



NYSERDA

**NYSERDA Residential Market Advisory
Group (RMAG) Quarterly Meeting**

Webinar Series: November 4 – 15, 2021

**Plenary Sessions and Breakout Sessions
Meeting Summaries**

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Opening Plenary Session Meeting Summary Thursday November 4, 2021

Background

On November 4, 2021, the New York State Energy Research and Development Authority (NYSERDA) hosted a virtual meeting of the Residential Market Advisory Group (RMAG). The meeting provided updates on activities related to RMAG priority items since the previous meeting, held in March 2021.

The Q4 RMAG meeting was convened to focus on active conversations over RMAG and broader residential market priorities. Sessions were scoped to provide participants with a format to identify individual market interests and connect them with State activities and goals for clean energy and energy efficiency adoption in the residential sector.

In total, 41 individuals attended the meeting, including 6 NYSERDA staff.

Introduction and Opening Remarks

Laura Geel, Program Manager for Single Family Residential Operations and Market Development at NYSERDA, opened the event by thanking attendees for their participation, reviewing the RMAG and the intent of the quarterly meetings.

Sara Omar, facilitator for the event from Kearns & West, handled Housekeeping and Ground Rules before handing it to Laura who reviewed the agenda.

Laura reviewed the Mission Statement and Objectives of the RMAG alongside the RMAG Process Diagram, attached here as [Appendix A](#).

Sara then conducted an icebreaker activity with participants, where they were asked two questions via PollEverywhere. Questions, response summaries, and total counts of responses are available below.

Question 1: “Fill in the blank. If I had one wish for the residential energy efficiency and clean energy industry, it would be _____.”

Response Summary	Count
Racial and economic equity in distribution of benefits from developments	5
Improved homeowner marketing (equitable messaging, consumer awareness of health impacts of fossil fuels, etc.)	4
Improved incentives that expand affordability and scale of development	3
Improved initiatives to develop a substantial, equitable, and trained workforce	2
Enhanced role for low-carbon fuels, like green hydrogen	1
Total	15

Question 2: “What exciting things are happening in the NY residential market?”

Response Summary	Count
Enhanced adoption of virtual home energy audit solutions	3
Enhanced consumer awareness and requests for clean heat technologies	3

Technical improvements adapting ground source and air source heat pumps for cold climates	2
Changes to the New York State Technical Resource Manual for Estimating Energy Savings from Energy Efficiency Programs	1
Enhanced adoption of residential PV solar power with on-site storage	1
Enhanced availability of electric vehicle car charging infrastructure	1
Improved coordination efforts across residential sector market segments	1
Improved market dynamics (ex/ high cost of natural gas)	1
Increased funding for disadvantaged communities	1
Increased investment in energy efficiency and clean energy development	1
NYSERDA Residential Programs and Initiatives (Comfort Home, RMAG SEEP Framework, etc.)	2
Total	17

Review of RMAG Work in the Last Quarter

First Membership Showcase

Laura reported to participants on the rationale for the showcase (networking, increase knowledge exchange) and provided a summary of the discussions and outcomes of the event which featured participants from Copper Labs and HubControls. It was noted that materials are available on the [RMAG webpage](#) and that if participants are interested in presenting in the future that they should reach out at resmarket@nyserda.ny.gov.

Quality Assurance Root Cause Analysis (QA RCA) Expert Panel

David Houle, Senior Project Manager at NYSERDA, presented on the rationale for the QA RCA Expert Panel. David reviewed the planning process, including identification of representatives, assessment reporting, Root Cause Analysis training, and a Kickoff Call. The action was identified as connected to broader RMAG interests in improving programming to drive achievement of clean energy and energy efficiency goals. Mike Dunleavy, owner of Hudson Valley Energy and member of the Expert Panel, then discussed the group's approach to review of Quality Assurance non-conformances and the group's planned event to discuss the LED – incorrect quantity installed QA nonconformance.

Stacked Energy Efficiency Pilot Framework Working Group (SEEP Framework Working Group)

Bryan Evans, Residential Program Associate at Northeast Energy Efficiency Partnerships and Champion of the SEEP Framework Working Group, provided background on the RMAG priority, group planning process, and the framework development process. The action was identified as connected to broader RMAG interests in scaling residential development projects that 'stack', or combine, clean energy improvements, energy efficiency improvements, and adoption of renewable energy. Bryan updated participants on the group's progress developing a scalable framework that will serve as a reference resource for residential clean energy and energy efficiency program managers. If interested in being part of this working group, Bryan asked participants to email resmarket@nyserda.ny.gov for more information.

RMAG Priority Updates

Laura reviewed the fifteen priority items as identified by RMAG and updated participants on the status of those priorities and related initiatives. Laura discussed 'Normalizing Heat Pumps' and 'Ramping up to Meet our Goals' priorities that are ongoing, providing the following updates:

- Normalizing Heat Pumps

- *Experiential Demonstrations*: Activity is in early planning stages with updates expected Q2 2022.
- *Customer Testimonials*: Activity is in early planning stages with updates expected Q2 2022.
- *Community Meetings*: Activity is currently in-development with updates expected Q2 2022.
- *Establishing an Ally Network*: Activity is currently in-development with updates expected Q2 2022.
- *Large Scale Pilot (Stacked Energy Efficiency Pilot Framework Working Group)*: In-progress activity. Laura referred participants to the update provided by group champion Bryan Evans for details.
- Ramping up to Meet our Goals of Retrofitting 200,000 Homes Annually by 2030
 - *Partnering with Community Organizations*: NYSERDA is in progress of planning coordinated efforts with community-based organizations. Laura referred participants to [Request for Proposals 4630: Clean Energy Hubs](#) for that initiative. Clean Energy Hubs will act as trusted resources for community members to access clean energy knowledge and improvements. They will conduct outreach to enhance access to clean energy developments and enhance diversity of the residential clean energy workforce.
 - *Post Installation Data*: Laura identified that progress on this initiative has developed primarily through [Program Opportunity Notice 4423: Remote/Virtual Energy Audit Challenge](#) which has closed and will announce awardees in 2022.
 - *Lower-Touch Engagement*: Laura identified that progress on this initiative has developed primarily through [Program Opportunity Notice 4423: Remote/Virtual Energy Audit Challenge](#) which has closed and will announce awardees in 2022.
 - *Common Language*: NYSERDA is working with its marketing partner to create shared language to discuss residential clean energy and energy efficiency. Updates are anticipated in 2022.

Laura then identified ‘coming soon’ initiatives for RMAG priorities.

- Updates by initiative include:
 - *Workforce Development Forum*: NYSERDA plans to host listening sessions in early 2022 to more clearly identify RMAG interest and scope of activities.
 - *Peer-to-Peer Groups*: NYSERDA plans to host listening sessions in early 2022 to more clearly identify RMAG interest and scope of activities.
 - *Engagement Playbook*: This priority item was identified as a topic for an RMAG Quarterly Meeting breakout session. More details are available in the [Customer Engagement and Homeowners Playbook Breakout Session Meeting Summary](#).
 - *Benchmarking*: This priority item was identified as a topic for an RMAG Quarterly Meeting breakout session. More details are available in the [Residential Energy Benchmarking Breakout Session Meeting Summary](#).
 - *Envelope Improvements*: This priority item was identified as a topic for an RMAG Quarterly Meeting breakout session. More details are available in the [Scaling Envelope Improvements Breakout Session Meeting Summary](#).
 - *Standards of Interoperability*: This priority is awaiting development.

