



ENERGY EFFICIENCY WORKERS & LEADERS OFFER INSIGHTS:

Gleanings
From an Industry
Stakeholder
Workshop
on NextGen
New York
Programs



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In the weeks following the Workshop, a major crisis emerged in New York as COVID-19 spread across the U.S. Non-essential work shut down. Companies and workers—including home performance and weatherization contractors--faced financial hardship.

The Building Performance Association, E4TheFuture and other allies began work on mitigation responses to the pandemic's impact on the energy industry.

Issues raised and consensus positions developed at the Workshop will be important to help the energy efficiency/building performance industry regain strength after the state of emergency is lifted.

Executive Summary

This report details essential feedback received from a half-day New York Contractor and Industry Allies Workshop held February 10, 2020, convened by E4TheFuture and the Building Performance Association.

Attendees discussed sweeping policy changes created by recent executive and legislative action that significantly altered the state's energy efficiency marketplace. Presentations on the changing New York policy landscape informed a wide-ranging discussion of opportunities and challenges.

The 104 Workshop participants provided responses to two questions (Table 1). Their valuable input is categorized by seven themes. Table 1 shows group votes and responses, plus a tally of participants' ideas submitted via notecards. Top themes were Program Design and Financing.

TABLE 1

Program Design	Financing	Policy	Marketing & Consumer Education	Training/ Workforce Development	Business Model Innovation	Stakeholder Engagement
1: How does New York's policy shift to include a focus on decarbonization (e.g., cleaning the electric grid, transition to heat pumps, building electrification, etc.) as well as other initiatives change your thinking, impact your business/organization, or create opportunities?						
22	9	13	10	8	8	0
2: What are the most important things that NYSERDA and/or the Utilities could do to help your business/organization succeed in the market under the new policies, guidelines, laws, programs, etc.?						
25	10	4	8	7	2	2
Individual Participant Feedback						
32	23	15	12	12	4	3
Subtotals						
79	42	32	30	27	14	5

As utilities and agencies work to develop the next generation of energy efficiency and electrification programs, this report will provide key feedback to inform long term program design. Ultimately this will help ensure the success of New York State's energy efficiency/building performance industry and help New York meet its ambitious goals.

Introduction

On February 10, 2020, in conjunction with the 2020 Northeast Regional Home Performance Conference & Trade Show, E4TheFuture and the Building Performance Association (BPA) co-hosted a half day workshop for New York energy efficiency contractors and industry allies. The context for the meeting was a recently approved increase in spending on energy efficiency in New York State. In mid-January, the NY Public Service Commission approved an additional \$2 billion, bringing the state's total authorized expenditures to \$6 billion on energy efficiency through 2025 (by state agencies and gas and electric utilities). The funding will support additional workforce development, market stimulation, and financial resources from the NY utilities and NYSERDA to increase efficiency, electrify and decarbonize the state's buildings, homes, and grid. To address these emerging opportunities, E4TheFuture and BPA invited contractors and market stakeholders to engage in informal discussion with representatives from organizations such as NYSERDA, BPA, E4TheFuture, Building Performance Institute (BPI) and the Building Performance Contractors Association of New York (BPCA). The workshop activities included:

- Lunch and networking
- Presentations on recent developments with New York State legislation and programs
- A guided exercise with groups of 8-10 developing responses to questions

See Appendix I for the full agenda.

Per the New Efficiency: New York Order issued in January by the NY Public Service Commission, New York utilities will have primary responsibility for designing programs to implement the state's energy efficiency and electrification goals. NYSERDA will coordinate with the NY utilities to offer programs and market enablement activities. While the Order calls for implementation plans as early as April 1st, E4TheFuture and BPA foresee that stakeholder input will prove invaluable to utilities as they strive to design effective programs for 2020 to 2025. New York utilities, in concert with NYSERDA, must aim high to achieve carbon reduction goals while providing New Yorkers with clean, comfortable and efficient building stock.

This report summarizes the Workshop presentations, discussions, and participant exercise results. BPA and E4TheFuture **intend that the direct feedback solicited during the workshop will assist utilities, program administrators, state agencies and policymakers by providing an understanding of the challenges faced by market participants.**

The more than 100 attendees were encouraged to share ideas on ways to advance the home and building performance industry and to reach NY's aggressive 185TBtus of end-use energy savings in buildings by 2025. Attendees were a diverse group representing 20 organizational types with a broad range of perspectives (see Appendix II for a full version of the attendee table). Home performance contractors comprised nearly a quarter of the group. Some attendees cross multiple categories but were tallied as their "primary type."

TABLE 2

Attendee Category	# of Attendees
Home Performance Contractor	25
Consulting	11
Government	10
Weatherization Agency	9
Education & Training	7
HVAC Contractor	5
Nonprofit	5
Subtotal for Categories with < 4	32
TOTAL	104

While the Workshop focused on New York, E4TheFuture and BPA anticipate that some New York stakeholder ideas and recommendations may be transferable to other states with similar energy efficiency and electrification goals and programs.

Overview of Presentations and Related Discussion

E4TheFuture and BPA welcomed participants to an “open forum” for their ideas and recommendations to support growth of New York’s energy efficiency market. Conrad Metcalf of the Building Performance Contractors Association of New York (BPCA) and John Jones of the Building Performance Institute (BPI) provided introductory remarks. Valerie Strauss, Association for Energy Affordability (AEA), and Caroline Hazard, CHH Consulting, presented an overview of legislation, regulatory proceedings, and market opportunities in the new decarbonization/electrification framework. (See slides, Appendix II)

NYSERDA’s Courtney Moriarta (Director, Single Family Residential Programs) and Chris Coll, (Director, Low and Moderate Income Initiatives), spoke about expected changes in programs. Patrick O’Shei (Director, Market Development) also provided an update on proposed regulatory approaches. Workshop participants were invited to ask questions and provide comments. Key points and discussion are summarized here.

Key Points Raised by NYSERDA

- Recent policy developments provide unprecedented alignment among state agencies and utility programs.
- We need everyone’s involvement to achieve our goals. Changes in programs and approaches do not mean a lowering of standards but are needed to bring everyone into the marketplace.
- New York may see a change in terminology; instead of “energy efficiency” we will talk about “load reduction.”
- Don’t panic if what you hear -- from NYSERDA or utilities -- doesn’t seem to fit into your business model. We need all business models to achieve the state’s goals.

