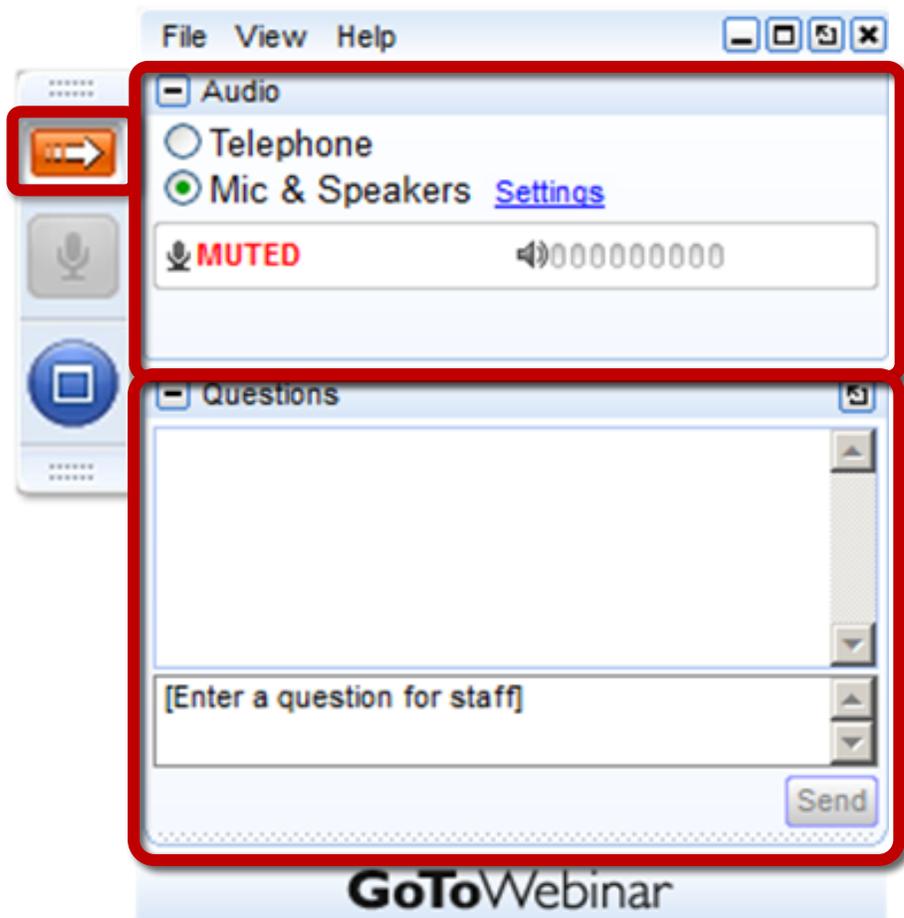




How CEG and CT Green Bank are Helping Connecticut Affordable Housing Facilities Install Resilient Solar+Storage

March 29, 2022

WEBINAR LOGISTICS



All Participants are in Listen-Only Mode

Join audio:

- Choose Mic & Speakers to use VoIP
- Choose Telephone and dial using the information provided

Use the tab with the orange box/arrow to open and close your control panel.

Submit questions and comments via the Questions panel and hit “send.”

This webinar is being recorded. We will email the webinar recording to you within 48 hours. CEG’s webinars are archived at www.cleanegroup.org/webinars.

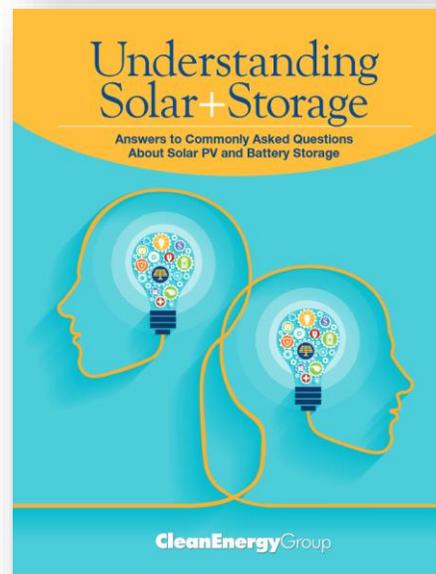
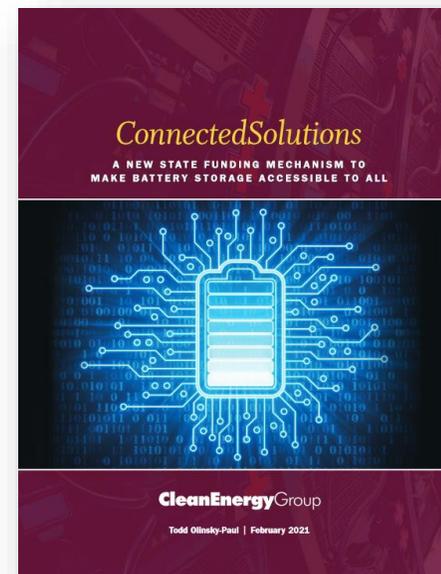
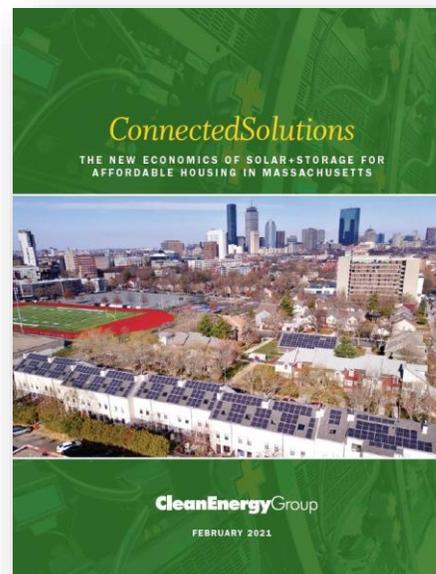


Clean Energy Group (CEG) works at the forefront of clean energy innovation to accelerate an equitable and inclusive transition to a resilient, sustainable, clean energy future.