Laura made a call for participation, asking that if participants have ideas on how to move priorities forward, or if participants are interested in championing efforts, they are asked to reach out to resmarket@nyserda.ny.gov to discuss further.

Breakout Session Topic Overviews

Sara previewed the three breakout sessions on ‘Residential Energy Benchmarking’, ‘Customer Engagement and Homeowner Playbooks’, and ‘Scaling Envelope Improvements.’ Sara discussed the rationale, state of the conversation on the priority, identified speakers for the events, and previewed the participatory activities for each meeting. For more details on each breakout session please see the relevant breakout session meeting summary included in this document.

Open Floor

Sara led the group through an Open Floor sharing opportunity where members were invited to provide updates on their company and their work. Topics discussed include:

- Bruni & Campisi indicated high volume of air source heat pump projects, with some including decommissioning of fossil fuel mechanicals and integrated controls.
- Northeast Energy Efficiency Partnerships are developing a low-cost home energy audit tool to help expand access to energy efficiency and clean energy projects.
- The Building Performance Contractors Association of NYS indicated interest in linking with market participants on new initiatives, pilots, and partnerships. Participants interested in connecting with BPCA for an event the night before their Northeast Regional Home Performance Conference in February were invited to reach out to execdirector@bpca-nys.org for more details.
- Steven Winter Associates announced they are developing online training that incorporates a holistic approach to Air Source Heat Pump design, selection, installation, operations, and maintenance. For more information on the kind of materials to be covered, participants were pointed to this Steven Winter blog post: [Air-Source Heat Pumps in Homes: Soup to Nuts.](#)
- Cornell Cooperative Extension of Tompkins County discussed the announcement of Ithaca’s passage of the Efficiency Retrofit and Thermal Load Electrification Program. Guillermo Metz put out an invitation for collaboration with technical providers and shared the following Washington Post article for context: [This U.S. city just voted to decarbonize every single building.](#)
- The Building Performance Institute announced it received a contract award from NYSERDA to develop “Residential Electrification Energy Audit Procedures” building on remote energy audit protocols for single family and multifamily buildings.

Upcoming Engagement Opportunities

Laura provided participants with information on the Clean Energy for Homes Conference and Trade Show scheduled for February 9-10, 2022, in Saratoga Springs.

The event, co-produced with the Building Performance Association, features two full days of education, networking, and business growth opportunities. Each year, this event draws approximately 300-400 contractors and weatherization professionals from NY state and surrounding areas.

Participants were informed that exhibitor and sponsorship opportunities are still available, and that for more information on the event, participants should go to: <https://events.building-performance.org/regional>

Closing

Sara ended with a reminder to register for Breakout Session activities and then passed to Laura who thanked participants and closed the meeting.

Breakout Session 1: Residential Energy Benchmarking

Meeting Summary

Monday November 8, 2021

Introduction

Topic Overview

Trevor Reddick, the meeting facilitator from Kearns & West, opened with Housekeeping and Ground Rules for a participant-led conversation. He then introduced the topic of Residential Energy Benchmarking by reviewing how it came to be identified as a priority by the RMAG.

At the Quarterly RMAG meeting held in March 2021, attendees reviewed Energy Efficiency and Housing Advisory Panel recommendations to the Climate Action Council and held breakout session priority discussion that identified residential energy benchmarking as a priority for the RMAG to pursue. Some factors discussed included:

- Need to pair benchmarking legislation with automated utility/energy data management and analysis system
- How connecting benchmarking with consumer education to induce behavior change that can reduce energy demand

Meeting Purpose

Participants reviewed the Discussion Purpose and Agenda for the meeting. Building off the identified interest in the previous RMAG meeting, this discussion was convened to help stakeholders in the New York residential market:

- Have a better understanding of the market opportunity for residential energy benchmarking in the state
- Reflect on potential mandates for residential energy benchmarking and how to align market development with the goals of upgrading more homes
- Identify gaps between where we are and where we want to be in developing the residential energy benchmarking market

Participatory Activity

Attendees were introduced to the participatory activity for the event and invited to join a collaborative workspace where they answered questions on the residential energy benchmarking market. Participants were asked to answer the following questions:

- You are a prospective home buyer/renter – Do you want an energy audit? What information do you want or need?
- How do we feel about the NYS Energy Benchmark Goal for point-of-sale energy disclosure by 2025, and energy audits by 2027? What needs to occur to make it happen?
- What do we need to meet the opportunity in this space? Who needs to be part of solving this, and what can they do?

For a full list of responses refer to [Appendix B](#) which features a copy of the final activity board and access information for an online version. The summary below reflects participant perspectives voiced through speech and chat during the event.

Discussion Summary

Question 1: You are a prospective home buyer/renter – Do you want an energy audit? What information do you want or need?

Identified Perspectives

Participants were asked to use their professional experience with clients to inform this discussion. Throughout discussion, participants were at times asked to assume the perspective of a prospective home buyer/renter, and/or reflect on their own home buying and renting experiences to identify the rationale for, and scope of information that is important for, selling and consuming an energy audit.

Participants identified areas of opportunity where market actors can enhance the ability of consumers to access an energy audit and/or understand it to inform high-quality purchasing decisions.

- Key highlights of the discussion include:
 - Access to Contractors. Some indicated that as a home purchaser and renter that they sought out a professional with auditing credentials but had difficulty finding one in urban and rural environments alike. There is a need to do a regional assessment of contractors to determine if there is a shortage of qualified auditors, or if there is an information gap about where to find them.
 - Quality Control: Others shared concern about ensuring quality, including one indicating concern that RESNET does not have the capacity to check up on their raters if a large segment of US moves to mandating HERS rating. It is noted that HERS ratings is primarily for new construction, but the same concern should be considered for ratings of existing homes.
 - *Cross-Sector Coordination*: Participants indicated the importance of cross-sector coordination to identify the appropriate data points for consumers to understand their energy efficiency needs in a cost-effective way. One participant emphasized the need to rectify different home inspections/assessments to reduce cost burden and risk of “information overload” from multiple inspections.
 - *Language Choice*: One participant indicated that the language of “energy audits” should be revisited due to consumer concerns about the phrase ‘audit’ affecting consumer adoption. This is something NYSERDA is actively reviewing.
- Highlights from a seller’s perspective include:
 - *No Incentive*: Several participants indicated that there is not an incentive for sellers to get an energy audit for their property right now because the housing market is so competitive that purchasers are likely to move forward without requesting one.
 - *Still Need to Build Infrastructure Now*: Those participants also indicated that it is important to move forward on investments in scaling infrastructure now to ensure energy audits are viable at scale as the regulatory and market dynamics shift. One participant indicated that it is difficult to scale voluntary market but that with a signal from policy there is an incentive for industry to respond.
- Highlights from a purchaser’s perspective include:
 - *Lack of Incentive Now, and Potentially Later*: Several participants indicated that the housing market dynamics noted above leads to people skipping inspections to secure a home. Another participant indicated that this can also disincentivize consumers from

- getting an energy audit later, as people are loathe to purchase a property and then request information that will lead to increased costs.
- *Purchase Price Impacts:* Two participants indicated that energy audits can increase the purchase price of a property and that in some cases it can even price consumers out of a home. Others echoed this by indicating that the upfront costs can be steep for purchasers.
- *Pandemic-related Regulation:* One participant referred to a personal experience where they were denied an energy audit while purchasing a home in a jurisdiction where audits are a regulatory mandate due to COVID-19 restrictions on home access. Understanding how pandemic-related regulation can affect outcomes for clean energy and energy efficiency programs realization rates on energy savings was identified as important.
- Highlights from a renter's perspective include:
 - *Lack of Incentive for Renters:* Several participants noted that housing market dynamics are reflected in the rental market. Renters do not want to miss out on an apartment in a tight rental market by asking for an energy audit.
 - *Lack of Incentive for Landlords and its Impact on Equity:* One participant referred to personal experiences as a renter where they have been denied requests for an energy audit by property owners. Another attendee echoed the sentiment, indicating this concern reflects a broader issue in urban rental markets like New York City. They concluded that putting the burden to request an audit on the renter is inequitable and unlikely to succeed.