On programs specifically for low and moderate-income populations or Low and Moderate Income (LMI) (including affordable multifamily housing):

- LMI Programs need to align with, and address, energy affordability issues.
- Providing efficiency measures is complicated due to barriers: many households can’t pay for upgrades; many buildings have structural or other issues.
- The recent authorization of additional funding provides at least \$200 million for LMI programs. NYSERDA is funding another \$300 million (through 2025) through the Clean Energy Fund.
- The joint NYSERDA and utilities LMI implementation plan is due in mid-May 2020. Utilities and NYSERDA are working together to plan investments. They are:
 - Funding energy efficiency programs for small homes and multifamily buildings
 - Working to improve customer experience and streamline participation for customers and service providers
 - Investing in community-based and other approaches such as working with food banks, local housing organizations, and mid-stream retail partners

- In addition to the work with the utilities, NYSERDA is undertaking additional work in this area, including
 - Exploring streamlined application processes
 - Working with other agencies including Homes and Community Renewal (HCR) and Office of Temporary and Disability Assistance (who administers the Home Energy Assistance Program (HEAP))
 - Streamlining Weatherization Assistance Program (WAP) and HEAP etc. so programs work together
 - Looking into streamlining eligibility verification – perhaps using geographic boundaries; launching geographic pilots in Albany and Monroe Counties
- \$30 million of NYSERDA funds will go toward analyzing appropriateness of heat pumps for LMI, including examination of policy and regional barriers and equity, shifts in billing for heat and hot water; likely will initiate demonstrations/pilots.
- Current program infrastructure can be used to drive more LMI “small homes” (1-4 family) work with NYSERDA and utilities working together.
- New Construction and Multifamily programs are more complicated due to differences among utility territories and building types.
- At least three stakeholder meetings are planned across NYS prior to the implementation plan filing in May; webinars will be held and information distributed.
 - NYSERDA generally hears from low-income and environmental advocates at such events.
 - NYSERDA needs market participants – contractors, etc. – to also engage.
- Note that the plan will not be set in stone and will evolve over time.

On potential regulatory and legislative changes, NYSERDA noted current priorities for energy efficiency scores and the energy code:

- NYSERDA is exploring HERS ratings or other home scores, as well as other disclosure requirements, with the eventual goal to supply all homes with an efficiency score.
- The stretch code will be mandatory in May in NYC. The state hopes to achieve adoption in 20-30 municipalities. The goal is to codify the stretch code into state law and drive change.
- Currently the energy cost code drives natural gas investment with gas prices low; the goal is to move to a carbon code so that by 2030, single homes, low-rise multifamily and small commercial buildings will have a carbon neutral code.
- NYSERDA is looking at proposals for simpler product standards like California, although there are federal preemption concerns with HVAC.

Key Points Raised/Details Surfaced During Participants’ Conversation

Incentives:

- Utility funding will be for incentives; NYSERDA has \$200 million/year for market enabling/workforce development.
- Utilities will take over market rate incentive programs.
- NYSERDA will run Comfort Homes as a pilot for now and will coordinate with utilities.
- NYSERDA can’t control incentive levels offered by utilities but can provide input; is working with utilities to develop approaches, especially for heat pumps.

Stakeholder engagement, especially input from the private sector:

- Many contractors feel the administrative burden is excessive, with little opportunity for their input to NYSERDA and the utilities.
- Non-profits have played, and continue to play, an important role in an advisory capacity to NYSERDA.
- Opportunities exist that enable anyone, including contractors/private sector participants, to provide input; the Retail Market Advisory Group (RMAG) includes private contractors.
- To create opportunities and jobs, we need to use language customers can understand; “home performance” isn’t meaningful to customers.

Low and Moderate Income (LMI) Population:

- The 20% set-aside seems too small, given that 40% of the population is LMI.
- Under the recently passed climate law (CLCPA), at least 35% but preferably 40% of benefits must go to Environmental Justice and Disadvantaged Communities. The exact definition of disadvantaged communities is to be determined under the CLCPA.
- Of the 20% set aside, 40% is earmarked for multifamily buildings. A review of progress to date is scheduled for 2022, with potential changes and additional funding to align with the CLCPA.
- Work groups are required by the CLCPA; NYSERDA and utilities will align their programs with the decisions made on disadvantaged communities and tracking of benefits by the CLCPA work group outcomes as appropriate.
- Referrals from Empower to Weatherization Assistance Program (WAP) are lackluster in NYC; hopefully new approaches and funding will spur utilities to get people into the pipeline.
- Approaches should be more consistent between LMI and non-LMI programs, since contractors do not know in advance if a customer is LMI or market rate.
- Program design needs to consider how costs vary in different geographic areas, and what impacts result if incentives are identical across the state. Workforce issues are also characterized by distinct regional issues.

Participant Exercise Results and Related Discussions

Methodology

Attendees met in groups of 8-10 at roundtables. Dick Kornbluth (Dick Kornbluth, LLC) facilitated, asking each table to respond to:

Question 1: How does New York's policy shift to include a focus on decarbonization (e.g., cleaning the electric grid, transition to heat pumps, building electrification, etc.) as well as other initiatives change your thinking, impact your business/organization, or create opportunities?

Question 2: What are the most important things that NYSERDA and/or the Utilities could do to help your business/organization succeed in the market under the new policies, guidelines, laws, programs, etc.?

Roundtables discussed each question for 30 minutes, then collectively produced the top three ideas from their tables. Facilitators posted these on the workshop wall. Each participant received six stickers (three per question). After being invited to review the entire wall, they “voted” for ideas they deemed most essential by adding stickers. So as not to lose any comments or ideas that may not have been up-voted through the process, participants were invited to write their ideas and comments on cards. These cards were collected and summarized in Appendix III.

Key Themes and Recommendations

Seven themes emerged among answers to both questions: program design, financing, policy, marketing and education, training and workforce development, business model innovation, and stakeholder engagement. The table below presents the volume of responses organized by thematic area. Some feedback covered multiple themes; those inputs are tallied accordingly.

TABLE 3

Category	Volume of Responses
Program Design	79
Financing	42
Policy	32
Marketing & Consumer Education	30
Training/Workforce Development	27
Business Model Innovation	14
Stakeholder Engagement	5

Thematic areas with the most participant votes were suggestions, recommendations, and commentary related to effective **program design** considerations. Recommendations and ideas for higher incentive levels and improved access to **financing** was second. **Policy**-related suggestions, inclusive of statewide, portfolio, and programmatic levels was third. Participants called for more **marketing and consumer education** to help advance state goals. Similarly, **training and workforce development** is needed. Several participants offered suggestions for advancing **innovation in business models** to scale the market. Lastly, several participants called attention to the continued need for improved **stakeholder engagement** in program design decisions. Figure 1 depicts the proportion of votes received for each area.

