



NYSERDA

**NYSERDA Residential Market Advisory
Group (RMAG) Meeting
June 23, 2021 Meeting Summary**

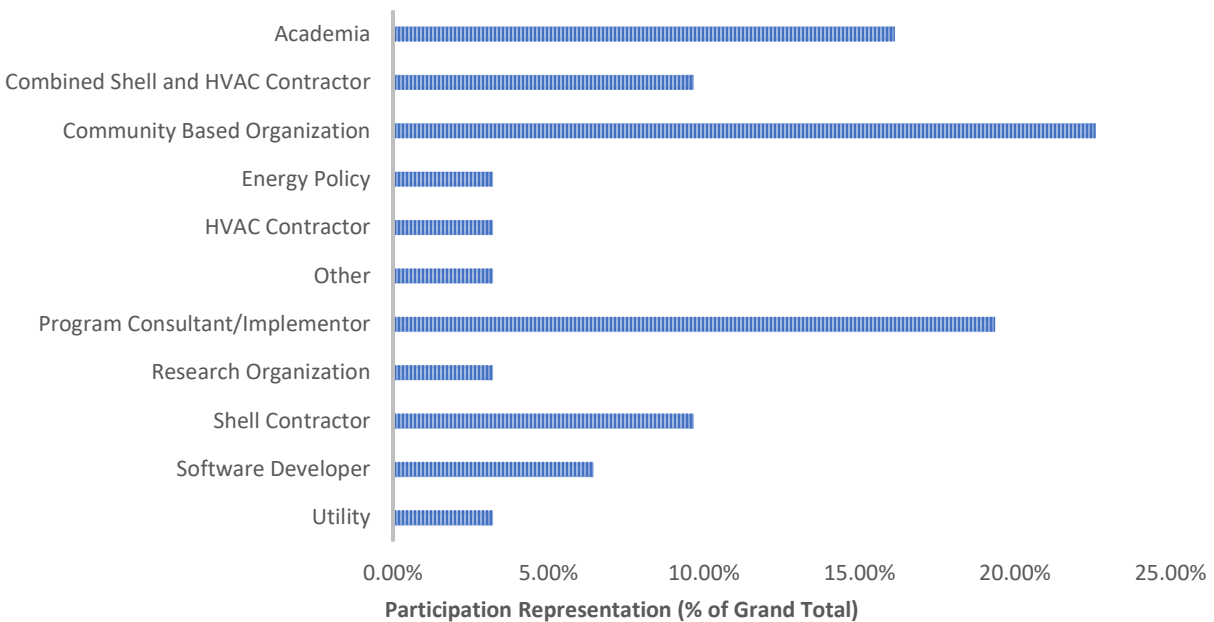
Table of Contents

Meeting Overview.....	3
Welcome and Q1 RMAG Meeting Recap.....	3
Carbon Neutral Buildings Roadmap – Greg Hale	4
Update on Energy Efficiency and Housing Advisory Panel Recommendations – Emily Dean	4
Discussion on Carbon Neutral Buildings Roadmap and EE&H Panel Update	5
Federal Policy Update – Kara Saul-Rinaldi	6
Discussion on Federal Policy Update	6
RMAG Priorities Recap.....	7
RMAG Priorities Exercise	7
Preliminary Findings.....	8
New RMAG Priorities: Interested in Pursuing.....	8
New RMAG Priorities: “Parked” and Not Identified to Pursue.....	9
Previously Stated RMAG Priorities: Continuing Interest	10
Previously Stated RMAG Priorities: “Parked” and Not Identified for Continuing Interest.....	10
Closing Statements and Upcoming Engagement Opportunities	11
Appendix A: RMAG Engagement Process	12

Meeting Overview

On June 23, 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 Q1 meeting, held in March 2021. NYSERDA staff and invited speakers shared new information on New York State’s Carbon Neutral Buildings Roadmap, status reports on recommendations made by the NYS Clean Heat Energy Efficiency and Housing (EE&H) Advisory Panel, and residential sector federal policy updates. Meeting participants engaged in discussion regarding new RMAG priorities, including an educational homeowner communications playbook and benchmarking for residential building retrofits. The presentation slides for this meeting can be found here: <https://www.nyserdada.ny.gov/Partners-and-Investors/Partner-With-NYSERDA/Residential-Market-Advisory-Group>.

