



# EM&V RESEARCH OVERVIEW FOR THE CONSUMERS ENERGY COMMERCIAL & INDUSTRIAL PORTFOLIO






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# Summary of Research

In July 2021, Consumers Energy **submitted 23 reports** to the Michigan Public Service Commission as part of Case No. U-20865, including **evaluations of 19 Consumers Energy C&I programs**. The types of evaluations submitted to the MPSC include:

-  Twelve Pilot Evaluation Reports and Presentations
-  Seven Impact and Process Evaluation Reports
-  One C&I Market Characterization Study Report
-  Two Cross-cutting Research Studies
-  One Annual Savings Certification Report

# What's Interesting?

**Are there any topics that the EWR Collaborative would like to see covered in more depth?**

As we review the submitted documents, please type into the Comments section any specific studies that you would like to see discussed in more detail at a future EWR Collaborative meeting.



# Pilot Evaluation Research

TRC conducted **11 evaluations of pilot programs** for Consumers Energy for the 2020 program year. These pilot evaluations are a part of the three-year pilot life cycle and include:



The development of  
**Program-Theory  
Logic Models** of the  
program



Early evaluation of the  
**program performance**

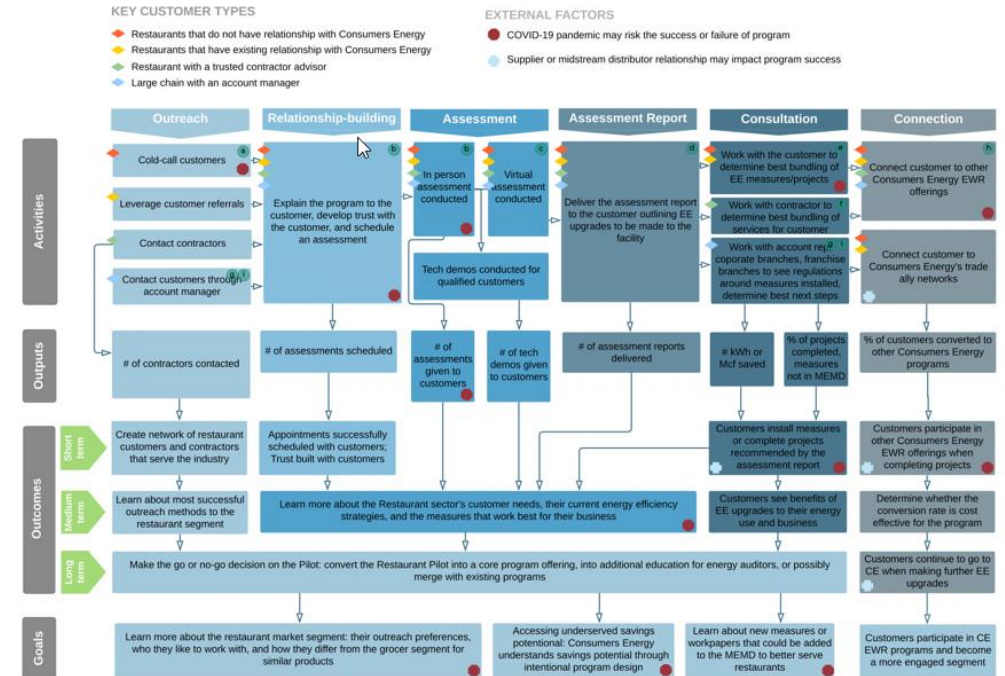


Primary and secondary  
research on opportunities  
for **program  
improvement**

# Pilot Evaluation Research

Logic models are visual models of what a **program intends to accomplish in its implementation** through the program theory. This includes the outputs, outcomes, and program goals.

## Example Logic Model



**WHY IT MATTERS:** Logic models are built early in a pilot's lifecycle to quickly understand gaps in the program theory and design, which leads to a more successful implementation of a pilot.

# Pilot Evaluation Research

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Pilot Evaluation Documents with **logic models** include:

- **Non-Wires Solutions Four Mile** Pilot Program Evaluation Report
- **Retro-Commissioning** Pilot Logic Model Memo
- **Restaurant** Pilot Logic Model Memo
- **Student Led Audit** Pilot Logic Model Memo
- **Telecom** Pilot Logic Model Memo

# Pilot Evaluation Research

As pilots launch, we conduct participant research or peer utility research to **assess the pilot's performance and identify improvements for future implementation** as programs move to a full-scale market offering.

## Example Pilot Findings



### LESSON LEARNED: PROVIDE TECHNICAL EXPERTISE

All respondents provided very positive feedback about the technical assistance provided by Commercial Real Estate Pilot staff.

★ **Lesson Learned: Technical expertise is an asset for the commercial real estate sector. Some ways to embed this in the program model could be to:**

- Design reports and recommendations for diverse audiences, including:
  - Tenant
  - Property Managers with a technical background
  - Property Manager without a technical background
- Follow-up often with participants often and ensure key decision-makers are aware and engaged.

