e⁻Lab
Electricity Innovation Lab
ROCKY MOUNTAIN INSTITUTE

e⁻LAB LEAP MEETING NOTES

November 16-17, 2015

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EXECUTIVE SUMMARY

PURPOSE FOR CONVENING

eˉLab Leap is a change lab convened by Rocky Mountain Institute (RMI) in the state of New York to empower and improve the lives of low-income communities and households in a clean energy future.

Today, deeply entrenched barriers continue to make it difficult for low-income communities and households in New York State (over 30% of the total and rising) to access clean energy benefits like better health, environmental resilience, and economic growth. At the same time, a number of recent developments present interesting opportunities to address how low-income households participate in and benefit from clean energy choices. These include landmark regulatory shifts like New York State's Reforming the Energy Vision (REV) proceeding, post-Superstorm Sandy resilience efforts, ambitious state climate goals, local and city plans, and an increasing range of customer choices and emerging business models around distributed energy resources (DERs).

Today's shifting energy landscape is demanding new things of policy makers, practitioners, and communities alike. With that comes a greater need for new and nontraditional working partnerships between a broader set of stakeholders.

eˉLab Leap's change lab method of convening uses creative group processes to help participants:
- develop a shared understanding of complex problems
- identify mutual opportunities and interests
- build capacity to work together to champion the design and implementation of new solutions

OBJECTIVES OF MEETING #2

This document is a synthesis of notes and activities from the second meeting of eˉLab Leap (Leap), convened on November 16–17 in New York City. The objectives of the meeting were to:

1. **Further develop a shared understanding** of the current situation for low-income households and communities in New York, and identify the key leverage points for making meaningful change
2. **Advance action initiatives to tackle key challenges.** This included advancing the work of a first set of initiatives identified at the lab's first, June meeting, as well as identifying and developing new initiatives going forward
3. **Cultivate ongoing momentum for lab activities** by addressing the support mechanisms, resources, and skills needed to sustain the lab and support progress on promising initiatives

In total, 45 lab participants and ten guest experts attended, representing over 40 different organizations, including low-income and consumer advocates; environmental groups; community-based organizations; federal, state, and local government entities; housing authorities; housing developers and managers; utilities; regulatory agencies; foundations; financiers; and DER service providers. Close to half of the participants were new to eˉLab Leap. Many of the new participants were from returning organizations which had participated in our first, June meeting, while other newcomers were from stakeholder groups identified in June as requiring additional representation.

MEETING AGENDA OVERVIEW

DAY 1 - NOVEMBER 16

The first day of the meeting was devoted to developing a shared understanding across the lab of the current situation for low-income households and communities in New York. The agenda featured conversations with guest experts from across the low-income and energy sectors.

Activities on the first day included:

- A conversation with Audrey Zibelman, Chair of the New York Public Service Commission
- A Social Labs 101 primer session
- A panel discussion between several low-income finance practitioners
- Learning Conversations with guest experts in related or parallel fields, in order to share innovative tools and ideas

DAY 2 - NOVEMBER 17

The second day was primarily focused on refining ongoing initiatives from the first, June meeting, and defining new initiatives as a result of additional perspectives from new participants in the group.

Activities on the second day included:
- A brainstorm session to generate new initiative ideas
- A deep dive and rapid prototype of six key, new initiative ideas
- Next steps for e⁻Lab Leap

E⁻LAB LEAP INITIATIVES: SUMMARY OF OBJECTIVES

Below is a list of the key initiatives that have been developed by lab participants to date, and their objectives. Initiatives that began in June are denoted with an asterisk (*); the remainder are new initiatives that were defined and scoped (at a high level) by participants in the second, November meeting.

The majority of new initiatives have identified co-captains and initial milestones for December and January. Progress and milestones achieved to date for existing initiatives are summarized in the last chapter of this document. RMI will be providing updates on initiative progress regularly.

REVITALIZE*

By driving their own energy plans, low-income communities can help ensure that actual programs accurately and effectively meet their needs. However, community energy planning can be resource- and labor-intensive.

The objective of this initiative is to support community-driven energy planning efforts in low-income communities, by connecting those communities to funding sources and key ongoing energy initiatives— REV in particular. The initiative seeks to enable funding for community energy planning through two tracks:
1. NYSERDA RFP track - energy planning via this track would be government funded, open initially to all qualifying communities through a formal NYSERDA RFP process
2. Philanthropic track - energy planning via this track would be funded through a scalable philanthropic structure (to be designed) that would aggregate donor resources to meet the needs of multiple communities

PUBLIC PARTICIPATION*

There are significant opportunities to improve the public input process for regulatory energy proceedings, and ensure that low-income concerns are incorporated into emerging energy regulation. This is especially critical in the case of the ongoing REV proceedings, which could play a formative, near-term role in shaping how low-income communities participate in a clean energy future.

This initiative seeks to develop a new model of effective and transparent public engagement between government agencies and community stakeholders on low-income energy issues, primarily by:

- Designing new convening structures and public engagement models for low to moderate income (LMI) customers to participate in and provide input to REV decision-making processes
- Building a process that ensures program decision-making considers the community feedback that has been solicited (and is transparent)

REV 101

Most people are not participating in REV because they are unaware of the proceeding or of the transformative changes that are occurring in the electricity regulatory environment. This is a problem because public participation is critical for ensuring customer needs are met by the transformed system.

In parallel to the Public Participation initiative (above), this initiative seeks to:

- Create a broad campaign that supports public education, awareness, and participation in REV and related policy initiatives
- Launch a campaign that creates opportunities and incentives for local government and other policy makers to be vocal in their support for REV and related policy initiatives

MICROGRID RESOURCE*

As a result of Superstorm Sandy, NYSERDA's NY Prize, and increased interest in community energy resiliency, over 80 communities in New York State are currently exploring options for designing and implementing local microgrids. Recognizing that community microgrid design is still an emerging and challenging field, lab participants in June proposed creating a written guide that would help these communities to:

- Identify the fundamental legal, economic and technical questions that need to be addressed
- Identify and compare viable solutions, especially for low-income populations

- Define a process for making decisions (in what order, with which stakeholders)

In the second, November meeting, this objective was further refined to specify where in the design process the microgrid resource would be most helpful (specifically, after community energy goals and motivations have been clearly defined). This will help communities to be savvy customers when consulting technical advisors and ensure they are making choices that meet their broader goals.

LENDER LEARNING

Today, not enough lenders understand the value of distributed energy resources (DERs), or have the confidence in invest at scale in low-income DER projects.

The objective of this initiative is to develop learning and education materials for lenders to use to educate building owners who are in a position to adopt efficiency measures and DERs. These materials will enable lenders to:

- Understand the value of DERs
- Increase knowledge and confidence in low-income DER investments
- Educate building owners on the benefits of clean energy projects
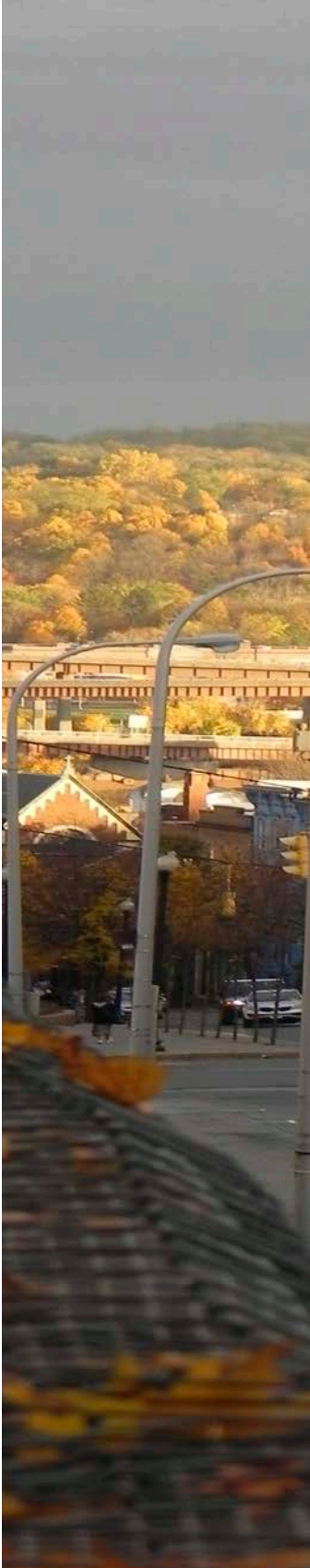
UBER COALITION

Today, there are a large number of coalitions or trade associations that care deeply about the urgent issues and opportunities that REV presents for their constituent organizations. Several of these incorporate concern for low-income consumers into their agenda. These coalitions include Energy Efficiency For All (EEFA), Energy Democracy Working Group (EDWG), and the Clean Energy Organizations Coalition (CEOC), among others.

Individually, these coalitions may not have enough leverage or ability to substantially influence the design of REV as it impacts low-income households and communities. Together, these coalitions might have enough added leverage to impact REV in ways that include and benefit low-income communities.

The objective of this initiative is to:

- Identify and align key REV policy recommendations as they bear on low-income community energy concerns
- Coordinate overlapping efforts for key REV leverage points in order to result in a "single loud voice" on those items of agreement across coalitions

COMMUNITYPOWER PORTAL

Very few communities in New York are engaged in shared community distributed generation (DG) projects. Many community-based organizations around the state would like to play active roles in advancing or facilitating community DG development, but they do not yet have examples to work from or places to turn for knowledge.

The objective of this initiative is to:
- Develop an online portal to share information about existing community distributed generation (DG) projects and those under development
- Create a virtual space for a growing network of innovative organizations to connect, share, and collaborate towards the advancement of local, people-owned projects. Over time, the portal could evolve into a point of connection, not just for peer organizations, but as a marketplace connecting such organizations with private developers, funders, and financiers

COMMUNITY ENERGY PROJECT*

Today, many energy programs and funding opportunities serve low-income communities, but lack of coordination and alignment can result in inefficiencies when programs overlap, as well as gaps between programs where needs are not met.

This initiative seeks to coordinate existing programs and deliver improved value to low-income communities, primarily by:
- Identifying opportunities to coordinate funding from different programs
- Providing policy recommendations to program administrators to support the coordination of different programs

COMMUNITY ENERGY ACCESS

As more NY communities explore options for developing community-wide energy plans, locally sited energy assets, and community-owned energy systems like microgrids, there is a growing desire to develop new business models that enable communities to own and financially benefit from locally owned and sited energy resources.

The objective of this initiative is to develop viable, replicable business models for community ownership of energy resources and assets.

