Attachment #8.1
Return to Agenda

De-Carbonization / DER Report for NYSRC Executive Committee Meeting 1/14/2026

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The January 2026 edition of the De-Carbonization / Distributed Energy Resources (DER) Report includes these articles:

- New York State Energy Planning Board adopts State Energy Plan
- NY Times: Democratic Governors Are Fighting Trump's War on Wind Energy
- Tech Crunch: Offshore Wind Developers Sue Trump Administration for Halting $25B in Projects
- Canary Media (Backstory): Judge strikes down Trump's order blocking wind farm approvals
- EPRI Technical Brief: Grid Forming Inverter Fundamentals and FAQs
- A closer look at large loads in the NYISO Interconnection Queue
- Snapshots of the NYISO Interconnection Queue and Cluster Queue: Storage / Solar / Wind / Co-located

New York State Energy Planning Board adopts State Energy Plan

On December 16th, the State Energy Planning Board Announced the unanimous vote to approve the State Energy Plan. It includes recommendations based on findings from more than a year-long assessment of current systems and future energy needs through 2040, and is intended to guide the State's energy-related decision making. The full plan can be downloaded here, or found in sections on this website.

The Plan has five primary planning goals and associated actions to continue to meet New York's energy needs:

- Delivering abundant, reliable, resilient, and clean energy through a diverse mix of resources and supply infrastructure, while supporting energy efficiency and load flexibility
- Providing affordable energy to households and equitable benefits – with a focus on reducing the upfront costs of efficiency and clean energy choices to help cut spending and lessen the burden for lower-income households
- Supporting economic growth and competitiveness by investing in workforce development, meeting the needs of large energy users, and attracting new industries, including clean energy leaders
- Strengthening partnerships across New York's innovation ecosystem to foster economic development, create jobs, and provide greater leverage for State investments; and
- Continuing progress toward decarbonization and a clean energy economy.

Several fact sheets summarizing the analyses are available on the State Energy Plan website.
The process to update the State Energy Plan was announced in August 2024. The State Energy Planning Board, comprised of the heads of ten State agencies and authorities, appointees from the Governor, Senate, and Assembly, and the president of the New York Independent System Operator, commenced its work to assess and compile data to inform the Draft State Energy Plan which was released in July 2025 for public review and comment.

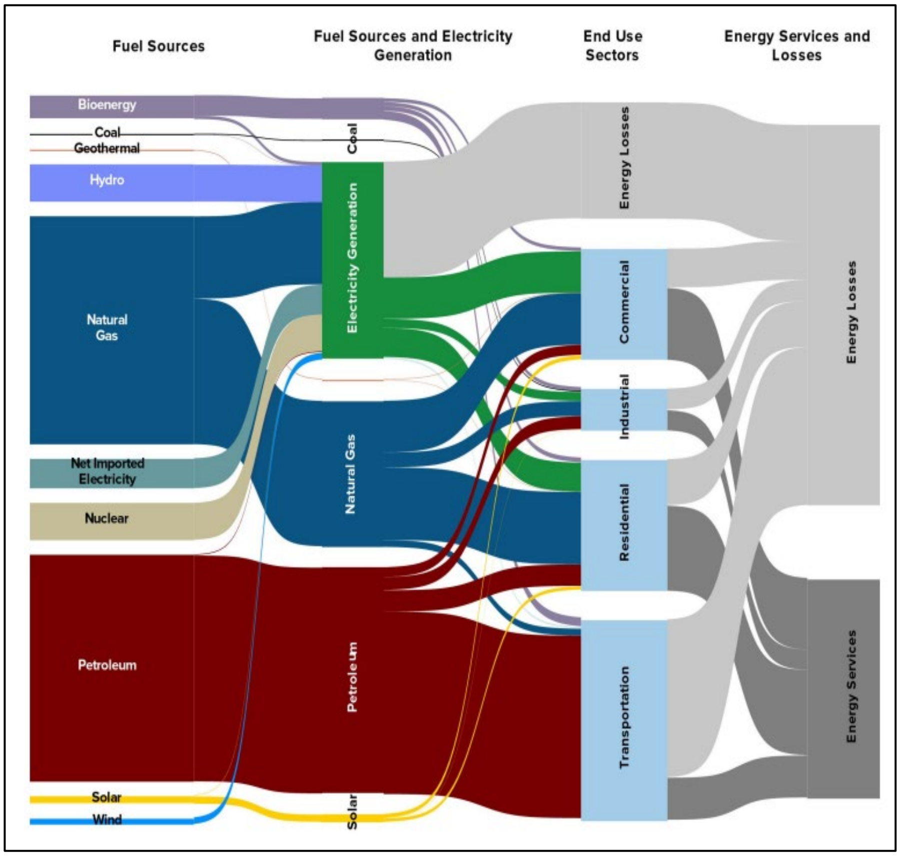
Webpages and Downloadable Factsheet Links associated with the plan include:

