De-Carbonization / DER Report for NYSRC Executive Committee Meeting 10/9/2025

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The October 2025 edition of the De-Carbonization / Distributed Energy Resources (DER) Report includes the following items:

- DOE Launches Speed to Power Initiative, Accelerating Large-Scale Grid Infrastructure Projects
- NYS PSC Accepts Plan to Advance Gas System Reliability of Largest Natural Gas Delivery System in New York State
- NY Times: A Rhode Island Wind Farm Changed Their View. And Their Lives, for the Better
- EPRI – DOE Workshop: Reducing Data Center Carbon Footprint with Carbon Capture and Storage
- Snapshots of the NYISO Interconnection Queue and Cluster Queue: Storage / Solar / Wind / Co-located

Dept of Energy: DOE Launches Speed to Power Initiative, Accelerating Large-Scale Grid Infrastructure Projects

This Press Release from the Department of Energy (DOE) provides details on the September 18th announcement regarding the new Speed to Power initiative, to accelerate the speed of large-scale grid infrastructure project development for both transmission and generation. The full title of the initiative is "Accelerating Speed to Power: Expanding Grid Capacity to Win the Artificial Intelligence Race." The initiative will help ensure that the USA has the power needed to win the global artificial intelligence (AI) race while continuing to meet growing demand for affordable, reliable, and secure energy. DOE analysis shows that the current rate of project development is inadequate to support the country's rapidly expanding manufacturing needs and the reindustrialization of the U.S. economy.

To kickstart the Speed to Power initiative, DOE is issuing a Request for Information focused on large-scale grid infrastructure projects, both transmission and generation, that can accelerate the United States speed to power. This includes input on near-term investment opportunities, project readiness, load growth expectations, and infrastructure constraints that the DOE can address. The DOE is requesting stakeholder input on how to best leverage funding programs and authorities to rapidly expand energy generation and transmission grid capacity.

President Trump's Executive Order, *Declaring a National Energy Emergency*, signed on his first day in office asserted that the integrity and expansion of our Nation's energy infrastructure is an immediate and pressing priority for the protection of the United States' national and economic security. In accordance with President Trump's Executive Order, *Strengthening the Reliability and Security of the United States Electric Grid*, the DOE released the Report on Evaluating U.S. Grid Reliability and Security delivering a uniform methodology to identify at-risk regions and guide Federal reliability interventions. In this report, DOE warned that blackouts could increase by 100 times by 2030 if the U.S. continues to shutter reliable power sources and fails to add additional firm capacity. The Speed to Power initiative supports President Trump's Executive Orders, *Unleashing American Energy* and *Removing Barriers to American Leadership in Artificial Intelligence*, to inform how Federal resources will be maximized to ensure state and local governments, utilities, grid operators, large load customers, and other stakeholders address grid infrastructure constraints and meet new demand in a timely and efficient manner.

General Information regarding DOE activities can be found at their Newsroom Website.

NREL's Accelerating Speed to Power Map shows Data Center Demand Capacity by County, categorized by status (Planned, Operating, In Construction, and Operating and In Construction) and size (in tiered MW ranges).

PSC Accepts Plan to Advance Gas System Reliability of Largest Natural Gas Delivery System in New York State

This Press Release from the New York State Public Service Commission describes the actions taken at a meeting on September 18th, in which the PSC considered a final long-term gas plan of the National Grid companies and required the companies to implement various actions over the next three years regarding future long-term plans. Specifically, the Commission directed the three National Grid companies - The Brooklyn Union Gas Company, KeySpan Gas East Corporation, and Niagara Mohawk Power Corporation - to report on necessary improvements to demand forecasting and submit analyses regarding the Greenpoint LNG facility, non-pipe alternatives, and electrification. The Commission also directed the companies to report on how they will optimize supply sources in the event that the proposed Northeast Supply Enhancement or NESE project is placed into service and, in the alternative, report on how to address reliability concerns in the event that NESE is not placed in service. Taken together, the three companies have approximately 2.5 million gas customers in New York State, making it the largest natural gas delivery system in New York.

The Commission's analysis observed that there is a reliability need for the NESE project, a reinforcement of the existing Transco natural gas pipeline system, which already serves Pennsylvania, New Jersey, and New York.

