

2019 Q2

Market Research and Evaluation Quarterly Newsletter

IMPORTANT UPDATES:



What's New!

In early 2018, NEEA staff launched the Market Research Online Community (MROC) pilot to determine if this methodology would support efficient research of certain market actors through online discussions and ongoing market research activities. The goal was to test the platform in order to assess if it enabled us to uncover market insights more quickly and at a lower cost than through other market research efforts.

We learned a great deal about the strengths and limitations of this type of platform and have concluded that while the online research platform itself offered a variety of options for market research, the community maintenance component is not an effective way to uncover market insights for the target markets NEEA requires. The residential MROC wrapped up at the end of January, and the commercial MROC is in the process of winding down. Over the next few months, NEEA staff will continue to test the use of the platform for commercial programs using on-line discussion and polling opportunities but will cease recruiting new community members and discontinue fielding more intensive (and costly) research efforts, such as surveys and structured group discussions.

TABLE OF CONTENTS

At a Glance	2
Residential	3
Commercial	8
Natural Gas	12
Stock Assessments	13
Contact	14



Questions about this report may be addressed to:
Dulane Moran, Principal, Research and Evaluation
dmoran@neea.org

***PLANNING:** MRE projects from inception through proposal selection

***FIELDING:** MRE projects from kick-off through the completion of field work

***REPORTING:** MRE projects in the analysis/synthesis stage through report posting

At a Glance

MARKET RESEARCH & EVALUATION PROJECTS

Residential

	PLANNING*	FIELDING*	REPORTING*
 Ductless Heat Pumps		✓	
Heat Pump Water Heaters		✓	
Manufactured Homes	✓		
Next Step Homes		✓	
Residential Code	✓		✓
Residential Lighting Data Collection and Analysis			✓
Retail Product Portfolio			✓
Super-Efficient Dryers	✓		
Washington New Residential Code Study	✓		
 Commercial Code Enhancement		✓	
Commercial Window Attachments	✓		
Extended Motor Products		✓	
High Performance HVAC			✓
Luminaire Level Lighting Controls	✓		
Reduced Wattage Lamp Replacement			✓
Oregon Commercial Code Evaluation			✓
Washington Commercial Code Evaluation		✓	
 Natural Gas - Commercial - Rooftop Units		✓	
Natural Gas - Water Heating and HVAC			✓
 Commercial Building Stock Assessment		✓	

Commercial

Natural Gas

Stock Assessments

PLANNING: MRE projects from inception through proposal selection

***FIELDING:** MRE projects from kick-off through the completion of field work

***REPORTING:** MRE projects in the analysis/synthesis stage through report posting



Residential

PLANNING

Manufactured Homes

NEEA staff will conduct an assessment of activities to-date in the Manufactured Homes market. In addition to interviews with manufacturers, retailers/dealers, and utilities, it is possible that interviews with consumers will be conducted. Those interviews would take place from late April and be concluded in May, 2019.

MRE Project Manager: Steve Phoutrides
 sphoutrides@neea.org
 503.688.5488

Residential Code

Idaho and Montana field studies are complete. The Idaho study report is under review, and the Montana report is being drafted.

The Washington Residential New Construction study will be kicked off in Q2, 2019. NEEA staff will conduct a study to assess code compliance in residential new construction in the state of Washington. The study will entail contacting individuals in jurisdiction offices and making visits to sites to collect compliance data. There are no plans to conduct interviews with consumers at this time.

MRE Project Manager: Steve Phoutrides
 sphoutrides@neea.org
 503.688.5488

Super-Efficient Dryers

The Super-Efficient Dryers Initiative is preparing to field a three-month online market research study with a sample of home-owners that have either purchased laundry equipment in the past six months or who are in the market to purchase. The main research objective is to understand trends in the laundry market, including the extent to which the market is trending toward top load washers and the product features that are driving consumer choices.

The exact methods and phasing of research activities are still being finalized, but currently include three weeks of qualitative research to identify the features that influence purchase decisions around laundry appliances, and follow this work with an online survey to rank feature sets.

Recruiting for this work is expected to begin in April. The research will take place over three months between May and July. A final report is anticipated in late Q3.

MRE Project Manager: Amy Webb
 awebb@neea.org
 503.688.5448



Residential

FIELDING

Ductless Heat Pumps (DHP)

The Ductless Heat Pump Initiative is conducting research for its 8th Market Progress Evaluation Report (MPER). This work is being carried out by Cadmus Group. NEEA staff anticipates transitioning out of the DHP market in 2020. The decision to exit the market and enter long-term monitoring and tracking (LTMT) depends, in part, on the findings of this MPER pertaining to the likelihood that the market for DHPs has sufficiently transformed in the region. The following list describes the key research activities that are currently in the field or that are planned for the second quarter.