In total, 51 individuals attended the meeting, including 13 NYSERDA staff. Meeting participants identified their organization during registration, bringing diverse perspectives across residential market sectors to the discussion. The sector makeup of the meeting is illustrated in the chart below:



Welcome and Q1 RMAG Meeting Recap

Courtney Moriarta, Director of NYSERDA’s Single Family Residential department, welcomed participants to the webinar. Sara Omar, the meeting facilitator from Kearns & West, reviewed the meeting agenda and ground rules.

Laura Geel, Program Manager with NYSERDA’s Single Family Residential department, provided a recap of the Q1 2021 RMAG Meeting held in March 2021. Laura noted presentations were made on the following topics:

- Updated on the Climate Act: Preliminary Policy Options for Buildings Sector
- Workforce development opportunities

- NYS Clean Heat Statewide Consumer Awareness and Education
- Heat Pump Planner

Laura reviewed working group priorities and provided an update on NYSERDA’s work to advance each of these priorities. These updates are summarized as follows:

- QA Working Group completed its work and will launch a QA Expert Panel soon.
- EmPower+ Redesign Working Group was completed.
- A call for participants was put out on six priority items, with two moving forward.

Laura then reviewed RMAG objectives established to help achieve the RMAG mission and the structure of the RMAG Charter. She highlighted three stakeholder engagement group types that inform the RMAG: Working Groups, Listening Sessions & Workshops, and Expert Panels. Each of these groups provides expertise and recommendations to the broader RMAG, which in turn provides feedback, input, and information to NYSERDA. A graphic noting this engagement process is attached in **Appendix A**.

Laura noted a longer RMAG meeting to be scheduled in September, with details to follow. Lastly, Laura detailed the rest of the meeting, introducing the presentations as regulatory updates for residential energy efficiency and clean energy markets in New York and the federal government.

Carbon Neutral Buildings Roadmap – Greg Hale

Greg Hale, Senior Advisor for Energy Efficiency Markets and Finance at NYSERDA, presented on New York State’s Carbon Neutral Buildings Roadmap. Greg presented a condensed version of the Carbon Neutral Buildings Roadmap webinar series hosted by NYSERDA on June 15 and 16, 2021. The roadmap is a living document developed to help support carbon-neutral building stock goals mandated by the Climate Leadership and Community Protection Act (CLCPA).

The roadmap identifies priority building typologies and offers recommendations to address multiple sectors of building decarbonization. The scope of the roadmap includes:

- A common definition and understanding of carbon neutral buildings.
- Studies to showcase construction practices and technologies useable today, and the potential for technology cost reductions.
- Modeled solutions focused on building electrification and grid implications.
- Explains the business case for carbon neutrality.
- Recommends policy solutions to ratchet down emissions and reduce cost.

Greg reviewed next steps for the Carbon Neutral Buildings Roadmap which includes an ongoing public comment period. Greg pointed members to the NYSERDA website where more information on the program can be found and public comment can be submitted: <https://www.nyserdera.ny.gov/All-Programs/Programs/Carbon-Neutral-Buildings>.

Update on Energy Efficiency and Housing Advisory Panel Recommendations – Emily Dean

Emily Dean, NYSERDA’s Director of Market Development, presented an update on the NYS Clean Heat Energy Efficiency and Housing (EE&H) Advisory Panel. The panel was convened to provide New York

State's Climate Action Council (CAC) with recommendations for implementing the Climate Leadership and Community Protection Act (CLCPA). The EE&H panel is composed of a diverse set of experts in various sectors across the state.

Emily reminded participants that the RMAG had reviewed draft recommendations made by the EE&H panel during the Q1 RMAG meeting. Emily then presented the final recommendations made by the panel which were presented to the CAC in May 2021.