NEXT STEPS

Initiative teams will be focused on scoping their work and meeting December and January milestones.
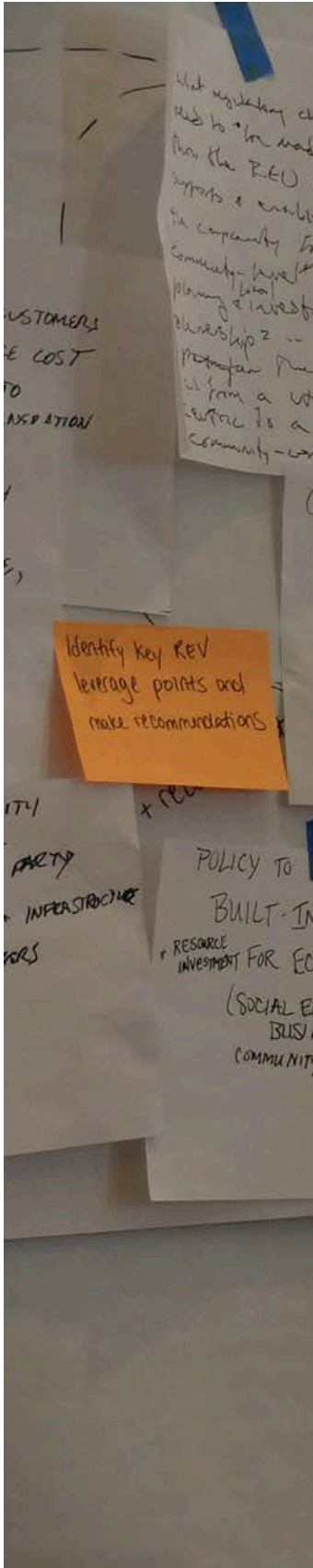
Rocky Mountain Institute will be:
- Working with initiative teams to:
    - Finalize the selection of co-captains for initiatives
    - Refine and meet initiative milestones for December and January, providing content expertise and process coaching
    - Help connect teams with other experts
- Planning and scheduling the next lab meeting, scheduled for Spring/Summer of 2016

PARTICIPANT ORGANIZATIONS

Alliance for a Green Economy

Association for Energy Affordability

BlocPower

Bright Power

Citizens for Local Power

Consolidated Edison

Community Preservation Corporation

Environmental Defense Fund

Enterprise Community Partners

Erie County Government

Green and Healthy Homes Initiative

Green City Force

GRID Alternatives

Lime Energy

Local Initiatives Support Coalition

New York City Environmental Justice Alliance

Northern Manhattan Improvement Corporation

Natural Resources Defense Council

NYC Mayor's Office

NYS Department of Public Service

NYS Homes and Community Renewal

NYS Energy Research and Development Authority

Office of the Governor

OMNI Housing

Office of Temporary and Disability Assistance

Pace Energy and Climate Center

PosiGen

Public Utility Law Project

PUSH Buffalo

Regulatory Assistance Project

Rocky Mountain Institute

Sallan Foundation

SolarCity

SolarOne

The Point

UPROSE

WE ACT for Environmental Justice

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SOCIAL CHANGE LAB PRIMER[1]

In convening Leap, RMI draws on knowledge and experience we've gained from e‑Lab, a nationwide social change lab we have been convening around electricity innovation for over three years. We work with change lab and facilitation expert Reos Partners to help design Leap and facilitate its major meetings. The following material was discussed over the course of our second, November meeting to help orient participants, both new and returning, to some aspects of the social change lab approach.

APPROACHING OUR WORK TOGETHER IN A DIFFERENT WAY

Our experience with social change labs to date has taught us that making progress on our most complex problems requires us to shift our approach:

From	To
Fixing symptoms or effects	Addressing structural or root causes
Making recommendations on paper	Developing solutions in practice
Relying on experts or authorities	Involving all key stakeholders
Learning then doing (policy preceding implementation)	Learning by doing (policy arising from implementation)
Implementing one chosen solution	Iteratively incubating, prototyping, and managing a portfolio of promising solutions
A once-off project	A stable and growing platform that delivers results over the short, medium, and long term

TRANSFORMING SYSTEMS IS ULTIMATELY ABOUT TRANSFORMING RELATIONSHIPS

- Bringing together stakeholders from across the whole system—not just the usual relationships
- Looking for leverage opportunities across the whole system—not only within particular areas of responsibility
- Learning what works through experimentation in practice—not only planning on paper
- Creating results more effectively by working together—not just individually
- Building a platform and the capacity to enable stakeholders to work in this different way

1. Excerpted and modified from http://social-labs.org/wp-content/uploads/2014/12/20130213_McConnell-Formatted-Final-Draft.pdf and a proprietary facilitator toolkit developed by Reos Partners for RMI

A CHANGE LAB APPROACH TAKES A SYSTEMIC, PARTICIPATIVE, AND EXPERIMENTAL APPROACH

Complex problems—from addressing climate change to empowering low-income communities in a clean energy future—are made up of three types of complexity:

1. **Social** - stakeholders have diverse perspectives and needs
2. **Dynamic** - cause and effect are far apart in space and time
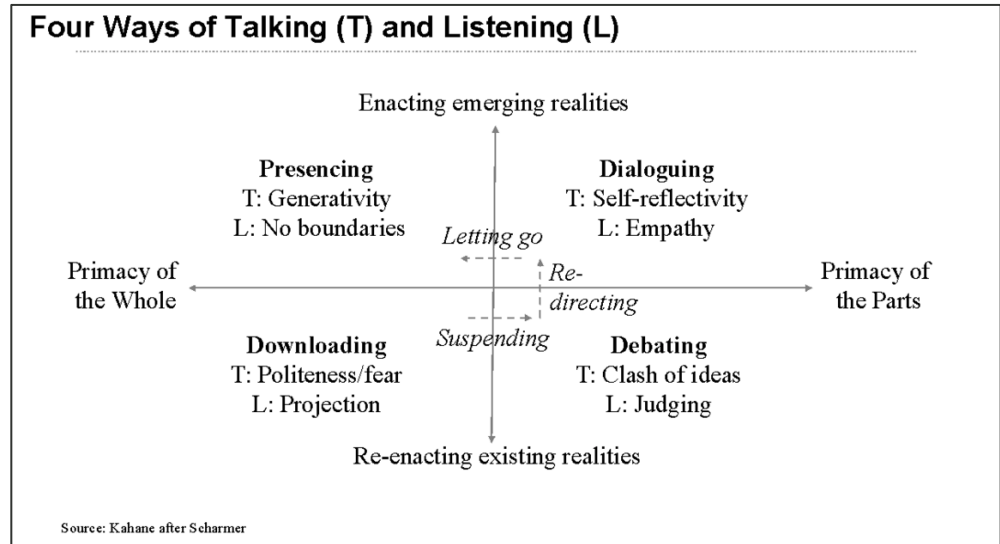3. **Generative** - the future is unfamiliar and undetermined

Solving complex problems requires a process that addresses each type of complexity:

- **Systemic** – the approach must be system-wide rather than piecemeal
- **Participative** – the approach must involve stakeholders rather than rely only on authorities and experts
- **Experimental** – the approach must be creative and experimental rather than simply replicating existing best practice

USING HOW WE SPEAK AND LISTEN TO SUPPORT COLLABORATIVE WORK

A meeting designed with collaboration as a focus can bring together people from a broad range of perspectives.

Active and vocal participation alone, however, is not enough to ensure that voices in the system are heard; people also need to listen. While this may seem like common sense, many of us have difficulty hearing or listening to points of view that do not fit inside of our particular frame of reference. The Four Ways of Talking & Listening model outlines an approach to moving towards more successful collaboration.

Four Ways of Talking (T) and Listening (L)

Enacting emerging realities

Presencing
T: Generativity
L: No boundaries

Letting go

Dialoguing
T: Self-reflectivity
L: Empathy

Primacy of
the Whole

*Re-
directing*

Primacy of
the Parts

Suspending

Downloading
T: Politeness/fear
L: Projection

Debating
T: Clash of ideas
L: Judging

Re-enacting existing realities

Source: Kahane after Scharmer

1. **Downloading:** In this mode of talking and listening, we simply repeat what's already in our heads and listen for what we already know and recognize. We scan what the other person is saying for things that register with our current understanding or worldview and discard the rest. We give standard, polite responses and may edit our contribution based on what we think the other person wants to hear, thereby restricting what's possible.

2. **Debating:** In Debating, we say what's really on our mind, standing up for a particular and genuine point of view. This mode of conversation is often argumentative and heated and the point is to find out who is right. While people are still listening for things they recognize and identify with, they are no longer afraid to say what they really think. They may even have some idea of what they want to say prepared before the conversation begins. In this way, both Downloading and Debating reenact what already exists and reinforce habitual patterns that are already present in the system.

3. **Dialoguing:** In Dialoguing, we move into a more connected and generative form of shared communication in which participants have their own points of view but are genuinely interested in understanding and building on each other's perspectives. In this mode of communication, barriers between worldviews begin to dissolve, and participants can see how their own perspectives and points of view can contribute to polarization and conflict in the system. This is a reflective form of communication in which participants are both aware of their own prejudices and interested in fundamentally understanding that which falls outside of their box. This is not an objective, external kind of listening, but a listening to what is going on inside of both "me" and "you." Bill Isaacs, author of *Dialogue: The Art of Thinking Together*, has

said that a dialogue, in contrast to a debate, is a conversation with a center, not sides.

4. **Presencing:** In Presencing, the listening and speaking are part of one process. In this mode, we listen for the larger, more fundamental reality that is at the heart of what the other is saying. We make ourselves available to receive their experiences as if they were our own. We no longer really know who the ideas "belong" to. When a group reaches this mode of generative dialogue, there is great potential for profound and permanent shifts to happen in the system, as participants forge a new, shared reality that enables them to work together and understand one another in ways that were previously impossible.

By understanding these four types of speaking and listening and paying close attention to our own ways of communicating, we may find additional opportunities to let our guards down, listen for what wants to emerge, and forge new and deeper connections of communication. Participation is more than actively sticking your nose out and saying your piece, it is exponentially increased by building the capacity to listen generatively. When mobilized, these listening skills can bring about the opening of a group's collective mind and heart. In a room where generative dialogue and presencing exist, great things are possible.

EMPLOYING SYSTEMS THINKING TO MAKE MEANINGFUL IMPACT

Working systemically requires that we identify patterns, structures, and mental models present in addressing the problem at hand. By seeking to understand a problem's systemic roots, we can begin to generate an altogether new reality.