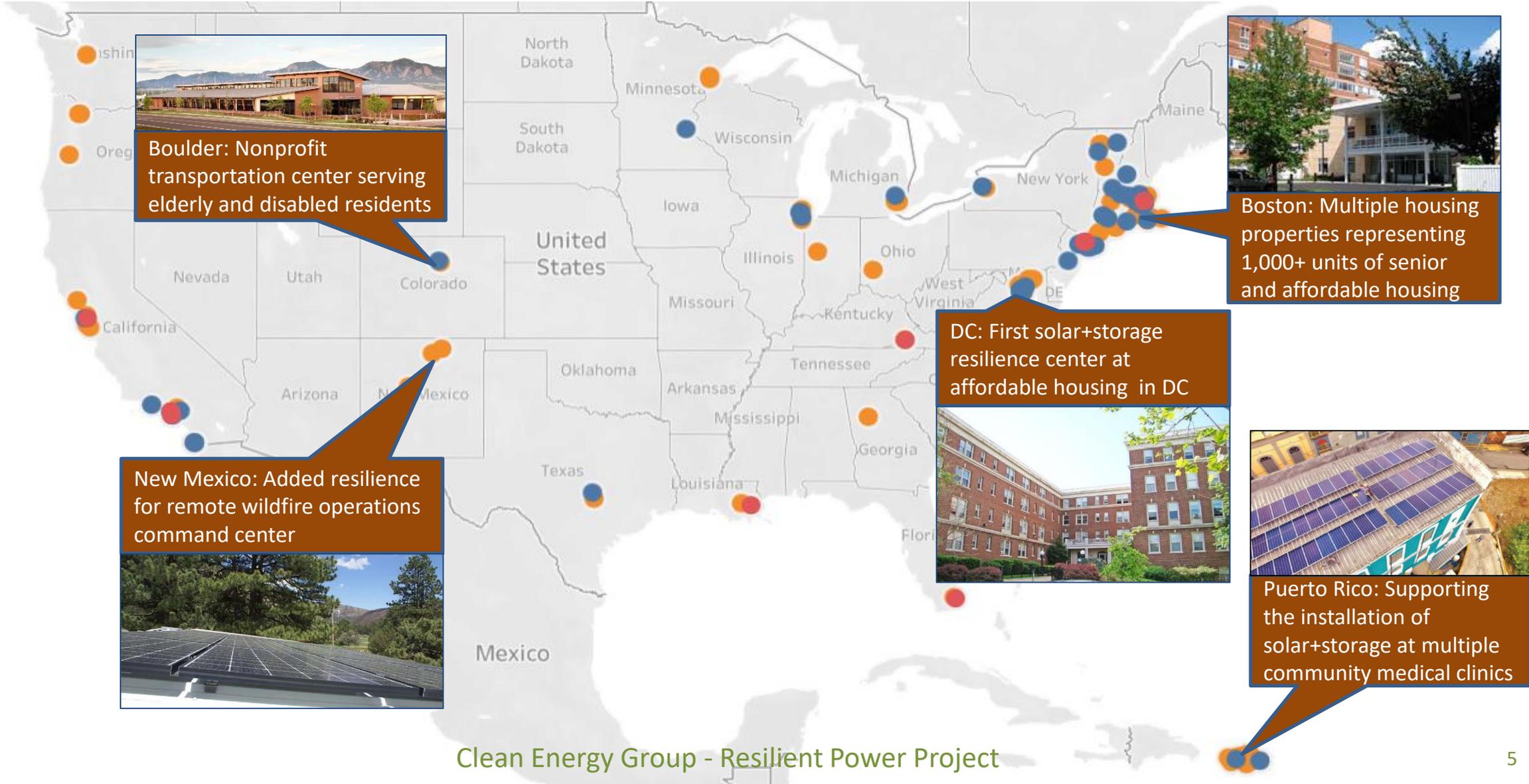
Visit www.cleanegroup.org to learn more about our current initiatives, recent publications, and upcoming events.

THE RESILIENT POWER PROJECT

- Increase public/private investment in clean, resilient power systems (solar+storage)
- Protect low-income and vulnerable communities, with a focus on affordable housing and critical public facilities
- Engage city, state and federal policy makers to develop supportive policies and programs
- Visit www.resilient-power.org for more information and resources



SUPPORTING 250+ PROJECTS ACROSS THE COUNTRY



WEBINAR SPEAKERS



Todd Olinsky-Paul
Clean Energy Group



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Connecticut Green
Bank



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Clean Energy Group



Geoff Oxnam
American
Microgrid Solutions



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Connecticut Green
Bank



AMERICAN MICROGRID
SOLUTIONS



**CONNECTICUT
GREEN BANK** SM



Connecticut Green Bank is the nation's first green bank. Established in 2011 as a quasi-public agency, the Green Bank uses limited public dollars to attract private capital investment and offers green solutions that help people, businesses and all of Connecticut thrive.

Our mission is to confront climate change and provide all of society a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy.

