

2017 Q4

Market Research and Evaluation Quarterly Newsletter

IMPORTANT UPDATES:



What's New!

As promised in our last edition, the newsletter now includes updates to our Residential and Commercial Stock Assessment projects ([RBSA](#) and [CBSA](#)).

As many of you know, Q4 is an extremely busy time for MRE because we are working to scope the annual evaluation projects. In an effort to make this process more efficient and effective, the MRE team recently went through a training module on facilitation skills for scoping research projects. Areas of facilitation that we focused on included: Clarifying and Aligning on Objectives; Problem Framing; Defining Success; Dealing with Uncertainty and Risk; and Managing Divergent and Convergent Thinking.

MR&E Team "In the Field"

The MRE team also did a team building event in Q3, 2017. We participated in a volunteer program that builds beaver cages to protect trees on the Columbia Slough. As you can see from the images, the team worked hard, but also had a lot of fun. Meei Lum, who joined the team nearly a year ago, is an active member of the board of directors of the Columbia Slough Watershed Council, so if you'd like to learn more, feel free to reach out to her.



TABLE OF CONTENTS

At a Glance	<u>2</u>
Residential	<u>3</u>
Planning	<u>3</u>
Reporting	<u>4</u>
Commercial	<u>6</u>
Planning	<u>6</u>
Fielding	<u>7</u>
Reporting	<u>8</u>
Code and Standards	<u>10</u>
Planning	<u>10</u>
Fielding	<u>11</u>
Natural Gas	<u>12</u>
Fielding	<u>12</u>
Cross-Sector	<u>13</u>
Fielding	<u>13</u>
Stock Assessments	<u>14</u>
Residential	<u>14</u>
Commercial	<u>15</u>
Contact	<u>16</u>



Questions about this report may be addressed to:

Corinne McCarthy
Sr. Manager, Market Research and Evaluation
cmccarthy@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

Commercial

Codes & Standards

Natural Gas

Cross-Sector

Stock Assessments

	PLANNING*	FIELDING*	REPORTING*
Ductless Heat Pumps			✓
Heat Pump Water heaters			✓
Low-E Window Attachments	✓		
Residential Lighting			✓
Retail Product Portfolio			✓
 Super-Efficient Dryers	✓		
Commercial Window Attachments			✓
Commissioning			✓
Luminaire Level Lighting Controls		✓	
Reduced Wattage Lamp Replacement	✓		✓
 Top Tier Trade Ally	✓		✓
Commercial Standards Evaluation	✓	✓	
Oregon Commercial Code Compliance		✓	
 Natural Gas Mid-Cycle Assessment		✓	
 Water Heaters		✓	
 Commercial Building Stock Assessment	✓		
 Residential Building Stock Assessment			✓

***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

Low-E Window Attachments

Low-E residential storm windows was recently added to the Window Attachment initiative.

Residential Building Stock Assessment (RBSA) data has been used to understand the size of the market for the region. However, in order for planning to calculate the market transformation potential, research will be done to determine what data sources are the most appropriate to use when estimating the number of storm windows sold in the region

MRE is also currently working with the program team to plan the scope of research for the first phase of Market Characterization. Although scope has not been finalized, current thinking is that the first phase will focus on two key research objectives:

- Understand the supply chain for the category
- Understand end user use, attitudes and needs in the category

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

Super-Efficient Dryers (SED)

The Super-Efficient Dryer team would like to better understand if and how to leverage multi-family dwellings in pursuit of Market Transformation. As such, MRE has worked with NEEA's Market Intelligence team and Owl Research to determine that low-rise multi-family dwelling units in urban environments could be a target market for program interventions. As such, MRE is planning to execute research to better understand the path-to-purchase, influencers, attitudes and barriers to purchasing Super-Efficient Dryers in this market.

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



Residential

REPORTING

Ductless Heat Pumps (DHP)

MRE contracted Cadmus to perform the sixth Market Progress Evaluation Report (MPER). The primary focus areas of this MPER are:

Market Characterization -

- Gaining a deeper understanding of the end user value proposition
- Identifying emerging trends in the market and with pricing

Data Assessment -

- Assessing the completeness of the data NEEA uses to guide the program

Final report coming soon.

Heat Pump Water Heaters (HPWH)

MRE contracted with Cadeo to execute a Market Progress Evaluation Report (MPER) with the following key objectives:

- Improve NEEA's understanding of the installer market
- Determine the effects of the National Appliance Energy Conservation Act (NAECA) standard
- Identify key indicators of diffusion, and confirm the position on the adoption curve
- Review and update the logic model

Final report coming soon.