ICEBERG MODEL

The Iceberg exercise can help us step back and identify patterns related to a problem, the structures supporting those patterns, and finally, the ingrained thinking that creates the structures. Moreover, it can help us identify our own mental models—how we think about a certain issue and why. The more we can understand what is happening under the surface and make it explicit or visible— especially where it relates to mental models—the more we will be able to influence how a system works.

1. **Events:** An event is a discrete action. It could show up as a newspaper headline. Events answer the question, *what happened?* In the Iceberg model, an event is readily visible, "above the water line."

Events

Patterns

Structures

Mental Models
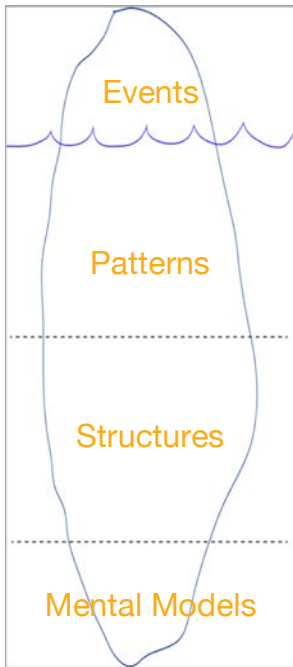
2. **Patterns:** Patterns are trends—events that repeat over time. Patterns answer the questions, *what's been happening*? Or, *What's been changing?* In the Iceberg model, patterns lie just "below the water line," sometimes readily or partially visible, sometimes hidden.

3. **Structures:** Structures frame or shape patterns. They may be rules, norms, policies, guidelines, power structures, resource distribution, or others. They answer the question, *what might explain these patterns?* In the Iceberg model, structures directly influence patterns and events, and are well below the system water line of direct observation.

4. **Mental models:** These are the foundational ideas, beliefs, dogmas, and world-views that support the structures above. Mental models are deeply held assumptions and beliefs that drive behavior. In the Iceberg model, mental models are at the root of the system, the deepest below water line.

TRIM TAB MODEL

Finding the high-leverage ways to impact a system requires a deep understanding of how things really work. The lab convenes people from diverse backgrounds and perspectives to develop a fuller understanding of how systems work together and to identify the highest-impact changes to make to those systems. In e⁻Lab Leap, participants work together to identify high-leverage projects, or initiatives, for the lab to undertake.

Consider the Trim Tab model, which poses the question: How should we change the direction of a large vessel, like the one below? There are many ways to accomplish this, each requiring a different level of effort. An absurd and ineffective method, for example, would be for all the passengers to move to one section of the ship and hope the vessel moves. There are other, more reasonable options, including applying force through wind, utilizing thrusters that the ship may have, employing a sail, or turning the rudder. However, the most effective, or "high-leverage," method, in terms of effort versus impact, is to adjust the trim tab, a small, moveable portion of the rudder itself.[2]
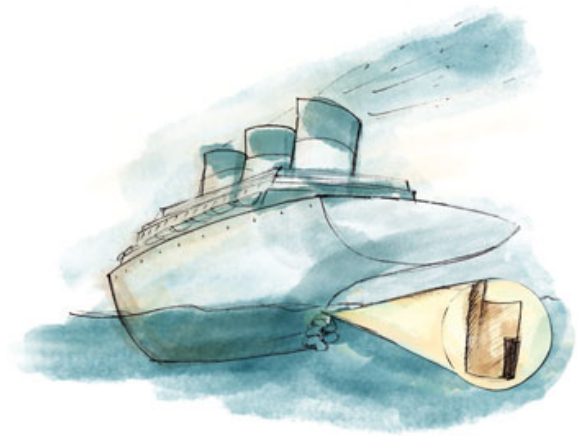
In high-leverage projects, we seek to gain the biggest impact from a proportionately strategic or small effort.

SUPPORTING A PLATFORM OF PROJECTS

e⁻Lab Leap fosters the development of initiatives at lab meetings through a systemic, participative, and experimental approach, and then drives prototyping of these initiatives by convening smaller teams in between meetings, potentially institutionalizing those initiatives. This rapid-cycle prototyping—that is, experimentation—is a core principle of developing high-leverage initiatives within the lab structure.

The first lab meeting, in June, resulted in four initiatives; the second meeting, in November, advanced those initiatives and identified additional potential initiatives that could be high-leverage.

Fundamental to the social change lab approach is successful support of the initiatives between meetings, that is, the work of the lab.

To support the work of the initiatives, RMI will:
- Hold the next lab meeting in Spring/Summer of 2016, with a specific focus on supporting ongoing lab initiatives
- Support the development of initiative teams, in particular helping to include needed expertise, insight, and decision-making capacity as needed
- Provide content expertise to certain initiatives where appropriate, depending on RMI's capacity, resources, and expertise

For this work to be successful, initiatives require co-captains who are responsible for running day-to-day operations of the initiatives (e.g., coordinating work plans and setting meeting agendas and participation) and helping their teams meet their first check-in milestones, December 15 and January 30.

The next section of this report summarizes the working sessions we conducted to identify new ideas, define initiative objectives and activities, and solicit co-captains and milestones.

CONVERSATION WITH AUDREY ZIBELMAN, NY PSC CHAIR

Audrey Zibelman, New York Public Service Commission Chair, joined the lab for a conversation focused on the potential of REV to impact low-income community access to clean energy, as well as the possibilities for a social change-lab model (like e⁻Lab) to effect change. Here are some of the perspectives we gleaned:

- **Let's learn from the telecom transition.** In the 1990s, telecom technology made great leaps in a short amount of time but those strides were not equally distributed. The vast majority of middle- and high-income households have reaped the benefits and now have access to those new technologies and services, including the Internet. However, for low-income households, that penetration is far lower; only between 20 and 30% of low-income households have access to the Internet today. It's crucial that, through this energy transition, we incorporate lessons learned from the telecom transition.

- **REV is an opportunity to democratize energy access.** Power is an essential service that needs to be affordable, reliable and resilient for all economic strata, regardless of demographic.

- **REV provides an opportunity to develop strategies for permanently reducing costs across the board, rather than simply focusing on temporary fixes.** To date, the conversation around low-income electricity affordability has been focused largely on bill assistance. Bill assistance is one approach to lowering the energy burden, which can be an alarming 10–15% of total budgets for low-income households. If we can reap system-wide savings through increased building efficiency, reduced total energy demand, and more flexible and efficient supply options (like solar and ice storage) , system costs as a whole go down and costs borne by all customers go down. If we only focus on reducing bills through discounts, we reduce prices for some people, while it goes up for other people.

- **This energy transition requires new regulation and business models, not just new technology. REV is a new concept that requires strong new processes along with it, such as e⁻Lab.** Traditional litigation processes solicit comments, people respond to those comments, etc.—but that's not the best way to solve problems, especially complex problems. That's where e⁻Lab can fit in. Indeed, the idea of a utility as a distributed

service platform (DSP)—a key aspect of REV—was developed in an e⁻Lab meeting discussion focused on imagining "the utility of the future."

- **Energy impacts other crucial issues.** One of the goals of REV is to reduce the energy burden in low-income households. While this reduction would have significant impact on household budgets, people also need to realize the opportunities REV offers beyond electricity. Shifting to clean energy sources can have far-reaching effects, including impacting health and education. For example, reducing pollution-induced asthma can reduce hospital visits, increase school attendance, and more.
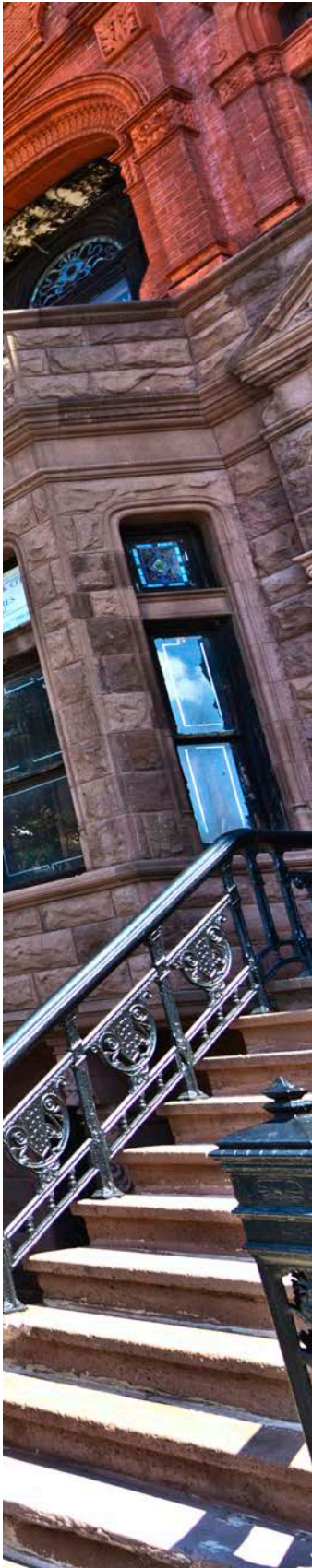
INSIGHTS FROM LOW-INCOME FINANCING PRACTITIONERS

We invited several financing practitioners to share their experiences financing low-income energy projects and initiatives. The purpose of this session was to provide the Lab with insight into the current situation around low-income energy financing and into where this sector could be headed.

Note: These are not direct quotes, rather summaries of points captured from responses.

Panelists
Jessica Aldridge, *Vice President, New York Green Bank*
Sadie McKeown, *Senior Vice President, The Community Preservation Corporation (CPC)*
Susan Leeds, *Chief Executive Officer, NYCEEC*
Margaret Anadu, *Managing Director, Goldman Sachs Urban Investment Group (UIG)*

Can you reflect upon current lessons and emerging trends for financing low-income energy projects?

Susan: Simply put, it's hard to discern trends in this sector. There are a wide variety of project sizes, needs, and mechanisms that make a project financeable—"creativity" is the word of the day. We've had a diverse portfolio. Our smallest loan was $4,000, while the largest was $7M for a large complex of over 1,000 units, a cogeneration plant, a substation, etc. *We'd like to work at a higher-volume scale, but two barriers are (i) sufficient demand for financing products and (ii) resource constraints.*

Margaret: There is little standardization across project portfolios. We work with buildings and portfolios at all the different stages of development. The financing structure has to be different for each case. Traditionally, UIG has financed three buckets of energy and green-related projects through:

1. Financing the retrofit of existing affordable housing
2. Capital financing of companies like PosiGen, who focus on energy efficiency and solar in single-family, low-income homes
3. Financing of developments that include green elements such as cogeneration plants.

The challenge has been getting pilots to scale so that the broader capital market can play a role.