**Guiding this mission is our vision for
“...a planet protected by the love of humanity.”**

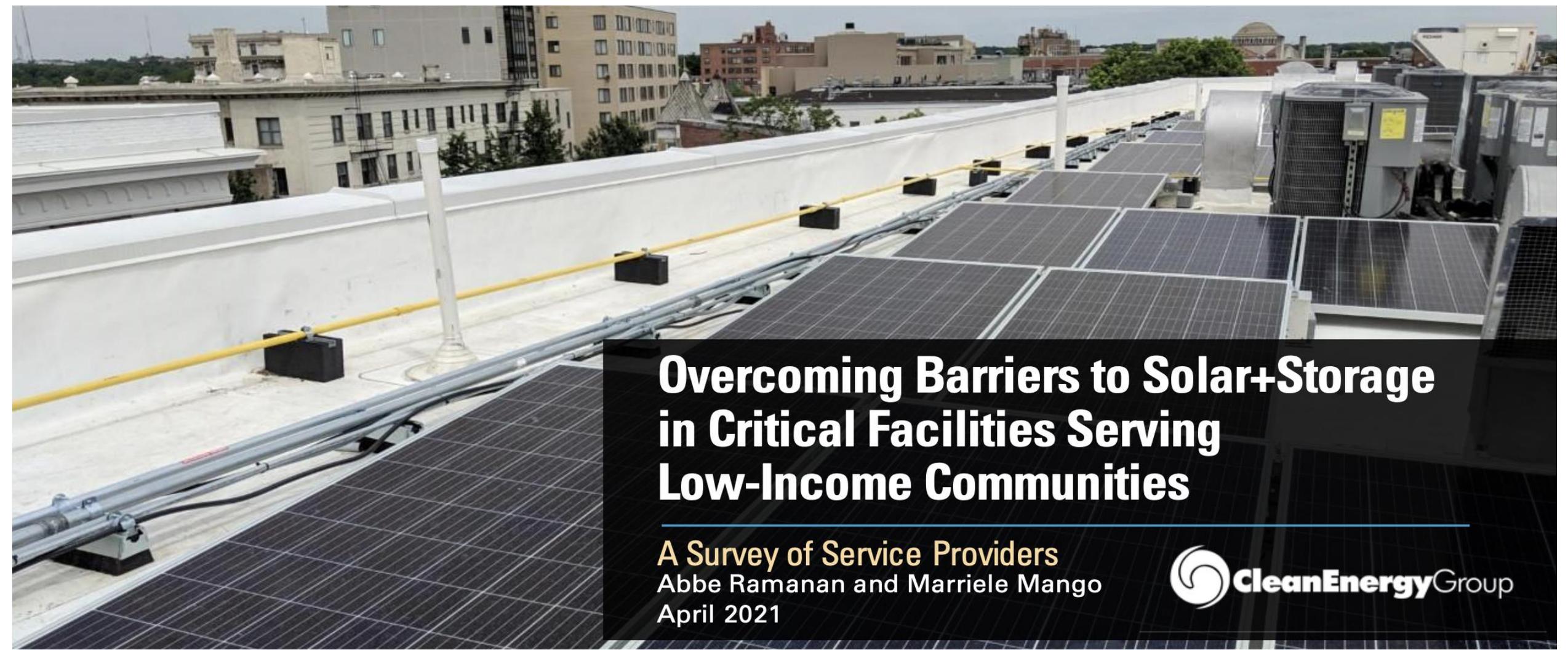
RESILIENT POWER

A project of **CleanEnergy**Group



Solar+Storage for Affordable Housing: Barriers and Opportunities





Overcoming Barriers to Solar+Storage in Critical Facilities Serving Low-Income Communities

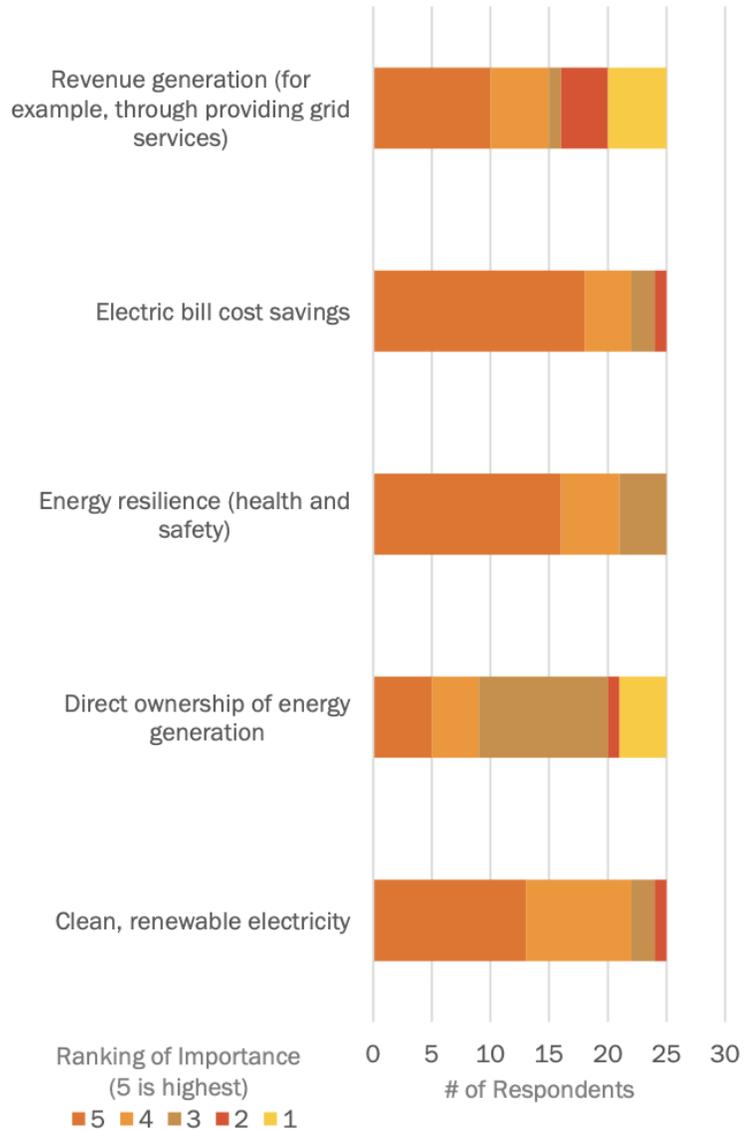
A Survey of Service Providers
Abbe Ramanan and Marriele Mango
April 2021