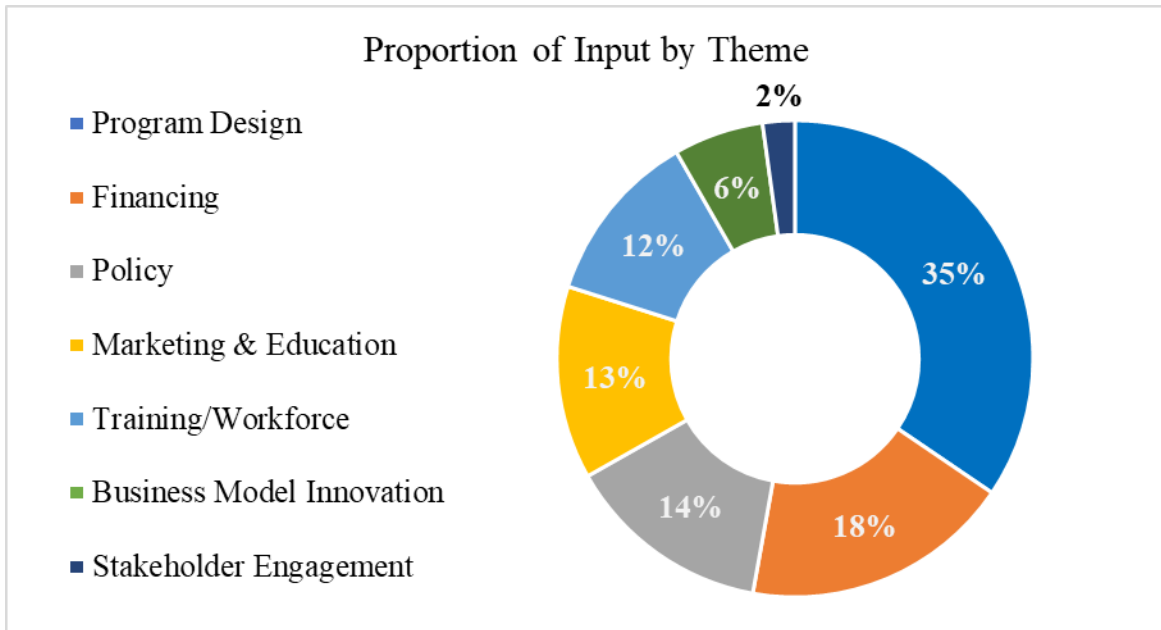


FIGURE 1

Examination of participant up-votes with sticker dots for Questions 1 and 2 reveals similar distribution for each question (Figure 2). A review of the unedited responses in the appendix also reveals similarity despite the two different questions posed. Many responses received for Question 1 (on opportunities posed by decarbonization goals) could have easily also been answers to Question 2 (on program design). Figure 2 shows this, with program design receiving the same number of votes for both Question 1 and 2. The only major area of variability in votes by theme between the two questions is reflected in policy-related responses.

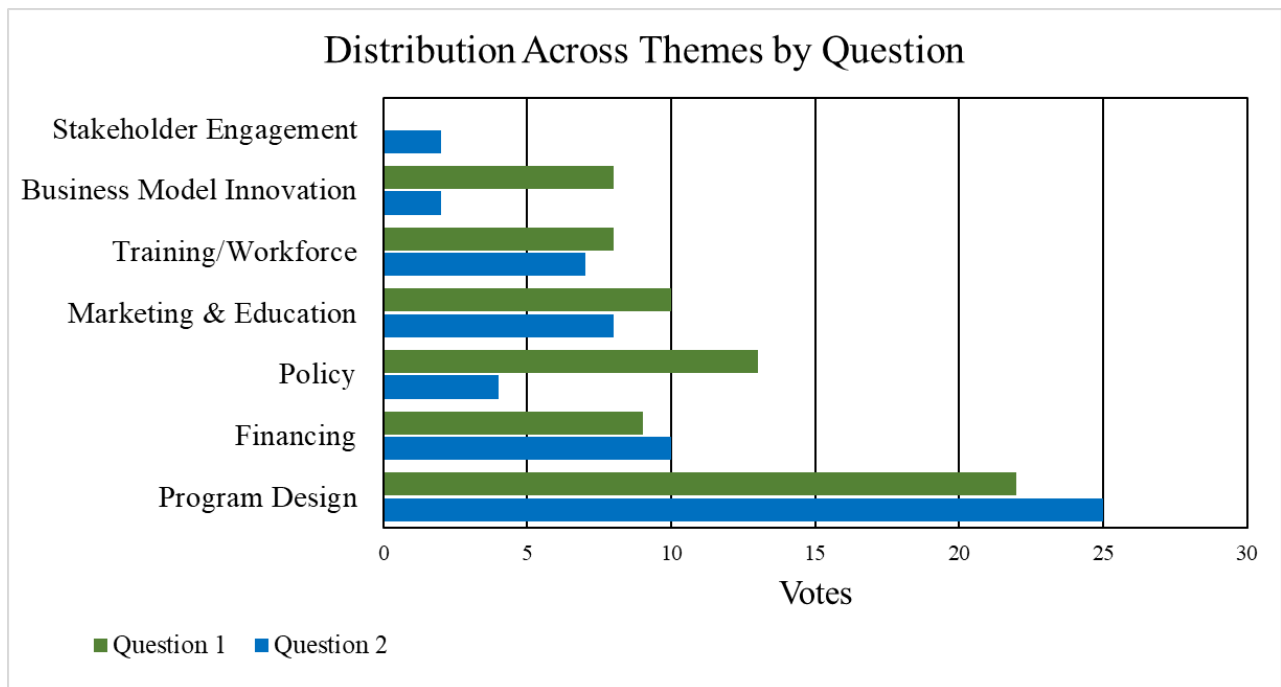


FIGURE 2

Question One: Impact of Decarbonization Policy on Your Business or Organization – Prioritized Ideas and Recommendations

Thirty-eight recommendations were posted on the workshop wall for votes, in response to Question 1. (See Appendix III for all recommendations.) The top five are:

TABLE 4

Question 1: How does New York's policy shift to include a focus on decarbonization (e.g., cleaning the electric grid, transition to heat pumps, building electrification, etc.) as well as other initiatives change your thinking, impact your business/organization, or create opportunities?		
Recommendation/Idea	Theme	# Votes
Must do envelope work first.	Program Design, Policy	19
Assessment must right-size the system (load, SIR, ROI) Include real time monitoring. Envelope must be included.	Program Design, Policy	16
Public awareness is key. Built around programs that are available for heat pumps and weatherization.	Program Design, Marketing & Education	16
Incentives: <ul style="list-style-type: none"> • Performance-based • Carbon-based • Focus on energy savings, not dollar savings 	Financing, Program Design, Policy	16
Change business model. Has to be easy for customer to access the loan program.	Financing, Program Design	14

Question Two: Best Type of Support for Your Business or Organization – Prioritized Ideas and Recommendations

Participants identified 35 recommendations for Question 2. When participants voted, results were evenly dispersed. (See Appendix III for all recommendations.) The top five are:

TABLE 5

Question 2: What are the most important things that NYSERDA and/or the Utilities could do to help your business/organization succeed in the market under the new policies, guidelines, laws, programs, etc.?		
Recommendation/Idea	Theme	# Votes
Require a comprehensive energy audit for ALL programs (solar/ASHP/market etc.).	Program Design	16
Workforce development starting from high school (scholarships, BOCES ¹ , etc.).	Training/ Workforce Development	16
Contractor/building official incentives for education.	Training/ Workforce Development	13
Aggressive, simple homeowner incentives (such as \$13.5K in CA). Buy down interest rates (0% sells).	Financing, Program Design	12
Make the application process simple.	Program Design	11

¹ Board of Cooperative Educational Services

Overview of Specific Recurring Responses

During the post sticker-dot voting for ideas posted for Questions 1 and 2, Dick Kornbluth facilitated a discussion around the seven themes that emerged. Below are recommendations and ideas repeated by multiple participants.

1. Program Design:

- Ensure that the building envelope and other building performance issues are addressed prior to receiving electrification measures (e.g., heat pumps). The sequencing of work is critical to achieving optimal performance to meet the state's Btu reduction targets.
- Concern over the administrative cost of navigating significant paperwork and bureaucracy by both contractors and customers.

2. Financing:

- Contractor incentives need to be significant enough to outweigh the administrative burden of participating in the program in order to build out the needed workforce.
- The ability for the customer to quickly and easily access financing is critical to success.
- Implementing a low or zero interest financing option similar to neighboring states would significantly increase program participation.

3. Policy:

- While the state is proposing large increases in energy efficiency and electrification, the low cost of natural gas is a barrier to the widespread adoption of decarbonization measures. A policy solution to better value the carbon reduction of building performance measures, instead of focusing on energy savings, could assist with this imbalance.

4. Marketing & Education:

- To achieve the state's goals, education and marketing of utility and NYSERDA programs needs to be greatly enhanced through:
 - Public Service Announcements by the Governor or state to explain the push to decarbonize and the role that buildings play in achieving the state's goals.
 - Marketing collateral co-branded by the state agencies and the utilities.
- Customers need education about the effectiveness of heat pumps and other electrification technologies to buy-in.

5. Training/Workforce:

- Concern over the lack of a trained workforce to achieve the state's goals.
- Retain the BPI Gold Star certification requirement. Some contractors who invested in acquiring this training are concerned about continuing to invest resources to achieve eligibility when programs change frequently.
- A need to develop a pipeline of workers through investments in high school technical programs and training reimbursements for businesses to increase skills within their existing workforce.

6. Business Model Innovation:

- The state's push for decarbonization through electrification presents opportunities and challenges for the state's building performance businesses to expand services that are offered.
- 7. Stakeholder Engagement:**
- Contractors expressed a desire for a meaningful stakeholder forum to have their concerns and suggestions heard and acted on.

Conclusion and Next Steps

The Building Performance Association and E4TheFuture appreciate the vibrant discussion amongst the diverse participants who devoted over four hours of their time on February 10. Attendees spoke candidly about the challenges in supporting New York State goals to decarbonize and strategically electrify the grid. Their thoughtful ideas and recommendations are recorded in this document. As the New York utilities, NYSERDA and other State Agencies proceed with program plans, E4TheFuture and BPA will advocate for the inclusion of suggestions that arose around key themes (program design, financing, policy, marketing and consumer education, training and workforce development, business model innovation, and stakeholder engagement).

While a diverse contingent attended the Workshop, E4TheFuture and BPA plan to seek engagement from a broader segment of the residential building energy efficiency industry. Beyond low-income weatherization providers--and HVAC, insulation and home performance contractors--new voices may include more manufacturers, distributors, retailers, home improvement trades (e.g., roofing, siding, windows, home energy management systems), software and services vendors, trade schools, and workforce development organizations.

Over recent years, New York State and the northeastern U.S. invested seriously in developing and cultivating whole-house and weatherization contractor services. With new decarbonization and electrification objectives, it is essential to leverage these foundational market developments for skills, credentials, and quality assurance. The imperative to address climate change means we need to retrofit existing buildings as rapidly as possible. Workforce development, training and certification of highly skilled technicians in New York's marketplace must be emphasized and coupled with new business models and approaches to advance clean energy technologies.

E4TheFuture and BPA greatly appreciate the stakeholders who provided crucial feedback to assist the state's agencies and utilities with developing robust efficiency plans as a critical component in achieving New York's ambitious goals. We encourage all attendees to further engage toward creation of a thriving and innovative market for energy efficiency. It is our intent that the feedback aggregated in this report will prove invaluable in designing and improving program offerings to ensure all New Yorkers have clean, affordable and comfortable homes.

In the time between the Workshop and the release of this report, COVID-19 has caused massive disruption in New York. Severe impacts are coinciding with a key time when the state would be developing its workforce and scaling up energy efficiency work. Many companies, including home performance and weatherization providers, are struggling to stay solvent. An industry already faced with a skilled labor shortage is losing trained employees to layoffs and illness.

Some will find other employment; many may not return. Utilities and relevant agencies should be supported in developing strategies to maintain the current workforce during this crisis, and plan to scale rapidly in the wake of the virus.

Please contact scowell@E4TheFuture.org or sskodak@building-performance.org if you are interested in working with us to advance common-sense solutions to scaling New York's energy efficiency industry to meet the state's energy goals.