Jessica: You can structure around any risk, even though it may become quite complex. In fact, financing arrangements can urge capital providers to take new risks. For instance, one common justification banks have for not participating in the low to moderate income (LMI) market is a lack of data and a perception that more data is required to make safe investments. Banks have short-term indicators like FICO scores, but little other data more specific to clean-energy asset classes. This keeps banks from participating in the LMI space.

What NY Green Bank is doing is setting up a temporary financial structure to make it a win-win for banks to enter the market. In one example, we provide partial guarantees in exchange for a fee or interest on drawn guaranty funds. This encourages banks to consider loans that they otherwise wouldn't. In cases where losses from LMI customers are actually greater than losses from non-LMI customers, they can draw upon the guaranty to mitigate their exposure to such losses. The LMI market is a huge, neglected market that still has to purchase energy. This financial structure is a low-risk way to show that the risk from low-income customers isn't significantly greater than from others even though a FICO score might indicate otherwise.

Sadie: Underwriting efficiency savings is an art, not a science and, currently, energy efficiency is the exception, not the rule. But lots of things are the rule now that no one ever wanted to do before, like making buildings free of Phase I environmental toxins. Why? *Because they can't close their loans without doing it*. The question is: how do we make energy efficiency and other green investments the rule rather than the exception for everyone, not just CPC?

Back in 2008, CPC attempted a green financing initiative to increase energy efficiency adoption and reduce expenses in the buildings we financed. The motivation was to engage owners with a program to make their buildings more energy efficient in order to qualify for financing. But why would they come to CPC for financing, when they could go down the street to another bank? At the time, they didn't have to do efficiency, and we couldn't underwrite efficiency savings.

Later, we dusted off the concept of underwriting savings again, but the barrier this time was perception around data. The Deutsche Bank report[3] shows outliers of what could happen in the worst cases, which scares people away from underwriting energy efficiency savings. But we know that bad stuff happens. What information do we really need? We've dispensed with the idea of having good empirical data. Instead, we seek comparable data on income and

3. https://www.db.com/usa/img/DBLC_Recognizing_the_Benefits_of_Energy_Efficiency_01_12.pdf

expenses. Now, to underwrite energy efficiency savings, we say, "show us three or four buildings that went through similar retrofits and what they saved."

What kinds of developments or innovations would you like to see to help drive growth in this sector?

Margaret: On the savings front, it's very exciting that an entity like CPC is underwriting savings. That's a sea change in the way lenders think. But in our practice, we work with other financing partners (other mission-driven lenders) who first want to see public sector partners say they're going to underwrite savings.

For this reason, I'd like to see those public sector entities underwrite savings. Some impact capital is motivated by a deep mission to see social justice and eliminate disparity, but a lot of it is motivated by legislation like the Community Reinvestment Act (CRA). If CRA put a greater emphasis on energy and efficiency, then you would see a lot more dollars flow into this sector. That would make a significant difference. We need the public sector to lead. If you want to have scalable change, then make people have to do it.

Sadie: I agree. Let me give you an example of how regulators play a large role in moving the real estate lending industry. Federal regulators gave Freddie Mac, which provides the bulk of multifamily financing in this country, a $30B cap on their capital lending. Freddie went to their regulator and said "you can't set this limit on us." In reply, regulators mandated that lending towards workforce development, affordable housing, and sustainability would not count towards Freddie's cap. So now Freddie can make loans, but it is forced to be innovative in how to serve businesses. Freddie is a dinosaur that might have ignored sustainability without regulatory intervention, but now it can't.

Jessica: I would like to see movement on other indicators of economic performance, including comparable cases—for example, data between similar building types. Also, utilities have a wealth of energy usage data from LMI customers that they could make available.

Susan: Developing underwriting for savings is important, but I'd also look at the lending process more holistically. We need innovation to solve capacity issues. NYCEEC closes about one in nine projects. I wish it were an easier process to go online, get the information you need, and identify categories of similar buildings with comparable data, i.e., what makes sense to do in my building, or how can I quickly and easily assess where my building stands in relation to my peers?

As financial institutions, are you working with policy experts to capitalize on the carbon pricing discussed in the Clean Power Plan, and are you ready to pass those benefits to low-income communities?

Margaret: We aren't necessarily working directly on the policy aspect, but in terms of economic incentives that move the market forward, we're ready to move when markets do. For example, we did a $10M solar project in New Jersey where we installed solar across 42 small not-for-profits. These were financed through the Investment Tax Credit (ITC) and took Solar Renewable Energy Credit (SREC) private-equity risk. Incentives at the local level have allowed us to move on these kinds of projects.

Absent federal regulations, what can New York State do on the regulatory front to make energy efficiency retrofits the norm in the building stock?

Sadie: New York State can establish targets. There should be mandates from the top to establish an achievable goal, such as moving towards a Passivhaus-like standard. Other states are doing it. Right now, targeting Passivhaus standards earns you points on the Qualified Allocation Plan (QAP) in Pennsylvania. Additionally, no one was developing supportive housing five to seven years ago, until the state required a component of a project to be supportive housing to qualify for tax credits. Now, all private developers include supportive housing *because they want the point and the funds*. CPC is prioritizing Passivhaus in a program for the state. Why not have other entities do the same, especially when using public resources?

Is building benchmarking data in NYC helping to assess the soundness of financing?
Note: NYC has mandated the collection of benchmarking, audit, and retro-commissioning data from different types of projects, including multifamily buildings, under Local Laws 84 and 87.

Susan: Yes, it is. We've developed a tool to quickly assess, in general terms, what the savings potential for a specific building is so that the size of loan could be determined in very short time.[4] Someone can put in an address and get a savings estimate. This requires clean benchmarking data and not much else. There are currently about 6,000 buildings in the dataset. It's really about making

4. http://nyceec.com/efficiensee/

this simple, streamlined, and straightforward for people: how do you compare to your peers? How much money can you save?

When during a project timeline should we talk to you and about what?

Jessica: NY Green Bank is a wholesale capital provider. Financiers and capital providers who are interested in getting involved in this space should come to us. We help you get over credit limitations associated with LMI—not just for lenders, but also for equity owners. Although we're not an equity provider, we need those owners to get comfortable with the risks we talked about earlier.

Sadie: CPC's typical customer is multifamily-property owners, and we encourage, coax, and incent owners to invest in energy savings. Retrofits make tenants want to live there and are a *risk mitigator,* ultimately.

Susan: NYCEEC is a retail-facing lender. Our doors are open for projects ranging from $50K to $6M. One of our biggest problems is getting enough demand for the program. We finance on an unsecured basis, do energy service agreements, power purchase agreements, are flexible on format, and prefer to look at projects with some scope in mind. We provide technical assistance as well as direct financing.

Margaret: UIG is also a wholesale capital provider. Our work in energy efficiency always has to come with an eye towards community and economic development. In all projects, the challenge is making sure that there is something that local stakeholders view as positive for the neighborhood. Being at the table with people who are advocating for projects is important.

LEARNING CONVERSATIONS

Five experts from different disciplines shared their knowledge and experience with the group in two rounds of small group conversations. While these experts do not all work explicitly at the intersection of low-income and energy issues, many aspects of their work and skills transfer to the work of this lab.

CAROLYN LUKENSMEYER
INNOVATIVE PUBLIC ENGAGEMENT MODELS

Carolyn Lukensmeyer is the executive director of the National Institute for Civil Discourse and an expert on civic engagement and public participation. Here are some of the key themes and ideas she discussed in her session:

- **The current process doesn't work.** The traditional town hall meeting, as imagined in the 1960s, was intended to be an outlet for all voices to be heard. Today, this format badly needs updating to ensure a wide range of voices are heard and included, rather than just a few loud ones. Often, public statement hearings record the opinions of those who speak, but those opinions are not distilled or incorporated into decision-making.

- **Any new efforts to strengthen public engagement must be tied to agency.** In general, the public tends to be extremely disconnected from policy decisions. Individuals need to know that if they participate, their voice will make a difference. There should be no engagement only for the sake of engagement.

- **Models exists that can effectively engage thousands of participants.** Through her time at AmericaSpeaks, an organization that focused on innovative models of public participation, Carolyn used the "21st Century Town Hall Meeting," a carefully structured, multi-media approach to massive-scale public participation. Tens of thousands of citizens participated, with direct policy outcomes, via small group conversations distilled into larger opinions. A town hall following 9/11 in New York directly impacted the RFP to determine the future of the Ground Zero site.

- **In order to convince individuals to come to an event and try a new process, they must be convinced by someone they know and trust.** "Go to the people; don't expect them to come to you." One approach provides a small stipend to community organizers, who have the social capital and community trust to more effectively publicize and recruit for an event.

- **REV as a great opportunity.** Great change comes at specific political moments, and REV might be one such moment. For REV to have the best possible impact, the issue must be framed in terms of its relevance to the

public. As Audrey Zibelman mentioned in her talk, energy impacts a wide range of issues, from public health to education. In order to be invested in the outcome of REV, the public must personally understand how these decisions will impact their lives.

- **True engagement is possible.** Most people in both the public and private sectors do not believe that public engagement can occur with meaning and depth on a massive scale. AmericaSpeaks proved that large groups of people can understand complex issues and offer contributions for decision making.

INGRID HAFTEL
COMMUNICATION & VISUALIZATION OF COMPLEX ISSUES

Ingrid Haftel, a program manager with the Center for Urban Pedagogy (CUP), introduced the design process used by her organization to translate complex, technical, and sometimes confusing policy into engaging and accessible teaching tools built for the communities affected by those policies. Below are some of the main takeaways from her conversation.

- CUP uses the power of art and design to support meaningful civic engagement. Practically, this means creating visual teaching tools to break down complex policy issues so that individuals impacted by these issues can more effectively respond or participate.

- The process requires a multidisciplinary team, which typically includes at least a designer, a content expert, a linguistic expert, members of the community, and CUP staff, working together to create visual teaching tools.

- There are five main steps in the process, which typically takes between eight and ten months to complete:
    1. **Teaching** - The team gathers all the essential information required to create the content: policy details, context about the community, technical jargon, etc. It is critical that the designer is there throughout, even at this stage.

    2. **Drafting the scoping document** - The team creates an outline of the information that needs to be covered by the teaching tool. They get consensus from all team members before moving to the next step.

3. **Iteratively designing** - The team designs an effective aesthetic to convey the information from the scoping document. This includes the tone, the look, and the feel of the piece.

4. **User testing** - Team members test the draft with the target audience. Depending on feedback, they may return to step 3. It is important to incentivize the participation of the community in test sessions (e.g., gift cards, food).

5. **Distributing materials** - Partner community organizations get the teaching tools to the communities who need them. CUP places the responsibility of distributing materials in the hands of the community organizations with whom they partner, because those organizations have the relationships in the neighborhoods where the materials are most needed.