Overview:

- Barriers to solar and battery storage development in affordable housing
- Opportunities to improve adoption
 - Incentives – Connecticut Energy Storage Solutions program
 - Pre-development funds – Clean Energy Groups Technical Assistance Fund

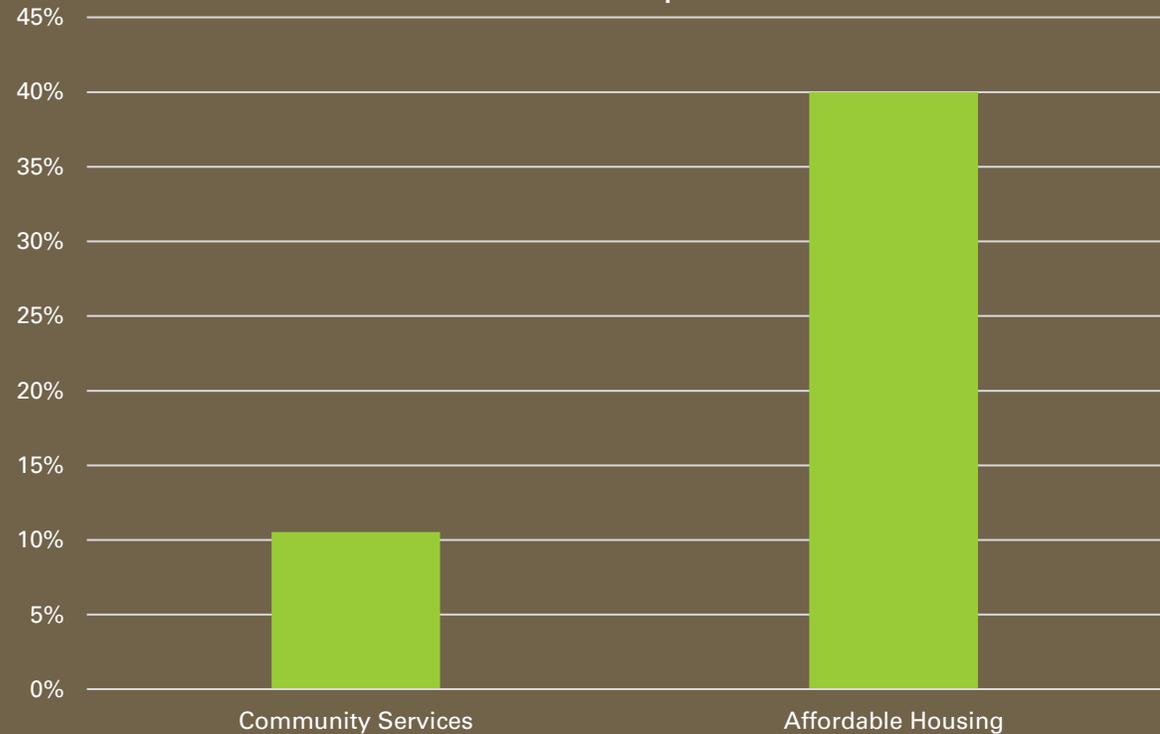
Affordable Housing: Project Motivation



Project Motivations

40% of affordable housing developers ranked revenue generation as their top motivation

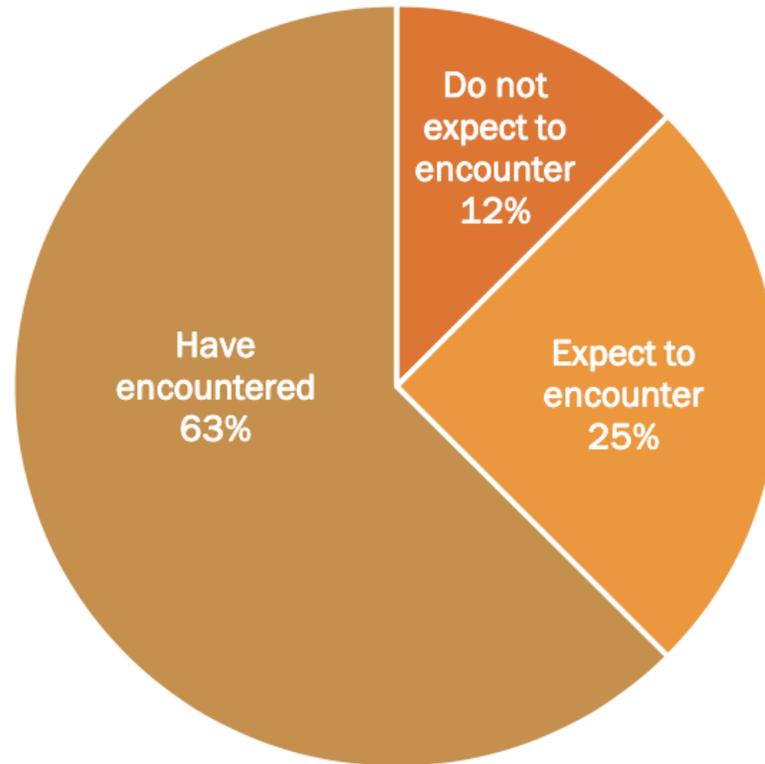
Percentage of Respondents Who Ranked Revenue Generation as Top Motivation



