



Preponderance of Evidence for ESRPP

SAG MT Savings Working Group

February 14, 2023



Agenda

- Brief overview of ENERGY STAR Retail Products Platform
- What is Preponderance of Evidence (PoE)
- Data Sources
- PoE Determination
- Discussion

Overview of ESRPP

- ENERGY STAR® Retail Products Platform (ESRPP) is a market transformation initiative
- **Focus:** Asks retailers to take a more comprehensive view of energy-efficient products and providing retailers with incentives to change their inventories to sell more ENERGY STAR certified products.
 - Motivate retailers to use their buying power with manufacturers to pull efficient appliances into the market
 - Use aggregate influence of program sponsors to accelerate appliance standards and test procedures
- ComEd joined in Q2 CY2020 and provides midstream incentives for top-loading clothes washers and refrigerators

What is PoE

ESRPP

Attachment C Language on Preponderance of Evidence

A preponderance of evidence approach, rather than proof is most often required. It is important to note that “preponderance of evidence” does not require that all indicators show overwhelming evidence of programmatic influence, but rather that multiple indicators show consistent direction. This information can be qualitative (based on in-depth interviews or observational data collection) or quantitative (based on market share or production data).

PoE and ESRPP

- Research and preponderance of evidence need to be developed for each MT initiative.
- In collaboration with the Program Administrator and stakeholders, the evaluation team is tasked with determining this key research question for ESRPP.
 - Does the evidence suggest that the activities undertaken, and incentives provided by ComEd are influencing the sales of efficient appliances above what would occur in their absence?
 - **Is the Program working as intended?**
- Determination of PoE fits into the annual evaluation report
 - Measure of the bigger picture to judge if the program is moving the market
 - Different, but complementary to the quantitative analysis of savings above the natural market baseline

PoE Inputs

ESRPP

CY2022 Available Data

- Two main inputs used in the 2022 evaluation include Market Progress Indicators (MPIs) and Sales Data
- Guidehouse completed MPI Review memo in July 2022, utilizing MPERs and retailer interviews
 - MPI I
 - MPI III-4
 - MPI V
 - Non-Participating Retailer Stocking
- Sales data analysis to verify 2022 impacts

2023 Activities to Support PoE

- The goals of evaluation are to gather additional data to support further substantiating PoE and continue to refine the ESF.
- Several key research activities in 2023
 - Expert Judgement Panel
 - Participating Retailer Interviews
 - Longitudinal Web Scraping
 - Sales Data Analysis
 - MPI Assessments
- Guidehouse will update the ESRPP 8-year evaluation plan and provide task-specific memos to allow for detailed review and comment.

Expert Judgement Panel

- Panel of 3-7 industry experts who are given data, program resources, and other supporting information and asked to provide expert opinions on several key topics.
 - **Topic 1:** Insights on MPIs, and if there are key areas missing from current list or logic models
 - **Outcomes:** Revisions to logic models or MPI lists, modifications to specific data sources for MPIs, establishing additional data sources to evaluate MPIs.
 - **Topic 2:** Suggested improvements to program design to better influence retailers and supply chain
 - **Outcomes:** Considerations for future incentive changes, potential adjustments to incentivized configurations, additional program activities to support existing or new MPIs.
 - **Topic 3:** Opinions on natural market baselines and energy savings framework
 - **Outcomes:** Inclusion of additional data or factors for natural market baseline, modifications to future forecasts, recommendations for future research to refine the NMB
 - **Topic 4:** Interactions between participating and non-participating retailers
 - **Outcomes:** Alterations to the fraction of non-participating retailer sales credited to ESRPP

Expert Judgment Panel

- Guidehouse will moderate and recruit the expert panel. Targeting Q2 2023
- Guidehouse, in coordination with ComEd, will develop list of specific research questions and asks of the panel.
 - Each question(s) will be mapped to a specific research goal
 - Guidehouse will outline how results from the panel will be used to update ESF, MPIs, or recommendations for program improvements.

Participating Retailer Interviews

During 2022, the participating retailers provided some feedback regarding Scope 3 emissions and how they may be influencing decisions and company practices.

- The upcoming participating retailer interviews in 2023 provide an opportunity to gather further insights on this topic
- Guidehouse will participate in NEEA's ESRPP Evaluation Committee to provide input on participating retailer questions
 - Help develop specific questions to ask retailers about Scope 3 emissions and their relative importance among other factors in determining product assortment
 - Review responses to determine if MPIs or ESF should be updated to account for additional driving factors.

