

New York's 2022 Energy Storage Roadmap

Disadvantaged Communities Benefits: Stakeholder Webinar

March 16, 2023



NYSERDA

Department
of Public Service

Meeting Norms and Logistics

Before beginning, a few reminders to ensure a smooth discussion:

- Today's webinar is being recorded.
- All stakeholder feedback will be captured by NYSERDA for NYS Department of Public Service/NYS Public Service Commission review and deliberation. Prior to doing so, attendees will be emailed a summary to ensure comments were captured accurately.
- A copy of the recording and presentation slides will be posted to NYSERDA's [Bulk](#) and [Retail](#) Storage Incentive pages in the "Webinar Presentations" section.

Asking Questions

If tech problems arise, contact Mishel.Filisha@nyserda.ny.gov

Housekeeping

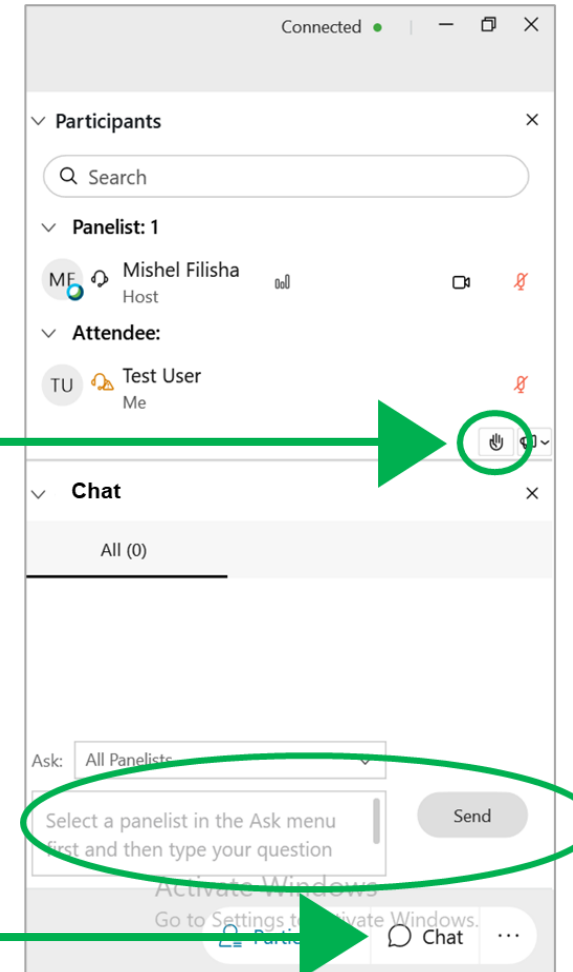
- Questions and comments may be queued up at any time
- Q&A and discussion will be facilitated after the presentation

Questions and comments via Microphone

- Click the "raise hand" icon near your name in the Attendee panel
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Questions and comments via Chat

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Meeting Objectives

- Provide an overview of the goals and proposed components of the 2022 Energy Storage Roadmap
- Seek input from Disadvantaged and Environmental Justice Community Stakeholders on the proposed 2022 Energy Storage Roadmap and related considerations for subsequent program design

Agenda

- Energy Storage: Definition, Benefits and Installation Types
- 2022 Storage Roadmap Background
- Proposed Procurements/Programs by Sector
- Storage For DAC and EJ Benefits: Roadmap Considerations
- Storage For DAC and EJ Benefits: Areas of Stakeholder Feedback
- Roadmap Approval Process and Next Steps
- Program Design for DAC/EJ Benefits: Stakeholder Feedback Process
- Q&A/Discussion

Energy Storage: What It Does and Why It Matters

- Term for group of technologies that can store (charge) electric energy for later use (discharge)
- Most commonly associated with battery (lithium-ion) storage today, but includes other technologies as well (e.g., thermal, pumped hydro, compressed air)
- Roadmap scope focused on **stationary** storage (i.e., not e-bikes/EVs), which have sophisticated software controls and whose siting, permitting and approval of projects and equipment vendors for systems subject to stringent regulations and approvals (NYC: FDNY, DOB, DCP)
- **Need and Benefits of Energy Storage**
 - Enable Grid Decarbonization: Firms/smooths variable renewable generation (solar, wind), helps replace fossil fuel plants for reliability needs, reduces fossil fuel peaker emissions
 - Lowers Grid Costs: Maximizes solar/wind generation, reduces peak demand, offsets additional distribution and transmission system investment costs
 - On-Site Resilient Power: Back-up power for residences and businesses, including critical infrastructure
 - Customer Energy Savings: Maximizes value of paired solar, bill credits/discounts with community storage

