

How to Best Utilize Energy Storage in New York State

Presented by Stephen Wemple General Manager, Utility of the Future



New York State Energy Storage Order

Use cases that can contribute to statewide goal of 1,500 MW of energy storage by 2025 and 3,000 MW by 2030

Bulk

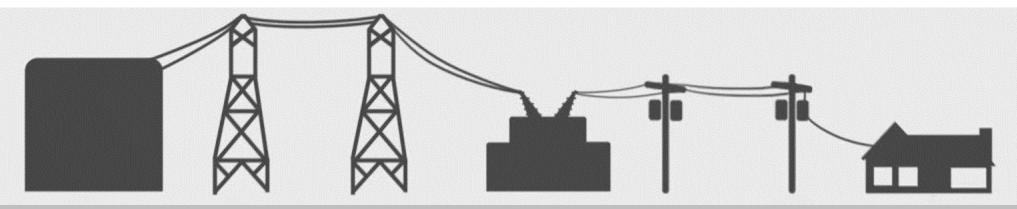
- Statewide procurement of 350 MW of utility scale storage:
 - CECONY 300 MW, O&R and other IOUs 10 MW
- NYSERDA prescriptive bulk incentives

Distribution

- Non-Wires Solutions (NWS) expanded to procure non-load relief storage
- Multi-year DR procurements

Customer

- Demand rate avoidance and VDER for exports
- NYSERDA prescriptive retail incentives
- Integration into mircrogrid for resilience



Con Edison Pending Bulk Solicitation: Bidder Responsibilities

- Enter into contract granting utility scheduling & dispatch rights
- Design, engineer, construct, commission the energy storage system, including required communication and control to utility by Dec. 31, 2022
- Demonstrate site control and other authorizations/permits required to fulfill contract
- Retain ownership; build, operate and maintain for the duration of the contract to maintain specific performance requirement
- Maintain the asset in accordance with permits and market participation requirements
- Register the POI with NYISO, with the utility as Bidding Agent (as required per use case)
- Comply with all NYISO and FERC rules and regulations
- Meet applicable utility's data security provisions

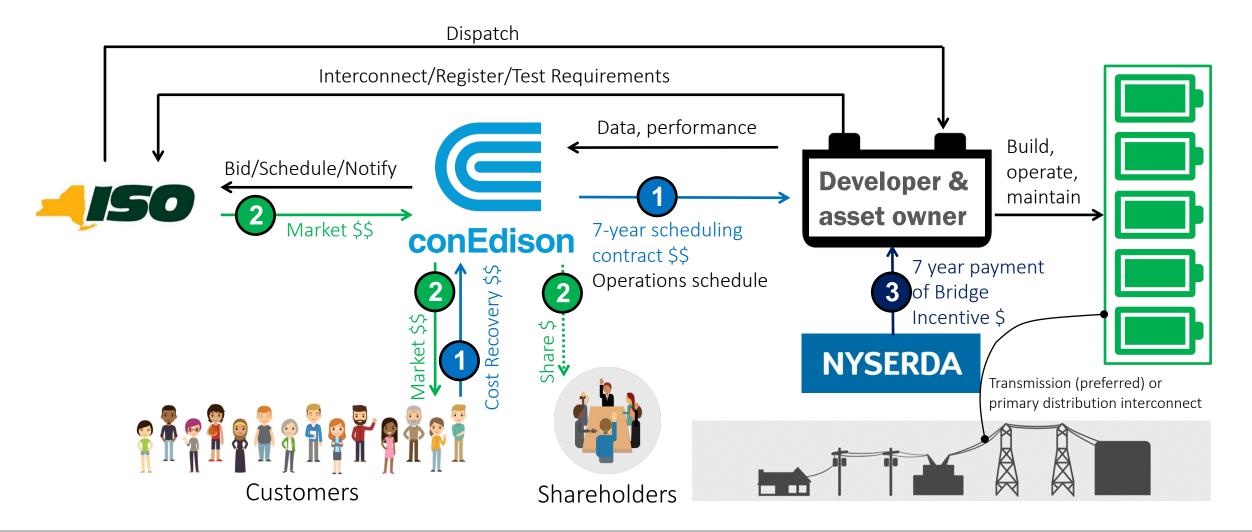
Anticipated Operations:

- Expected wholesale market participation:
 - Installed Capacity (bid at offer floor)
 - Day-ahead energy
 - 10 minute spinning reserves
- CECONY prefers resources located in Greenwood and Astoria transmission load areas (TLAs) to reduce the need to operate existing peakers and help with "hybrid" repowering
- Utility has full scheduling & dispatch rights for seven year term of the contract; Owner operates thereafter

Bulk: Storage Solicitation Structure

Con Edison funding
NYISO market revenues
NYSERDA Incentives

Solicitation provides interim solution; CECONY and NYSERDA bridge economics gap as energy storage market evolves.



For Resilience, Critical Infrastructure and Microgrids to enable New York's decarbonization goals, We Need to Efficiently Utilize Energy Storage in New York State

Possible lenses to evaluate storage incentives may include

- Traditional Benefit-Cost tests
 - Some use cases may not be cost effective
- Progress towards State-wide goals
 - Outright pace (MW installed/year)
 - Bang for the incentive buck (MW installed / incentive \$)
- Societal Benefits
 - MWHs of renewables unbottled and/or impact on carbon or other air emissions
 - Resilience benefits that are broader than that of an individual customer