Participants identified the need to address lack of consumer awareness through improved education.

- *Energy Burden and Equity:* Two participants indicated that energy burden is top of mind for LMI consumers. Helping renters and buyers better understand, plan, and reduce their energy use is valuable.
- *Project Management Implications:* One participant indicated that lack of consumer awareness regarding the unique value of energy audits can mean consumers perceive it as an extra expense and procedural delay when service providers advocate for their use.
- *Timing Energy Audits for Consumer Readiness:* One attendee indicated that energy audits should be done after a homeowner has lived in the home for a minimum of twelve months so the consumer can answer questions about pain points and what they would like to learn about their home.
- *Setting Appropriate Expectations:* One participant, who works as an energy auditor, indicated that they have experienced an issue where consumers expect more significant energy savings than audits show. Balancing expectations through realistic project scoping was indicated as important.

Participants identified consumer education solutions like new messaging for the sales process and simplified, standardized formatting for consumer-facing energy audit materials.

- *Comprehensive Messaging:* Several participants agreed that energy audits need to be sold using comprehensive messaging shared among stakeholders in the real estate market. Participants identified several types of value that should be emphasized to consumers, including Comfort, Durability, Energy Savings, Health and Safety, and Resilience. Participants indicated that

connecting these values to an economic benefit can help drive better decisions by owners and renters.

- *Standardizing Information and Formatting of Audits:* One attendee indicated that home buyers and renters need energy audit reporting materials to be standardized in a shareable, transferable format that can inform purchasing decisions. Several participants echoed this, indicating features like an overall score, and prioritization of recommendations based on the value of upgrades pre- and post-installation, should be considered.

Question 2: How do we feel about the NYS Energy Benchmark Goal for point-of-sale energy disclosure by 2025, and audits by 2027? What needs to occur to make it happen?

Regulatory Outlook

Trevor led the group through a Regulatory Outlook, reviewing energy benchmarking regulations at the local and national levels. The group also reviewed Energy Efficiency and Housing Advisory Panel recommendations made to the NY Climate Action Council, which include recommendations that:

- *Starting in 2025* - Owners of all residential and commercial buildings are required to obtain and publicly disclose, as part of sale or lease listing of a building, housing unit, or commercial space, the prior-year energy consumption of the building, unit, or space (e.g., at least 12 consecutive months of energy bill data).
- *Starting in 2027* – Require owners of single-family buildings to obtain and disclose an energy performance rating (e.g., a Home Energy Rating System (HERS) index) as part of sale listing.

Participants discussed jurisdictions that are adopting similar standards while identifying similarities, differences, and the implication of a rising tide of initiatives across cities and towns nationwide.

Identified Perspectives

Participants were asked to reflect on their experience and market awareness to identify the preferability, viability, gaps, and solutions required to scale the energy audit market to meet prospective regulatory goals.

Participants indicated that the recommended regulatory requirements could help address consumer adoption and equity concerns

- *Addresses Incentives:* By taking the responsibility to request an audit out of the purchaser or renter's hands regulatory requirements can address the lack of incentive for sellers, buyers, and renters.
- *Cost Burden for LMI Communities:* These requirements can potentially alleviate the cost burden of LMI renters for purchase of an energy audit and help identify energy-use deficiencies to help address the energy burden.

Through the participatory activity board attendees shared mixed perspectives on if these timelines can be realistically achieved, if they are soon enough, and some of the impacts that this has for their businesses and communities. For more on participant perspectives identified through this process, please see the full set of responses provided in [Appendix B](#).

Question 3: What do we need to meet the opportunity in this space? Who needs to be part of solving this, and what can they do?

Identified Perspectives

Participants were asked to reflect on their experience and market awareness to identify the preferability, viability, gaps, and solutions required to scale the energy audit market to meet prospective regulatory goals.

Participants indicated workforce development initiatives aligned with vocational education, businesses, and local authorities are needed to ensure availability of a qualified workforce.

- *Expanding the Workforce Development Pipeline through Partnerships:* One participant noted that it might be useful to work with community colleges to develop a curriculum-pathway to certification(s) that would allow LMI and 'undecided' students to pick-up career skills and contribute to the EE audit marketplace. Another echoed that, including that BOCES and Community College workforce development pipelines can be primed with development of high-quality training and education materials.
- *Funding is Needed:* One participant indicated that certification fees and state/fed funding (probably via program delivery, but possibly also at the certification-body level to complement programs) could also help scale-up QA/Field Verification.
- *Aligning State and Local Labor Goals:* One attendee indicated that a hurdle to consider when scaling a qualified workforce is that licensing and certification of subcontractors occurs at the local level (city and/or county) which can make it difficult for contractors to get someone licensed in their area to complete work.

Participants indicated that collaboration between utilities, consumers, and local authorities on increased transparency of energy-use data can drive consumer demand and help inform allocation of resources to areas of most need.

- *More Transparency for Utility Data at Local Level:* Several participants noted the need to increase transparency of utility data. One way that was identified was to unlock access to utility data streams through aggregation stripped of identifying information. Allowing dissemination to a third-party energy auditor and local authorities could help direct resources to buildings that are the worst performing in the community. One data point identified as important to track was actual propane and oil use.
- *Centralized Access for Energy Audit Data:* One participant indicated that lack of central access for data on residential building energy use and history of clean energy and energy efficiency improvements hurts consumer adoption and uptake of energy audits. Making information easily available and shareable will improve consumer willingness to request, provide, and use them to inform purchasing decisions. The participant pointed explicitly to RESNET HERS ratings and need to access multiple portals to retrieve data as an opportunity for improvement.

Closing

Laura Geel closed the meeting by thanking participants, informing them that their insights would help inform next steps decision making for the RMAG.

Breakout Session 2: Customer Engagement and Homeowner Playbooks

Meeting Summary

Tuesday November 9, 2021

Introduction

Topic Overview

Trevor Reddick, the meeting facilitator from Kearns & West, opened with Housekeeping and Ground Rules for a participant-led conversation. He then introduced the topic of Customer Engagement and Homeowner Playbooks by reviewing how it came to be identified as a priority by the RMAG.

At the Quarterly RMAG meeting held in March 2021, attendees in two breakout sessions identified the need for expanded homeowner and retrofit consumer education as a priority for the clean energy residential market transition.

Some aspects discussed identified included the need to:

- Leverage consumer-facing communications to better inform clean energy purchasing decisions
- Enhance communications about financial assistance for homeowner projects (retrofits, heat pumps, etc.)
- Expand new homeowner knowledge and energy efficiency marketing through new and existing pathways
- Develop an equity-focused community outreach strategy

Meeting Purpose

Participants reviewed the Discussion Purpose and Agenda for the meeting. Building off the identified interest in the previous RMAG meeting, this discussion was convened to help stakeholders in the New York residential market:

- To identify what's working, what isn't, and the opportunity in front of NYS to enhance communications in the residential clean energy and energy efficiency sector.
- To enhance knowledge sharing about consumer bases and how to enhance communications tools to improve impact of outreach and scale adoption.