Given this advice and stakeholder input, the Commission directed the companies to file additional information. Specifically, the Commission directed the utilities to report on load forecasting improvements, cost mitigation efforts related to shedding more expensive capacity assets if the proposed NESE pipeline project is constructed, and other measures that could mitigate the cost impacts of adding NESE capacity such as increased off-system sales revenue. In addition, the Commission required National Grid to file annual updates to this long-term plan and its next long-term plan filing in three years, including efforts to deploy non-pipe alternatives (including the results of solicitations for such alternatives for the purpose of retiring leak prone pipe). The Commission also directed National Grid to analyze the possibility of decommissioning the Greenpoint LNG facility and provide alternatives for demand-side and supply-side options to accomplish that if the NESE project is completed. The Commission also directed National Grid to update its long-term plan with options to improve the resilience of the downstate gas system in the event NESE is not constructed and placed into service.

Additional links can be found below:

- Link to www.dps.ny.gov On this page, enter Case Number 24-G-0248 in the input label Search Box
- NYS DEC site with Application for project
- Williams Company Project Description
- Link to Project Fact Sheet
- Link to Project Map

NY Times: A Rhode Island Wind Farm Changed Their View. And Their Lives, for the Better

This Article recounts how Block Island, Rhode Island, became home to the nation's first commercial offshore wind farm in 2016, replacing its dependence on diesel generators with clean energy. The transition dramatically improved residents' quality of life by eliminating noise and soot from generators, stabilizing electricity costs, and enhancing power reliability. The additional establishment of a $120 million undersea cable connecting the island to the mainland grid, completed the enhancement of the island's electrical reliability.

Prior to the offshore wind connection, the island ran on five big diesel generators. Soot-spewing and earsplitting, the machines burned a million gallons of fuel per year, ferried in from the mainland on tanker trucks and stored underground. Energy costs, tied to the volatile oil market, varied to the extent that local businesses struggled to manage their budgets. Power surges and dips fried household appliances. Those who lived near the power company described scraping soot off their windows and having to wash their curtains every month.

The benefits have extended beyond energy: tourism has remained strong, internet access provided along with the new submarine cable enables remote work and longer visits, and electricity costs are now less than one-third of prior diesel-based rates. The wind farm also empowered the community to form Rhode Island's first electricity cooperative, giving residents direct control over their power supply.

From the wildlife perspective, choosing the right location was critical, and the area off Block Island worked well at multiple levels. The placement did not interfere with migrating songbirds, which typically stay closer to the mainland, as ducks appear to fly lower than the level that the blades spin. In addition, recreational anglers report that fishing is good around the turbines, where the underwater structures are creating artificial reefs.

Not all impacts are universally positive. Some residents lamented the altered ocean views, and commercial fishermen face restrictions near turbine sites. Questions remain about the cost and intermittency of offshore wind. Nonetheless, a majority of Block Islanders support expansion, viewing it as essential for climate action and consistent with the island's strong conservation ethos, where over 40% of land is protected.

EPRI – DOE Workshop: Reducing Data Center Carbon Footprint with Carbon Capture and Storage

On July 9th / 10th, EPRI and the U.S. Dept. of Energy hosted a workshop on low carbon power generation for data centers, emphasizing the role of Carbon Capture and Storage (CCS) to reduce carbon footprint. The objective of the workshop is to bring various stakeholders together to identify challenges to meet the decarbonized energy demands of data centers, particularly as it relates to fossil energy with CCS.

Biggest Data Center Supply Challenges:

- Wait for transmission lines, substations
- Power allocated from utility
- Supply chain for datacenter equipment
- Adapting designs for higher density/AI workloads
- Sustainability: PPAs, sources of "green" power
- Staffing in remote locations
- Cost: tax incentives, build vs lease, retrofit AI
- Intermittent power, redundancy challenges

Key Take-aways:

- Datacenter growth needed for "regular" workloads
- More capacity needed for GPU chips (for AI/ML)
- US is seeing first wave of AI growth – will move to other countries in 2-4 years
- Impacting an already stressed US electricity grid
- Supply chain issues exacerbate challenges building power/transmission/DC infrastructure for AI
- Sustainability/renewable energy still important
- Edge is growing now and AI inferencing will impact this longer term (5+ years) but anyone's guess how much (depends on use cases for AI)