JOE SULLIVAN & CALEB STRATTON
PLANNING A MICROGRID

The Hoboken Microgrid is one of the leading community-microgrid projects in the United States.

The project started as a consequence of Superstorm Sandy, which exposed the need for a strengthened community response to energy and resilience issues. After developing an energy security strategy with the Department of Energy and Sandia National Labs, the City of Hoboken and their partners began drafting feasible business models at RMI's e⁻Lab Accelerator for the development and operation of the microgrid. The project team is now in the process of confirming a business model with their partners, Public Service Enterprise Group (PSEG) and the Board of Public Utilities, after which they can begin implementation of their project.

Joe, of Concord Engineering, and Caleb, Hoboken's principal city planner, are driving forces behind the Hoboken Microgrid project. In their session, Joe and Caleb offered their perspectives on the ongoing project in Hoboken and some of the key challenges they are facing:

1. **Preparing for the microgrid.** Until they have consensus, purchase key components, create interconnections, and to take other major steps to deploying a microgrid, the City of Hoboken is taking several steps to get the community "microgrid ready." These have included:
   a. Acquiring property to site microgrid components

Joe Sullivan

Caleb Stratton

b. Updating substation connections
c. Designing roadways for underground lines
d. Installing 1 MW of generation at a housing complex

2. **Designing a Special Purpose Vehicle (SPV).** As part of confirming a business model, the Hoboken team is considering a SPV, which captures revenue streams and redistributes them to the appropriate parties. They are struggling with questions like:
   a. Who owns and operates the SPV?
   b. Who maintains and operates the grid, how are revenues passed to them, and how is the local utility involved?

3. **Addressing the local utility's concerns.** The process of confirming a business model has raised concerns with the local utility, such as:
   a. From a regulatory standpoint, can the utility operate on the customer side of the meter?
   b. Are there assurances for cost recovery?
   c. Would revenue for resilience (e.g., resiliency charges) incentivize the utility to collaborate?
   d. If the utility plays a role, then does it have to have specification standards for the microgrid (e.g., for interconnection)?

ADAM KAHANE
COLLABORATING WITH YOUR ENEMIES

With decades of experience in mediation and facilitation, Adam Kahane, director at Reos Partners, is an expert on collaborative processes. In this session, Adam hosted an open dialogue on the challenges and opportunities inherent in working with your "enemies." Here are some key questions and themes that emerged from the talk:

- When we do choose to collaborate with enemies, we must answer some fundamental questions:
  - What does it mean to work with an enemy?
  - How can we best move forward without compromising our own beliefs?
  - Does working together mean trying to convince someone of your point of view, or can you progress even while holding fundamentally different values?

- Two key ground rules for collaborating with your enemies:
  1. **Start by finding common ground.** It is necessary to understand the motivations and interests of the other party and to understand their language. True collaboration is only possible if you can define a shared goal.
  2. **Shift from a closed to an open mindset.** This enables you to…

Closed Mindset	Open Mindset
Choose to talk and not to fight	Choose to talk and to fight
Define the problem	Appreciate the problematic situation
Agree on the new solution	Open up multiple possibilities
Implement the plan	Experiment, fail, and learn
Transform the situation	Transform yourself

Through the course of discussion, participants raised the following questions:

- How do we challenge each other's assumptions without attacking or implying villainy?
- How do we break down the "us versus them" mental model between the LMI community and the government?
- How do we neutralize the politicization of distributed energy resources (DERs)?
- Is there an equitable and efficient way to ensure this community has access to DERs?
- Split incentives cause polarization. How do we engage—or do we need to engage—the building owners? Can we bypass them?
- How can we bridge the mental models of those who set rules and regulations with those who are impacted on the ground?
- What is a productive way to act when I know I am "the enemy"?

MICHEL GELOBTER: START NOW
EXPERIMENT YOUR WAY TO MEANINGFUL CHANGE

Michel Gelobter is the founder and chairman of Cooler Inc., a for-profit social venture that helps business and consumers reduce greenhouse gas pollution, and author of Lean Startups for Social Change. His session focused on practical ways for participants to "experiment their way" to impactful social change.

- By testing ideas quickly rather than getting stuck in the planning stage, projects can progress faster and more effectively. Knowing as early as possible whether an idea is or is not going to work enables a team to pivot more nimbly towards success. By asking "what would kill this project?" groups can conduct tests early on that save projects significant time and donor money.

- Michel introduced a **"lean" process** for quickly identifying high-value tests and validating ideas by workshopping potential project ideas for the low-income space with participants. Small participant teams were directed to:

  1. **First, define a highly desired outcome in the low-and-moderate income space. What could an impactful project be, and what would you want it to do?**
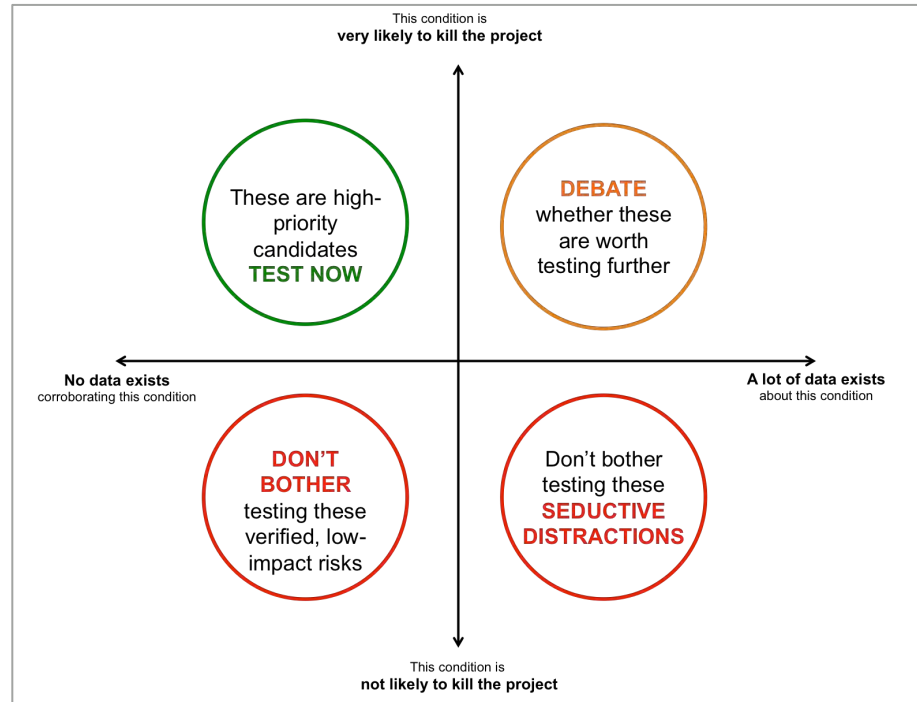
     Example project: Make energy efficiency implementation a requirement for mortgage transactions in low-and-moderate income multi-family housing, with the purpose of increasing energy efficiency adoption in this asset class.

  2. **Identify all the key conditions that, if true, could kill the outcome of the project.**

     Rank the conditions along two axes, based on:
     - i. how much impact each condition would have on the success of the project; and
     - ii. how much data currently exists to corroborate whether that condition is likely to be true or untrue.

     Focus on conditions that are important to the success of the project <u>and</u> for which there exists little data. These are conditions that are important to test early on in the project.

This condition is
very likely to kill the project

These are high-priority candidates
TEST NOW

DEBATE whether these are worth testing further

No data exists
corroborating this condition

A lot of data exists
about this condition

DON'T BOTHER testing these verified, low-impact risks

Don't bother testing these **SEDUCTIVE DISTRACTIONS**

This condition is
**not likely to kill the project**

Example condition: It would kill the project if it were extremely difficult or time consuming to monitor landlord compliance with the energy efficiency requirement.

3. **Determine how you would know if those key conditions were true or untrue (develop hypotheses).**

   Example hypothesis: If it takes less than a day for building owners (who recently implemented energy efficiency measures) to locate and produce proof of energy efficiency action, then compliance will not be a formidable challenge. Documentation could include itemized contractor receipts and before-and-after photos or utility bills, for example.

4. **Design a test to validate the hypothesis.**

   Example test: Make ten phone calls to building owners to ask them what information they have readily available to prove they made recent efficiency updates to their buildings. Based on the outcome of this test, determine the best-fit documentation for proving compliance. Note: proving whether qualifying efficiency measures (as defined by the project) result in actual energy savings could be another test conducted early on in the project.
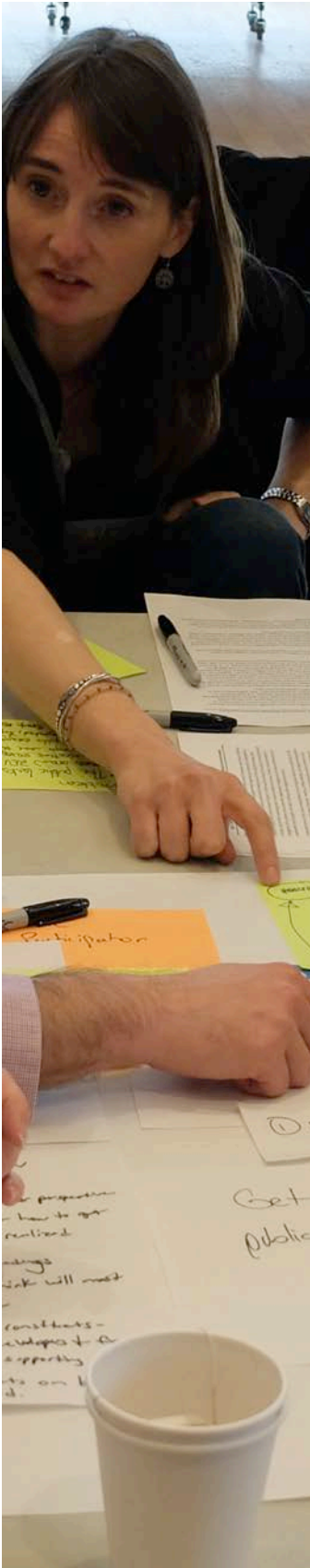
e⁻LAB LEAP INITIATIVES: WORKING SESSIONS

This section summarizes the development of new initiatives at the November meeting, including:

- **Existing Initiative Updates** - Summary of initiatives originally developed in June. Groups provided a brief update on their progress and challenges to date
- **New Initiative Idea Generation** - After a conversation about the potential for this lab to make a real difference in the low-income energy sector, the group began to develop new ideas for work initiatives. This brainstorm session was designed to solicit ideas with the most **impact and leverage**
- **New Initiative Deep Dives** - The group selected a subset of new ideas to develop further, based on individual desire and personal energy to devote to ideas. Individual teams then discussed initiative scope of work, what success and failure would look like, and next steps. *Some of the resulting initiatives overlap with those developed in June. Initiative team co-captains are discussing these commonalities and determining the best ways for initiatives to collaborate*

EXISTING INITIATIVE UPDATES

On Day 1 of the meeting, returning participants presented status updates on the initiatives developed at the e⁻Lab Leap meeting in June.

