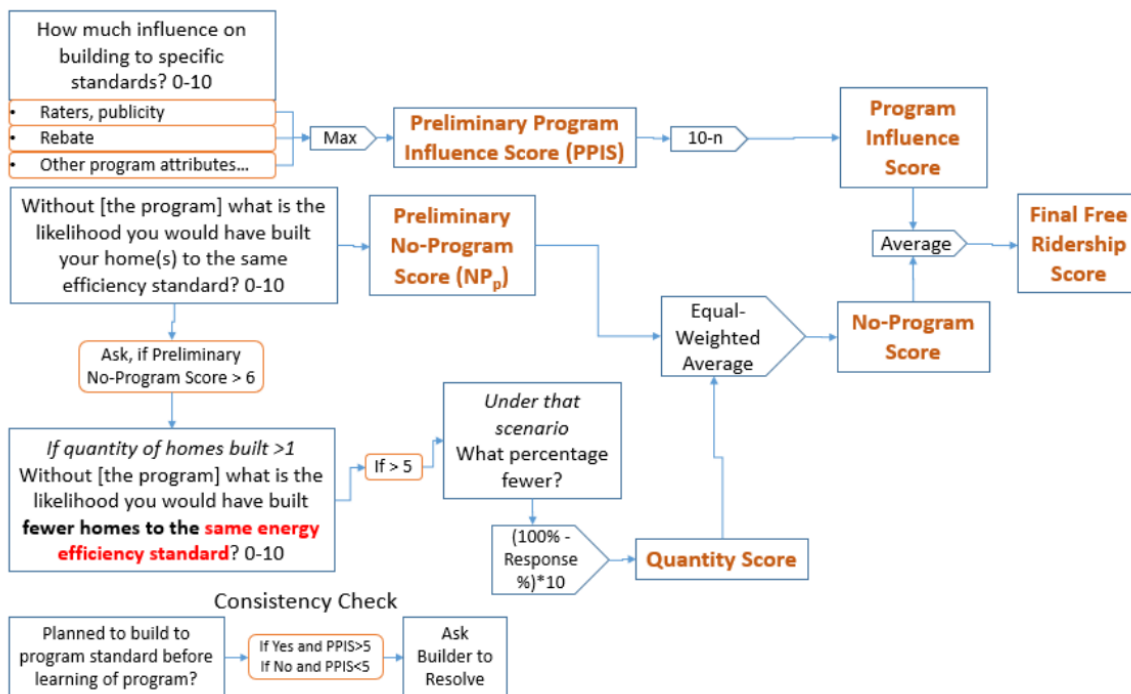
This section presents the free ridership protocols used.

3.1 Participant Free Ridership Estimation

There is no defined electric homes new construction FR algorithm in the IL-TRM. The evaluation team followed *Residential New Construction Free Ridership Protocol* as indicated in the IL-TRM v13.0 under Section 4.8, “Residential New Construction Free Ridership Protocol”. Figure 1 depicts the new construction free ridership algorithm.

Figure 1. Residential Electric Homes New Construction Free Ridership Protocol

Figure 4-12. Residential New Construction Free Ridership



Source: 2025 Illinois Statewide Technical Reference Manual (TRM) for Energy Efficiency Version 13.0, Volume 4: Attachment A, page 90, Figure 4-8: Residential New Construction Free Ridership.

4. Participant Free Ridership Results

Using the protocols detailed above and data collected during the participant surveys, Guidehouse calculated a FR estimate of 0.04 for the program participants.

Table 3. Participant Free Ridership Research Results

Population	Free Ridership
Participant	0.04

Source: Evaluation Team Analysis

4.1 Free Ridership Consistency Check Analysis

The evaluation team checked for consistency in free rider responses by asking respondents to describe in their own words any influence that the program had on their decision to participate in the program, or what they would have done if the program, and its technical assistance and financial incentives, did not exist (see Figure 1).

According to the IL TRM v13.0, Volume 4, Section 4.8.1.3, a program's influence and counterfactual consistency check is triggered when either of the following conditions are met:

1. The Preliminary Program Influence Score (PPIS) is greater than 6, yet the participant planned to meet the same efficiency standard prior to learning of the program

OR

2. The Preliminary Program Influence score is less than 7, and the participant had no plans to meet the same efficiency standard prior to learning of the program

For respondents whose responses triggered consistency checks, the evaluation team reviewed their verbatim responses to determine the weight of the program influence against the counterfactual responses to arrive at a free ridership score.

The evaluation team identified four inconsistent responses and reviewed open-ended comments in relation to each respondent's free ridership score. However, the evidence was not sufficiently robust to justify any adjustments to the free ridership estimates.

4.2 Peer Utility Benchmarking Research

The evaluation team also conducted peer benchmarking research to identify other all-electric residential new construction energy efficiency programs offered by U.S. utilities. While several programs support combined electric and gas residential new construction, only one utility program

met the specific all-electric criteria: the Energize CT Residential New Construction Program². This peer program has recommended a temporary net-to-gross (NTG) ratio of 1.0. This recommendation is due to the high uncertainty in the preliminary estimates. The study faced limitations such as small sample sizes and the recent implementation of the all-electric program, which meant no completed homes were available for evaluation. These factors led to a wide range of NTG values, making it difficult to draw reliable conclusions. Setting the NTG at 1.0 helps avoid false precision until a comprehensive evaluation can be completed.

5. Final NTG Results and Recommendations

The final NTG value is calculated as 1- free ridership, using savings-weighted values from participants using the following formula:

$$NTG = 1 - [(Participant\ FR * Participant\ Weight)]$$

The final recommended NTG is shown in Table 4.

Table 4. Summary of Free Ridership and NTG Results

Program	Free Ridership	NTG Ratio
Electric Homes New Construction	0.04	0.96

Source: Evaluation team analysis

² The memo can be found https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fenergizect.com%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2FCT_R2209_RNC_NTG_UDRH_Results%252BMemo_REVIEW_DRAFT_2024_01_08_CLEAN.docx&wdOrigin=BROWSELINK

Appendix A. Electric Homes New Construction NTG History

Effective Year	Electric Homes New Construction
CY2024	<p>NTG overall program: 0.80</p> <p>NTG Source: Evaluation team literature review, September 2022. Research inconclusive, default value.</p>
CY2025	<p>NTG overall program: 0.80</p> <p>NTG Source: Research planned for 2025. Continued use of default value.</p>
CY2026	<p>NTG overall program: 0.96</p> <p>NTG Source: Free ridership survey conducted on participants from 2024 and analyzed in 2025.</p>

Source: <https://www.ilsag.info/wp-content/uploads/ComEd-NTG-CY2023-Recommendations-Final-2022-09-30.xlsx>