Appendix I: Agenda

New York Contractor & Industry Allies Workshop

Sponsored by BPA and E4TheFuture

February 10, 2020

Broadway Boardroom, Saratoga Springs Hilton, Saratoga, NY

Agenda

Noon – 12:15PM Welcome and Overview

Steve Cowell, E4TheFuture/Keith Aldridge, BPA/John Jones, BPI/Conrad Metcalf, BPCA

12:15PM – 1:00PM Lunch and Networking

1:00PM – 1:15PM Highlights of Recent Developments on New York Energy Efficiency

Caroline H. Hazard, CHH Consulting

Valerie Strauss, Director, Policy & Regulatory Affairs – Assoc for Energy Affordability, Inc.

- New Efficiency, New York
- The Climate Leadership and Community Protection Act
- January 16, 2020, NYS Public Service Commission Order

1:15PM – 2:30PM NYSERDA Perspectives on Next Steps and Implementation Planning

Courtney Moriarta, Director, Single Family Residential Programs

Chris Coll, Director, Low and Moderate Income (LMI) Initiatives

2:30PM – 2:45PM Preparation for Tabletop Discussions

Dick Kornbluth, Dick Kornbluth LLC

- Facilitated discussion at each table
- Each table to post its top three answers

2:45PM – 3:15PM Question One

How does New York's policy shift to include a focus on decarbonization (e.g., cleaning the electric grid, transition to heat pumps, building electrification, etc.) as well as other initiatives change your thinking, impact your business/organization, or create opportunities?

3:15PM – 3:45PM Break

3:45PM – 4:15PM Question Two

What are the most important things that NYSERDA and/or the Utilities could do to help your business/organization succeed in the market under the new policies, guidelines, laws, programs, etc.?

4:15PM – 4:30PM Scoring Exercise/Break

Keith Aldridge (facilitator)

4:30PM -- 5:15PM Review of Results

- Review of consensus answers for Questions One and Two
- Facilitated discussion of overlapping themes
- Discussion about remaining priorities, next steps
- Potential areas of engagement/partnering opportunities with NYSERDA and Utilities

5:15PM – 5:30PM Wrap Up and Thank You

Steve Cowell

Appendix II: Workshop Attendee Table

Note: Facilitators, presenters and support staff were included in the tally of attendees.

Attendee Category	# of Attendees
Home Performance Contractor	25
Consulting	11
Government	10
Weatherization Agency	9
Education & Training	7
HVAC Contractor	5
Nonprofit	5
Advocacy/Policy	4
Credentialing & Standards	4
Energy Rater/Auditor	4
Unknown	4
Manufacturer	3
Multifamily Housing	2
Program Implementer	2
Software/Information Technology	2
Trade Association	2
Utility	2
Healthy Housing	1
Media	1
Renewable Energy	1
TOTAL	104

Appendix III: Presentation: Road to Decarbonization & Residential Building Efficiency in New York

Note: Presenters were Valerie Strauss of Association for Energy Affordability and Caroline Hazard of CHH Consulting, LLC

Road to Decarbonization and Residential Building Efficiency in New York

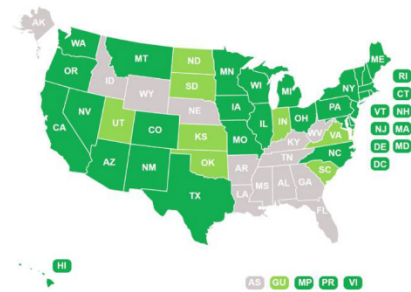
New York Contractor & Industry Allies Workshop
February 10, 2020

Our landscape is changing...



National Standards....

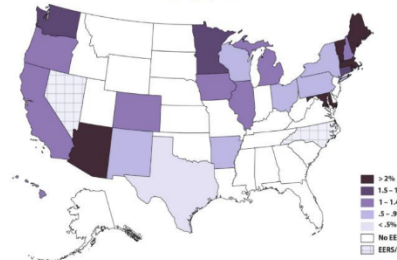
States and territories with Renewable Portfolio Standards States and territories with a voluntary renewable energy standard or target States and territories with no standard or target



5-29 US States have Renewable Portfolio Standards

29 States with Renewable Energy Portfolio Standards

State Energy Efficiency Resource Standards (EERS)
January 2017



26 States with Energy Efficiency Resource Standards

Source: ACEEE EERS Policy Brief, accessed 3/27/19; NCLS, State RE Portfolio Standards and Goals, accessed 3/27/19

3

Seeking a Clean Energy Economy

What

Strategic Electrification & Decarbonization

"Clean up" the grid by converting fossil-fuel-driven end uses to electricity

How

Supply

- Increase storage
- Add renewable energy

Demand

- Reduce loads with installation of high performing end-use technologies
- Apply behavioral tactics to reduce & shift loads

EE's Role

- Cost-effective choices for customers
- Improve health, safety, and comfort for customers
- Flexibility for load shaping
- Low-emissions options
- Generate jobs, stimulate local economies

Who's Who?

The Governor

PSC: regulatory authority over IOUs (on rates, safety, etc.) and funding for clean energy programs using ratepayer \$

The IOUs: Con Ed, NYSEG, RGE, O&R, CH, Nat. Grid, NFG

NYSERDA: R&D, market enablement, analysis, info, tech assistance, and LMI programs

LIPA: Public power (PSEG LI)

NYPA: public power authority (generation & transmission for govt, muni's, etc.)

Others to Watch

Legislature

NY- ISO

NYC Gov't: OneNYC; LL97

Dept of State: oversees building codes

Dept of Homes & Community Renewal: WAP

Dept of Labor: enforcement of labor laws

So, What's Happening in New York?

Pre-REV

Reforming the Energy Vision (REV)

EEPS
RPS

Clean Energy Standard & Clean Energy Fund (w/ NY-Sun, LMI & EE)
New Efficiency, New York
Climate Leadership and Community Protection Act

2025

2030

2035

2040

2050

- EE Goal: 185 Tbtus savings
- RE Goal: 6 GW Distributed Solar
- Distributed Grid Storage: 1.5 GW

- 40% reduction in GHG emissions from 1990 levels
- 70% of electricity from renewables
- 3 GW energy storage

- RE Goal: 9 GW from off-shore wind

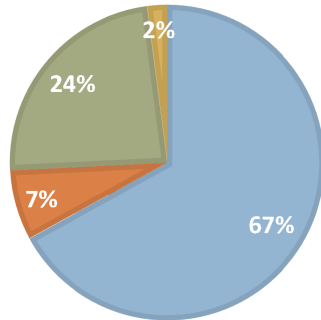
- Carbon-Free with 100% clean electricity

- 85% reduction in GHG emissions from 1990 levels

A Snapshot of NY's Residential Sector

PRIMARY HEATING FUEL, SINGLE FAMILY

■ Natural Gas ■ Electricity ■ Oil/Propane ■ Other



Housing Sector Characteristics

	Units	
Single Family	~5.3 million	~70% built before 1970
Multi-Family	~2.4 million	
Low/Moderate Income	~3.5 million	> 40% in multifamily

What can we do to shift delivered fuel end-uses to electric fuel?