REVITALIZE

By driving their own energy plans, low-income communities can help ensure that actual programs accurately and effectively meet their needs. However, community energy planning can be resource- and labor-intensive.

The objective of this initiative is to support community-driven energy planning efforts in low-income communities by connecting those communities to funding sources and key ongoing energy initiatives—REV in particular. The initiative seeks to enable funding for community energy planning through two tracks:

1. NYSERDA RFP track - energy planning via this track would be government funded, open initially to all qualifying communities through a formal NYSERDA RFP process

2. Philanthropic track - energy planning via this track would be funded through a scalable philanthropic structure (to be designed) that would aggregate donor resources to meet the needs of multiple communities.

Major achievements to date:
- Drafted initial scope of work, with two funding tracks
- Drafted initial RFP for the NYSERDA RFP track
- Established effective co-captain team structure, with recurring work sessions (every few weeks) by phone

Challenges the team is facing:
- Navigating political sensitivities of new relationships created by this initiative's work. For example, as state agencies and community organizations develop an RFP together, NYSERDA must be careful not to provide advantages to some communities over others through the design process
- Understanding what requirements and criteria foundations might have for communities submitting proposals, and how those requirements would differ from the government-funded track
- Overcoming logistic constraints. Organizing working sessions around busy schedules and other e‾Lab Leap initiatives has been tricky

Questions the team seeks to address:
- How do we create a replicable community energy planning process?
- What are critical elements of community energy planning that should be funded?
- Who provides technical assistance, such as consulting?
- How do we efficiently scale this technical assistance to other communities?
- Can we offer technical or financial aid for the implementation phase following planning?

Lessons learned:
- Developing a new collaborative process requires additional time and resources
- Co-captains (as opposed to a single captain) are helpful to facilitate and keep the process moving

Requests this team has of the lab:
- Help provide input to answer tough questions, as they arise
- Help identify communities interested in accessing REVitalize funding for energy planning
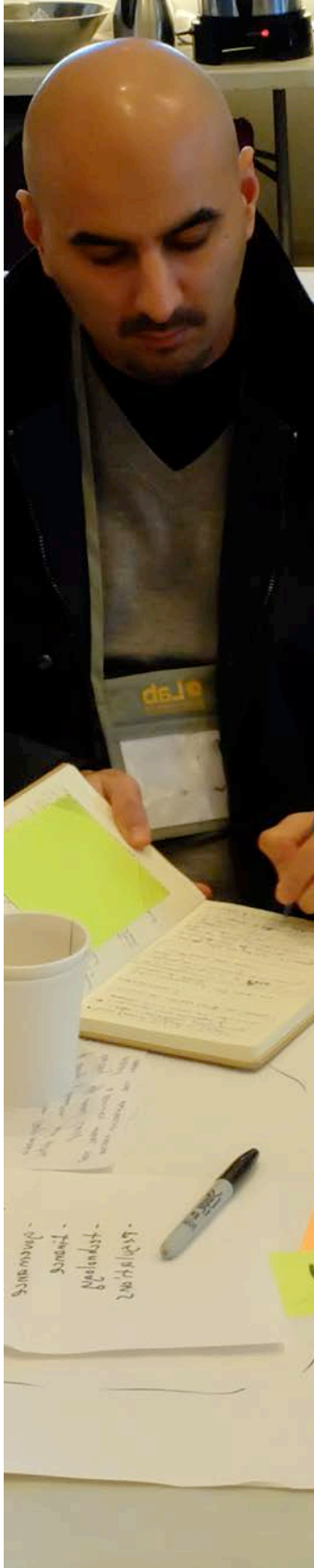
COMMUNITY ENERGY PROJECT

Today, many energy programs and funding opportunities serve low-income communities, but lack of coordination and alignment can result in inefficiencies when programs overlap, as well as gaps between programs where needs are not met.

This initiative seeks to coordinate existing programs and deliver improved value to low-income communities, primarily by:

- Identifying opportunities to coordinate funding from different programs
- Providing policy recommendations to program administrators to support the coordination of different programs

Achievements to date:

- Developed a list of policy issues and timing considerations to guide the team's work.

Challenges the team is facing:

- Navigating program-specific administrative, legislative, and timing constraints as they relate to potentially coordinating different state and federal funding programs
- Overcoming resource and capacity constraints within this group

Questions the team seeks to address:

- What could a potential coordination demonstration project look like? What would be the scope?
- How would a demonstration project be structured? What is the plan to map the policy issues the team identifies with potential options for demonstration projects?
- Who does the actual work? (e.g., install DERs)

Requests this team has of the lab:

- Help identify good community candidates for a coordinated demonstration project
- Suggest policy modifications to help integrate funding between different program sources

PUBLIC PARTICIPATION[5]

There are significant opportunities to improve the public input process for regulatory energy proceedings and ensure that low-income concerns are incorporated into emerging energy regulation. This is especially critical in the case of the ongoing REV proceedings, which could play a formative, near-term role in shaping how low-income communities participate in a clean energy future.

This initiative seeks to develop a new model of effective and transparent public engagement between government agencies and community stakeholders on low-income energy issues, primarily by:

- Designing new convening structures and public engagement models for low to moderate income (LMI) customers to participate in and provide input to REV decision-making processes
- Building a process that ensures program decision-making considers the community feedback that has been solicited (and is transparent)

Achievements to date:

- Integrated new stakeholders into the team who were originally not at the June e-Lab Leap meeting
- Planned and executed two "grasstops" meetings, testing a new convening format that would enable community-based organization leaders to meet directly with DPS about REV

Challenges the team is facing:

- Learning how to work together as a team in new ways
- Determining how to best deploy limited resources to achieve big successes. This group has big goals but limited resources
- Instilling trust between group members who already have existing power dynamics
- Balancing the level of urgency to get something done, with a desire to "get it right"
- Communicating difficult concepts to a broad audience

Questions the team seeks to address:

- How do we institutionalize new, practical models of public participation?
- How do we ensure transparency in decision making?

5.
The initiative organized and implemented two grasstops meetings in New York State in the fall of 2015, to coincide with DPS' REV road show. One meeting was in New York City, the other in Ulster County.

See Appendix for more details.

Lessons learned:
- This initiative is providing a new and useful forum for advocates and others to communicate with government
- Creating a new model of participation is a big task, but change is possible. The grasstops meetings represent the possibility for new models
- Commitment and consensus among stakeholders are paramount
- Beyond educating communities, this initiative can help ensure communities participate actively in REV and clean energy projects

NEW INITIATIVE IDEA GENERATION

*On Day 2 of the meeting, lab participants brainstormed new ideas for lab work initiatives, seeking to identify proposals with the most **impact and leverage.***

- *High-impact*: If implemented successfully, these initiatives could make a big difference to our convening mission
- *High-leverage*: Initiatives where we can effect a big change by making a relatively small strategic effort. Identifying high-leverage projects requires a detailed understanding of "how things work," which the lab seeks to provide through bringing multidisciplinary experts together

After individuals presented their ideas, project suggestions were clustered according to common themes and ideas:

Identify key REV leverage points and make recommendations
- Ensure that people pay less under REV, not more. Customers without distributed generation should not be picking up the burden of the fixed costs of the system
- Leverage the existing and new relationships in the room between government agencies and other organizations in order to take the key priorities outlined by lab members and use them to influence decision-makers like the PSC
- Enable regulatory changes through REV to support and enable the capacity for community-level planning and ownership to move from a utility-centric electricity system to a community-centric electricity system

Create an alliance of coalitions
- Bring together existing coalitions working on REV, including Energy Efficiency for All, Energy Democracy Working Group, and the Clean Energy Organizations Coalition. This group could facilitate the key issues and points that have leverage to influence change, while speaking as a unified voice

Develop a pilot for impacting REV
- Craft a project to leverage REV in a specific geography with the right social combination and revitalization

Implement a REV education and awareness campaign
- Bolster public engagement through all projects and initiatives. Public engagement should infuse and drive all the processes of this lab rather than being just one separate initiative
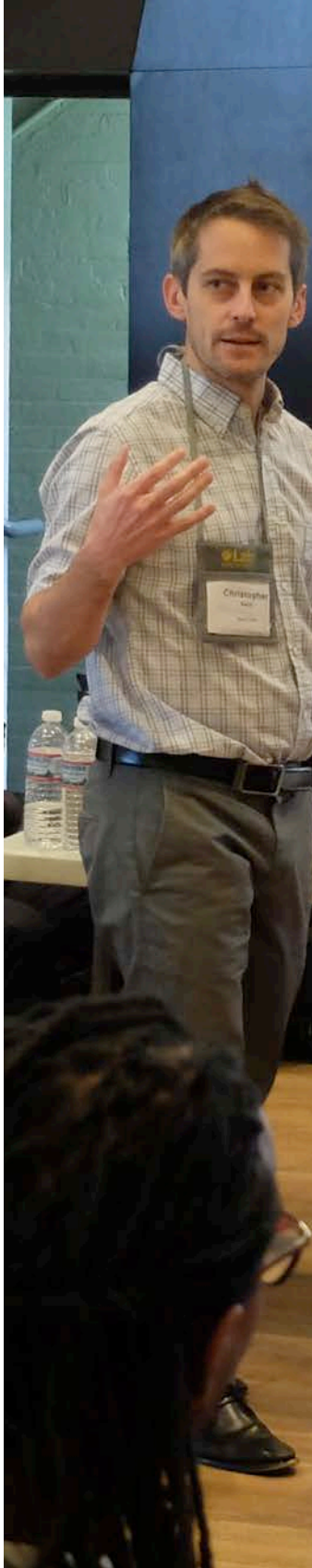
- Build public interest for REV and energy issues, as energy is not always a high priority for low-income households. How can we get the general public to care about REV and energy issues? How can we use the people here to make these proposals a reality?

Design a map and timeline of influence
- Create an online clearinghouse to identify all ongoing proceedings and initiatives that impact low-income customers, not just government proceedings
- Develop tools helpful to the lab process, including a systems map to help explore energy issues. This map could help identify the leverage points in REV so groups can exert pressure at the right points

Create a resource to help communities with microgrids
- Develop community-owned microgrids and cooperative governance structures.

