

# Energy Storage Deployment Programs

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# Climate Leadership and Community Protection Act (CLCPA) – Overview

- > Most aggressive greenhouse gas reduction goals of any major economy: 40% by 2030, 85% by 2050
- > 70% renewable energy by 2030, 100% zero-emission electricity by 2040
- > Path to carbon neutrality
- > Codifies clean energy targets
- > Commitments to environmental justice, disadvantaged communities, and just transition
- > First statutory Climate Action Council

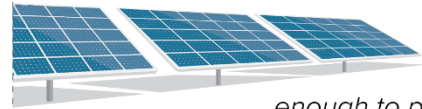
# Distributed Solar & Energy Storage

## Distributed Solar

- > NY-Sun program continues to support robust adoption of solar, from rooftop to community-scale
- > Over 86,000 NY-Sun solar projects, driving over 1,800 MW statewide, plus 1,000 MW in the pipeline
- > Since 2012, solar deployment increased 1,700%, with \$3.8 billion in private investment leveraged

## Energy Storage

- > Avoid CO<sub>2</sub> emissions; reduce the impact of outages; allow intermittent renewables to be available during peak demand
- > Create 30,000 jobs by 2030 in New York
- > \$400 million market acceleration bridge incentives: available for retail, bulk, standalone, and storage plus solar PV
- > Technical assistance: permitting, interconnection, customer acquisition, and financing resources



**6,000 MW**  
of distributed solar  
by **2025**

*enough to power 1 million homes*



**3,000 MW**  
of energy storage  
by **2030**

*Up from 1,500 megawatts by 2025*

# Progress on State Targets

- Target of 1,500 MW by 2025; 3,000 MW by 2030
- 1,240 MW under contract (~10% constructed)
- 415 MW minimum target for open Utility RFPs
- Over 1,650 MW expected to be under contract by 2022, beyond expectations by 100's of MWs

# Storage in New York

- Before our Energy Storage Roadmap process
  - No retail markets or tariffs for storage compensation
  - No NYISO market model for storage, could only participate in wholesale market through regulation
- Studies were showing storage benefits and needs in decarbonized grids
- How to bridge this gap?

# Energy Storage Roadmap

- Systematically assessed barriers to storage through entire lifecycle of project
  - Siting, permits, IX, to market signals, dispatch options
- Price signals!
  - Key to growing interest in deployment (which induces learning) and in capturing system value
- Required new models up and down use cases

# Price Signals

- On-site storage
  - Granular tariffs, demand response, and aggregation
- Distributed storage (paired or standalone)
  - Value of DER (VDER) tariff pays for system benefits and directs dispatch to key times
- Bulk/Utility-scale Storage
  - Expand eligibility to capacity, reserves, energy markets

# Reduce Barriers, Build Market

- With clear market opportunities and new state incentives tied to providing system benefits, interconnection requests increased dramatically
- Project development highlighted remaining barriers
  - IX study assumptions
  - Demand charges
  - Unmonetized benefits



# Strong Market

- Tracking barriers and costs, along with price signals gives accurate assessment of funding needs in near-real-time
- NYSERDA used flexible budgeting and location-specific declining-block funding to accelerate key markets (for example, downstate distribution connected)
- One state does not drive technology cost curve so we must remain flexible in that respect while being active on items we control

# Path to self-sustaining market

- Continued cost declines
- Learning in permitting and interconnections
- Tariff updates
- Market rule updates
- Federal Tax Credit?
- Combination of these have potential to create self-sustaining market

# Stay Engaged

- **DPS Storage Proceeding (Case 18-E-0130)**

<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=55960>

- **NYSERDA Storage Mailing List**

[www.nyserda.ny.gov/All-Programs/Programs/Energy-Storage/Contact-Us/Email-Updates](http://www.nyserda.ny.gov/All-Programs/Programs/Energy-Storage/Contact-Us/Email-Updates)

- **Questions**

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