Links for workshop presentations can be found at here: https://netl.doe.gov/25DCW-proceedings and below:

Opening Keynotes

- Jeffery Preece – Electric Power Research Institute (EPRI)
- Stefanie Williams – S&P Global

Data Center Requirements and Plans

- Giri Iyer – Oak Ridge National Laboratory (ORNL)

Power Sector Status and Challenges

- Mike James – Entergy
- Jeff Weathers – Southern Company
- Craig Birkenfeld – Vistra
- Parag Kulkarni – GE Vernova

Carbon Capture Technologies and Status

- Mike Fowler – Mitsubishi Heavy Industries America
- Brice Freeman – MTR
- Erik Meuleman – ION Clean Energy

CO2 Transport and Storage Status and Opportunities

- Justin Treitz – California Resources Corporation
- Richard Esposito – Southern Company

Project Development and Execution

- Paul Wang – Caterpillar
- Wesley Brewer – ORNL
- Jungho Kim – ARPA-E

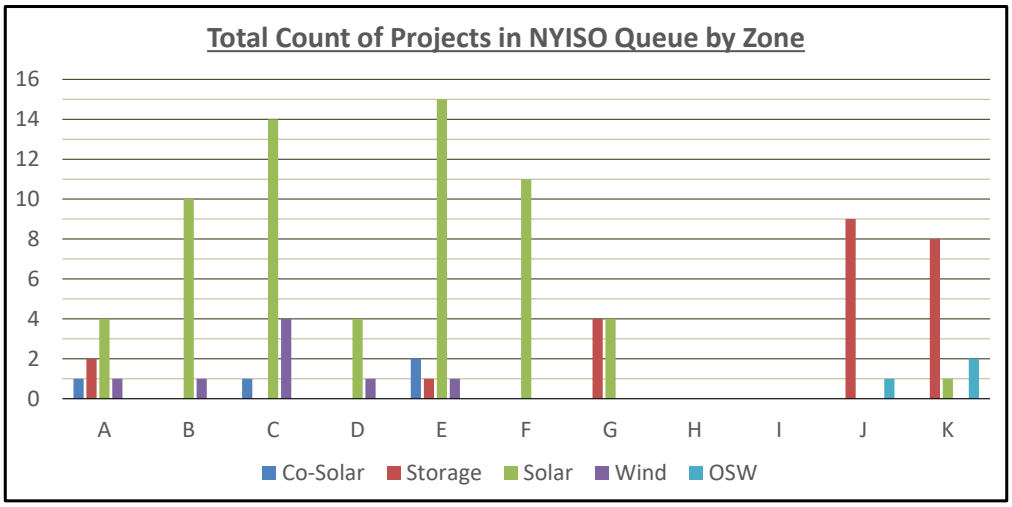
Interconnection Queue: Monthly Snapshot – Storage / Solar / Wind / CSRs (Co-located Storage)