Participants were asked to introduce themselves via chat and to answer the question, "Who are you and what is your interest in residential energy efficiency and clean energy communications?"

Presentation on Customer Engagement and Homeowner Communications

Introduction

Trevor introduced Sahara James, Senior Sustainability Consultant at Kinetic Communities Consulting. Sahara presented on their experience as Campaign Director for ElectrifyNYC, a clean heating and cooling program promoting equitable access to green technologies in the residential market run by the New York City Mayor's Office of Climate and Sustainability.

Background

Sahara introduced ElectrifyNYC, which provides free services for owners of one-to-four-unit family homes, particularly low-and moderate-income families in Queens and Staten Island, to reduce energy costs, improve comfort and air quality, and cut greenhouse gas emissions. The pilot program, running

until 2023, is composed of Electrify Queens and Electrify Staten Island. These organizations lead engagement with residents, contractors, and lenders. Sahara reviewed program resident engagement goals, identifying them as follows:

- Electrify Staten Island
 - 74-100 enrollees
 - 25 45 energy audits
 - 37-70 energy efficiency installations
 - 12-24 heat pump installations
- Electrify Queens
 - Introduce 400 Low-to-Moderate Income (LMI) homeowners to solar
 - Complete 50 solar assessments
 - Help 20 LMI homes go solar

Customer Journey

Sahara reviewed the customer journey, detailing an iterative cycle starting from intake, through program application, identifying a contractor, energy assessment, construction, and feedback. Emphasized was the importance of having a contractor handle the process from assessment through construction, and the completion of an online survey 3-6 months post-construction to ensure customer satisfaction.

Challenges and Opportunities

Sahara identified critical customer engagement challenges identified through the program, including:

- Keeping customers engaged after initial contact
- Helping customers understand the complexities of energy efficiency programs
- Connecting customers to contractors
- Maintaining intake in-between large outreach events
- Hosting events while COVID 19 concerns are still prevalent; Zoom fatigue
- Income eligibility excluding customers

Sahara also identified critical customer engagement opportunities identified through their work on the program, including:

- Emphasizing the opportunity for a free energy assessment up front
- Customers appreciate the opportunity to talk to someone about energy efficiency in their home
- Customers appreciate flexibility with contact
- Communicating with contractors to minimize effort for customers
- NYC Mayor's Office advocates for adjusting income eligibility limits

Moving Forward

Sahara concluded their presentation by identifying strategies they intend to deploy with ElectrifyNYC to improve the customer engagement experience and enhance program outcomes. These include:

- Ensuring the initial conversation addresses all customer concerns, and directs them towards a free energy assessment
- Planning and hosting events to meet more NYC residents
- Re-connecting with customers we haven't heard from

- Redirecting customers to other programs depending on location
- Staying updated on program updates to ensure dissemination of accurate information

Presenter Question & Answer

Participants used the chat function to ask questions about Sahara’s presentation. Questions received from participants and answers provided by Sahara are reflected below.

- *Question:* “Question about the Customer Journey: Who performs the energy assessment? Wouldn't "getting a contractor" need to happen first?”
 - *Answer:* Yes, you are correct. After program application, customers are then connected to a contractor to perform the energy assessment and the upgrades/installation. However, there is the NYSERDA Residential Energy Audit program that will connect a customer to an audit contractor; a customer would have to connect with a separate installation contractor after this audit.
- *Question:* “How do NYSRDA's participating vendors work with NYC contractors?”
 - *Answer:* Not completely sure what’s meant by vendors; assuming you’re referring to NYSERDA residential energy efficiency programs, Assisted Home Performance and Empower requires contractors to apply for participation. After acceptance, NYSERDA invests in marketing outreach throughout New York to promote participating contractors. NYSERDA also pays contractors to perform audits for residents, so they are no cost to the customer, which is a good tool for promotion and sales. NYSERDA also has the NYS Clean Heat program for heat pump contractors where they can capture incentives for projects to pass down to their customers. If by vendors you’re referring the Clean Heating and Cooling Communities across NYS, all programs have a focus on increasing the contractor workforce. Specifically, ElectrifyNYC aims to have contractors who’ve submitted RFI responses access training offered from NYSERDA, manufacturers, and NYC Small Business Services to expand their services and capacity. We also prioritize contractors who filled out the RFI for requesting bid proposals for interested customers.
- *Question:* “Can you talk about how success is quantified? Is the full journey tracked for each engagement? Could you estimate the time and/or expense required for the reporting and tracking?”
 - *Answer:* Our main measurement of success is measured by how many residents we’re able to engage and walk through the full customer journey. We use Salesforce to track the stages of engagement for each customer. As an estimate, I would say we spend about 15 minutes on tracking/reporting for each engagement step for each customer.
- *Question:* “When requesting quotes on behalf of customers, is the best practice to request bids from all participating contractors for the appropriate program or does ElectrifyNYC have their own preferred contractors?”
 - *Answer:* ElectrifyNYC has an RFI we share with contractors across NYC who participate in NYSERDA programs. This is to get basic information about the services contractors offer and the work they’ve done. We prioritize contractors who’ve filled out the RFI to request bids for work.

Participatory Activity

Attendees were introduced to the participatory activity for the event. Participants were invited to join a collaborative workspace where they were asked to identify needs and opportunities related to communications for a customer segment of interest. For a full list of responses refer to [Appendix A](#)

which features a copy of the final activity board and access information for an online version. The summaries below reflect participant perspectives voiced through speech and chat during the event.

Discussion Summary

Question 1: Who is the customer we are trying to reach?

Attendees were asked to identify a priority customer segment that they would like to improve their communication and engagement strategies for. While many customer segments were identified, most respondents indicated interest in discussing strategies to appeal to Low-to-Moderate Income (LMI) populations.

Question 2: What are big successes? What is working in this space? Who is doing work we should be aware of?

Participants identified best practices and successful engagement strategies for LMI communities. Some recommendations highlighted by participants were that residential market actors should:

- *Meet Customers Where They Are* – A participant indicated that their organization had experiences with LMI and other vulnerable communities that required going beyond existing protocols to accommodate. Willingness to engage people where they are, whether in their homes or in their communities, was indicated as a viable way to keep outreach and engagement levels up in between recruiting events by several other participants.
- *Clarify Availability of Free Energy Audits* – Many LMI community members are not aware of the value nor availability of free energy audits. Improving knowledge of existing programs and how they can unlock low or zero upfront cost energy efficiency benchmarking was identified as a priority opportunity to enhance consumer uptake.
- *Make Program Intake Accessible Online and Offline* – Reducing friction for digital intake processes was identified as a priority due to the administrative burden on LMI communities when applying for multiple similar or overlapping programs. NYSERDA's recent consolidation of residential program applications was mentioned as an example of an effective solution to these kinds of issues. However, while engagement is increasingly going digital, many LMI community members lack internet or cell phones. This makes online applications inaccessible to those with the greatest need. Providers need to consider accessible strategies to bridge the digital divide. Some practices identified by participants as valuable to consider include supporting completion of applications via phone/landline, and a standardized practice to follow up with applicants and program participants via non-digital communications.
- *Enhance Coordination Between Program Managers* – A participant indicated that several groups within New York State fulfill the same purpose (e.g., ElectrifyNYC and CEEP/Community Energy Engagement Program) but lack substantive coordination. Several participants echoed the sentiment, indicating interest in enhanced coordination, such as sharing referral pipelines.