What can we do to increase the efficiency of end-use systems powered with gas?

Show Me the Money

\$6.8 Billion for Electric & Gas Efficiency
(2020-2025)

~1.88 Billion for electric efficiency

~\$ 879 Million for gas efficiency

\$454 Million for Heat Pumps

~3.2 Billion for both gas & electric efficiency

LMI – at least 20% of gas and electric \$ + \$30M for heat pumps + WAP

For More Information...

NY's Reforming the Energy Vision:

<https://rev.ny.gov/>

Joint Utilities of NY:

<https://jointutilitiesofny.org/home/>



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Appendix IV: Input Collected from Group Exercise and Participant Discussion

Note: Responses are minimally edited, transcribed from handwritten notes and cards with varying degrees of legibility.

Input Collected on Question 1

Below are 38 recommendations identified by roundtable groups, in response to **Question 1: How does New York's policy shift to include a focus on decarbonization (e.g., cleaning the electric grid, transition to heat pumps, building electrification, etc.) as well as other initiatives change your thinking, impact your business/organization, or create opportunities?**

Groups discussed the question for 30 minutes, then each group suggested their top three ideas for posting to the workshop wall. All participants were then invited to review ideas and vote, prioritizing ideas considered most essential. This table presents all ideas.

Recommendation/ Idea	Category/ Themes	# Votes
Must do envelope work first.	Program Design, Policy	19
Assessment must right size the system (load, SIR, ROI) Include real time monitoring Envelope must be included	Program Design, Policy	16
Public awareness is key. Built around programs that are available for heat pumps and weatherization.	Program Design, Marketing and Education	16
Incentives: <ul style="list-style-type: none"> • Performance-based • Carbon-based Focus on energy savings, not dollar savings	Financing, Program Design, Policy	16
Change business model Has to be easy for customer to access the loan Program is simple	Financing, Program Design	14
Increase customer awareness and understanding of offerings by means of: Contractor incentives for advertisement State advertising Utility advertising Referral between offerings/communication between contractors and program eligibility	Program Design, Marketing and Education	13

Workforce development: Targeting young people and new graduates Spreading awareness of state programs that offer training and qualifications Increasing flexibility with set pricing policies to address changing job economics and unique home situations	Financing, Training/ Workforce Development	13
Workforce development: How can we invest in training to produce quality work?	Training/ Workforce Development, Policy	11
Importance of repair vs. replace When urgent decisions are being made, we need to be ready to implement clean energy.	Program Design, Policy	10
Education would help: Code officials Homeowners Upgrade BOCES ed. Contractors	Training/ Workforce Development	8
Concern over how we will find/train the workforce to support/meet these initiatives.	Training/ Workforce Development	8
The use of financing to incentivize non-emergency replacements with clean energy.	Financing, Program Design, Policy	6
Workforce development is opportunity.	Training/ Workforce Development	6
How can we increase money to the contractor?: Admin time Training more people Marketing for the program	Financing, Program Design, Marketing and Education, Training/ Workforce Development	5
It may be beneficial to look at other means of identifying savings within homes, for instance: Dollar savings Carbon savings Btu reduction In order to reach more customers and make a wider impact.	Program Design, Policy, Business Model Innovation	5
Connected load increases; carbon usage possibly increases. No fuel switch AC use in summer.	Policy	4

Customer education (who will take the lead?)	Program Design, Marketing and Education	4
How information and education will be needed for the public to understand the initiatives, goals and benefits to the customer.	Marketing and Education	4
Concern that investments in training (BPI) will be for naught Other practitioners entering program may not need to invest Safety?	Program Design, Training/ Workforce Development, Policy	4
HVAC industry wins.	Business Model Innovation	3
Need to [train] people.	Training/ Workforce Development	3
Train and promote existing employees and add new ones.	Training/ Workforce Development	3
We need a clear picture of what the incentives are and how to communicate the impact on cost and benefits to the consumer.	Financing, Program Design, Marketing and Education	2
Create reliable sourced relationships and community connections.	Program Design, Marketing and Education, Business Model Innovation	2
What assurance does a contractor have that if they commit resources the program will still be in place long enough to be profitable?	Program Design, Policy	2
Heat pump now offers opportunities but: Will there be issues with sub-standard duct [or] poor or no sizing calcs (manual J)? What about homes that haven't been weatherized first?	Program Design, Policy, Business Model Innovation	1

A HERS rating mandate will create opportunity.	Program Design, Policy	1
Create solutions that fit decarbonization as well as for that specific home. Make it something that people want. Make it a more marketable approach.	Program Design, Marketing and Education, Business Model Innovation	1
Makes it harder to sell (energy efficiency upgrade jobs).	Program Design	1
Electrification creates some concern for our business for technology and consumer buy-in	Marketing and Education, Business Model Innovation	1
Incentive to contractors = customers/money (as long as the money is there)	Financing	0
Additional money needed for structural repairs – emergency services.	Financing, Program Design	0
Paperwork must be easy.	Program Design	0
Mandate all new construction (houses) must produce 50% of own electricity (solar).	Program Design, Policy	0
Barrier of the equipment itself, with “forced air” market (with high cost of electricity).	Financing, Policy	0
Challenge of keeping high efficiency furnace.	Program Design, Policy	0
New product offering along with new marketing opportunities and education.	Marketing and Education, Business Model Innovation	0
New business opportunities and offerings Add new divisions	Business Model Innovation	0

Input Collected on Question 2

Below are 35 recommendations identified by roundtable groups, in response to **Question 2:**

What are the most important things that NYSERDA and/or the Utilities could do to help your business/organization succeed in the market under the new policies, guidelines, laws, programs, etc.?

Groups discussed the question for 30 minutes, then each group suggested their top three ideas for posting to the workshop wall. All participants were then invited to review ideas and vote, prioritizing ideas considered most essential. This table presents all ideas.