Develop community-ownership business models
- Form a working group on low-income cooperative models of energy production that can move the ownership needle towards communities
- Foster regulatory support for built-in opportunities and resource investment to design community business models

Co-develop demo projects
- Co-develop demonstration projects for REV

Create a community DG portal
- Create an online portal to share and inform other communities, rather than community DG projects working in isolation. How can you connect and build connections along the project chain to ensure projects happen?

Influence owners and lenders at the right time to get them to do energy work
- Translate energy and efficiency ideas to lenders, educating them to be able to make significant impact
- Examine municipal department of buildings databases, including filings for new construction or major capital project renovations, to slice and dice the data and determine targets
- Engage real estate developers and finance community in a way that's helpful. How can we make statements to landlords to get them engaged in a process in a way that is helpful to tenants?

NEW INITIATIVE DEEP DIVES

Participants then self-selected which initiative idea they would help to develop for the rest of the Day 2. The resulting initiative teams shared their ideas mid-stream with the rest of the lab for coaching and feedback.

REV 101

Initiative objective:
Most people are not participating in REV because they are unaware of the proceeding or of the transformative changes that are occurring in the electricity regulatory environment. This is a problem because public participation is critical for ensuring customer needs are met by the transformed system.

In parallel to the Public Participation initiative (above), this initiative seeks to:
- Create a broad campaign that supports public education, awareness, and participation in REV and related policy initiatives
- Launch a campaign that creates opportunities and incentives for local government and other policy makers to be vocal in their support for REV and related policy initiatives

What wild success would look like for this initiative:
More LMI customers are aware of and understand REV. Initially this would be measured by turnout to REV hearings, views on REV-related websites, public comments, etc. Ultimately, REV 101 would lead to increased customer demand for REV-related outcomes, measured through customer action and participation in specific clean energy programs.

What failure would look like for this initiative:
Increased public awareness and effort around REV, but no uptake in changed behavior or active participation for LMI customers.

What needs to be done to advance this idea:
- Develop messaging. Determine what the audience wants and how to message REV in the context of what they care about, especially if the audience's priorities are typically not energy-related, (e.g., describe in the context of health or well-being of families). Messaging could differ across different constituent sectors (e.g., in upstate NY vs. in lower Manhattan)
- Develop engaging and simplified tools and content as vehicles for messaging (similar to tools developed by Center for Urban Pedagogy)

- Identify a suite of customer actions, or specific mechanisms for participation, that we would want to see as a result of this campaign
- Develop an outreach and communication plan which includes canvassing and email campaigns as potential strategies
- Identify a marketing or advertising company who will be culturally competent to assist in this campaign

Major discussion points:
- What are the objectives of REV 101? How much should we measure success based on building a baseline level of awareness and excitement around REV versus measuring success by the level of demand for REV-enabled initiatives and actual clean energy actions taken by customers?
- How do we ensure that REV 101 content meets LMI customers on issues they care about, even when LMI priorities are not focused on energy?
- Should "calls to action" focus on participation in programs or participation in outreach events, hearings, etc.? Or both?
- Who leads and owns content development for REV 101? How can government and stakeholders work together (if possible and/or necessary) to articulate issues without risking oversimplification or misinterpretation of important public policy issues?
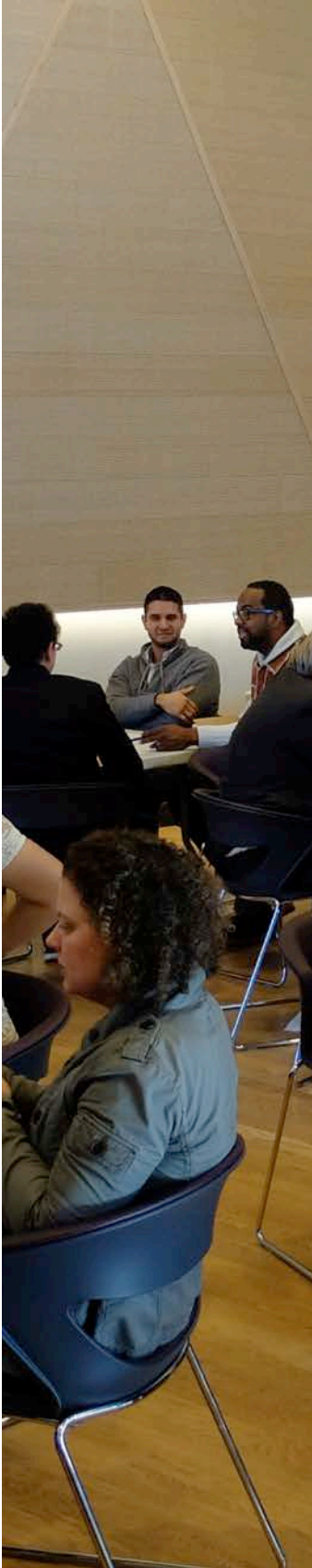
LENDER LEARNING

Initiative objective:
Today, not enough lenders understand the value of distributed energy resources (DERs) or have the confidence in invest at scale in low-income DER projects.

The objective of this initiative is to develop educational materials for lenders to use to educate building owners who are in a position to adopt efficiency measures and DERs. These materials will enable lenders to:
- understand the value of DERs
- increase knowledge and confidence in low-income DER investments
- educate building owners on the benefits of clean energy projects

What wild success would look like for this initiative:
All lenders work with LMI project borrowers to evaluate the benefits of DERs as standard lending practice. Short-term success would be achieved when one or two lenders buy into the idea and incorporate it into their lending.

What would failure look like for this initiative:
Educational materials are developed, but not adopted or used by lenders because they aren't effective tools.

What needs to be done to advance this idea:
- Bring in someone with deep building-science technical expertise to the team
- Build out an advisory group for the initiative, potentially including:
    - An expert on outreach tools and/or market research
    - NY Green Bank
    - NYSERDA

By December 15, this group commits to: Convening an initial team meeting to develop a foundational understanding of lending processing among the working group, and review initial ideas for learning materials. This meeting will take place on December 17.

By January 30, this group commits to: Defining an initial scope and format for materials, and selecting appropriate stakeholders to provide feedback on that scope.

Major discussion points:

- How can e⁻Lab Leap best support this initiative? Does it make sense for this project to carried out under the EEFA umbrella? How would results differ?
- Could this group convene a focused "lab" of building owners and lenders to build connections and educate?
- How can we identify other industries and professionals that influence LMI owners and developers?

UBER COALITION

Initiative objective:
Today, there are a large number of coalitions or trade associations that care deeply about the urgent issues and opportunities that REV presents for their constituent organizations. Several of these incorporate concern for low-income consumers into their agenda. These coalitions include Energy Efficiency For All (EEFA), Energy Democracy Working Group (EDWG), and the Clean Energy Organizations Coalition (CEOC), among others.

Individually, these coalitions may not have enough leverage or ability to substantially influence the design of REV as it impacts low-income households and communities. Together, these coalitions might have enough added leverage to impact REV in ways that include and benefit low-income communities.

The objective of this initiative is to:
- Identify and align key REV policy recommendations as they bear on low-income community energy concerns
- Coordinate overlapping efforts for key REV leverage points in order to result in a "single loud voice" on those items of agreement across coalitions

What wild success would look like for this initiative:
REV policy and implementation—including rate cases—meet community and climate needs.

What would failure look like for this initiative:
Higher bills in communities across the state. Failure to meet state climate and energy goals.

Major discussion points:
- Organizations like EEFA, EDWG, and CEOC are coalitions of heterogeneous stakeholders and positions. We should not assume that organizations would agree on key REV policy recommendations
- First, the group must design a process to determine where organizations align and disagree. A facilitated process could also help establish mutual goals and develop an effective and nimble work plan
- Strategies may need to shift as REV further develops
- An Uber coalition could result in:
    - a louder aggregate voice
    - streamlined and efficient use of shared resources

- o pinpointed feedback to REV that is more effective because it is more influential (aggregated voices) and clear
- o list of principles or guidelines for the state, which could be used to screen and filter REV policy decisions
- It's possible the State would be open to devoting resources to help stakeholders develop an Uber coalition, since they are inviting greater input and feedback around low-income issues. This is something that should be explored

COMMUNITYPOWER PORTAL

Initiative objective:
Very few communities in New York are engaged in shared community distributed generation (DG) projects. Many community-based organizations around the state would like to play active roles in advancing or facilitating community DG development, but they do not yet have examples to work from or places to turn for knowledge.

The objective of this initiative is to:
- Develop an online portal to share information about existing community distributed generation (DG) projects and those under development
- Create a virtual space for a growing network of innovative organizations to connect, share, and collaborate towards the advancement of local, people-owned projects. Over time, the portal could evolve into a point of connection, not just for peer organizations, but as a marketplace connecting such organizations with private developers, funders, and financiers

What wild success would look like for this initiative:
Large membership in the portal, sustained membership growth and retention, and, most importantly, high rates of sharing and exchange. It would be useful to track the extent to which approaches and materials are transmitted and modified between and by members.

What would failure look like for this initiative:
No one using the platform, or a low diversity of project types and system subscribers.

What needs to be done to advance this idea:
- Map out the core features and starter content of the site
- Map out additional features and functions to develop and implement over 6–12 months
- Start prototyping, beginning with a simple WordPress site populated with project-related content
- Recruit 5–10 initial members from the Energy Democracy Group to begin testing the site to see if people actually use it

By December 15, this group commits to: Informing the team's respective individual networks of this initiative idea; determining which online platform will be used, who will develop the site, and who will pay for it; and creating a repository of collective resources and REV dockets.

<u>By January 30, this group commits to:</u> Having a prototype of the site filled out by 5 CBOs and launching with warm contacts, such as people at Leap and people in the DPS Community Distributed Generation collaborative.

Major discussion points:
- What are the essential functions that this portal should have in its first phase? What should be developed and added in subsequent phases?
- Who can join and participate? How open or exclusive should it be, and what are the risks associated with each end of this spectrum?
- How will the portal be governed, moderated and maintained? Can this be done in a least-cost way without compromising quality and value?

COMMUNITY ENERGY ACCESS.

Initiative objective:
As more NY communities explore options for developing community-wide energy plans, locally sited energy assets, and community-owned energy systems like microgrids, there is a growing desire to develop new business models that enable communities to own and financially benefit from locally owned and sited energy resources.

The objective of this initiative is to develop viable, replicable business models for community ownership of energy resources and assets.

What wild success would look like for this initiative:
The launch of a community energy project in Northern Manhattan that is developed by working with the community and incorporates a viable business model for community participation in energy assets. Development of a replicable business model with a road map and scalable options that can be adopted and adapted for other communities.