Barriers

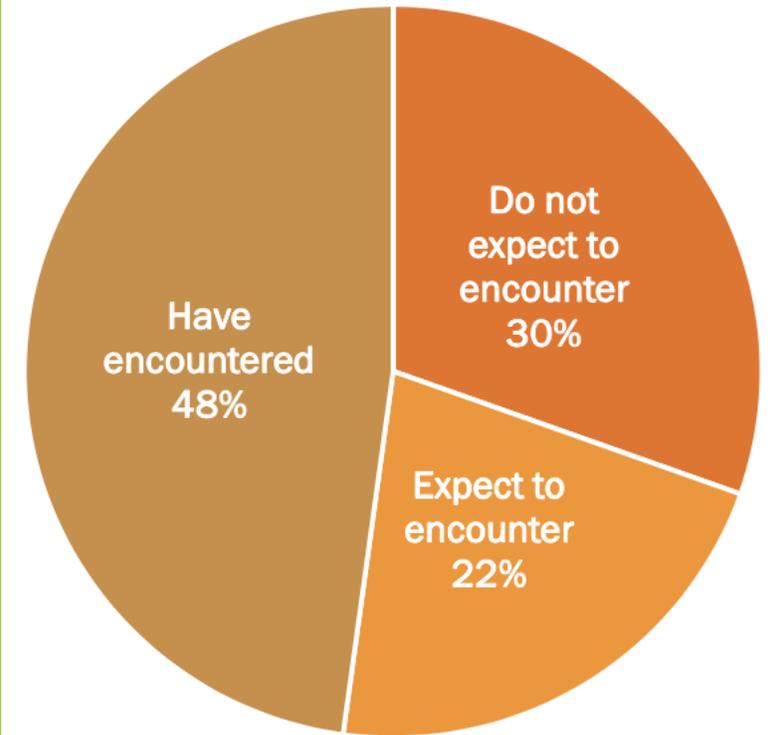
Lack of Information and Technical Issues ranked highest among obstacles to solar+storage development for affordable housing providers, followed by *Lack of Financing*.

Barrier: Lack of Information About Battery Storage



#1 Obstacle of those surveyed: 63% of responses having already encountered this obstacle and another 25% expecting to encounter it.

Barrier: Technical Issues



#2 Obstacle of those surveyed: This category covers a wide variety of issues that can arise when incorporating solar+storage into a project, from limited roof space to the isolation of critical loads for a resilient system.

Overcoming Obstacles

1. Provide Upfront Technical Assistance Support

2. Improve Solar+Storage Economics through Incentive Programs



Technical Assistance

Supports the development of clean energy projects that decrease energy burdens and increase resiliency

Funds preliminary technical and financial feasibility analyses

Pre-development feasibility analysis links organization to trusted allies who can provide independent background on solar+storage

Provides clear picture of costs, ownership structures, and financial incentives to help with decision making and fundraising

Example: Clean Energy Groups Technical Assistance Fund

Clean Energy Group

Technical Assistance Fund

- Supports the development of clean energy projects aimed at decreasing energy burdens and increasing resiliency
- Provides one-on-one support before, during and after the assessment
- Funds preliminary technical and financial feasibility analyses to help determine size, cost, and benefits of solar, battery storage and other resilient energy technologies
- Grants range from \$5,000 - \$15,000 depending on scope of project
- Prioritizes projects serving low-income populations or Black, Indigenous, and People of Color (BIPOC) communities
- Low barrier to entry



Innovative Incentive Programs



- Improve system economics
- Carve-outs for low-income communities, communities of color, and medically vulnerable individuals supports greater adoption of solar+storage in underserved communities
- Spurs battery storage development statewide

Example: Connecticut Energy Storage Solutions program

Connecticut Energy Storage Solutions Program



- Upfront incentives to help reduce the cost of purchasing a battery system
- Performance incentive payments based on the average power their storage project contributes to the grid during critical periods
- Increased incentives for projects serving historically underserved communities
- **Project-specific technical assistance grants for pre-development feasibility studies through Clean Energy Group partnership**



Contact

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Find us online:

www.resilient-power.org

www.cleanegroup.org

www.facebook.com/clean.energy.group

@cleanenergygrp on Twitter



The logo is a white circle containing the text "AMERICAN MICROGRID SOLUTIONS" in a sans-serif font. A thin yellow horizontal line is positioned between the words "MICROGRID" and "SOLUTIONS".