Recommendation/ Idea	Category/ Themes	# Votes
Require a comprehensive energy audit for ALL programs (solar/ASHP/market etc.)	Program Design	16
Workforce development starting from high school (scholarships, BOCES, etc.)	Training/ Workforce Development	13
Contractor/building official incentives for education	Training/ Workforce Development	13
Aggressive, simple homeowner incentives (such as \$13.5K in CA) Buy down interest rates (0% sells)	Financing, Program Design	12
Make the application process simple.	Program Design	11
Focus on designing programs that take the needs and priorities of the whole home into account. There needs to be an ability to address outlying issues in order to efficiently improve a home's usage and comfort of customers.	Program Design	9
Create market awareness Customer education Marketing from NYSERDA and utilities	Program Design, Marketing and Education	8
Flood the market Enlist the Kardashians (high profile influencers) HGTV Podcasts Work with utilities to market through invoices (stuffers)	Marketing and Education	7
Incentives for contractors and customers.	Financing, Program Design	6
Get out of the way. Make requirements simple.	Program Design	6
Trust contractors to implement the work, no more sticks in the spokes!	Program Design	6

A monetary incentive via a 0% interest loan for approximately 6 years (EFS is a problem because it is like a second mortgage).	Financing, Program Design	5
Removing customer barriers to participation in programs: Designing a joint application system for multi-program projects Design, promote, incentivize an inter-program referral system	Program Design, Marketing and Education, Business Model Innovation	5
Customer: “Drop electricity” rates and increase gas rates Or give direct “rebate”/incentive	Financing, Program Design, Policy	5
Mechanism for contractor input (TAC).	Stakeholder Engagement	5
NYSERDA marketing to put contractors “on the map” Market Gov’s mandate and identify the contractors involved via: Public service announcement by Governor (“Today, more than ever...it is important to have a home assessment done. Call this # to have one of our contractors assess your home.”	Program Design, Marketing and Education	5
Marketing collateral and co-branding funded by the program.	Marketing and Education	5
Utilities need to support whole home strategies and concepts.	Program Design, Policy	4
Programs should continue requiring credentials (BPI) Require installation standards that ensure the most efficiency system is installed (right sizing equipment and envelopment treatment beforehand).	Program Design, Training/ Workforce Development, Policy	4
Marketing Customer specific PSA’s NYSERDA	Marketing and Education	4
Training reimbursement	Training/ Workforce Development	4
Robust homeowner incentives.	Financing, Program Design	3
Improve or create more financing incentives.	Financing, Program Design	3
Per projected flat fee incentive to cover fixed costs/back of house/administrative costs.	Financing, Program Design	3

Provide contractors a seat at the “table” AND make it worth their time to be present in the discussion.	Stakeholder Engagement	3
Accelerate stretch codes Training will have to be supported Incentives to municipalities to adopt so that the stretch code doesn’t become a disadvantage (i.e. developments will be built elsewhere)	Program Design, Training/ Workforce Development	3
NYSERDA could develop the overall market awareness for comprehensive offerings that an individual contractor can’t afford to do (\$\$) or may not be capable to promote across technologies (insulation vs. heat pumps)	Program Design, Marketing and Education, Business Model Innovation	3
Pay quicker.	Financing, Program Design	2
More admin money coordination, paperwork, work scope approval, etc. Bring back the 10% contractor incentive!	Financing, Program Design	2
Keep the BPI Gold Star certification requirements (rather than requiring each auditor to be certified).	Program Design, Training/ Workforce Development, Policy	2
Programs can help implement and guide consistent pipelines to improve work for contractors.	Program Design	1
How do we know heat pumps really work as promoted? Where are the studies?	Program design	1
Bigger rebates (incentives) Lower interest rates	Financing, Program Design	0
Marketing and advertising (replicate energy star)	Marketing and Education	0
Training.	Training/ Workforce Development	0

Individual Input Collected from Group Exercise and Participant Discussion

To ensure *all* ideas and recommendations were captured, participants were invited to write ideas and comments on notecards. Participants produced 48 notecards with recommendations and comments, detailed below but unsorted.

#	Content	Categories
1	70% of all heat pump rebates are from NYC to Albany. Something needs to be done to get more done upstate.	Financing, Program Design

2	People don't believe that heat pumps work at -20F. They need public service announcements. Homes need to be weatherized to get the heating load low enough to where heat pumps can handle the load. Awareness needs to be built about the programs that are available for heat pumps and weatherization. Need to create financing mechanisms that can be paid for from the energy savings.	Financing, Marketing and Education
3	Market our business model. Take some money for short TV commercials that run continuously and describe in simple terms: 1) What it is we do 2) How 3) Provide/describe benefits. We need simple descriptive terminology to create the opportunities. Put us on the map! Legitimize!	Program Design, Marketing and Education
4	How do we have some consistency across utilities? – Jay Best, Green Team, Long Island	Program Design, Policy
5	Pay for profit owners for their time and effort. 2) Seat at the table 3) No interest 7-year loan through Synchrony Bank. 4) Marketing by NYSERDA supported by public service announcement by Gov. Cuomo	Financing, Program Design, Stakeholder Engagement, Marketing and Education
6	Training assistance: Offer heat pump assistance provide AC/heat pump training at community colleges and SUNY's solar instate training. Promote whole house approaches to retrofits (it's not just decarbonization, the building shell has to be part of the equation).	Program Design, Marketing and Education, Training/ Workforce Development, Business Model Innovation
7	Continue assistance for BPI training for workforce development (subsidies for community colleges). Reach out to connect with high schools to get them interested in field installation before college or certifications. Can NYSERDA or government entities help home performance companies to get workers compensation to create a separate category for our industry (that does not include builders)?	Training/ Workforce Development
8	Home performance businesses have to expand into electric storage and/or generators to avoid downtime on grid failure. If a customer's credit rating is low offer lower interest rates to take into account income/debt ratio.	Financing, Business Model Innovation
9	Develop a career path for high school students that begins with apprenticeship with education or certification to follow. [Make] market-rate financing widely available.	Training/ Workforce Development