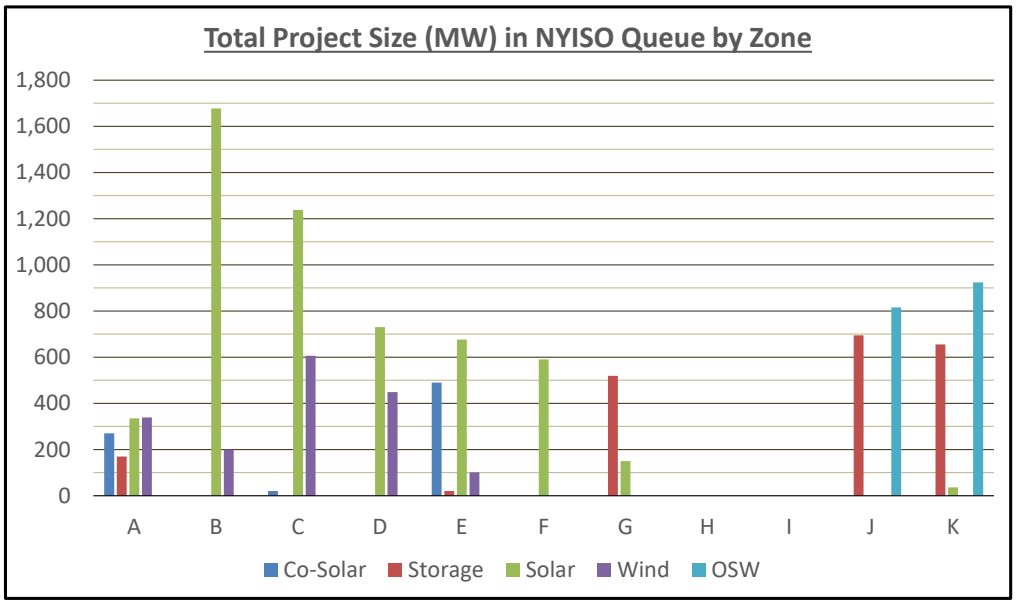
The intent is to track the growth of Co-Located Solar / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and in total for the state. The information was obtained from the NYISO Interconnection Website, based on information published on September 20th, and representing the Interconnection Queue as of August 31st. Note that two projects were added, and seven projects were withdrawn during the month of August.

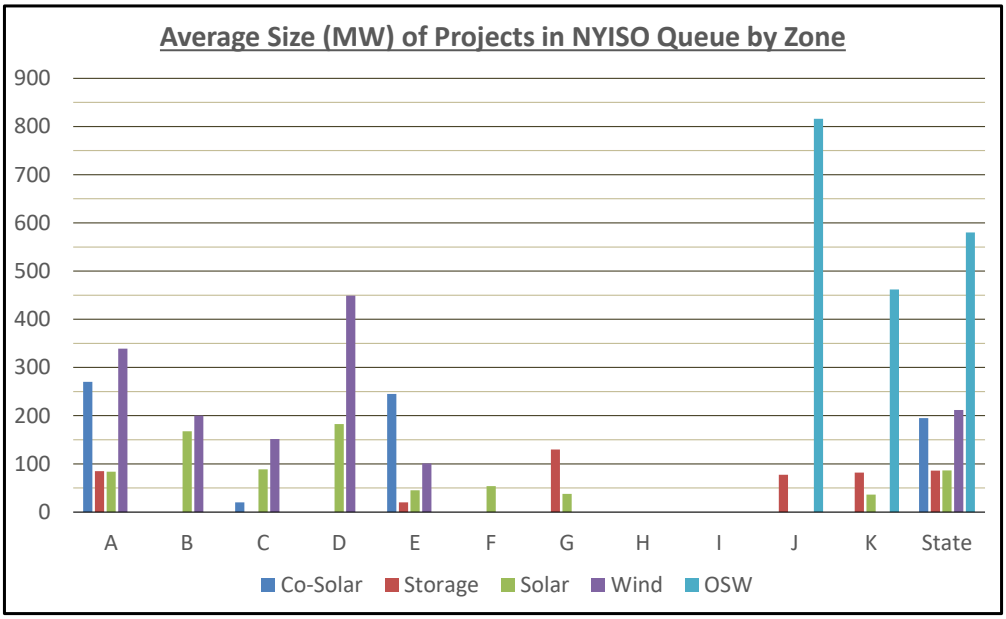
Total Count of Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	1	2	4	1	
B			10	1	
C	1		14	4	
D			4	1	
E	2	1	15	1	
F			11		
G		4	4		
H					
I					
J		9			1
K		8	1		2
State	4	24	63	8	3

Total Count of Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	270	170	335	339	
B			1,678	200	
C	20		1,238	606	
D			730	449	
E	490	20	676	101	
F			591		
G		519	150		
H					
I					
J		695			816
K		655	36		924
State	780	2,059	5,433	1,695	1,740

Average Size (MW) of Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	270	85	84	339	
B			168	200	
C	20		88	151	
D			183	449	
E	245	20	45	101	
F			54		
G		130	38		
H					
I					
J		77			816
K		82	36		462
State	195	86	86	212	580