AMERICAN MICROGRID
SOLUTIONS

American Microgrid Solutions

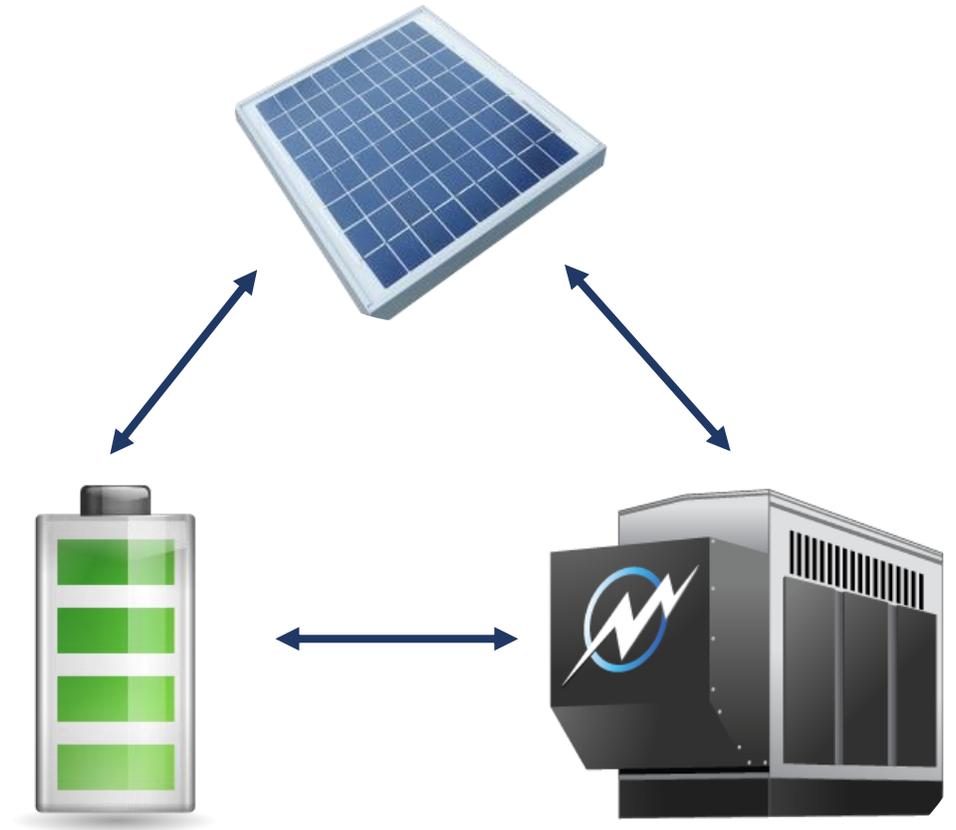
Generating Security, Savings & Sustainability

How CEG and CT Green Bank are Helping Connecticut Affordable Housing Facilities Install Resilient Solar+Storage

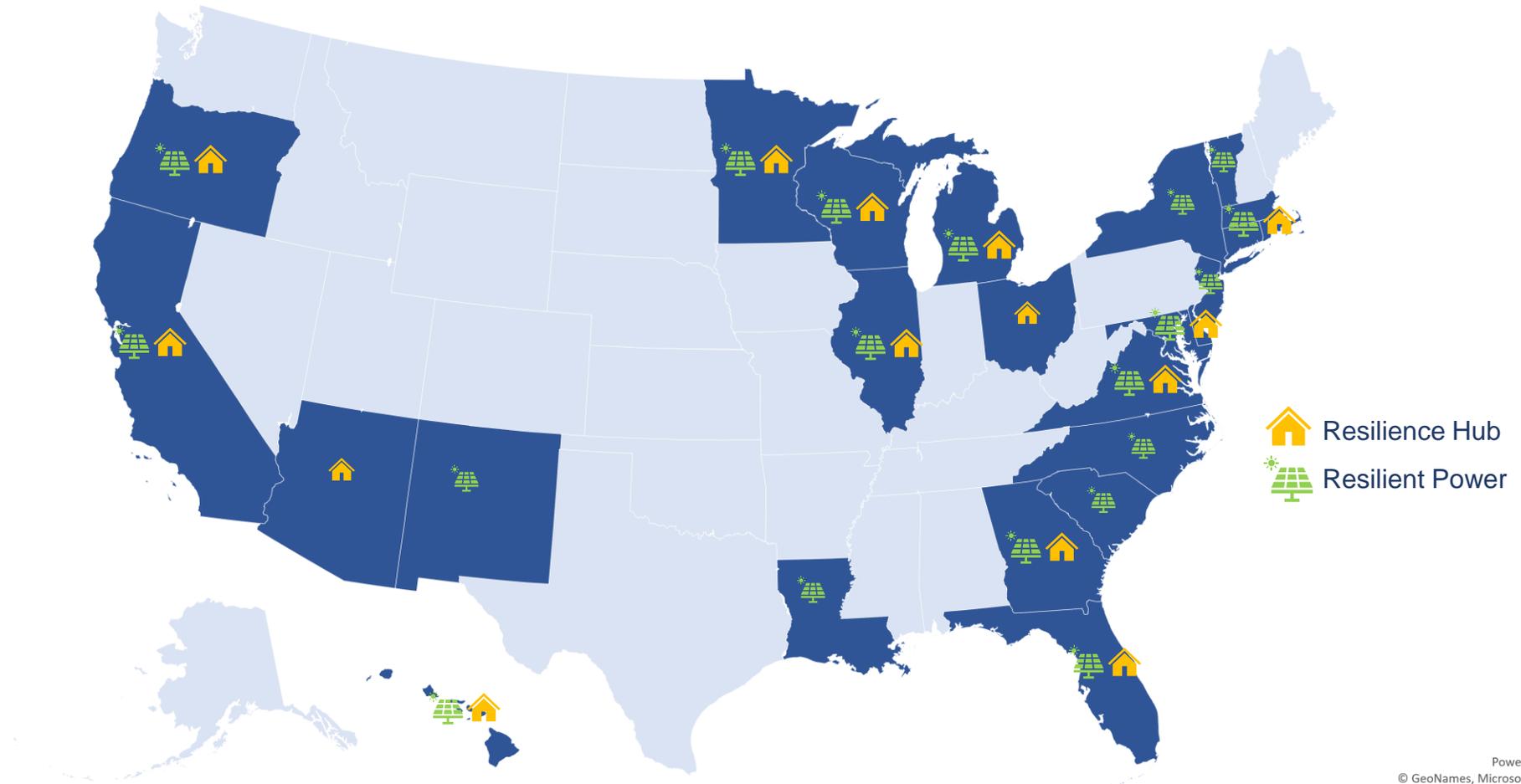
www.AmericanMicrogridSolutions.com • 443.496.2977