- New York State 2025 Energy Plan - Landing Page
- Overview and Planning Process
- Public input Page
- Factsheet: Our Energy System Today
- Factsheet: Grid Reliability
- Factsheet: Pathways Analysis
- Factsheet: Affordability Impacts
- Factsheet: Public Health Impacts
- Factsheet: Jobs Impacts
- Download: Volume 1 for Policy Makers

The Board is required to prepare biennial reports every second year following the issuance of a State Energy Plan that discuss the ability of the State and private markets to implement the policies, programs, and other recommendations in the Plan and recommend new or amended policies as needed.

The figure below shows the flow from the primary energy sources to end users in New York State as of 2023.

- Roughly three-quarters of primary energy use comes from fossil fuels, mainly natural gas, and petroleum.
- The electric power sector and the transportation sector each consume about one-third of the State's primary energy, followed by the residential (17%), commercial (12%), and industrial (5%) sectors.
- Including the electricity used by each end-use sector, residential and commercial buildings combined consume 57%, transportation 34%, and industrial 9% of primary energy statewide.
- The majority (63%) of primary energy used is lost in conversion from the primary energy source to a useful form such as space heat or powering an appliance. Ways to reduce these energy losses include transitioning away from combustion (where losses are particularly high), reducing losses in transmission and distribution, reusing waste heat, and improving energy efficiency.



The State will continue to strategically navigate challenges that are affecting the pace of progress, including siting challenges and federal policy uncertainty. The 2024 Renewable Action through Project Interconnection and Deployment (RAPID) Act established the Office of Renewable Energy Siting and Electric Transmission (ORES) under DPS as the State's one-stop-shop for reviewing, permitting, and enforcing permit requirements for both major renewable energy generation and transmission facilities.

New York will continue to make progress advancing a clean energy economy while balancing other long-term planning objectives.

- In-state renewable electricity generation could increase by nearly 90% between 2025 and 2035, even in a scenario that models persistent headwinds to the pace of deployment. New York State will build on successes such as installing 6 gigawatts of distributed solar, completing South Fork Wind, breaking ground on the Champlain Hudson Power Express, Empire Wind 1, and Sunrise Wind, and the $1 billion Sustainable Future Program, the largest single State Budget commitment to climate and clean energy in New York's history.
- Reliable and clean firm capacity is provided by existing nuclear and hydroelectric generators. The State will build a new zero-emission advanced nuclear facility, as Governor Kathy Hochul has directed the New York Power Authority to construct in Upstate New York, and further buildout can provide additional benefits.
- Accelerating adoption of more efficient and electrified vehicles and appliances will be bolstered by State actions such as Advanced Clean Cars, Advanced Clean Trucks, incentive programs, and All-Electric New Construction. By 2040 in the planning scenarios, 38–54% of light duty vehicles are zero-emission vehicles, 19–26% of residential homes use heat pumps, and 38–45% of residential homes have an energy efficient building envelope.
- Modeling finds that State actions are laying the groundwork for further greenhouse gas emissions reductions from power generation, transportation, buildings, and fugitive emissions. Due to external factors including supply chain disruptions, global economic inflation, and changes in federal policy, there is considerable uncertainty in the timeline for achieving a 40% reduction in emissions.