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# Pilot Evaluation Research

Pilot Evaluation Documents with **participant and peer utility research** include:

- **Non-Wires Solutions Four Mile** Pilot Program Evaluation Report
- **Green Revolving Fund** Pilot Participant Interviews Memo
- **Call Center and Energy Coaching** Pilot Research Presentation
- **Commercial Real Estate** Pilot Participant Interviews Presentation
- **Customer Training** Pilot Research Results Presentation
- **Zero Net Energy** Pilot Guidebook Design Review Presentation
- **Zero Net Energy** Pilot Key Performance Indicator Review Presentation



# Impact and Process Evaluations

Impact and process evaluations are evaluations of programs to **assess program performance** and **establish program successes and improvements**. These can include participant research and peer utility research. TRC conducted evaluations for the following programs:

- **Business Energy Analysis:** Participant surveys
- **Business Solutions:** Participant surveys and usability testing
- **Midstream:** Nonparticipant interviews and peer utility research
- **Small Business Assessments:** Participant surveys
- **Small Business Trade Ally Program:** Participant surveys
- **ENERGY STAR Program:** Program benchmarking and design review

Note that, due to COVID-19, we did not conduct any on-site impact evaluations in 2020, focusing on billing analysis, desk review, and engineering analysis.

# Market Characterization

In 2019 and 2020, the TRC team conducted a Market Characterization study to evaluate the **current market penetration, saturation, and efficiency levels** for different technologies for Consumers Energy's C&I customers.

To conduct this research, TRC completed the followings research activities:

- **On-site research** to understand actual penetration and saturation
- **Quantitative surveys with customers** to understand barriers to technology implementation

# Cross-cutting Research

Throughout the year, TRC provides cross-cutting research to the Consumers Energy Portfolio to **inform program design and emergent topics**. In 2020, TRC conducted the following research for the overall EWR portfolio:

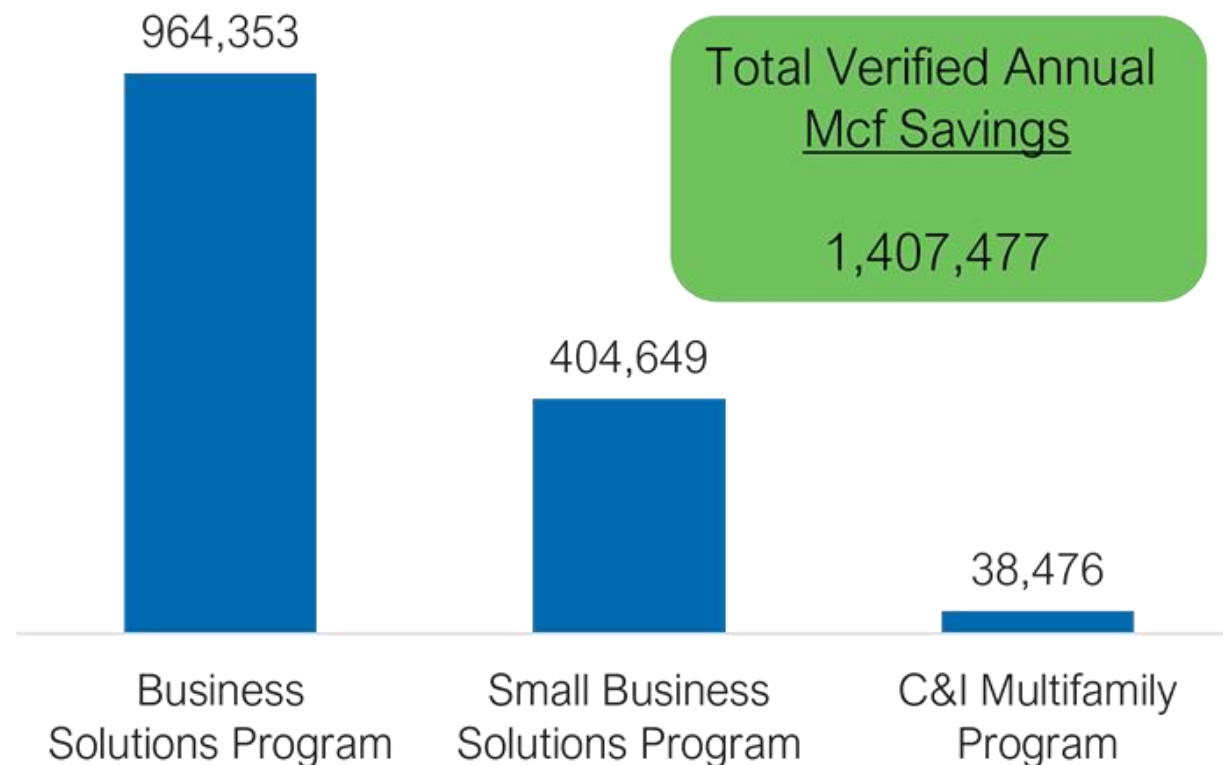
- **Multifamily Account Identification:** TRC provided data analysis to help identify the Consumers Energy accounts that were in multifamily buildings to help better target this segment.
- **Smart Thermostats Guidance:** TRC identified the best practices for smart thermostats in commercial settings, including assessing the level of support needed by Consumers Energy staff when installing smart thermostats.



**WHY IT MATTERS:** These emergent research priorities include research applicable across the portfolio, which lead to improvements in a wide variety of programs.

# Annual Certification of Savings

Each year, TRC conducts a **certification of Consumers Energy's reported savings**. The savings are reviewed according to the values in the Michigan Energy Measures Database (MEMD) and reported to the MPSC to verify the program's success in achieving savings.



***Thank You***

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