Generating Savings, Security & Sustainability for Critical Facilities

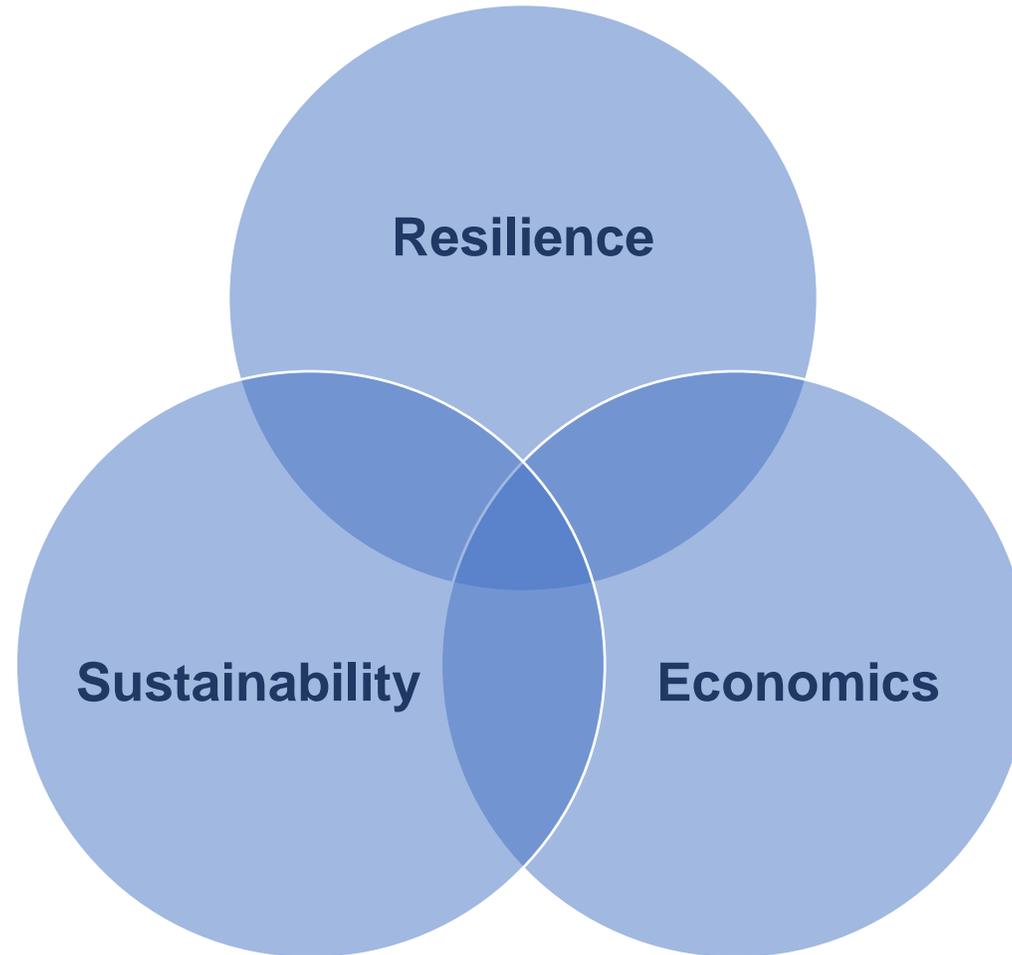
- American Microgrid Solutions designs & develops microgrids and other energy tools to improve security, savings, and sustainability for critical facilities
- Systems combine solar, battery storage, conventional generation and advanced controls
- Resilience Hubs projects underway in 12 states
- >70 Resilient Power solutions in 26 states and Puerto Rico
- Turnkey services from concept to commissioning, including finance
- Team brings decades of advanced energy experience from utilities, telecom, Wall Street and national security