The EE&H Panel provided recommendations for mitigation strategies helping achieve building decarbonization across single family, multifamily, and commercial and institutional buildings. The panel recommended four strategies:

- **Phase out fossil fuel use in buildings** – Enact enabling legislation and adopt codes, standards, and regulations to improve energy efficiency, reduce emissions, and enhance resilience. Adopt regulations that phase out fossil fuel use in buildings, requiring energy-efficient electric heating and cooling, electric hot water heating, and electric appliances.
- **Require benchmarking** – Require measuring building energy usage, benchmarking energy performance, and making that information accessible via disclosure or labeling.
- **Shift reliance on fossil gas to a clean energy system** – Advance a managed, phased, and just transition from reliance on fossil gas and the gas distribution system to a clean energy system, including elimination of embedded subsidies for fossil gas.
- **Shift reliance on HFC used as refrigerants and in all products used in construction** – Advance a managed and just transition from reliance on the use of hydrofluorocarbons (HFCs) as refrigerants and in all products used in building construction.

Emily indicated that these recommendations will be considered by the CAC as they develop an integration analysis with support by NYSERDA. The integration analysis identifies economy-wide scenarios for achieving CLCPA mandates to limit statewide greenhouse gas emissions to 40% of 1990 levels by 2030 and 85% by 2050. This will inform a Draft Scoping Plan to be released for public comment in 2022.

Discussion on Carbon Neutral Buildings Roadmap and EE&H Panel Update

Participants offered feedback and suggestions on the Carbon Neutral Buildings Roadmap and EE&H Panel recommendations as follows:

- One participant requested clarification on the pace of all-electric and efficient retrofits of existing buildings outlined by the Carbon Neutral Buildings Roadmap. Greg Hale clarified that the roadmap sets an expectation that by 2030 the residential retrofit market should scale to enable 200,000 residential retrofits annually from the year 2030 to 2050.
- Another participant noted that the proposed policies and recommendations must address envelope improvements and weatherization. Emily Dean indicated the need for more policy levers for envelope improvements and noted a discussion within the EE&H Panel on point-of-sale incentives for weatherization occurred but was not carried forward due to concerns about economic burden on homeowners.

- One participant asked what deficiencies exist in current recommendations. Greg acknowledged the need for more detail on financing structures, balancing residential efficiency and grid development, along with technology R&D.

Federal Policy Update – Kara Saul-Rinaldi

Kara Saul-Rinaldi, President & CEO of AnnDyl Policy Group, presented on updates to pending and passed federal legislation affecting building decarbonization efforts in the residential sector. Kara presented updates on policy across sector areas, including:

- **President Joe Biden’s American Jobs Plan** - The American Jobs Plan pairs \$213 billion in direct funding with more than \$100 billion in new and expanded tax credits. Together with new incentives for zoning reform, these investments intend to produce, preserve, and retrofit more than two million affordable and sustainable homes. This includes more than 500,000 new and rehabilitated homes for low- and moderate-income homebuyers and homeowners.
- **HOPE for HOMES Act** – Grants for online workforce training and Home Energy Savings Retrofit Rebate Program.
- **The Clean Energy for America Act** - Long-term, performance-based energy tax incentives for clean electricity, clean transportation fuel, and energy conservation. Ends tax incentives for fossil fuels.
 - *Energy Efficient Home Improvement Tax Credit* - Provides homeowners with a tax credit equal to the lesser of 30 percent of the cost or \$600 per improvement, with an overall annual limit of \$1,500 for all home improvements.
- **Workforce Legislation**
 - *Blue Collar to Green Collar Jobs Development Act of 2021* - Requires the Department of Energy carry out a comprehensive nationwide program to improve education and training for jobs in energy-related industries, with emphasis on increasing the number of skilled individuals from underrepresented communities trained to work in those jobs.
 - *Green Neighborhoods Act of 2021* - Requires the U.S. Department of Housing and Urban Development (HUD) to implement energy efficiency standards and incentives for new and existing housing structures. Allows consumers to obtain a standardized energy report to ensure energy efficiency improvements are accounted for in the appraisal process for single-family homes.
 - *Senate Energy Bill*
- **Sensible Accounting to Value Energy (SAVE) Act** - A bill that would allow mortgage lenders to consider a home’s energy-efficiency savings when determining a buyer’s ability to afford a house. First introduced by Colorado Senator Michael Bennet in 2013.