NY Times: Democratic Governors Are Fighting Trump's War on Wind Energy

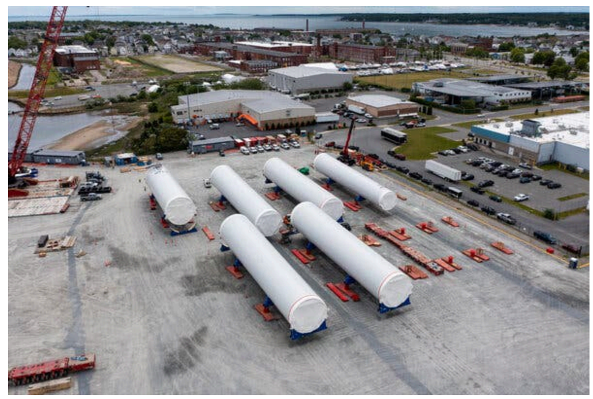
This Article describes the Trump administration's recent decision om December 22nd to halt construction and pause on leases for the five wind projects along the U.S. East Coast, followed by the coordinated response by Democratic governors and industry stakeholders to counter the action. The pause affects projects in Connecticut, Massachusetts, New York, Rhode Island, and Virginia, representing about $25 billion and 10,000 jobs, for projects that would have a capacity to power about 2.5 million homes and businesses. The targeted projects were Coastal Virginia Offshore Wind , Vineyard Wind 1 off Massachusetts, Sunrise Wind and Empire Wind off New York, and Revolution Wind off Rhode Island and Connecticut.

The administration has justified its actions on alleged national security concerns, asserting that offshore wind installations could interfere with military radar systems. State leaders and legal experts have strongly disputed these claims, noting that a lack of disclosed evidence and recent court rulings have rejected similar arguments. Legal analysts widely expect further challenges to succeed based on existing precedent. Earlier this month, a federal judge struck down the executive order that halted permits for new wind projects, saying it was "arbitrary and capricious," in violation of federal law.

On December 23rd, the governors of New York, Massachusetts, Connecticut, and Rhode Island held a conference to discuss response strategies, including litigation against the Trump administration, while simultaneously negotiating with the White House on a possible deal to let the projects proceed.

On December 24th, the governors generated a fiery response to the Secretary of Interior Doug Borgum with three themes:

- True National Security is Energy Security
- "Classified" Pretexts Contradict Science and Years of Public Vetting
- You are Disguising Your Delay



Tower sections for the Vineyard Wind offshore wind farm in New Bedford, Mass

The letter requests the following specific disclosures:

- A clear description of the specific national security risks BOEM and the DoD determined in the purported November 2025 "additional assessment"
- All information, or a summary thereof, of the information related to those risks
- Identification of the particular project components, if any, alleged to give rise to those risks
- An articulation of how the "assessment" applies to these projects in light of previous extensive reviews
- An explanation of why these risks were not communicated to the States immediately upon their purported "discovery" in November.

The group calls the administration's claims of national security concerns a "transparent pretext:" "You cannot claim to protect our nation while knowingly turning off the lights."

At the same time, Dominion Energy, the developer of the largest offshore wind farm that has been targeted, Coastal Virginia Offshore Wind, brought the first legal challenge. The complaint, filed Tuesday in federal court in Virginia, argued that the administration's actions were causing the company "immediate, irreparable harm" and $5 million in losses per day.

In an unusual warning, the operator of the regional electric grid in New England said on Monday that it was counting on Vineyard Wind's power to provide heat and electricity to customers this winter. Any delays to that wind farm or to Revolution Wind, which is more than 80 percent completed, "will increase costs and risks to reliability in our region."

Beyond legal and political implications, the project halts raise significant economic, workforce, and grid reliability concerns, particularly in New England, where grid operators have warned of increased costs and risks to energy reliability. The uncertainty has already disrupted thousands of skilled workers and cast doubt on the near-term viability of the offshore wind industry in the United States.

Tech Crunch: Offshore Wind Developers Sue Trump Administration for Halting $25B in Projects

This Article follows the ongoing developments in litigation initiated by four offshore wind developers against the Trump administration following actions taken by the Department of the Interior to halt five projects worth a total of $25 billion on December 22nd. If completed, the projects would generate a total of 6 gigawatts of electricity.

Two lawsuits were filed Thursday and Friday last week by Ørsted and Equinor, which are developing the 704 megawatt Revolution Wind and the 2 gigawatt Empire Wind, respectively. Another was filed on December 23rd by Dominion Energy, which is building a 2.6 gigawatt farm off the coast of Virginia. Avangrid, developer of the fifth wind farm, Vineyard Wind 1 off the Massachusetts coast, has not indicated whether it plans to fight the administration. Vineyard Wind is already partly running, with about half of the project's planned 62 turbines sending power to the electric grid.