Question 3: What needs improvement? Who is not being served, and what is the impact?

Participants indicated several areas in need of improvement, including:

- *Difficulty Engaging Landlords of LMI Properties* – A participant indicated hearing that some landlords are nervous about getting an audit done. This was because if they get a notice of required improvements then there's a sense of obligation. If landlords do not feel they have the means to make those improvements, then they may conclude that less information is better. Several participants echoed this perspective.

- Another participant seconded this by indicating that experience with ElectrifyNYC has shown that the word "audit" concerns landlords. Another similarly indicated that landlords have been very difficult to work with because of a lack of incentive to invest in their properties. They noted situations where tenants reach out directly to Clean Energy Advisors and qualify for low or no-cost services, but due to their pre-existing concerns the landlord refused to support the project in whole, in part, and even in situations with no expected financial contribution.
- One attendee indicated that landlords look at the return on investment but if it takes years to recoup their investment they will hold off. They also indicated that some of the most significant value generated by retrofit projects are improved comfort, health and safety, and other factors that are not easily quantified for their cash value. Another participant indicated that ROI is also not a viable communication strategy in the instance of a split incentive, referring to a situation where the tenant pays utilities, so the landlord has no financial incentive to improve efficiency.
- One attendee indicated that expectation setting is key. Programs can require significant administrative work and financing can come with contractual obligations that limit landlord options to reposition their asset. These can be active disincentives for landlords to apply for, or even consent to participation in a program by their tenants.
- *Programs are Geographically Dependent* – One participant noted that ConEd has significant Air Source Heat Pump incentives and rebates that make them almost free, while other utilities and agencies do not. Patchwork incentive structures can make consumer education more difficult.

Question 4: What is the critical information that consumers need to know about energy efficiency and clean energy?

Participants reviewed existing knowledge and identified gaps by customer segment, focusing on LMI homeowners, owners of LMI rental properties, and LMI renters. Attendees indicated the following topics as integral for consumer education to enhance uptake of clean energy and energy efficiency solutions.

- **Participants indicated that critical information for all LMI housing stakeholders includes:**
 - *Communication of state legislation/initiatives* – Several participants indicated that consumers should understand how legislation will affect purchasing decisions in the home, especially if/as prospective legislative mandates for building electrification materialize, such as the recommendations made by the Energy Efficiency and Housing Advisory Panel to the NY Climate Action Council.
 - *Communication of incentives/rebates/grants/low-interest rate financing for energy saving projects* – One attendee indicated that individual homeowners are much more open to upgrading their systems when their current one is reaching its end of life.
 - *Services/resources available from Community Energy Advisors* – Several participants indicated that LMI homeowners should be
 - *Understanding of energy usage and systems (examples: heat pumps, net metering, behavioral changes to lower energy bills, what an energy audit is and its significance, etc.)* – Participants indicated the need for basic energy systems knowledge building among owners. One participant indicated that customers can be overwhelmed with too much information on the possible energy efficiency projects for their home which can cause decision paralysis. They recommend that contractors provide targeted education

on topics of highest significance to the homeowner, focusing attention on projects with greatest Return on Investment (ROI).

- *Cost and value of renewable energy installation*
- **Participants indicated that critical information for LMI Homeowners includes:**
 - *Availability of Community Solar* – A participant indicated that in situations where on-site solar is not viable that LMI homeowners should increasingly be made aware of programs and opportunities to procure local energy.
- **Participants indicated that critical information for Owners of LMI Rental Properties includes:**
 - *Value proposition when the energy bills are paid by tenants* – Participants identified several ways aside from energy savings ROI to sell clean energy and energy efficiency projects to owners of rental properties. One participant indicated the example of an owner reducing turnover in their rental units by addressing comfort, health, and safety deficiencies. Another attendee indicated an issue with selling based on ROI, considering the lack of cost comparability for electrification solutions. They indicated that combining communication of prospective regulation and alternative value from energy efficiency projects could provide incentive to implement them.
 - *What an energy audit shows and its significance* – One participant indicated that landlords are averse to energy audits in part because the language of audit need further education on the scope and significance of an energy audit before uptake will increase.
- **Participants indicated that critical information for LMI Tenants includes:**
 - *Energy use/benchmarking of a unit versus average unit in building* – Several participants expressed interest in digital platforms as a consumer awareness tool for clean energy and energy efficiency while also inducing behavior change. They indicated that smart home technologies, such as smart submetering available via a cell phone application, can give power to the consumer through real time energy use tracking which can help induce behavior changes to reduce energy consumption.
 - *Value proposition when the energy bills are paid by landlord* – Several participants indicated that providing basic information on how energy efficiency and clean energy projects can increase comfort, reduce health and safety deficiencies, and provide other benefits to inhabitants can help sell the process to those without liability for heating and cooling utility costs.

Question 5: What is needed to bridge the gap between what people now, and what we would like them to know in this space?

- ***Broad Stakeholder Collaboration is Needed to Unlock Opportunities:*** Several participants indicated that without broader coordination between local, regional, and state government, industry, NYSERDA program managers, and utilities that solutions like widespread access to digital platforms will not be feasible. Attendees indicated that government leadership and communication of prospective regulations are helpful baselines for coordination.
- ***Program Manager Collaboration is Important and Complex*** – Several participants indicated the need to better align program managers to improve outcomes for their organizations and New York’s clean energy and energy efficiency goals while noting that programs can sometimes deal with difficult constraints, including occasional competition for the same pool of funding. Participants indicated interest in learning more about prospective convenings like the NYSERDA

Regional Clean Energy Hubs while identifying local regionalization and supplementary organizing boards as valuable actions to consider pursuing presently.

Question 6: Who needs to be part of solving this, and what can they do?

In conversation, participants identified two proposals to move forward through the RMAG.

- *Proposal 1: Enhanced Energy Efficiency Program Coordination*
 - Several participants indicated that energy efficiency program managers should negotiate constraints to improve collaboration that will unlock scale for LMI communities. Participants indicated need to learn more about the NYSERDA Regional Clean Energy Hubs and the intent to track for relevance to RMAG activities.
- *Proposal 2: Inventory of Public information on Energy Efficiency for LMI Communities*
 - Laura Geel indicated that the RMAG should conduct an informal inventory of available communications materials before producing something new. Participants indicated that a collection of informative resources could be helpful to support LMI community outreach if they can be made relevant and accessible for LMI household needs.

Closing and Next Steps

Laura Geel closed the meeting, noting that breakout session outcomes and next steps on identified proposals would be discussed on the Closing Plenary Session.

Breakout Session 3: Scaling Envelope Improvements

Meeting Summary

Wednesday November 10, 2021

Introduction

Topic Overview

Laura Geel, Program Manager with NYSERDA's Single Family Residential program opened the meeting by introducing the breakout session, noting the importance of envelope improvements for achievement of NYSERDA and New York State's clean energy and energy efficiency goals.

Trevor Reddick, the facilitator from Kearns & West, provided housekeeping and etiquette reminders for the virtual meeting setting. He then introduced the topic for discussion.

At the Quarterly RMAG meeting held in March 2021, attendees in two breakout sessions identified the need to scale envelope improvements as a priority for the clean energy residential market transition.