Kara provided participants with analysis and outlook for the varying proposals referenced above. Topics included potential makeup and timeframe for an infrastructure bill, the state of finalized appropriations, passage of tax policy, opportunities for bipartisan compromise, and implications for mid-term elections.

Discussion on Federal Policy Update

Participants offered feedback and suggestions on the federal policy update as follows:

- One participant asked about the status of Property Assessed Clean Energy (PACE) financing at the federal level considering recent press. Kara indicated that PACE financing could be introduced at the federal level but referred to existing concerns from the US Federal Housing Administration (FHA) and Federal Housing Finance Agency (FHFA) as blockades to adoption at this time.
- One participant asked how proposed federal policies might be implemented at the State level and their potential implications. Kara explained that the HOPE for HOMES Act would be implemented by State energy agencies who would write rebate program guides to US Department of Energy standards and submit for approval to receive funding. Greg emphasized the importance of federal funding to support State-level initiatives.
- Another participant asked what deficiencies need to be addressed in existing recommendations. Kara indicated that there is often a disconnect between policies addressing energy efficiency and Low- and Moderate-Income (LMI) needs. Emily echoed this sentiment, indicating the importance of affordability to minimize energy burdens while incentivizing decarbonization.

RMAG Priorities Recap

Laura Geel reviewed the top priorities identified during previous RMAG meetings and provided an update on NYSERDA's work to advance each of these priorities. Laura identified in-progress themes and initiatives supporting those priorities as follows:

- Normalizing Heat Pumps
- Ramping Up to Meet Our Goals
- The New Normal

Laura then presented a list of priority items which had not seen forward progress, listed as follows:

- Buying Groups
- Engagement Playbook
- Heat Pump Boot Camp
- Peer to Peer Group
- Pools of Trained Contractors
- Standards of Interoperability
- Supply Chain Resiliency
- Training for Service Technicians

Laura summarized the progress updates by noting that NYSERDA had made meaningful progress on eight of the priority items identified during the previous RMAG meeting, while an additional ten items had seen at least some progress.

RMAG Priorities Exercise

Participants engaged in a facilitated discussion and ranking exercise for RMAG priorities. RMAG members were put into three breakout rooms and conducted a virtual whiteboard exercise. Participants shared initial thoughts on priorities that had yet to proceed which were still relevant and significant for achieving RMAG goals. After that, participants shared initial thoughts on new priorities for the RMAG to take on considering information learned in preceding presentations.

Preliminary Findings

Preliminary findings are grouped based on if a theme was previously identified by RMAG members or was newly identified during the exercise. Level of interest in progressing or ‘parking’ an item was identified based on prevalence: whether it was identified by no groups, at least one group, or at least two groups. For the sake of the exercise, a previously identified RMAG priority was considered ‘parked’ if it was not flagged explicitly by participants as one to proceed with.

Priorities are grouped according to the above standards and listed in alphabetical order. Preliminary findings from the RMAG priorities exercise are displayed in the following chart:

Priority Exercise Preliminary Findings Summary			
	Interest in 2 Breakout Rooms	Interest in 1 Breakout Room	Parked Priority or Not Identified
Previously identified Priorities			
Buying Groups			
Engagement Playbook			
Heat Pump Boot Camp			
Peer-to-Peer Groups			
Pools of Trained Contractors			
Standards of Interoperability			
Supply Chain Resiliency			
Training for Service Technicians			
	Interest in 2 Breakout Rooms	Interest in 1 Breakout Room	Parked Priority or Not Identified
Newly Identified Priorities			
Benchmarking			
Communications Playbook for Homeowners			
Demand Side Resiliency/ Adaptation			
Envelope Improvements			
Locating Green Hydrogen in New Development			
Workforce Development			