Total Count of Projects in NYISO Queue by Zone
16
14
12
10
8
6
4
2
0
A
B
C
D
E
F
G
H
I
J
K
Co-Solar
Storage
Solar
Wind
OSW


Total Project Size (MW) in NYISO Queue by Zone
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
A
B
C
D
E
F
G
H
I
J
K
Co-Solar
Storage
Solar
Wind
OSW


Average Size (MW) of Projects in NYISO Queue by Zone
900
800
700
600
500
400
300
200
100
0
A
B
C
D
E
F
G
H
I
J
K
State
Co-Solar
Storage
Solar
Wind
OSW

Cluster Interconnection Queue: Monthly Snapshot – Storage / Solar / Wind / CSRs (Co-located Storage)

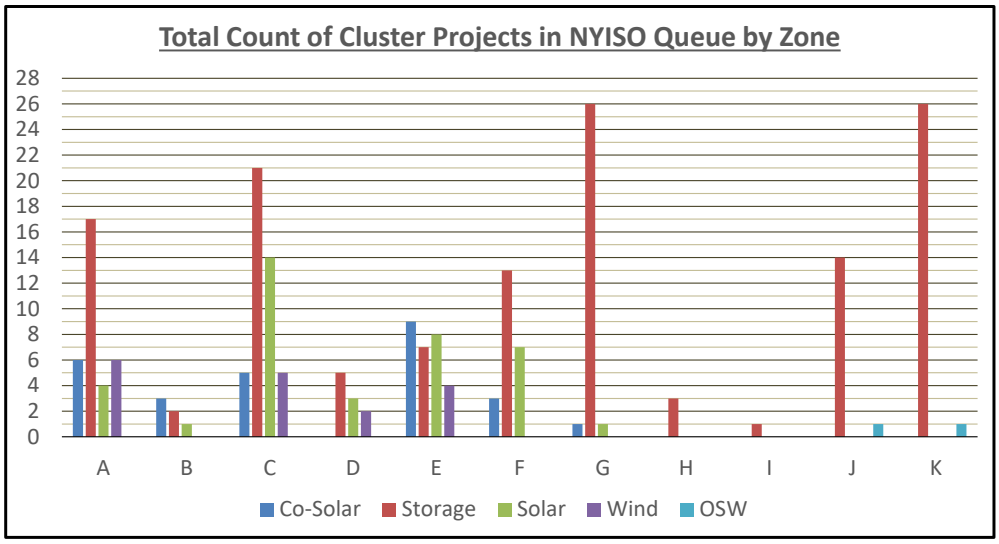
The intent is to track the growth of the Cluster-based projects, including Co-Located Solar and Wind / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and in total for the state. The information was obtained from August, based on information published on September 20th.

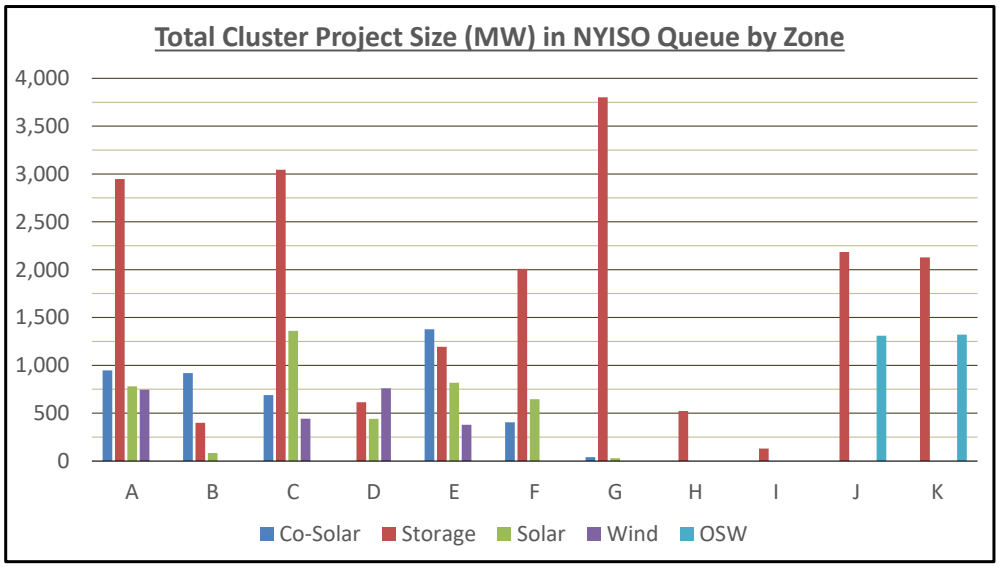
Note that within the Cluster Queue, there are currently 222 projects totaling 32,473 MW. This represents a drop of 3 projects, totaling 420 MW from the previous month. A total of 154 projects representing 43,010 MW are listed as having been withdrawn to date.