Revolution Wind is nearly 90% complete, while Empire Wind and Coastal Virginia Offshore Wind are each about 60% complete. Dominion said it was losing $5 million per day as a result of the halt. Avangrid, which is developing Vineyard Wind 1, has not filed a lawsuit yet. Nearly half of that project is currently operational.

The Department of the Interior cited national security concerns in its decision to stop construction on the projects. Though it didn't mention specifics, the Trump administration may have been referencing the challenges wind turbines present to radar operations. The Department of Energy had issued a report that discussed this security concern, as well as solutions to it, in February 2024.

Earlier last year, the Trump administration halted approvals for new offshore wind projects in addition to pausing work on Empire Wind and Revolution Wind. The latter restarted after New York State negotiated with the Trump administration, while a federal judge struck down the stop work order for Revolution Wind.

Canary Media (Backstory): Judge strikes down Trump's order blocking wind farm approvals

This Article provides a back-story leading to the Administration's decision on December 16th to halt construction on five offshore wind projects. On December 8th, Judge Patti Saris of the U.S. District Court in Massachusetts ruled in favor of the 18 state attorneys general who had challenged the temporary ban on onshore and offshore wind permitting, which had been in place since Trump issued an executive order on his first day in office.

Led by New York, the coalition of states and the District of Columbia was joined by the Alliance for Clean Energy New York, a nonprofit advocacy group based in Albany. The lawsuit cited, among other things, harms caused by a stop-work order that paused construction of New York's Empire Wind 1 in April, which had cited the president's executive order. (The pause was later reversed after a lobbying blitz.)

Saris ruled that the executive order was "arbitrary and capricious" on multiple grounds. For example, the Department of the Interior had failed to provide a "reasoned explanation" for suddenly changing course from the decades-long practice of issuing wind permits. "Whatever level of explanation is required when deviating from longstanding agency practice, this is not it," wrote Saris, referring to four paragraphs of Trump's presidential memo, which were the basis of the lawsuit.

The ruling is the latest in a series of major losses for the Trump administration as it seeks to defend the president's anti-wind agenda in court. Last week, a federal judge denied the government's attempt to revoke approvals for US Wind, which was slated to be Maryland's first offshore wind farm. In September, a federal judge ruled in favor of the Danish energy giant Ørsted, whose $6.2 billion New England offshore wind project was halted by the Interior Department, which cited the executive order to justify the move but, as the judge put it, didn't provide any "factual findings."

The government had defended the order as temporary, pending the completion of a review of permitting and leasing practices. Federal lawyers argued that this assessment was "underway" but submitted no documents to the court to support such claims. Saris struck down this argument, blasting the review for having "no anticipated end date" and creating the risk of a de facto indefinite permitting moratorium.

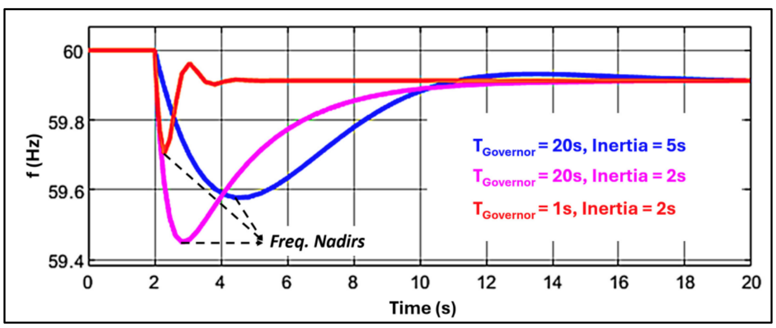
EPRI Technical Brief: Grid Forming Inverter Fundamentals and FAQs

This Technical Brief can be freely downloaded from the EPRI website. Grid-forming Inverters (GFMs) have emerged as a promising solution to address these challenges by providing capabilities traditionally delivered by Synchronous Generators (SGs) and beyond, such as fast voltage and frequency control, oscillation damping, grid strengthening, and system black-start. For more detailed technical information, readers are encouraged to consult EPRI's more highly detailed and publicly available GFM tutorial (Download page),

In an inverter-dominated power system, GFM IBRs can assume the stabilizing role traditionally provided by SGs. Adding GFM inverters as additional anchors restores platform stiffness. Unlike GFL inverters, which depend on external voltage and frequency references, GFM inverters can establish and maintain these parameters independently and even operate without other generation resources. They can also be designed with capability to start and energize loads after a system outage without external support, also known as black-start.