- Interviews with DHP distributors (n=5) and manufacturers (n=5) are will be in the field through the end of April.
- A mapping analysis of the regional distribution of DHP installers compared to the location of HVAC installation companies will be completed in mid-April and will be shared with utility partners via a webinar in May.
- A DHP cost analysis (of single head DHPs) for the four states will also be presented in the webinar mentioned above.
- An online survey of DHP installers across the region, which is carried out bi-annually, will be launched in June.

- A market update of sales broken out by key attributes, such as state, HSPF, and incented vs. non-incented sales will be finalized late June.
- A stakeholder workshop to solicit feedback on the DHP diffusion indicators identified as part of this MPER will be held at NEEA in early June. More details on this opportunity will be shared with utilities before the end of April.
- A complete review of the DHP alliance cost effectiveness (ACE) model will be included as an appendix to the final report.

The final report summarizing results and key findings across all the research activities is expected in Q3. The report will also include a comprehensive summary of the DHP initiative history and a proposed LTMT evaluation plan. These documents will be shared with our utility partners in advance of the June stakeholder workshop.

Find the [DHP Initiative's 7th MPER](#) on NEEA's website

MRE Project Manager: Amy Webb
 awebb@neea.org
 503.688.5448



Residential

FIELDING

Heat Pump Water Heaters (HPWH)

The Heat Pump Water Heater Initiative is in the field with its 5th Market Progress Evaluation Report (MPER). NEEA has contracted with NMR Group to conduct this work. Based on results from the 4th MPER and other critical knowledge gaps, the team prioritized the following research objectives for MPER 5:

- Review the logic model and associated market progress indicators (MPIs) with an emphasis on validating program strategies to address critical barriers, including supply chain resistance to installing HPWHs and how to address challenging installation scenarios.
- Track progress toward key outcomes, including installer rates of recommendation and installation rates, distributor shares of HPWH stock and sales, and manufacturer HPWH product offerings.
- Explore the rate of installer recommendations of HPWHs and the potential effect on customer decision-making and confirm that installer recommendations increase the likelihood of purchase.

To meet these objectives, this MPER will field several research activities. The following key research activities are currently in the field or are planned for the second quarter:

- Mystery shopping calls to 16 water heater installers concluded the first week in April.
- Interviews with HPWH distributors will be fielded in April and May. We aim to interview 15 HPWH distributors across the four states.
- An online installer survey of HWS (How Water Solutions) trained installers will launch in June.
- A market sizing effort to track sales broken out by key attributes, such as state, sales channel, retrofit vs. new construction application, and incented vs. non-incented sales will be finalized in June.

NEEA staff anticipates a final report in late summer 2019. Find the [HPWH Initiative's 4th MPER](#) on NEEA's website.

MRE Project Manager: Amy Webb
awebb@neea.org
503.688.5448



Residential

REPORTING

Retail Product Portfolio (RPP)

A formative evaluation of the Retail Products Portfolio is nearly complete. This work is expected to support the program's expected shift to market development in 2019. As part of this project, the Apex team is reviewing baseline and planning assumptions and specific product-level strategic interventions identified for eight consumer products. They will also complete comprehensive market analyses informed by detailed sales data acquired through the program.

This project will:

- Validate the interventions, opportunities and data gaps identified in the product strategy documentation for each RPP-qualified product
- Assess NEEA staff's product strategy approach to confirm longitudinal tracking of: the portion of models qualified; and the portion of sales qualified
- Identify gaps related to product performance or market adoption, and potential opportunities to influence ENERGY STAR specifications, test procedures and/or federal standards
- Investigate the market trends that are driving shifts in sales of clothes washers, particularly agitator/non-agitator sales

The project has produced several interim deliverables focused on refrigerators, freezers, clothes washers, and dryers. Sections focused on air cleaners, sound bars, room air conditioners, and TVs are expected in April. At the end of the project (expected in Q2, 2019), a summary chapter with overarching recommendations and lessons learned will be produced, supported by sections that provide a deeper dive into the specifics of each product.

There is no regional primary data collection planned for this project.

MRE Project Manager: Dulane Moran
dmoran@neea.org
503.688.5413



Residential

REPORTING

Residential Lighting Data Collection and Analysis

Apex Analytics and DNV GL conducted an in-store shelf survey in January and are analyzing those data in combination with 2018 Nielsen lamp sales data. The analysis estimates lamp sales mix, per lamp price (after incentives), wattage, efficacy (lumens/watt) and lifetime rated operating hours across:

- Lamp technologies (incandescent, halogen, CFL, LED),
- Applications (general purpose, decorative and mini- base, globe, reflector, three-way, Smart Lamps), and
- Store types (grocery, drug, dollar, discount, mass merchandise, DIY, membership club, small hardware, and online):

Due to a data delay on Nielsen's part, the anticipated completion of our initial memorandum and data set has changed to the end of April. We may then slightly modify several assumptions and produce a modified memo and data set by late May.