MRE Project Manager: Dulane Moran / Amy Webb
dmoran@neea.org / awebb@neea.org
503.688.5413 / 503.688.5448

MRE Project Manager: Dulane Moran / Amy Webb
dmoran@neea.org / awebb@neea.org
503.688.5413 / 503.688.5448



Residential

REPORTING

Residential Lighting

MRE contracted with both Cadeo and DNVGL to execute the 2015 residential lighting study. DNVGL conducted a shelf survey, and Cadeo conducted research among market actors and utility program managers. Cadeo also performed an in-depth analysis of shelf survey data combined with Nielsen sales data. The primary uses of this information are:

- Provide input to Bonneville Power Administration's savings model
- Provide information that helps to inform energy efficiency program interventions
- Assess the impact of NEEA residential lighting program as it relates to Long Term Monitoring & Tracking goals

[Final report coming soon.](#)

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

Retail Product Portfolio (RPP)

MRE contracted with Research Into Action (RiA) to execute a Market Test Assessment (MTA) for RPP with the primary objectives of:

- Confirm that the NEEA intervention strategies are working as expected
- Identify any adjustment to initiatives that should be considered prior to start-up
- Ensure RPP is achieving scale and that internal processes for product review and portfolio management are working
- Test the viability of alternative evaluation strategies that could support the national program

[Link to report](#)

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



Commercial

PLANNING

Reduced Wattage Lamp Replacements (RWLR)

The RWLR program is interested in exploring additional ways that the distribution network might be leveraged to contribute to Market Transformation. As the team better defines its needs, MRE will be likely to be involved with research to help inform strategic direction.

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

Top Tier Trade Ally (TTTA)

In anticipation of NXT Level 2 training for Top Tier Trade Ally, MRE is in the process of identifying a longitudinal research platform that will enable NEEA to use the Kirkpatrick Evaluation Methodology. This particular methodology will help NEEA assess:

- Quality and timeliness of training content
- Retention of training content
- Behavior change as a result of training

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



Commercial

FIELDING

Luminaire Level Lighting Controls (LLLC)

NEEA continues to collaborate with the Energy Trust of Oregon to implement market research within as many as 10 LLLC Pilot projects in commercial buildings. The primary research objectives are to understand:

- Market actor experience with LLLC selection, purchase, installation, commissioning, operations and maintenance
- Occupant experience, with emphasis on benefits and challenges
- Energy savings by LLLC component

Research Into Action and Energy 350 have been contracted to execute the research. The first pilot site began installation in September, 2017, and our first set of qualitative interviews have begun.

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



Commercial

REPORTING

Commercial Window Attachments (CWA)

MRE contracted with Navigant to collect existing knowledge about the Commercial Window Attachments market. The results of this study will be used to develop the program plan and strategy. The objectives of this efforts were to:

- Confirm hypotheses regarding barriers to market transformation
- Understand the go-to-market strategies of key manufacturers

Final report coming soon.

Commissioning

MRE contracted with Cadmus to gather measures such as the penetration of commissions and the number of certified providers so that savings can be determined.

Final report coming soon.

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

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



Commercial

REPORTING

Reduced Wattage Lamp Replacement (RWLR)

MRE contracted with Cadeo to execute a limited scope MPER with the primary objective of understanding which interventions throughout the program's history were most successful and why. Information was derived from distributor meeting notes, sales data and interviews with NEEA and its implementation partners (D+R). Additionally, Cadeo updated the market size using the National Electrical Manufacturers Association (NEMA) data.

Final report coming soon.

Top Tier Trade Ally (TTTA)

Illume was contracted to provide a progress report regarding the effects of NXT Level 1 training on skills and practices of designees. Interviews took place with NXT Level 1 designees and utility stakeholders. The focus was to understand their perspective on the success of the program; and to provide input regarding the direction of NXT Level 2 training.

Final report coming soon.

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

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



Codes and Standards

PLANNING

Commercial Standards Evaluation

In our last newsletter we indicated that the standards evaluation work for Walk-In Coolers had been delayed. However, the team is now considering moving the timing from Q1, 2018 to Q4, 2017. A decision will be made by the start of Q4, 2017.

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



Codes and Standards

FIELDING

Commercial Standards Evaluation

MRE has contracted with TRC Energy Consulting to conduct a standards evaluation on Commercial Refrigeration Equipment and Furnace Fans. The objectives of this evaluation are to:

- Verify that NEEA has influenced adoption of standards
- Validate the savings estimates

Pursuant to the objective, interviews will be conducted with:

- NEEA program staff
- Stakeholder advisory groups
- Representatives from manufacturers
- Representatives from the Department of Energy (DOE)

The project kick-off meeting has occurred, and TRC Energy Consulting are working on creating the interview guides for this work. This work should be completed during Q4, 2017.