Well-tuned GFM inverters can work seamlessly with other GFMs, SGs, and GFL inverters when designed with concepts of droop. Load sharing among multiple GFMs and SGs is typically achieved through active power–frequency (P–f) droop control. P–f droop adjusts each resource's power output based on small changes in system frequency, promoting temporary load sharing without communication. This concept is not new; it has been widely used for decades in SGs and in GFL inverters for frequency response, and it can be extended to GFMs.

In traditional power systems, rotating mass of SGs provide mechanical inertia that resists rapid changes in frequency during a load-generation imbalance. This inertia slows the initial frequency deviation, buying time for governor action on SGs (typically within seconds). As SGs retire, mechanical inertia declines, causing frequency to change more rapidly and with greater extremes—lower nadirs (minimum frequency during under-frequency events), higher zeniths (maximum frequency during over-frequency events) and a higher rate of change of frequency (RoCoF). The effects of losing mechanical inertia are illustrated by the blue and pink curves in the figure below, where the system with lower inertia (pink curve) exhibits a deeper frequency nadir and a higher RoCoF between 2 and 3 seconds



Lower frequency nadirs can trigger under-frequency load shedding (UFLS), while high RoCoF can cause generation tripping due to loss-of-main or other protection schemes. For example, IEEE 1547-2018 specifies that Category I, II, and III DERs are required to ride through RoCoF up to 0.5 Hz/s, 2 Hz/s, and 3 Hz/s, respectively. At higher RoCoF values, DERs may trip, further exacerbating generation shortfalls during an under-frequency event. With high IBR penetration and the reduction in mechanical inertia, the risks associated with low frequency nadirs and high RoCoF become more pronounced.

Two main strategies can mitigate these challenges:

1. Synthetic Inertia: GFM inverters can emulate the inertial response of SGs by adjusting power output in proportion to RoCoF immediately after a disturbance. This capability is widely recognized as a core GFM function and is already required by several system operators (for example, AEMO,2 NESO3). Some GFL inverters can also be designed and configured to provide synthetic inertia, improving system frequency response
2. Fast Frequency Response: Both GFM and GFL inverters can deliver frequency response similar to SG governors—often implemented as P-f droop or frequency-watt control - but at a much faster time scale. This rapid response helps improve frequency nadir or zenith during imbalance events, although it does not reduce RoCoF as effectively as synthetic inertia. The pink curve serves as the baseline case. Adding synthetic inertia (blue curve) improves both nadir and RoCoF, while fast frequency response (red curve) improves nadir but has limited impact on RoCoF immediately after the disturbance.

The availability of GFM inverters depends on the type of DC source and the intended application. Battery energy storage inverters with GFM capability are commercially available today and offered by multiple original equipment manufacturers (OEMs), with proven deployments in numerous real-world projects. In contrast, GFM inverters for PV and wind applications are still in the early stages of development. Beyond generation, GFM technology has also been implemented in STATCOMs and HVDC systems in several projects worldwide.

The hardware and cost differences between GFM and GFL inverters depend on the DC source and the functionality of the GFM inverter. Many battery inverters today are designed with the capability to switch between GFM and GFL modes. In these cases, there is no hardware or cost difference—the same product simply operates under different control modes. However, if a battery inverter is originally designed and sold as GFL-only, converting it to GFM may not be possible only through software update, unless certain control features are already embedded but disabled. Adding advanced features such as black-start capability typically requires additional hardware, such as auxiliary power supplies or control circuits, which increases cost. GFM applications that demand higher short-circuit current contribution or motor-start capability may require oversized power switches or enhanced thermal design, leading to hardware modifications and higher cost.

GFM capability is often treated as a premium feature by OEMs. Even when the hardware is identical to GFL inverters, GFM functionality typically involves more complex control tuning, commissioning support, and technical assistance due to limited industry standards and field experience. For solar PV and wind turbine inverters, the situation is more complex. Their DC sources are less "stiff" than batteries, making conversion from GFL to GFM less straightforward. Implementing GFM functionality in these systems often requires advanced control algorithms, additional sensors, and enhanced protection schemes on the DC side, which can lead to higher cost increase compared to battery inverters.