In Q3, NEEA staff will host a regional webinar to present the results of this and other residential lighting data analysis.

MRE Project Manager: Jennifer Stout
jstout@neea.org
503.516.7370



Commercial

PLANNING

Luminaire Level Lighting Controls (LLLC)

A Market Assessment Study is expected for 2019. This study seeks to understand the structure of the LLLC sales channel, market actor roles and describe potential opportunities for accessing sales data. The Market Assessment study will conduct a complete review of the LLLC MPI (Market Progress Indicators) table to uncover any gaps or discrepancies in the indicators that inform the program's Market Transformation theory; assess the usefulness of the current MPIs and evaluate specific MPIs.

This study will also estimate LLLC unit sales and market size. In this study, a profile of the market will be done to update 2016 LLLC Market Characterization findings, characterize market segments that selected LLLCs, and estimate market size in the next 5 years. NEEA staff anticipates conducting interviews with key market actors as part of this research, but the exact populations have not been confirmed yet and will likely not occur until Q3 or later.

MRE Project Manager: Meei Lum
mlum@neea.org
503.688.5418

Commercial Window Attachments (CWA)

An online study is in progress for Commercial Window Attachments from January through end of April, 2019. The objective is to understand influencers in the window upgrade decision-making process: when windows might be considered for upgrade, steps in the decision process, what options are considered, and how industry terminology is understood. Two phases of online focus groups, in-depth interviews and dyads are employed to carry out this study.

An RFP (Request for Proposals) for a Commercial Window Attachments Market Characterization study will be released in Q2, 2019 and is expected to inform the program strategy for the overall commercial and multi-family market for SGS (Secondary Glazing Systems) and LES (Low-Energy Storm windows) products. In this study, characterization of initial targets in commercial and multi-family markets will inform program efforts. Any regional data collection activities associated with this project will be defined prior to the Q3 newsletter.

MRE Project Manager: Meei Lum
mlum@neea.org
503.688.5418



Commercial

FIELDING

Commercial Code Enhancement (CCE)

NEEA is conducting a study to better understand how to effectively target and communicate with a specific set of market actors in the commercial new construction space in ways that enhance the chances that code proposals will be adopted and once adopted be readily integrated into the designs and construction of new commercial buildings.

Specifically, NEEA staff seeks insights to develop compelling communication and training approaches to assist designers, builders and owners to improve awareness, knowledge and support for commercial new construction code.

This study will include a region wide survey of Building Designers, a series of focus groups with building designers and in-depth interviews with contractors, building owners and managers. The interviews and focus groups are being fielded in April and early May. A report is scheduled to be available in early June.

MRE Project Manager: Steve Phoutrides
sphoutrides@neea.org
503.688.5488



Commercial

FIELDING

Washington Commercial Code Evaluation

The Washington Commercial Code Evaluation study (WCCE) kicked off. The study is focused on understanding how commercial new construction is being affected by code across the state. It will provide NEEA staff and stakeholders information that will assist with code development and implementation (training) efforts by looking at which building systems are present, which compliance paths are being selected, and which code requirements are/are not being met. The project team has finished work on sample design and customer contact protocols and is finalizing the data collection instrument. The instrument will be tested in April. Data collection will begin in May and will be completed Q1, 2020.

MRE Project Manager: Steve Phoutrides
sphoutrides@neea.org
503.688.5488

Extended Motor Products (XMP)

NEEA staff is fielding a study to assess market size and market barriers for extended motor products. We will conduct surveys and interviews across the region in the months of April and May with market actors, including building designers, contractors, and building managers. The report will be available in July, 2019.

MRE Project Manager: Steve Phoutrides
sphoutrides@neea.org
503.688.5488



Commercial

REPORTING

High Performance Heating, Ventilation, and Air Conditioning (HVAC)

The market characterization is focused on understanding the nature of the market barriers. All data has been collected. The project is in the reporting phase and should be completed by the end of April, 2019.

MRE Project Manager: Steve Phoutrides
sphoutrides@neea.org
503.688.5488

Oregon Commercial Code Evaluation

The Oregon Commercial Evaluation Code study (OCCE) is nearly completed. The objectives of this study were to develop a profile of building characteristics found in commercial new construction, to assess how well buildings were complying with code, and to get a sense of how well these new buildings were performing. All data has been collected. The project team will review the data analysis prepared by the contractor in early April. A final report will be available in June, 2019.