Stationary Energy Storage by Installation Type

Residential
<25kW



kWh

Commercial Retail
Up to 5 MW



kWh - MWh

Bulk (Utility-scale)
20 MW+



MWh - GWh

2022 Storage Roadmap: Background

- In 2018, New York adopted an administrative target of 3,000 megawatts (3 gigawatts/GW) of storage deployment by 2030, which was enshrined into the Climate Law (CLCPA) in 2019.
- Programs/funding to support this target were implemented via approval of the 2018 Storage Roadmap. Through those and other programs, 1.3 GW of storage has been procured/awarded across the state.
- Analysis conducted to support CLCPA mandates found a need for approximately 12 GW of energy storage by 2040 and 17+ GW by 2050, to support a fully decarbonized electric sector (2040) and economy (2050).
- Recognizing longer-term storage needs, storage target was expanded in 2022 to 6 GW by 2030, and NYSERDA and NYS Dept of Public Service (DPS) were directed to file updated Roadmap proposing new programs, funding and policy recommendations.
- Roadmap filed in Dec 2022 for consideration by PSC and comment period is currently ongoing.

Proposed Procurements/Programs by Sector

- 2022 Roadmap proposes additional programs to support procurement of an additional **4,700 MW** of storage to be deployed across the state through 2030, across three market segments.
- Additional proposed procurements by segment:

Market Segment/ Installation Type	Target Allocation/ Procurement (MW)	Procurement Mechanism	Incentive Structure	Estimated Cost (NPV 2022\$)
Bulk (Large-scale, 20 MW+)	3,000	Annual competitive solicitation (1,000 MW annually from 2024-2026)	Indexed \$/MWh credit paid out over 15-year contract	\$474 million - \$1.19 billion
Commercial Retail (upto 5 MW)	1,500	Standard offer program (declining block)	Upfront, fixed-rate incentive	\$438 million
Residential (25kW or less)	200	Standard offer program (declining block)	Upfront, fixed-rate incentive	\$72 million

Proposed Roadmap Programs: Additional Considerations

- **Geographical Considerations:**
 - For **Bulk** programs, Roadmap recommends designing program to ensure a significant proportion of allocation is deployed downstate (NYC/Long Island) to maximize grid benefits and EJ/DAC benefits, potentially via downstate-specific carveouts.
 - For **Residential and Retail** programs, Roadmap proposes implementing region-specific blocks/carveouts (previous Retail program: NYC, Westchester, Long Island, Rest of State).
- **Duration Considerations:**
 - Given need and benefits for longer-duration (8-hour+) bulk storage, Roadmap recommends giving NYSERDA flexibility to stipulate specific durational profiles for bulk solicitations, e.g. through carve-outs by duration.
- **Labor Considerations:** Roadmap recommends projects with a capacity of 1 MW+ pay NYS Prevailing Wage as a contractual requirement, substantiated via quarterly certifications by licensed Certified Public Accountant during the construction period.

Disadvantaged Communities and Environmental Justice Benefits: Roadmap Proposals

- CLCPA requires the State to invest or direct resources to ensure that disadvantaged communities receive at least 35%, with the goal of 40%, of overall benefits of spending on clean energy and programs.
- For storage, CLCPA additionally requires PSC to specify that a minimum percentage of projects should deliver clean energy benefits into NYISO zones that serve DACs, and storage projects be deployed to reduce usage of combustion-powered peaking facilities located in or near DACs.
- Given that on-site storage (residential and on-site commercial) provides different benefits compared to off-site storage (off-site commercial and bulk), the Roadmap proposes different approaches to DAC and EJ-related benefits.

Disadvantaged Communities and Environmental Justice Benefits: Roadmap Proposals

- **On-site Retail** and **Residential** projects provide direct local benefits to the site at which they are installed, with the value of these projects to be primarily for the benefit of the site owners.
 - Roadmap recommends that Retail and Residential programs should be designed so at least 35% of the funding and associated benefits of these projects are directed to projects **sited in DACs**.
- **Bulk** and **Off-site Commercial** storage delivers services to the transmission and distribution systems, providing wide-ranging benefits across the system.
 - Benefits the electrical system in the area where the project is built, not necessarily the specific physical location of the project. In many cases, projects will be providing services on a territory-wide basis, often stretching into areas beyond a single county or zip code.
 - Roadmap therefore recommends that at least 35% of Bulk and off-site Retail program funding be utilized to support projects **sited in areas of the state** with the highest benefits to DACs and peaker reductions.
 - These areas can be found in various locations across the state, but Zone J (New York City) is proposed to receive particular focus in program design, given its high concentration of peakers and DACs.

Storage For DAC and EJ Benefits: Areas of Stakeholder Feedback

For programs supporting **bulk** and **off-site retail** projects, how should programs and procurements be designed to ensure that at least 35% of proposed program funding is utilized to benefit DACs and drive peaker plant emissions reductions, beyond a program focus on Zone J (NYC)?