For PV and wind systems, enabling GFM functionality is more complex than battery inverters, and may involve higher hardware and integration costs. In addition, some OEMs apply a premium for GFM inverters due to the extra effort required for control tuning, commissioning support, and technical assistance

On the continental U.S. grid, GFM BESS, STATCOMs, and HVDC systems have been deployed, though not yet at scale. The highly interconnected nature of the U.S. transmission system has generally maintained sufficient grid strength. However, certain regions—such as Texas—have experienced weak-grid conditions. In response, system operators including Electric Reliability Council of Texas (ERCOT) and Midcontinent Independent System Operator (MISO) are actively developing GFM requirements for future BESS installations. While regional differences exist, most GFM requirements emphasize the core capabilities including voltage source behavior (for example, provide nearly instantaneous active and reactive power response to phase jumps and voltage steps), limit RoCoF by providing inertial response, support system strength, and enhance system oscillation damping. Power quality improvement, islanded operation, and black start capability are often included as optional or additional capability.

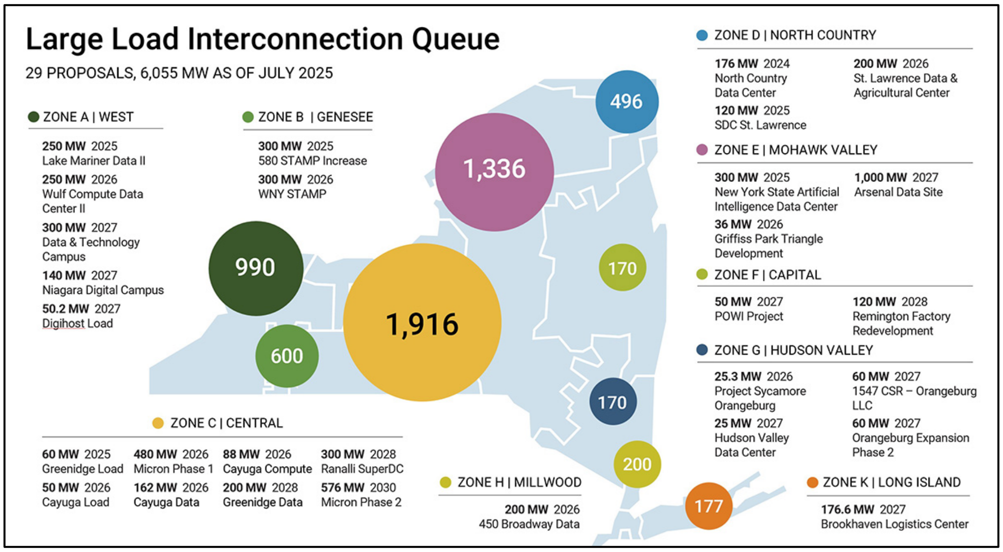
Main challenges in adopting GFM technology: Although several system operators have developed GFM requirements, a widely adopted standard has not yet emerged, and there is currently no formal certification process for GFM inverters. This lack of standardization introduces uncertainty in GFM behavior, particularly under fault conditions. Before large-scale deployment, system operators must thoroughly assess the impact of GFM inverters on key aspects of grid operation:

- Protection coordination in transmission and distribution systems
- Unintentional islanding risks
- Interactions with other IBRs and voltage regulation devices

GFM inverters represent a critical evolution in how power systems maintain stability and reliability as IBRs replace SGs. While today's challenges are most pronounced in regions with very high IBR penetration or ultra-weak grids, the trend toward inverter-dominated systems is clear and accelerating. Gaps remain in several areas including:

- Standards and certification: GFM standards are still under active development and there are no certification processes or certified products exist today.
- System integration: Protection coordination, unintentional islanding, and interactions with other devices must be thoroughly assessed to ensure reliable integration of GFM technologies.
- Study and evaluation guideline: Planners and operators need robust study methodologies, clear interconnection requirements, and practical guidelines to evaluate and ensure GFM performance under both normal and abnormal conditions

A Closer Look at Large Loads in the NYISO Interconnection Queue (Link to NYISO Blog with Map Image)