Some aspects discussed identified included the need for:

- *Increased Education* - Visualization and demonstration of weatherization projects, like the Heat Pump Planner Book are helpful for communicating the value of envelope improvements.
- *Hard-to-Retrofit Building Strategy* – Devising a plan to address residential buildings with unique features that make envelope improvements difficult. Ex/ NYC brownstones

Meeting Purpose

Participants reviewed the Discussion Purpose and Agenda for the meeting. Building off the identified interest in the previous RMAG meeting, this discussion was convened to help stakeholders in the New York residential market:

- Identify if there is an existing market opportunity for scaling the uptake of envelope improvements in the 1-4 family housing stock in NYS. Why or Why Not?
- Create understanding of how we measure success and what our goals are. How do inventors, suppliers, installers, and consumers evaluate the market opportunity for envelope improvements?
- Brainstorm ideas on what is needed to move this market forward. What levers can we pull?

Participants were asked to introduce themselves via chat and to answer the question, "Who are you? What are you and your organization's interests in residential envelope improvements?"

Presentation on Technology Development to Address Building Envelope Energy Retrofits

Introduction

Trevor introduced André Desjarlais, Residential Buildings Research Program Manager for the Building Envelope Materials Research Program at the Oak Ridge National Laboratory.

Findings

André presented on three envelope improvement innovation projects with Vacuum Insulated Panel technologies (VIPs). The technology was identified as valuable based on its high R-value and relatively

thin profile compared to comparable technologies. André reviewed what went right with the development process indicating that ORNL were:

- Able to attract industry partners.
- Able to manufacture technologies.
- Meet energy efficiency targets.
- Able to avoid creating durability issues.
- Met modeled and projected cost targets.

André then indicated that despite achieving these benchmarks that you cannot buy these products today because they were told by industry partners that their sales and marketing functions could not identify a market for the product. While ORNL was able to support development of cost-effective technologies, they were unable to convince potential buyers/customers of the business case.

Participatory Activity

Attendees were introduced to the participatory activity for the event. Participants were invited to join a collaborative workspace where they were asked to identify needs and opportunities related to communications for a customer segment of interest. For a full list of responses refer to [Appendix D](#) which features a copy of the final activity board and access information for an online version. The summaries below reflect participant perspectives voiced through speech, chat, and posting thoughts to the collaborative activity board during the event.

Question 1: When you think about scaling envelope improvements, how do you measure success? Let's think about it from each sector (Innovation, Supply, Consumer Demand, Manufacturing, Installation).

Participants identified many factors influencing success across the housing value chain. Top responses include:

- *Ensuring Affordability of Envelope Improvements Through Low-Cost Sales Process*
- *Improving Access to Education for Homeowners to Increase Consumer Demand*
- *Passage of Energy Benchmarking Mandates to Induce Consumer Demand and Send Market Signals*
- *Helping Consumers Overcome Analysis Paralysis Through Consultative Sales*
- *Focusing on Worst Performing Buildings to Most Appropriately Allocate Resources*

Question 2: Where are the greatest opportunities to scale envelope improvement technology?

- *Installer and Consumer Education* – A participant indicated that the existing market is in Attic & Basement insulation, yet contractors are using legacy technologies like fiberglass for attic ceilings. They indicated the value of NYSERDA or another authority providing literature explaining the best way to insulate the home. Consumers need clarity on likely outcomes from energy efficiency projects to appropriately set expectations.
- *Cross-Sector Coordination* – One attendee indicated that coordination is needed across trades to sync up projects in a cost-effective manner considering that envelope insulation means a new siding system as well as dealing with the additional thickness at windows and doors. For instance, he referenced that for window installation that it would be valuable to include siding contractors to inform the customer of cost savings generated by replacing siding at the same time. Sharing of information, including disclosures, photo reports, HERS ratings, and other data points was identified as one way to enhance coordination. Another indicated that the situation

is more complex given that contractors may be loath to recommend projects they cannot complete in-house. One participant indicated that there are not many contractors available that offer this turnkey process.

What is the greatest opportunity to scale envelop improvement technology? (Factors to consider: Supply Chain, New Technology, Installations, Home Typologies, Customer Interests...)

Participants identified a variety of opportunities from the installer, homeowner, and supply chain perspectives. Top responses include:

- *Focus on Sales Messaging Beyond ROI* - Participants indicated that given existing regulatory and market dynamics that selling envelope improvements based on ROI from energy use cash savings is not viable. Instead, contractors and others in the real estate value chain should emphasize the impact of improvements for Comfort, Health and Safety, and other relevant factors.
- *Focus on Similar Building Typologies* – One attendee indicated that lot of homes today were built after World War 2 and that the greatest opportunity is in identifying where buildings are of similar age and characteristics. Edward agreed with André, indicating that the difficulty in identifying similar housing characteristics at scale lead their organization to pilot panelized wall technologies on a large multifamily building instead of a residential property.
- *Expand the Sales Push Beyond the Contractor* – One participant indicated that overemphasizing the contractor’s role in raising the market opportunity can mean missing the different places in the value chain where actors like real estate agents and insurance agents can influence homeowner purchasing decisions. Another responded that contractors are going to need to scale their businesses to meet the increased demand, so I do think that contractors have a role to play

Question 3: Think about 200,000 retrofits annually. What are the major gaps to achieving success in your area of expertise (supply, install, consumer?)

Participants identified major gaps in supply and installation. Top responses include:

- *Neighborhood Characterization and Identification* - Participants indicated the need to identify specific communities amenable to scaling envelope improvements based on similar typology.
- *Reducing Fossil Fuels and Increasing Envelope Improvements Simultaneously* - Failure to decarbonize buildings while increasing their air tightness was identified by several participants as a potential health and safety concern given recent research on the adverse health impacts of fossil fuel combustion in homes.
- *The Pandemic and Inflation Are Negatively Affecting Supply* – One participant indicated that there are material shortages on insulation spray foam products and that prices have tripled over the past year. Resilience in supply chains was identified as a significant gap to fill.

Question 4: Proposed Solutions (What levers can we pull – Regulatory, Financing? New Technologies? Innovations?)

Participants identified several potential solutions, but focused discussion on fleshing out the Neighborhood Characterization Pilot concept. One participant indicated that pilots of a localized approach can work through creation of scalable processes including neighborhood characterization, whole-of-house grading, and sales in stages. Another indicated that this approach can also drive cost efficiencies for contractors through consistent jobs.

Question 5: What are Our Next Steps?

Based on the conversation throughout the event, participants identified three proposals t on the topic of scaling envelope improvements:

- **Proposal: Consumer Education Program on Whole of House Retrofits:** Participants indicated a need to identify and develop communications materials enhancing coordination between all actors in the residential market development chain. Relevant parties identified include, but are not limited to Manufacturers, Contractors, Local and State Government, Trusted Community Representatives, Real Estate Agents/Salespeople, Utilities, Insurance Providers, and more.
- **Proposal: Local Influencer and Trusted Resource Network Development** – Participants indicated that local networks of influencers, such as knowledgeable, trusted installers, can accelerate adoption by hesitant communities.
- **Proposal: Neighborhood Characterization Pilot** - Focus on housing stock with similar typologies/characteristics can make a compelling business case for efficiencies in the envelope improvement sector by creating project management knowledge that reduces costs, mass ordering, and consistent job approaches that enhance margins for installers. One participant identified Allied in NJ as a provider offering whole house solutions that has scaled to 100 whole houses jobs per month.
- **Proposal: Residential Energy Benchmarking Education and Incentives** – Participants indicated that energy use benchmarking is a critical lever for market development based on its role in driving market awareness and prioritizing decarbonization in home purchasing decisions. One participant referenced the Climate Action Council and the importance of regulation for sending market signals.

