

# Theory-Based Evaluation Approach for Nicor Gas MTI Programs

8/29/2024



Energy  
Efficiency  
Program

# Overall HPW MTI Evaluation Approach

In satisfaction of IL TRM Attachment C, Guidehouse has prepared a theory-based evaluation plan with input from Nicor Gas and the future program implementor, Resource Innovations.

The theory-based evaluation plan was developed to be adaptable to all future initiatives Nicor Gas may wish to operate under the Market Transformation Initiative (MTI) process. At this time, Nicor Gas has submitted to the SAG evaluation plans for both High Performance Windows (HPW) and Residential Gas-powered Heat Pumps (RGHP).

This presentation will provide an overview of two major themes in the evaluation plan: 1) our approach to identifying evaluation activities and MPIs under review for CY2025-2028 and 2) the theory-based evaluation of these activities according to the principles laid out in IL TRM Attachment C.

# Overall HPW MTI Evaluation Approach

The template Evaluation Plan has five sections:

Section	Title	Unique Initiative Details
1	Introduction	✓
2	MPI Assessment	✓
3	Determining MTI Energy Savings	
4	Evaluation of Evidence Gathered	
5	Market Progress Evaluation Report	

# Identifying Evaluation Activities and MPIs

Both the HPW and RGHP evaluation plans are designed to provide an initial plan for evaluation activities proposed for the first four years of the MTIs. The lists of evaluation activities, associated data sources, and MPIs identified for evaluation in CY2025-2028 are preliminary and Guidehouse will also include a detailed overview of the evaluation activities each year in the Annual Evaluation Plan.

Guidehouse used the following steps to create the following tables and those found in the evaluation plans:

- 1) Prioritization of MPIs according to inputs, preceding and dependent MPIs, and associated time periods as laid out in the logic model.
- 2) Cross comparison of expected MPI data sources based on the MPI Table.
- 3) Identified earliest reasonable evaluation year for each MPI based on prioritization and availability of data.
- 4) Proposed timeline for documentation/collection of data sources associated with MPIs.

# Overview of HPW Evaluation Activities

## HPW Initiative Proposed Data Sources for MPI Assessments

Data Source	MPI #	CY2025	CY2026	CY2027	CY2028
Literature Review	I				
Rater Survey	II				
Supplier Survey	II, X				
Builder Survey	III, IV, VI, XII, XIII				
Building Manager/ Owner Survey	IV				
Consumer Survey	V, VI				
E* V7 QPL	VII				
E* Shipment Data Report*	VIII				
Partnership for Advanced Windows (PAWS)*	IX				
Web Search*	X				
ESME Windows Spec	XI				

Note: Collection of data for marked data sources will begin in Fall 2024, but associated MPIs will not be assessed until CY2027 or CY2028.

Source: Guidehouse

## Years of Evaluation for Given MPI, CY2025 – CY2028

MPI #	CY2025	CY2026	CY2027	CY2028
MPI I				
MPI II				
MPI III				
MPI IV				
MPI V				
MPI VI				
MPI VII				
MPI VIII				
MPI IX				
MPI X				
MPI XI				

Source: Guidehouse

# Overview of RGHP Evaluation Activities

## RGHP Initiative Proposed Data Sources for MPI Assessments

Data Source	MPI #	CY2025	CY2026	CY2027	CY2028
NAGHPC documentation	I, II				
NAGHPC and Res HVAC GHP Committee member interviews	II				
Manufacturer Interviews	II, III				
Shipment and/or sales data	II, VI, XI				
QPL document	III				
Utility staff interviews	III, VII, XIII				
Installer survey	V, VI, XI				
Distributor survey	V, VI, XI				
Utility program descriptions, rebate forms, financing applications, and other documents	VII				
Utility program tracking data	VII				
Literature review of regional and North American decarbonization plans/strategies/policies	XIII				
Regional and North American decarbonization policy expert interviews	XIII				
Stakeholder publications (e.g., newsletters, conference presentations)	XIII				

Source: Guidehouse

## Years of Evaluation for Given MPI, CY2025 – CY2028

MPI #	CY2025	CY2026	CY2027	CY2028
MPI I				
MPI II				
MPI III				
MPI V				
MPI VI				
MPI VII				
MPI IX				
MPI XIII				

Source: Guidehouse

# Assessment of Market Progress Indicators

## Evaluation of MPIS

- Guidehouse will report on progress toward goals and objectives described in logic model (LM) and market progress indicators (MPIS) as provided by Resource Innovations, to establish initiative's influence on adoption and compliance in Nicor Gas' territory.
- MPIS which have been classified by the evaluator as "leading," defined here as having demonstrated some measurable progress in the time period under review, will be reviewed against the preponderance of evidence standard.
- Assessment of MPIS requires incorporation of multiple judgments of progress based on preponderance of evidence approach.
  - Qualitative – based on surveys, in-depth interviews or observational data collection
  - Quantitative – based on market share or production data

# Determining MTI Energy Savings

## Measuring the Market

- Nicor Gas has developed a methodology to measure the market based on existing information. Nicor Gas will share the data and output with Guidehouse for assessment of the reasonableness and appropriateness of the results. Details on this methodology are included in the Evaluation Plan to address the use of Total Market Units in the estimate of total net savings.
- Modeling can be undertaken using publicly available census data, Nicor Gas data, and the results of a market characterization survey on windows conducted between 2022 and 2023. However, as more data sources come in, variables can be added or updated.

## Reviewing Natural Market Baseline

- Guidehouse and Nicor Gas will use best available data to determine if any adjustments need to be made to the natural market baseline as a prospective update, including any external factors that could adjust the baseline forecast.



# Evaluation of Evidence Gathered

## Attribution Approach

- The assignment of attribution for leading MPIs based on the HPW MTI impacts for Nicor Gas and its implementer will begin prior to the submission of the annual evaluation plan.
- The relative influence of each MPI under review in a given evaluation year will take into consideration the expected impact of each MPI and its associated activities as well as any delays in MPI development. The annual evaluation plan will translate the relative influence of the MPIs into an initial weighting approach for the given evaluation year. The initial weighting approach will be documented in the annual evaluation plan.
- The relative weight of each leading MPI will be taken into consideration in defining the final Attribution Factor.
- Overall, the assessment will determine whether the savings associated with the MTI, based on the Energy Savings Framework, will be attributed to the MTI as a binary (yes/no) recommendation.

# Next Steps

- Review the documents by deadline by September 19, 2024
- Depending on type of feedback, we will consider meeting again with MTI working group.