New RMAG Priorities: Interested in Pursuing

In at least two breakout rooms the following new priority themes were identified:

- Benchmarking** – Benchmarking was identified by two breakout groups as a priority for the RMAG to address. Several participants noted gaps in existing benchmarking for the residential sector and indicated that benchmarking metrics should encompass both energy use and characteristics of a building, such as its asset value. Another participant noted that the benchmarking policy recommended to the CAC by the EE&H Advisory Panel should be supported with an automated utility and energy use data management and analysis system.

Several supported this idea, indicating that real-time, sub-minute interval electric and natural gas usage data could enhance energy audit/analysis insights and behavior change.

In at least one breakout room the following new priority themes were identified:

- **Communications Playbook for Homeowners** – In one breakout room participants identified multiple types of information that were important to communicate to homeowners based on the presentations.
 - *Communications about fossil fuel goals* – Participants discussed the importance of making homeowners aware of State intention to phase out fossil fuels in residential buildings to enhance homeowner understanding when engaging contractors and improve clean energy purchasing decisions.
 - *Communications about financial assistance for homeowner projects (retrofits, heat pumps, etc.)* – Participants discussed the ongoing importance of making homeowners aware of residential decarbonization incentives across service and product areas to accelerate adoption of decarbonized mechanical systems and appliances.
 - *New Homeowner Knowledge & Energy Efficiency Marketing* – Participants identified development of communication tools raising awareness among new homeowners about the energy efficiency rating of their homes, the significance of developing regulatory requirements, and the benefits of energy efficiency.
 - *Income-based Communication Strategy* – Participants identified increasing awareness among LMI communities of homeowner resources, educational tools, and energy transition job opportunities as important. Collectively, these efforts are meant to encourage capacity building and economic development.
- **Envelope Improvements** – Participants indicated interest in pursuing envelope improvements and weatherization as an RMAG priority. A participant recommended developing educational materials to visualize and demonstrate weatherization projects in a format like the Heat Pump Planner Book. Another participant recommended developing a hard-to-retrofit buildings strategy to address residential buildings with unique features that make envelope improvements difficult. For example, NYC brownstones.
- **Locating Green Hydrogen within new developments (New Technology nexus with New Housing)** – Participants discussed the importance of researching a potential role for renewable hydrogen in residential housing development and retrofits, including as a fuel source to power home space heating and cooking.

New RMAG Priorities: “Parked” and Not Identified to Pursue

In at least one breakout room the following new priority themes were discussed and identified as parked priorities:

- **Demand Side Resiliency/Climate Adaptation** – A participant in a breakout room expressed initial hesitation about how the market would value resilience and noted they had not previously marketed products and services using this approach.
- **Workforce Development** - One breakout group identified Workforce Development as a “parked priority” for the RMAG – noting that lots of activity is underway in this space.

Previously Stated RMAG Priorities: Continuing Interest

In at least two breakout rooms participants identified the following previously stated RMAG priority interests as still significant and worth pursuing:

- **Pools of Trained Contractors** – Two groups identified staffing shortages in industries like HVAC and potential benefits of a trained contractor pool to recruit from. Multiple participants across both groups identified workforce development issues as critical and indicated existing issues for recruiting both entry-level and senior positions. Participants discussed that colleges are putting out trained technicians through internships and expressed interest in expanding those types of projects into other building retrofit industries. It is important to note that participants in one group identified Workforce Development as a “parked priority” for the RMAG – noting that lots of activity is underway in this space.
- **Engagement Playbook** - Identified by two groups as a continuing priority. Discussions included the extent of activities to be covered by a prospective LMI Engagement Playbook, with one group focusing in on ownership and jobs. It is important to note that participants in one breakout group did not rank the Engagement Playbook as a continuing priority.