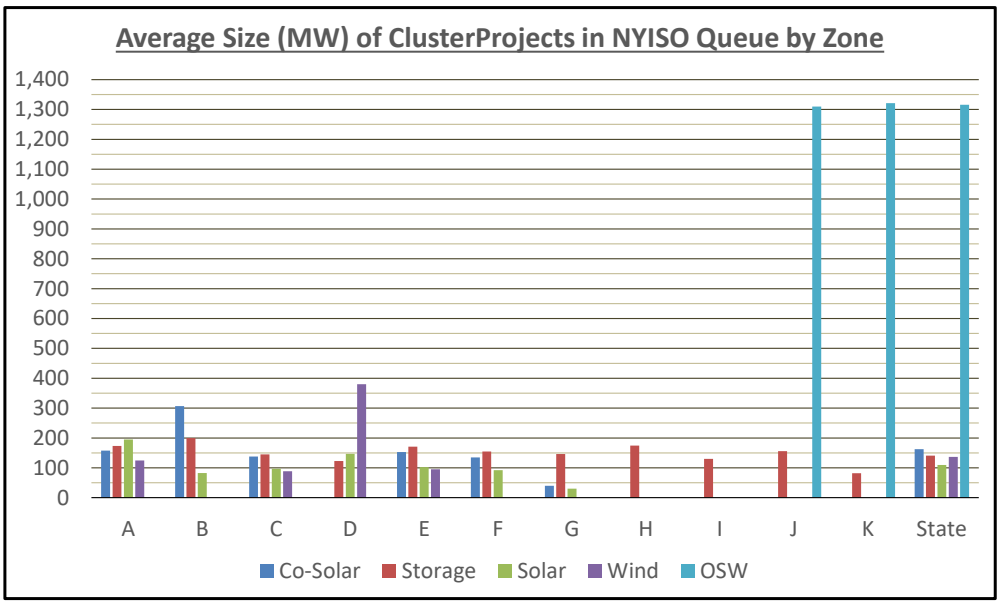
Total Count of Cluster Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	6	17	4	6	
B	3	2	1		
C	5	21	14	5	
D		5	3	2	
E	9	7	8	4	
F	3	13	7		
G	1	26	1		
H		3			
I		1			
J		14			1
K		26			1
State	27	135	38	17	2

Total Cluster Project Size (MW) in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	947	2,948	780	746	
B	920	400	83		
C	690	3,045	1,361	442	
D		615	440	760	
E	1,378	1,194	818	380	
F	405	2,009	647		
G	40	3,801	30		
H		524			
I		130			
J		2,184			1,310
K		2,128			1,321
State	4,379	18,977	4,158	2,328	2,631

Average Size (MW) Cluster Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	158	173	195	124	
B	307	200	83		
C	138	145	97	88	
D		123	147	380	
E	153	171	102	95	
F	135	155	92		
G	40	146	30		
H		175			
I		130			
J		156			1,310
K		82			1,321
State	162	141	109	137	1,316


Total Count of Cluster Projects in NYISO Queue by Zone
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
A
B
C
D
E
F
G
H
I
J
K
Co-Solar
Storage
Solar
Wind
OSW


Total Cluster Project Size (MW) in NYISO Queue by Zone
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
A
B
C
D
E
F
G
H
I
J
K
Co-Solar
Storage
Solar
Wind
OSW


Average Size (MW) of ClusterProjects in NYISO Queue by Zone
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
A
B
C
D
E
F
G
H
I
J
K
State
Co-Solar
Storage
Solar
Wind
OSW