Large Loads from the NYISO Interconnection Queue as of December 20th, 2025

	Zone	County	Queue Pos.	Project Name	Points of Interconnection	Utility	SP (MW)	Date of IR	Last Update	In Svc Date
1	A	Niagara	1465	Digihost load	Walck Rd. 115kV	NM-NG	50.2	11/14/2022	4/30/2025	08-2027
2	A	Niagara	1670	Lake Mariner Data II	Kintigh 345kV Substation	NYSEG	250	1/23/2024	4/30/2025	06-2025
3	A	Niagara	1681	Niagara Digital Campus	Adams to Packard 115kV lines 187 and 188	NM-NG	140	4/9/2024	3/31/2025	12-2027
4	A	Erie	1726	Data & Technology Campus	Huntley - Packard 230kV line 78	NM-NG	300	1/31/2025	5/31/2025	01-2027
5	A	Niagara	1732	Wulf Compute Data Center II	Kintigh 345kV sub-station	NYSEG	250	3/29/2025	6/30/2025	06-2026
6	A	Niagara	1741	North East Data LLC Data Center	Local transmission lines of 183, 184	NM-NG	150	8/29/2025	10/31/2025	01-2027
7	A	Niagara	1747	Globe Digital Holdings - 1	Line 197 and 198	National Grid	100	10/17/2025	11/30/2025	01-2027
8	A	Niagara Falls	1748	GLOBE DH 2	LINE 197 AND 198	National Grid	100	10/17/2025	11/30/2025	06-2027
9	A	Niagara Falls	1749	Globe DH 3	lines 187 and 188	National Grid	100	10/17/2025	10/31/2025	01-2027
10	B	Genesee	580	WNY STAMP	Kintigh/Niagara - New Rochester 345kV	NYPA	300	9/27/2016	3/31/2025	05-2026
11	B	Genesee	1484	580 STAMP load increase	115 kv STAMP substation	NM-NG	300	12/2/2022	12/31/2023	12-2025
12	C	Yates	776	Greenidge Load	Greenidge 115kV	NYSEG	60	10/22/2018	4/30/2024	06-2025
13	C	Cayuga	850	Cayuga Load	Milliken 115kV	NYSEG	50	5/21/2019	4/30/2024	12-2026
14	C	Onondaga	1536	White Pine Phase 1	Clay 345 kV Substation	NM-NG	480	3/11/2023	2/29/2024	06-2026
15	C	Onondaga	1627	Micron Fab 2	National Grid Clay 345 kV Substation	NM-NG	576	10/31/2023	6/30/2024	09-2030
16	C	Tompkins	1683	Cayuga Compute	Milliken substation 115kV	NYSEG	88	4/24/2024	5/31/2025	10-2026
17	C	Yates	1725	Greenidge 200 MW Data Center Project	NY State Electric & Gas (NYSEG) - Greenidge 115 kV Substation	NYSEG	200	12/20/2024	10/31/2025	10-2029
18	C	Tompkins	1733	Cayuga Data	Milliken 115kV Substation	NYSEG	162	3/29/2025	9/30/2025	08-2026
19	C	Onondaga	1736	Ranalli SuperDC	Clay to Pannell ckts PC-1 and PC-2	NYPA	300	5/7/2025	8/31/2025	05-2028
20	C	Onondaga	1746	OOWWTP Expansion Program	National Grid's 115kV lines: Clay-Teall LN#11 and Clay-Woodard LN#17	National Grid	50	10/15/2025	10/31/2025	03-2029
21	C	Broome	1752	Broome County Tech Park	345 kV POI via a loop on the existing Oakdale-Fraser Line 32	NYSEG	250	10/30/2025	10/31/2025	12-2029
22	D	St. Lawrence	979	North Country Data Center	Reynolds 115kV	NYPA	176	1/22/2020	7/31/2023	12-2024
23	D	St. Lawrence	1213	St Lawrence Data and Agricultural Center	Dennison 115kV substation	NM-NG	200	6/28/2021	1/14/2023	01-2026
24	D	St. Lawrence	1315	SDC St. Lawrence	Moses-Reynolds MRG-1 and Moses-Reynolds MRG-2 at 115kV	NYPA	120	12/20/2021	9/30/2022	TBD
25	D	St. Lawrence	1743	St. Lawrence Infrastructure 2	NYPA's 230kV Moses Massena 1 (MMS-1) and 230kV Moses Massena 2 (MMS-2)	NYPA	1935	9/2/2025	9/30/2025	07-2030