- Examples:
 - Implement an explicit carveout for projects sited in Zone J/NYC (e.g. X%, or Y MWs)
 - Incorporate potential to reduce peaker plant operation and emissions into scoring criteria for bulk solicitation program
 - Have utilities enroll EAP/LMI customers into participating community storage to receive bill credits/discounts (currently restricted to community solar in National Grid territory and being considered for statewide rollout)

For programs supporting **on-site retail** and **residential** projects, how should programs be optimally designed to ensure that at least 35% of the funding and associated benefits of these projects are directed to projects sited in DACs?

- Examples:
 - Implement a program carveout for projects sited in DACs and/or owned by LMI homeowners/AH providers
 - Provide an incentive adder/higher incentive for DAC-sited/LMI-owned projects

Roadmap Process and Next Steps

- Roadmap was filed on December 28, 2022, and is open for public comments through March 20, 2023. Comments can be filed on the [Department of Public Service's website](#) under Case Number 18-E-0130.
- NY Public Service Commission is expected to issue an Order approving or denying the items requested in the Roadmap and has ability to approve a modified version of the Roadmap.
- If approved, NYSERDA would file an Implementation Plan (IP) specifying additional program design details. We will be working with CBOs/DACs during implementation plan development and program design which will run through Summer 2023.
 - Bulk Storage program IP likely to be subject to additional public comment period and PSC approval
 - Residential/Retail program IP could be filed within 30-60 days of approving Order, if so deemed by PSC
- Following publication of final Implementation Plans, NYSERDA would implement final, approved program designs working with CBOs/DACs and roll out programs

Program Design for DAC/EJ Benefits: Next Steps

- Feedback provided during this webinar will be captured by NYSERDA for DPS/PSC review and deliberation. Prior to doing so, attendees will be emailed a summary to ensure comments were captured accurately.
- Stakeholders are encouraged to submit written comments; comments can be filed on the [Department of Public Service's website](#) under Case Number **18-E-0130**.
- Additional Roadmap feedback and input on program design can be provided via 1-on-1 meetings with NYSERDA program staff; please email shyam.mehta@nyserda.ny.gov to schedule a follow-up meeting.
- There is likely to be an **additional public comment period** related to the filing of the Bulk program Implementation Plan, filed following an approving Order by the PSC (if so deemed)
- Stakeholders may also provide informal written feedback to NYSERDA regarding Residential and Retail program design, following the Roadmap Order and prior to publication of the Residential/Retail Implementation Plan (likely 30-60 days following PSC Order).

Q&A and Discussion

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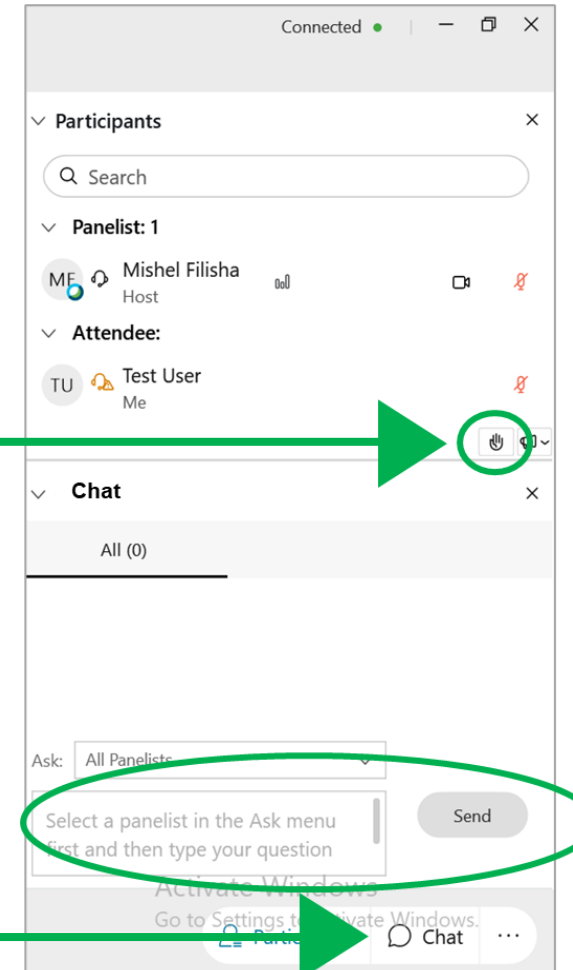
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Thank You!

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- For questions about this presentation or to schedule a follow-up 1-on-1 meeting, please contact shyam.mehta@nyserda.ny.gov.
- Some stakeholder organizations are eligible for compensation for attending this meeting through the NYSERDA DAC Stakeholder Reimbursement program.
 - Eligible organizations are community-based organizations that principally serve and/or are based in Disadvantaged Communities*
 - Attendees will receive an email in the next few days with more information; eligible organizations must submit your reimbursement request within 90 days of this meeting