Closing and Next Steps

Laura Geel closed the meeting, noting that breakout session outcomes and next steps on identified proposals would be discussed on the Closing Plenary Session.

Closing Plenary Session

Meeting Summary

Monday November 15, 2021

Introduction and Opening Remarks

Sara Omar, meeting facilitator from Kearns & West, opened the meeting with Ground Rules and Housekeeping. Laura Geel, program manager for residential programs at NYSERDA, provided Opening Remarks reflecting on the RMAG structure, priorities, and next steps. Laura then passed it to Trevor Reddick, facilitator from Kearns & West, to review Breakout Session Themes, Outcomes, and Next Steps.

Breakout Session Themes, Outcomes, and Next Steps

Breakout Session 1: Energy Use Benchmarking

Themes/Outcomes

Trevor reviewed the Breakout Session activity, including its:

- Meeting Purpose, Structure, and Desired Outcomes
- Preliminary Themes and Outcomes
 - *Automatic Energy Use Data Collection*
 - *Establishing Standardized Benchmarks and Data Formats*
 - *Data Hubs - Local Authority for Anonymized Energy Data Sharing*
 - *Home Sales Marketing*
 - *Market Development Information Sharing*
 - *State-level Residential Energy Benchmarking Mandates*
 - *Workforce Development Pathway to Certification*

Next Steps

Keith Bohling, Senior Project Manager at NYSERDA, reviewed Next Steps by identifying how NYSERDA is moving forward on, and/or scoping activities related to, identified themes. Activities being pursued by NYSERDA in the field of energy use benchmarking identified include:

- NYSERDA wrapping up Home Energy Rating Pilot, working on documenting learnings and how they can help us moving forward
- We are also tracking outcomes of residential energy disclosures across the country
- Several virtual audit solutions have been funded as part of Remote Audit Challenge and we're watching for opportunities related to residential benchmarking and disclosures.

Keith also reviewed specific themes identified by participants to discuss existing NYSERDA activities and developing interests to align with. These include:

- *Automatic Energy Use Tracking/Data Hubs* – Participants were instructed to review NYSERDA's developing Integrated Energy Data Resource convening to connect interest with NYSERDA program activities. For more information, participants were directed to see: <https://www.nysERDA.ny.gov/All-Programs/Integrated-Energy-Data-Resource/Get-Involved>
- *State-level Energy Benchmarking Mandates* – Participants were referred to Energy Efficiency and Housing Advisory Panel recommendations made to the Climate Action Council. Participants

were also informed that the draft Climate Action Council Scoping Plan will be released for public comment in 2022. For more information, participants were directed to see:

<https://climate.ny.gov/-/media/CLCPA/Files/2021-05-03-EE-and-Housing-Recommendations.pdf>

- *Disclosure for Real Estate Transactions* – Participants were told to review the agenda for, and consider attending, the Clean Energy for Homes Conference scheduled for February 2022. The program features at least one session focused on existing market solutions that can enhance visibility of energy use in real estate transactions.
- *Workforce Development* – Participants were informed and updated on availability of several NYSERDA Program Opportunity Notices, including the New York State Clean Energy Internship Program (PON 4000), and the On-the-Job Training for Energy Efficiency and Clean Technology (PON 3982) funding opportunities. Keith informed participants of a new funding round for the Career Pathways Training Partnerships for High-Efficiency HVAC and Heat Pumps (PON 4463) funding opportunity. Participants were informed that if they can partner with a community-based organization to support technical training and program development to inquire with NYSERDA program staff. For more information, participants were directed to see: https://portal.nyserdera.ny.gov/CORE_Solicitation_Detail_Page?SolicitationId=a0rt000000x71xCAAQ

Breakout Session 2: Customer Engagement and Homeowner Playbooks Breakout Session

Themes/Outcomes

Trevor reviewed the Breakout Session activity, including its:

- Meeting Purpose, Structure, and Desired Outcomes
- Presentation by Sahara James of Kinetic Consulting on challenges and opportunities with their pilot program ElectrifyNYC, which is helping expand clean energy and energy efficiency projects for LMI communities in Queens and Staten Island.
- Discussion Outcomes, including the two group proposals identified at the end of the session.
 - *Proposal: Enhanced Energy Efficiency Program Coordination* – Improved collaboration between energy efficiency program managers can encourage scaling access for LMI
 - *Proposal: Inventory of Public Information on Energy Efficiency for LMI Communities* – Important topics to consider for inclusion are those that identify best-in-class materials serving:
 - Best Practices for Site-Specific Education/Engagement (Meeting People Where they Are)
 - Information for Contractors Serving LMI Communities
 - Information for LMI Homeowners
 - Information for Owners of LMI Rental Properties
 - Information for LMI Tenants

Next Steps

Laura Geel reviewed Next Steps for the Customer Engagement and Homeowner Playbooks priority by identifying how NYSERDA is moving forward on, and/or scoping activities related to, identified breakout session themes. Laura identified the proposals from the breakout session and indicated how RMAG membership can move each forward:

- *Proposal: Enhanced Energy Efficiency Program Coordination* – Participants were informed of the the Regional Clean Energy Hubs RFP and to review the Clearinghouse List to identify organizations who have identified interest in teaming with other organizations for the purposes of broader collaboration. For more information, participants were told to see: <https://www.nyscrda.ny.gov/All-Programs/Regional-Clean-Energy-Hubs/Regional-Clean-Energy-Hubs-Clearinghouse-List>
- *Proposal: Inventory of Public information on Energy Efficiency for LMI Communities* – During the breakout session it was identified that prior to creating new materials that NYSERDA should conduct a survey of RMAG membership to identify existing best-in-class materials addressing each market segment. Participants were instructed that they would receive a survey and that they should respond with relevant materials which would be summarized and shared. Participants were also informed that further conversations, including Listening and Strategy Sessions could be convened to identify specific actions the RMAG can take. Participants were invited to email resmarket@nyscrda.ny.gov with any questions or concerns for this process. A summart of responses will be shared separately.

Sara then walked participants through three poll questions gauging group interest in future sessions on customer communications topics. Copies of poll questions and results of the poll are available in this document as [Appendix E](#).

Breakout Session 3: Scaling Envelope Improvements

Themes/Outcomes

Trevor reviewed the Breakout Session activity, including its:

- Meeting Purpose, Structure, and Desired Outcomes
- Presentation by André Desjarlais, Residential Buildings Research Program Manager for the Building Envelope Materials Research Program at the Oak Ridge National Laboratory on the innovation to commercialization gap and its implications for scaling envelope improvement technologies.
- Discussion Outcomes, including the four group proposals identified at the end of the session.
 - *Proposal: Consumer Education Program on Whole of House Retrofits*
 - *Proposal: Local Influencer and Trusted Resource Network Development*
 - *Proposal: Neighborhood Characterization Pilot*
 - *Proposal: Residential Energy Benchmarking Education and Incentives*

Next Steps

Laura reviewed Next Steps for the Scaling Envelope Improvements Breakout priority by identifying how NYSERDA is moving forward on, and/or scoping activities related to, identified breakout session themes. Laura identified actions connected to themes from the breakout session and how RMAG membership can move each forward:

- *Community Level Support and Local Network Building*
 - Participants were informed of local network building and collaborative convening opportunities through the Regional Clean Energy Hubs RFP.
 - Participants interested in working on a neighborhood characterization pilot were instructed to consider participation in the Stacked Energy Efficiency Pilot Framework

Working Group. The group is developing a framework that can help inform program managers on the factors to consider when implementing a program that combines energy efficiency and clean energy projects. To connect to this work, participants were instructed to email resmarket@nyserda.ny.gov

- **Consumer Education**
 - Participants were instructed to consider opportunities to share educational and technical resources on envelope improvements to help identify gaps. Efforts to improve consumer education were also identified as valuable when aligned with efforts to scale energy disclosure and benchmarking adoption in the residential market.