Resilience Hub & Resilient Power Projects

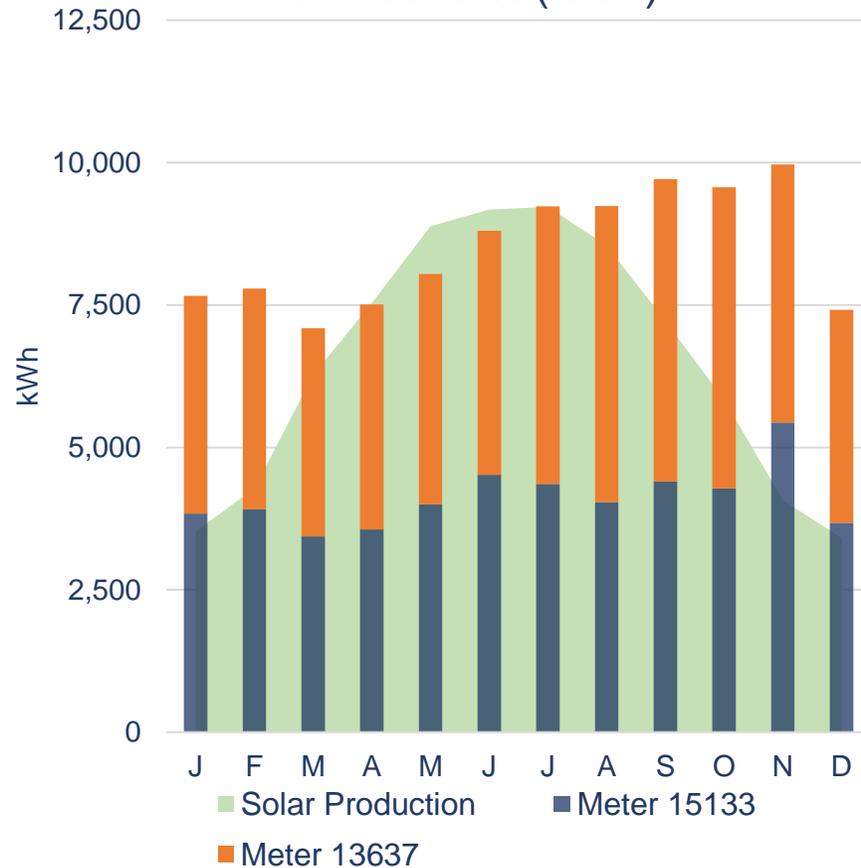


Resilient Power balances goals in 3 key areas



Resilient Power delivers value beyond backup

Monthly Electricity Usage vs Solar Production (kWh)



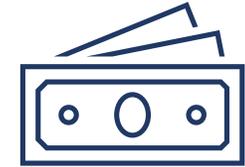
Security

Min. 4 hours of backup power from battery



Savings

24% offset of total utility usage



Saves \$3,600/year in utility cost

Sustainability

Avoids 55 MT of CO₂ annually or about the same as...



138,000 vehicle miles driven



67 acres of forest

Resilient Power in Connecticut

1

More revenue
certainty

2

More participants –
even the tougher
load curves

3

More finance
options

4

Closer to a Value of
Resilience

*Thank you for the opportunity to work with you
on this Resilient Power project!*

American Microgrid Solutions
Geoff Oxnam, CEO & Founder

goxnam@americanmicrogridsolutions.com
www.americanmicrogridsolutions.com
443.496.2977

Battery Storage Financing Options

Battery Storage Project Financing



- **Third-Party Owned Solution**
 - Developing a “storage as a service” or “shared savings” third-party owned product
 - Please reach out if you have projects and we can work with you to design a solution
- **CSPACE**
 - Provides long-term, fixed rate financing for a building owner to purchase a battery
 - Repaid through property tax assessment that stays with the property
- **Capital Solutions “Open RFP”**

Capital Solutions Program

Rationale & Process



- **A financing option for projects that are not eligible for other Green Bank programs**
- Receive proposals for Green Bank investment on an open and rolling basis, as received;
- Evaluate such proposals in accordance with objective and transparent criteria;
- To be “market responsive” and adaptable
 - ❑ Render preliminary responses to proposals in days and weeks rather than months
 - ❑ Offer guidance to those proposals that fall short of our criteria where the proposals offer the promise of significant market potential; and
 - ❑ Have a sufficient budget for investment in order to deliver significant impact quickly.

Capital Solutions Program

Eligible Technologies



- Any technology that is able to help the Green Bank achieve its statutory mandate as voiced through its Comprehensive Plan and is either
 - A. already commercially viable or
 - B. has demonstrated clear potential for commercial viability
(through, for instance, well-documented feasibility studies and pilot programs where there is clear evidence of a viable business model and a path to substantial impact)

Capital Solutions Program



Financing Arrangements and Capital Support

- Green Bank not to be prescriptive
- Maximize potential for leverage of Green Bank resources
- Balance the need for risk containment and Green Bank sustainability (i.e., the Green Bank's financial returns vs. the potential for financial losses)
- Usual investments: senior and subordinate loans; construction loans; bridge loans; working capital loans; term loans; loan loss reserves; loan guarantees; other forms of credit enhancement; participation in other lender's loans; equity
- All of the above - in accordance with Green Bank operating procedures and its enabling statute.

Capital Solutions Program

Eligible Proposers



Proposals accepted from:

- 1) Private sector financial institutions or other third-party capital providers that finance, or intend to finance, clean energy technologies in State of Connecticut (although proposals that are part of a “multi-state” concept will also be welcomed and encouraged); and/or
- 2) Industry participants including project developers, energy service companies ("ESCOs"), building and facility owner/operators, equipment manufacturers, or others that provide equipment, materials and/or services related to eligible technologies where the object of the activity being proposed is entirely or meaningfully related to the State of Connecticut.
- Proposers can apply on a standalone basis or as part of a team, such as a developer/sponsor, lead equipment provider, lead equity and/or debt provider.
- Regardless of whether the proposal comes from a standalone entity or as part of a team, **proposers must have directly relevant experience in the transaction/project type being submitted, and the relevant technologies.**

CGB Battery Storage Financing



- **CSPACE**
 - <https://www.cspace.com/>
- **Capital Solutions “Open RFP”**
 - <https://ctgreenbank.com/wp-content/uploads/2020/07/Open-RFP-for-Green-Bank-Capital-Solutions.pdf>

Thank you for attending our webinar

Todd Olinsky-Paul

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Upcoming Webinars



- The Governance of Wholesale Power Markets (4/12)
- An Introduction to the Solar Power in Your Community Guidebook (4/14)

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