What would failure look like for this initiative:
Not having an engaged community, a successful project launch, or any replicable models to share.

What needs to be done to advance this idea:
- Build and recruit a team of experts familiar with energy resources and community planning
- Create a matrix of risks and benefits of different energy resource options
- Hold a kickoff meeting to orient the group and further develop milestones and a work plan

By December 15, this group commits to: Hold a kickoff meeting with this team and develop a matrix with risks and benefits of different energy resource options.

By January 30, this group commits to: Complete a peer review and comment process by experts for different business models.

MICROGRID RESOURCE[6]

Note: This initiative was originally conceived at the June meeting, and was further refined at the November meeting.

Initiative objective:
As a result of Superstorm Sandy, NYSERDA's NY Prize, and increased interest in community energy resiliency, over 80 communities in New York State are currently exploring options for designing and implementing local microgrids. Recognizing that community microgrid design is still an emerging and challenging field, lab participants in June proposed creating a written guide that would help these communities to:
- Identify the fundamental legal, economic and technical questions that need to be addressed
- Identify and compare viable solutions, especially for low-income populations
- Define a process for making decisions (in what order, with which stakeholders)

In the second, November meeting, this objective was further refined to specify where in the design process the microgrid resource would be most helpful (specifically, after community energy goals and motivations have been clearly defined). This will help communities to be savvy customers when consulting technical advisors and ensure they are making choices that meet their broader goals.

What wild success would look like for this initiative:
Motivated communities considering microgrids have a useful framework for identifying and answering technical, legal, financial, and social questions. These communities have the awareness and understanding to ask the right questions when they interface with technical, legal, and financial advisors.

What would failure look like for this initiative:
The resource is too general to be helpful for navigating real-life decisions, or too technical to be understood by community users.

What needs to be done to advance this idea:
- Connect with legal, financial, and technical resources, with particular attention to transferrable solutions for different community microgrids
- Create a list of general technical questions that should be addressed by the resource
- Develop case studies of relevant projects

- Research general concepts, such as considerations around cost vs. size of microgrids

Major discussion points:
- The resource is planned for use by target communities after the following have already been established:
    - community energy goals and motivations have been clearly defined
    - the community has proposed a microgrid and is ready to begin planning
    - the community has assembled a team of stakeholders devoted to researching and planning the microgrid.
- Some main categories of questions the resource should address include:
    - Who comprises the "community," and who are the major stakeholders?
    - What are the community's primary motivations for a microgrid?
    - What is the relationship between cost, size, and capacity?
    - Who owns the microgrid?
    - What is legally and technically feasible?
    - What is the physical boundary of the microgrid?
- These and other questions can be broken down into sub-questions, all of which inform communities as they think about and begin to plan a microgrid in their neighborhoods. The resource should answer these questions or point communities to the right resources.
- The resource needs to allow communities to translate their core objectives to the technical outcome of a microgrid, including ownership structures and microgrid assets.

APPENDIX

REV LOW INCOME PUBLIC PARTICIPATION INITIATIVE: COMMUNITY MEETINGS EXECUTIVE SUMMARY

BACKGROUND

Participants in the June 2015 eLab Leap meeting identified a need to develop a new model of effective and transparent public engagement between government agencies and community stakeholders on low-income energy issues. This need is particularly timely because of the significant energy policy reforms brought forth under Governor Cuomo's Reforming the Energy Vision policy. Several participants of eLab Leap formed a working group to explore additional avenues, formats, and opportunities to strengthen LMI customers and community stakeholders' engagement with state policymakers and to supplement and strengthen the state's existing public engagement processes.

In the short term, to test a new meeting format, the working group identified an opportunity to hold two informal, community-based "grasstops" meetings. In these meetings, local leaders working with or representing LMI constituencies as well as community-based organizations with an interest in local energy and climate activities were engaged on 1) current REV proceedings and their implications for low-income populations and 2) better models of public participation that could be institutionalized in the future by the state and community stakeholders. The Public Participation group's "hypothesis" was that a smaller, two-way dialog in a more informal setting could elicit different lessons and information than traditional public statement hearings, which can be daunting to participate in and difficult for community groups to access. The meetings took place on October 27th and November 2nd in New York City and Ulster County, respectively, and were led by the NYS Department of Public Service, with input from the Governor's Office and community groups. Between 15-20 local community leaders attended each meeting.

FORMAT

What was different about these meetings and traditional models of public engagement? What perspectives did meeting organizers and participants take away from the meeting with respect to the meetings' tone and usefulness?

- Unlike the traditional formal public hearing format, both the NYC and Ulster County meeting took place in a "working-meeting" setting around a table, without hierarchy. DPS Staff opened with an informal presentation and encouraged questions and comments. All participants engaged in a frank, open, and constructive dialogue about community and customer concerns and explored the questions laid out in the agenda about LMI participation and communication. The relatively small number of participants (15-25) helped foster a dialogue, which was different in that it was "more about interests" and less about "positions and positioning."
- In addition, in contrast to traditional meetings held by DPS with community and constituent groups, the focus of discussion was around effective communication methods rather than policy questions.

Participants – state and stakeholders – agreed that this focus on communication is "novel and necessary" and "one step among many". The immediacy of feedback garnered by these meetings was seen as valuable as well.

MAIN TAKEAWAYS

Main takeaways from both the NYC and the Ulster County meeting included:

- *Energy knowledge:* Levels of energy literacy, according to both state and community stakeholders, was generally mixed, which "was to be expected." However, varying levels of knowledge about REV and utility regulation, and a lack of a "common language" around regulatory policy does not mean that participants' perspectives on energy issues and how they are communicated to customers are not valid. For instance, community leaders "understand probably better than regulators what it is like to be a utility customer and how difficult it is to influence energy policy." However, the details and minutiae of utility regulation in general can be frustrating, particularly around jurisdictional boundaries and responsibilities within government. To address this, better management of realistic expectations might lead to better outcomes.

- *Partnership:* Communities should be seen as full partners in the REV transition, not as passive audiences. How can REV and any public engagement models employed by REV distill and communicate opportunities for full community participation in REV projects, such as Community DG and Community Choice Aggregation? How can the policy-making process, including the rate-making process, better tap the knowledge and experience of LMI customers to improve programs and policies designed to assist them and to address emerging issues and concerns?

- *Intersectionality:* It is important to link clean energy deployment and the messaging around opportunities for low-income participation in REV to the social, health, fiscal, resilience, and other non-energy benefits that clean energy provides. How can the state communicate that clean energy solutions will address issues that low-income customers are particularly concerned about, for instance the threat of losing power during emergencies, or the health risks created by structurally deficient housing stock? How can State policy-makers achieve a deeper understanding of the barriers and hurdles that LMI communities confront to design more effective policies that increase LMI access to distributed energy resources?

- *Capacity:* Communities need both human capital (e.g. technical, legal, and engineering expertise) and financial resources in order to a) effectively participate in REV, rate-making, and other regulatory proceedings and b) identify opportunities by which neighborhood groups and community stakeholders can take advantage of programs and policy decisions rendered by the PSC.

- *Communications:* The state can and should take a more inclusive and broader approach to messaging and communications around the implications of REV for low-income customers. Alternative messaging strategies could include simplified "white papers" around proceedings and programs, videos, infographics, webinars, etc. Periodic meetings with community leaders and open lines of communication in both directions between staff and community leaders and organizations were considered by community leaders to be the most effective form of communication. The input of community leaders should be tapped in rate cases, including during the discovery process.

MICROGRID INTERVIEWS—SYNTHESIS

The original objective of the microgrid initiative in June was to create a written guide to help low-income communities develop community-owned microgrids. Participants recognized that individual communities have their own unique issues and opportunities when it comes to energy supply options and energy asset ownership models. Nevertheless, they saw a great need to help communities:

- identify the fundamental legal, economic and technical questions that need to be addressed, regardless of individual circumstances
- identify and compare viable solutions, especially for low-income populations
- define a process for making decisions (in what order, with which stakeholders).

In order to ensure the initiative will meet the needs of these low-income communities, RMI has been conducting interviews with microgrid experts and interested communities. To date, we have interviewed individuals from the following 16 organizations:

Bloomberg New Energy Finance
Booz Allen Hamilton
Celtic Energy
Center for Social Inclusion
Clean Coalition
Morrison Foerster
NYSERDA
Pace Energy & Climate
Pennsylvania State University
Power by Cogen
Red Hook Community Microgrid
Rocky Mountain Institute
Two Bridges Neighborhood Council
University of Connecticut
WE ACT for Environmental Justice
Willdan Group

From those interviews, we have documented the following questions that communities and experts are facing as they plan and implement microgrids. We offer this list as a reference point from which we can, in this meeting:

- consider the highest and best use of this lab to help communities move forward
- determine what kind(s) of guide or resource could be most useful to communities
- discuss the content that should be included
- identify Lab research streams (for questions that are hard to answer)

Who comprises the "community," and how are those stakeholders represented?
  Who in the community is interested in a microgrid?

Who is speaking for the interests of the community as a whole?

Who are the champions?

What is meant by different stakeholders when they say, "microgrid?"

Do local governments, particularly in small towns, drive the process?

What are the community's primary motivations for a microgrid?

Is a microgrid the best way to meet the community's goals?

What design decisions can we make to enable microgrids to...

improve community financial health and even help communities profit?

ensure resiliency during extreme weather events?

support community identity and combat gentrification?

improve power quality? (How well are communities currently being served by their utilities?)

What other benefits might a microgrid provide?

Who owns the microgrid? Understanding who will own, operate, and profit from the microgrid is an open question. Depending on the objectives of different communities, new models of cooperative ownership may be necessary. These models are still under development, and it is unclear how they will work. Some NY Prize projects are working on new ownership models, but they are under nondisclosure agreements and cannot currently be shared.

What is the flow of services, money, and liability?

How does the microgrid serve its different stakeholders?

What is the role of the utility and its assets?

How does REV impact utility involvement?

How can low-income communities participate in the planning process?

What could community ownership look like?

How could owning a microgrid aid communities?

Who will operate and maintain the microgrid?

What is legally and technically feasible?

Are community objectives technically feasible?

What is the legal and regulatory status of microgrids?

How does it need to change to further microgrid projects?

What is the physical "boundary" of a community microgrid?

Which buildings, and how many, will be served by a community microgrid?

Will the microgrid cover an entire substation or critical infrastructure?

Other Challenges

Are community objectives technically feasible?

What is the role of public housing in future microgrids?

What is the legal and regulatory status of microgrids? How does it need to change to further microgrid projects?

What role does the microgrid play once it is in place?
What is the community's motivation for a microgrid?