In at least one breakout room participants identified the following stated RMAG priority interests as still significant and worth pursuing:

- **Heat Pump Bootcamp** – Identified by one group as a continuing priority. In discussion breakout groups were conflicted on the Heat Pump Boot Camp. One group noted that the Building Performance Contractors Association (BPCA) is already seeking funding for their Heat Pump Bootcamp. The BPCA Heat Pump Bootcamp has major heat pump manufacturers supply training manuals, donate training materials, and assist with training. With that ongoing activity, participants suggested this could be a parked priority. Participants in another group indicated that Heat Pump Boot Camp remains a priority and referenced the BPCA work to consider a potential partnership with the RMAG.
- **Peer-to-Peer Groups** – Identified by one group as a continuing priority. A participant noted a potential role for the Building Performance Contractors Association (BPCA) to promote or partner on this initiative as a development of their work.
- **Standards of Interoperability** – In discussion over standards for inter-changeable components of clean heating equipment a participant noted the importance of standardizing communications protocols for building controls.

Previously Stated RMAG Priorities: “Parked” and Not Identified for Continuing Interest

In at least two breakout rooms participants identified the following stated RMAG priority interests as a “parked priority” or were not actively identified by participants as priorities to progress:

- **Buying Groups** - Develop a buying group to improve buying power and supply chain resiliency among regional groups.
- **Supply Chain Resiliency** - Develop a roadmap for ways to develop supply chain resiliency and avoid pitfalls like equipment shortages that are occurring now.

- **Training for Service Techs** - Provide focused trainings for service technicians. These can take the form of short, focused webinars, and could be integrated with existing credentialing needs. Designing and specifying should be areas of focus for the trainings.

Closing Statements and Upcoming Engagement Opportunities

Courtney closed the meeting by bringing attention to several engagement opportunities for RMAG members, including an August 19 webinar, an RMAG meeting scheduled for September 2021, and announcement of the Contractor Working Group and Large-Scale Pilot Working Group. Lastly, Courtney noted a pending call for presentations in July-September for a conference with the Building Performance Association scheduled for February. Those interested in participating in any of the above are invited to resmarket@nyserda.gov.

Appendix A: RMAG Engagement Process

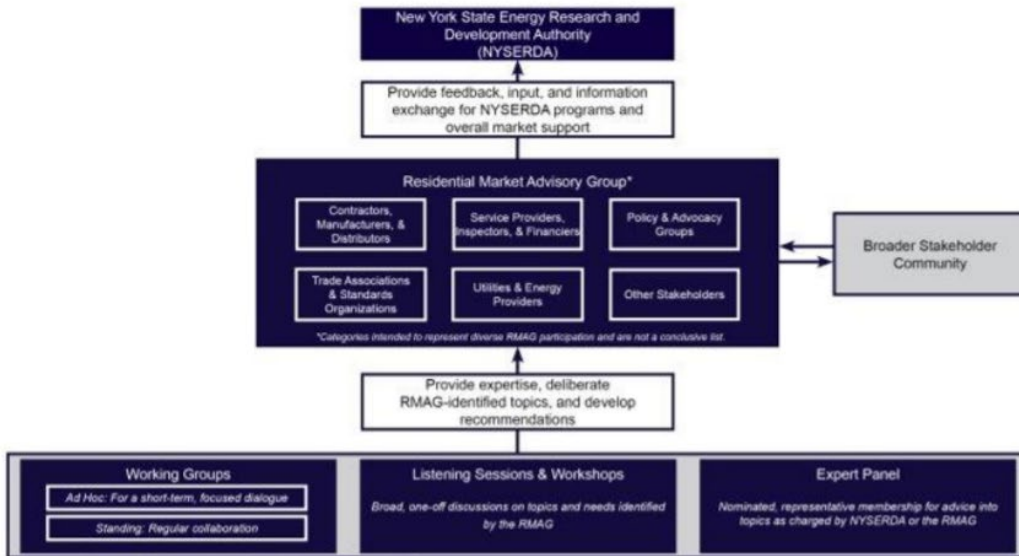


Figure 1: Information flow between stakeholder groups