10	How is the program factoring in the impact of gas extraction and the cost of taxpayer subsidies when creating incentives? How can decarbonization be achieved with natural gas and extraction impact/cost makes it far dirtier?	Financing, Program Design, Policy
11	Low interest loans/grants to existing contractors to grow business. Training assistance for upscaling workforce. Training or advertisement of home performance.	Financing, Marketing and Education, Training/ Workforce Development
12	Tiered financing based on savings.	Financing
13	Contractors need more opportunities for heat pump installs and business growth.	Program Design, Business Model Innovation
14	[new programs] open new opportunities to solar and heat pumps, but it seems to reduce the importance of air sealing and insulation.	Program Design, Policy
15	Stop subsidizing natural gas industry and make methane cost reflect actual extraction costs.	Program Design, Policy
16	Support contractor specific marketing. [Increase] customer incentives.	Financing, Marketing and Education
17	Market the “proper” way to use heat pumps.	Marketing and Education, Training/ Workforce Development
18	[Add] financing option for contractors to offer to customers (in addition to on-bill/AHP/Empower) through EFS.	Financing, Program Design
19	Gov. Cuomo should do PSAs heavily pushing the EE program, just don’t use the term “decarbonization”, put into heavy TV rotation. [There should] be a person answering the phone to explain when homeowners respond.	Marketing and Education
20	Code should be updated or raised to match the goals of the program, once architect specifications trickle down to everyday customers.	Program Design, Policy
21	Customers should not have to pay in full and wait for reimbursement of incentive.	Financing, Program Design
22	Prior to 2020 as the owner, my BPI certification covered all my home energy auditors. We were able to collect the \$250 based on my certification. The shift in 2020, requiring each auditor to be individually certified, is a heavy financial burden. It creates great difficulty for future growth to meet the Gov’s goals. Stick with what we had – BPI Gold Certification.	Program Design, Training/ Workforce Development, Policy

23	My company can't pay for every staff member to get everyone certification for audits and the installation too! I'm Gold Star [certified] - why is that not good anymore? 1,200 per auditor 1,200 per install We have 4 install crews and 3 auditors (\$8,400 per 3 years OR \$500 every year for Gold Star.	Financing, Program Design, Training/ Workforce Development, Policy
24	Workforce: I can't find people that I can put right on the job site. Selling the work is easy but installing without workforce is the hard park. On the job training for off-site training maybe will help?	Training / Workforce Development
25	Get Gov. Cuomo to do 20-second TV spots. Run it everywhere all day to bring comfort/efficiency to the table.	Marketing and Education
26	Every new house "HAS" to produce at least half of its electricity. They can afford it. (Ed Hawn Heating)	Policy, Program Design
27	NYSERDA was clear that they do not have time to invite contractors to planning. Is NYSERDA willing to eliminate quality in favor of production numbers?	Program Design, Stakeholder Engagement
28	Change energy modeling to reflect reduction in carbon emissions us SIR's based on cost of gas and oil.	Program Design, Policy
29	NG price with decarbonization will decrease. High effective money needs efficiency. System level thinking for deep retrofits. Use energy savings for project assessment not money saved due to fuel price working against policy.	Financing, Program Design, Policy
30	We need consumer education about both programs available and the value of energy savings work. Also having contractors who have the necessary education to install equipment correctly so as to not kill them.	Marketing and Education, Training/ Workforce Development
31	Educating homeowners. Performance-based incentives.	Financing, Marketing and Education
32	Performance incentive to both reduce consumption in conjunction with providing energy equipment (i.e. solar panels, ASHP, appliances)	Financing, Program Design
33	Invest in people to provide training on high efficiency equipment instead of old equipment they have.	Training/ Workforce Development
34	Incentives for client and contractor to acquire better education on alternative options. For use and application of electric source solutions.	Program Design, Training / Workforce Development
35	Performance incentives, CO2 reductions vs. SIR	Financing, Program Design, Policy

36	Change from dollar savings to energy savings per dollar spent on retrofit.	Program Design
37	Reward owners who make energy efficiency improvements and make reward retroactive (multi-family).	Financing, Program Design
38	Income limited incentives. Higher income owners can qualify if they contribute to incentives for lower income owners.	Financing, Program Design, Policy
39	Someone needs to address additional money for admin time.	Program Design
40	Additional money for structural repairs/emergency services.	Financing, Program Design
41	Marketing for the program.	Marketing and Education
42	Question 1: Need more funding to install installation properly – spray foam is more expensive. Question 2: Trainer goes to crew to train best practices.	Financing, Program Design, Training / Workforce Development
43	Increase the price of the audit paid to contractor.	Financing, Program Design
44	How do you streamline the process of incentives from audit to test out? Audit paperwork (utility data etc.) Explain report to homeowner Getting work scope approve Deciding on a work scope for AHP Getting program approval Schedule work with a contractor Post completion inspection Close out with system	Financing, Program Design, Business Model Innovation
45	Help let the market work by making alternate heating/cooling options cost competitive. One way is to eliminate the 100' rule mandating "free to customer" pipeline connections (not free to ratepayers however).	Financing, Program Design, Policy
46	Require independent third-party blower door and duct testing. Provide support and incentives for such testing. Approach must be whole house.	Financing, Program Design, Policy
47	Why is so much of the utilities' program budget, ~33% going to their administrative costs for programs? 33% of 3 billion dollars (or whatever the exact utility amount is) is a lot of money	Program Design, Policy
48	We need to think about how we get these ideas to those beyond who are in this room – we need to reach the other 80% or larger majority of the market for home improvement services	Stakeholder Engagement

Individual Input Collected from Group Exercise and Participant Discussion Organized by Theme

Program Design/Policy with Financing

- 70% of all heat pump rebates are from NYC to Albany. Something needs to be done to get more done upstate. (Financing, Program Design)
- Market our business model. Take some money for short TV commercials that run continuously and describe in simple terms: 1) What it is we do 2) How 3) Provide/describe benefits. We need simple descriptive terminology to create the opportunities. Put us on the map! Legitimize! (Program Design, Marketing and Education)
- How do we have some consistency across utilities? – Jay Best, Green Team, Long Island (Program Design, Policy)
- Pay for profit owners for their time and effort. 2) Seat at the table 3) No interest 7-year loan through Synchrony Bank. 4) Marketing by NYSERDA supported by public service announcement by Gov. Cuomo (Financing, Program Design, Stakeholder Engagement, Marketing and Education)
- Training assistance: Offer heat pump assistance provide AC/heat pump training at community colleges and SUNY's solar instate training. Promote whole house approaches to retrofits (it's not just decarbonization, the building shell has to be part of the equation). (Program Design, Marketing and Education, Training/ Workforce Development, Business Model Innovation)
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Business Model Innovation

- Home performance businesses have to expand into electric storage and/or generators to avoid downtime on grid failure. If a customer's credit rating is low offer lower interest rates to take into account income/debt ratio. (Financing, Business Model Innovation)

Stakeholder Engagement

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