RMAG Meeting Themes and Discussion

Sara and Laura fielded questions and feedback from participants to help inform process design and provide answers to questions from participants.

Next Steps and Upcoming Engagements

- **Clean Energy for Homes Conference, February 9-10, 2022.**
 - For more information, participants were told to see: <https://events.building-performance.org/regional>
 - Opportunities were identified for RMAG participants to be an attendee, exhibitor or sponsor
- **Stacked Energy Efficiency Pilot Framework Working Group**
 - Participants were informed of the Working Group's monthly meetings and if interested were told to sign up by emailing resmarket@nyserda.ny.gov
- **Membership Showcase**
 - As part of RMAG regular programming NYSERDA seeks presentations from membership highlighting their company and their work. If interested, participants should email resmarket@nyserda.ny.gov
- **Listening Sessions**
 - NYSERDA are in the planning stages of Listening Sessions to help scope activities addressing priority RMAG topics. Upcoming sessions include a Workforce Development Forum and Peer-to-Peer groups. Participants were told to look out for updates on these activities as they proceed.

Closing

Laura closed the session by thanking participants for their participation.

Appendix A

RMAG Process Diagram

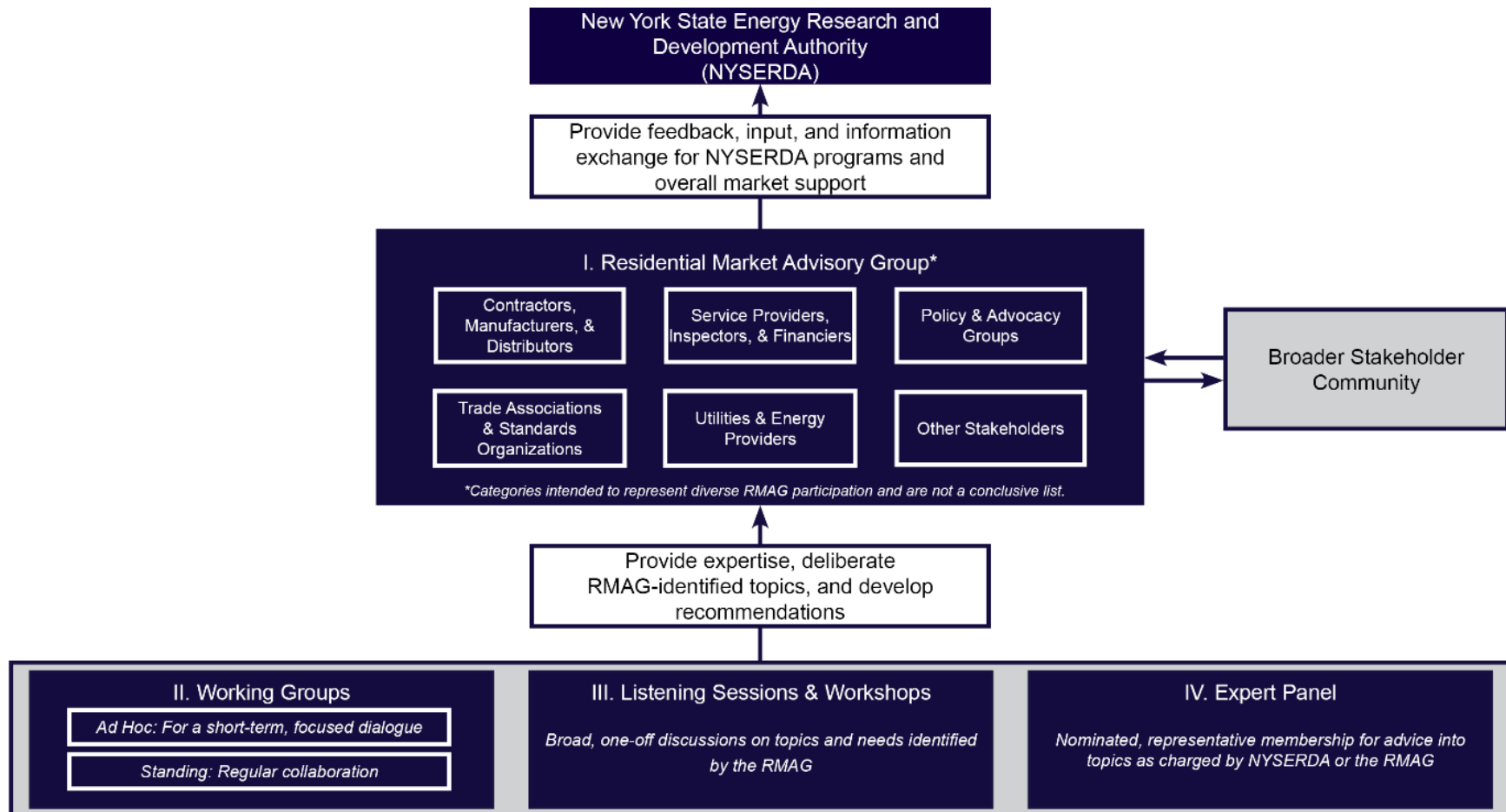


Figure 1: Information flow between stakeholder groups

Appendix B

Residential Energy Benchmarking Breakout Session: Participatory Activity

Below is the final board used during the breakout session. For the online version, please see: [Residential Energy Benchmarking Miro Board](#)

Residential Energy Benchmarking



Appendix D

Scaling Envelope Improvements Breakout Session Participatory Activity

Below is the final board used during the breakout session. For the online version, please see: [Scaling Envelope Improvements Miro Board](#)

Scaling Envelope Improvements



Appendix E

Closing Plenary Session: Communications and Homeowner Playbook Poll and Results

Question 1: Are you interested in a future session(s) about customer communications, focusing on a variety of customer types?

Response	Count
A - Yes, I would actively participate	8
B - Yes, I would listen in but may or may not contribute to the conversation	3
Total	11

Question 2: If you are interested in participating in future discussions about customer communications, which customer types are of most interest to you? Select up to 3.

Response	Count
Customers reluctant to take on a loan to pay for EE and clean heating upgrades	9
Customers who want to replace fossil-fuel systems	6
Purchased a new home in the past 12 months	4
Rural customers	3
Customers with English as a second language	3
First time home buyers	3

Response	Count
Green-minded customers	2
Customers of different cultural backgrounds	2
Multi-generational households	2
Total	34

Question 3: What other customer types are of most interest to you?

Response	Count
Owners of 1–4-unit buildings with tenants	
Folks working with an architect that's just giving them a code home	
Customers who aren't seeking out information about upgrades or decarbonizing	
Landlords	
Rural customers who lack internet access	
Cities	
Total	7