Longitudinal Web Scraping

- The Guidehouse team is completing longitudinal web scraping by pulling data from participating and non-participating retailer websites.
- The data include model numbers, brand types, model types, descriptions, price, availability status, dimensions, and a flag if the appliance is ENERGY STAR® qualified.
- Goal is to test and verify if non-participating retailers have similar stocking practices, and if they adjust stocking practices congruently over time.
- Guidehouse will include web scraping results in a supplemental memo and CY2023 evaluation report.

Sales Data Analysis

- The quantitative analysis of appliance sales data available through the ESRPP data portal
 - Market share of incented and non-incented units
 - Total sales volumes within participating retailers
 - Savings by appliance and efficiency tier
 - Comparison of sales, market shares, and savings to the natural market baseline

Market Progress Indicators

MPI	Timing	Outcome	Market Progress Indicator	Data Sources
I	Short-term	Program achieves sufficient scale of program sponsors, customers, and incentive budgets to influence retailer decision-making.	Portion of US households in ESRPP areas and the related total value of all program sponsor incentive budgets.	<ul style="list-style-type: none"> EIA-861 Utility Dataset ESRPP program documents
III	Short-term	Data platform enables effective program operations processes .	<ol style="list-style-type: none"> Data access and accuracy are sufficient to support product-by-product analysis and participation in the ENERGY STAR specification process. Speed with which incentives are paid Number of corrections or data errors Program sponsor confidence in program operations process 	<ul style="list-style-type: none"> Longitudinal tracking of data quality indicators available through the data portal (MPIs 1-3) Longitudinal tracking of RPP engagement with ENERGY STAR revision process (MPI 1) Qualitative evidence from ENERGY STAR stakeholder interviews (MPI 1) Quantitative evidence from program sponsor interviews (MPI 4)

Market Progress Indicators

MPI	Timing	Outcome	Market Progress Indicator	Data Sources
IV	Short-term	Reliable market share and portfolio management informs program design and evaluation.	<ol style="list-style-type: none"> 1. Efficient and transparent portfolio management process 2. Annual savings process and evaluation are efficient and verifiable. 	<ul style="list-style-type: none"> • Quantitative evidence from program sponsors interviews (MPIs 1-2) • Quantitative evidence from RPP staff interviews (MPIs 1-2)
V	Short/med-term	Retailers and merchants incorporate incentives into their assortment and marketing decision-making process.	Retailer consideration of ESRPP qualification in assortment and marketing decisions	<ul style="list-style-type: none"> • Quantitative and qualitative evidence from retailer interviews • Quantitative evidence from RPP staff communication • Quarterly presentations and information provided by retailers to ESRPP

Market Progress Indicators

MPI	Timing	Outcome	Market Progress Indicator	Data Sources
VI	Short/med-term	Increase in ENERGY STAR (or higher tiers) market share for RPP product categories at Participating and Non-Participating Retailers	Market share ESRPP qualified product tiers	<ul style="list-style-type: none"> Longitudinal tracking of market share and product assortments Web scraping of retailer web sites
VII	Short/med-term	Reliable per-unit energy savings value for RPP product categories	Number of product categories (bins, tiers, configurations) with reliable energy savings values	<ul style="list-style-type: none"> Longitudinal tracking of measure planning documentation and methodologies

PoE Determination

ESRPP

Evaluators Determine PoE

- Guidehouse will use MPIs and sales data analysis to make a **binary determination** as to whether the preponderance of evidence supports the initiative's savings claim
 - Straightforward
 - Avoids arbitrary, retrospective adjustments
 - Limits potential ability to account for market changes immediately
- Alternative approach would use a scaled approach
 - Adds flexibility to make critical adjustments sooner
 - Increases uncertainty in estimates since a scale is quantified based on numerous qualitative inputs
- Evaluators will outline the PoE determination in the annual evaluation report

PoE Tied to Logic Model and Natural Market Baseline

- Results from the PoE evaluation may indicate opportunities to refine program strategy and revise the program logic model
- Results from may also indicate additional research is needed or shed light on new market factors that need to be addressed in the natural market in the future.
 - **When indicated, the evaluation team will recommend reopening the energy savings framework to account for new factors.**
- Adjustments would apply prospectively to align with the energy savings frameworks, and avoids potentially arbitrary, retrospective adjustments

Future PoE Considerations

- Additional research is likely going to be required in the future as initiatives evolve
- The evaluation team will outline proposed PoE research activities within the evaluation plan each year

Questions and Comments

Rachel Marty

Associate Director, Guidehouse

rachel.marty@guidehouse.com

Jason Christensen

Senior Associate, Cadmus

Jason.Christensen@cadmusgroup.com

Mike Frischmann

Vice President, EcoMetric

mike@ecometricconsulting.com

Ryan Wall

Senior Consultant, Guidehouse

ryan.wall@guidehouse.com