MRE Project Manager: Steve Phoutrides
sphoutrides@neea.org
503.688.5488

Reduced Wattage Lamp Replacement (RWLR)

A Market Progress Evaluation designed to support and inform the expected transition of RWLR out of market development and into long-term diffusion and tracking is complete and will be finalized in May, 2019. Cadeo Group conducted this work.

Key objectives of the project included:

- Producing a summative story of the initiative, which includes documenting the progress, innovations, and lessons learned over the life of the initiative do-date.
- Ensuring that the plan for tracking market diffusion is sufficient and can support calculations of long-term energy savings.
- Identifying and leveraging lessons learned from RWLR that can be applied to subsequent initiatives in the commercial sector, particularly for other products that might be appropriate for a distributor-based engagement strategy.

No additional regional data collection is expected. The report will be posted to neea.org as soon as it is finalized.

MRE Project Manager: Dulane Moran
dmoran@neea.org
503.688.5413



Natural Gas

PLANNING

Condensing - Roof Top Units (C-RTUs)

NEEA staff has research underway to understand the state of C-RTU installations in Canada in order to identify effective strategies for reducing barriers to installation of CRTUs in the Northwest.

The research should help the natural gas team:

- Gain a high-level understanding of market share of unitary rooftop systems (including condensing gas systems) in the commercial sector
- Uncover decision factors for selecting new heating equipment, and which organization staff/roles are the final decision makers
- Discover awareness levels of condensing gas heating equipment and how they compare to the US
- Learn about experiences using condensing gas heating equipment, including challenges around the condensation line
- Determine perceived benefits and barriers of condensing gas heating equipment
- Distill reasons for selecting/not selecting condensing gas systems for a commercial installation

MRE Project Manager: Anu Teja
ateja@neea.org
503.688.5421

REPORTING

Natural Gas - Water Heating and HVAC

A final report on [HVAC & Water Heater Installer Research](#) is now available.

NEEA staff is currently contracting with ILLUME Advising to build on their recent HVAC & Water Heater Installer Research (mentioned above) to better understand successes and challenges of tankless water heater installations in an effort to help inform effective future interventions for the uptake and installation of emerging water heater technologies, particularly around Gas Heat Pump Water Heaters (GHPWH).

Phase 1 of the study is currently underway and includes a thorough review of available secondary literature on the topic, qualitative interviews with some regional program managers about their experiences and challenges associated with running tankless programs, and a thorough review of findings from NEEA's recent report regarding their opinions on tankless water heaters. Findings from Phase 1 will help inform our research approach for Phase 2 which is expected to launch second half of Q3, 2019.

MRE Project Manager: Anu Teja
ateja@neea.org
503.688.5421



Stock Assessments

COMMERCIAL BUILDING STOCK ASSESSMENT (CBSA)

Updates:

The CBSA field team, led by the Cadmus Group, is fully engaged in recruitment and field work.

One lesson learned during the pre-test and in prior large-scale studies in the commercial sector is that site recruitment can be a challenge. The NEEA project manager will continue to engage with regional utilities to access support at each organization, ensuring we maximize our recruitment success and work together to meet study objectives on time and on budget.

This is a complex project with multiple streams of information and deliverables. NEEA staff will be hosting quarterly webinars to inform stakeholders of project progress and any emerging issues. The Q2 webinar is scheduled for April 17th, 2019. To be added to the distribution list for future webinars, please contact cbasa@nea.org.

Task	Year	2018				2019			
	Quarter	1	2	3	4	1	2	3	4
Prepare Virtual Catalog									
Develop Data Collection Tool									
Customer Contact Protocols									
Customer Contact Workgroup									
Study Integrity Workgroup									
Final Sample Design									
Train Assessors									
Notify Utilities of Pre-Test									
Collect Pre-Test Data									
Notify Utilities of Full Sample									
Recruit Sample Sites									
Conduct On-Site Assessments									
Analyze Data									
Finalize CBSA Database									



CONTACT US:

Amy Webb

Manager, MRE

awebb@neea.org
503.688.5448



Anu Teja

Sr. Project Manager, MRE

ateja@neea.org
503.688.5421



Dulane Moran

Principal, Research and Evaluation

dmoran@neea.org
503.688.5413



Jennifer Stout

Project Manager, MRE

jstout@neea.org
503.516.7370



Meei Lum

Project Manager, MRE

mlum@neea.org
503.688.5418



Steve Phourides

Sr. Project Manager, MRE

sphourides@neea.org
503.688.5488



TOGETHER *We Are Transforming the Northwest*