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

Oregon Commercial Code Compliance

MRE has contracted with Ecotope to execute the Oregon Commercial Code Evaluation. To date, the following tasks are complete:

- The sample design, data collection approach and customer communication protocol.
- The pre-test, which was intended to ensure that the audit form is relevant and workable; and that the new, automated form will provide the appropriate level of quality control.
- The pre-test that documents the success and findings is available. For those who would like a copy, feel free to contact the MRE contact, Steve Phoutrides.
- Recruiting started in early September, 2017. The early focus is on Multi-Family and K-12 Schools.

Data collection is expected to run through Q1, 2018.

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



Natural Gas

FIELDING

Natural Gas Mid-Cycle Assessment

MRE contracted Opinion Dynamics to execute retrospective / prospective mid-cycle assessment of the Natural Gas Initiative. The key objectives of this research are to:

- Gauge the impact NEEA has had on product advancements within the Natural Gas Portfolio
- Assess progress made on the development of a pathway to cost-effective energy savings
- Determine if there is evidence of market transformation
- Track NEEA's adherence to the key principles of operation in the Natural Gas Business Plan
- Identify the value proposition that stakeholders find in the Natural Gas Business Plan
- Assess the overall health of NEEA as a dual-fuel organization

Natural Gas Mid-Cycle Assessment cont...

The research has been completed, and the results were presented to NEEA's Board of Directors during their September meeting.

[Final report coming soon.](#)

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



Cross-Sector

FIELDING

Water Heaters

The Natural Gas and Heat Pump Water Heater (HPWH) teams both need an updated market characterization study. MRE has approved Russel Research's proposal to do a comprehensive market characterization study of the water heater market, and the kick off meeting occurred in early July. The primary objectives of the study are to:

- Understand the supply chain's approach to filling demand, positioning the wide variety of products to their end users, and attitude about new products
- Understand the end-user path to purchase, product perceptions and trusted sources of information
- Update the challenges and barriers associated with HPWH
- Provide estimates of the residential and commercial market size

The In-depth Telephone Interviews with supply chain market actors: distributors, manufacturer sales representatives, retailers and installers), residential consumers, commercial property managers are underway.

Water Heaters cont...

Once this task is complete, Russel Research will manage a synthesis session with NEEA to prepare for the following research activities, which will be completed in Q3, 2017:

- Three -Day On-Line Bulletin Board of residential consumers
- On-Line Quantitative Survey of Residential Consumers and Commercial Property Managers/Owners

The report of findings is expected to be published late Q1, 2018.

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



Stock Assessments

RESIDENTIAL BUILDING STOCK ASSESSMENT (RBSA)

Big Picture Timeline



[LINK TO QUARTERLY UPDATE](#)

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



Stock Assessments

COMMERCIAL BUILDING STOCK ASSESSMENT (CBSA)

Timeline:



Next Steps:

- Develop and release Phase 2 RFP (September - October)
- Contractor selected and in place (December)
- Begin stage one cataloging and survey finalization (Jan-April 2018)
- Begin site recruitment (May 2018)



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

Amy Webb

Project Manager, MRE

awebb@neea.org
503.688.5448

Building Operator Certification,
Ductless Heat Pumps, Heat Pump
Water Heaters, Super-Efficient Dryers



Anu Teja

Sr. Project Manager, MRE

ateja@neea.org
503.688.5421

Customer Segmentation, Gas Mid-
Cycle Assessment, Hearth Market
Characterizations, Residential
Building Stock Assessment, Rooftop
HVAC, Water Heaters



Dulane Moran

Principle Evaluation Lead, MRE

dmoran@neea.org
503.688.5413

Commercial Building Stock
Assessments, Ductless Heat Pumps,
Retail Product Portfolio



Jennifer Stout

Temporary Project Manager, MRE

jstout@neea.org
503.516.7370

Commercial Lighting, Residential
Lighting, Long Term Monitoring &
Tracking



Meei Lum

Project Manager, MRE

mlum@neea.org
503.688.5418

Luminaire Level Lighting
Controls, Reduced Wattage Lamp
Replacements, Top Tier Trade Allies



Steve Phourides

Project Manager, MRE

sphourides@neea.org
503.688.5488

Commercial Real Estate, Commercial
Refrigeration Equipment & Furnace
Fans, Energy Codes, Manufactured
Homes, Oregon Commercial Code
Evaluation



TOGETHER We Are Transforming the Northwest