26	D	St; Lawrence	1751	Alcoa East Energy Allocation Project	NYPA - HW1 and HW2 (345kV) Lines - at Haverstock Substation	NYPA	200	10/21/2025	10/31/2025	07-2027
27	E	St Lawrence	1728	Arsenal Data Site 250	Haverstock to Adirondak 345kV line HA-1	NYPA	250	3/7/2025	9/30/2025	03-2027
28	E	St Lawrence	1729	Arsenal Data Site 500	Haverstock to Adirondak 345kV line HA-1	NYPA	500	3/7/2025	9/30/2025	03-2027
29	E	St Lawrence	1730	Arsenal Data Site 1000	Haverstock to Adirondak 345kV line HA-1	NYPA	1000	3/7/2025	9/30/2025	03-2027
30	E	St. Lawrence	1731	NY State Artificial Intelligence Data Center	Haverstock-Adirondack 345kV transmission line HA-2	NYPA	300	3/14/2025	7/31/2025	10-2026
31	E	Oneida	1737	Griffiss Park Triangle Development	Gulf to Rome 115kV line	NM-NG	56	6/3/2025	6/30/2025	12-2027
32	E	St. Lawrence	1742	St. Lawrence Infrastructure 1	NYPA HA-2, 345kV Transmission Line	NYPA	860	9/2/2025	9/30/2025	12-2029
33	E	St Lawrence	1745	Pontoon Bridge Road Data Center	Haverstock-Adirondack 345kV transmission lines	NYPA	250	10/9/2025	10/31/2025	10-2026
34	F	Albany	1646	POWI Project	New Scotland to Knickerbocker 345kV line	NM-NG	50	11/30/2023	7/31/2024	01-2027
35	F	Herkimer	1735	Remington Factory Redevelopment	Murphy Station City of Ilion, Bus Number 147905, 115kV	Villg of Ilion	120	5/2/2025	5/31/2025	07-2028
36	F	Herkimer	1740	Incrtl Load Request for Remington Factory Redev	Line 1: 345KV EDIC to Fraser. Line 2: 345 KV Marcy to Coopers Corners	NYPA	500	8/29/2025	9/30/2025	08-2028
37	F	Albany	1750	Al Tech Steel Site	Maplewood Menands 18	NM-NG	60	10/21/2025	10/31/2025	06-2027
38	F	Albany	1753	NYS Dept. of Health Lab Harriman Campus, Albany	Woodlawn-State Campus #12 115kV feeder, and #15-115kV feeder	National Grid	20	11/4/2025	11/30/2025	01-2030
39	F	Albany	1754	Kenwood Tech Center	115kV POI, via a loop on three existing transmission lines	National Grid	180	11/11/2025	11/30/2025	12-2028
40	G	Rockland	1713	Project Sycamore Orangeburg	Oak Street 138kV	O&R	22.3	6/19/2024	6/30/2025	01-2026
41	G	Rockland	1714	Hudson Valley Data Center	Line 60 138KV - Ramp to Tallman	O&R	25	7/2/2024	6/30/2025	02-2027
42	G	Rockland	1715	1547 CSR - Orangeburg LLC	138kV Line 703 between Corporate Drive and Harings Corner	O&R	60	7/2/2024	6/30/2025	01-2027
43	G	Orange	1716	Orangeburg Expansion Phase 2	Oak St 38kV substation	O&R	60	8/5/2024	6/30/2025	12-2027
44	H	Westchester	1717	Proposed Datacenters at 450 Broadway, Buchanan	Buchanan 138kV Substation	ConEd	200	8/7/2024	9/30/2025	09-2026
45	H	Dutchess	1738	1 Gig Data Center East Fishkill, NY	Con Ed Line Names: Phase 1 F1/F31 500 MW Phase 2 F38/F39 500MW	ConEd	1000	7/17/2025	10/31/2025	10-2028
46	K	Suffolk	1721	Brookhaven Logistics Center	138-872 Holbrook to Sills Rd or 138-873 West Bus to Sills Rd.	LIPA	176.6	10/28/2024	7/31/2025	01-2027
						Total	12577.1			

Month over month decrease in Project Count = 1, decrease in Total Project Load = 300 MW.

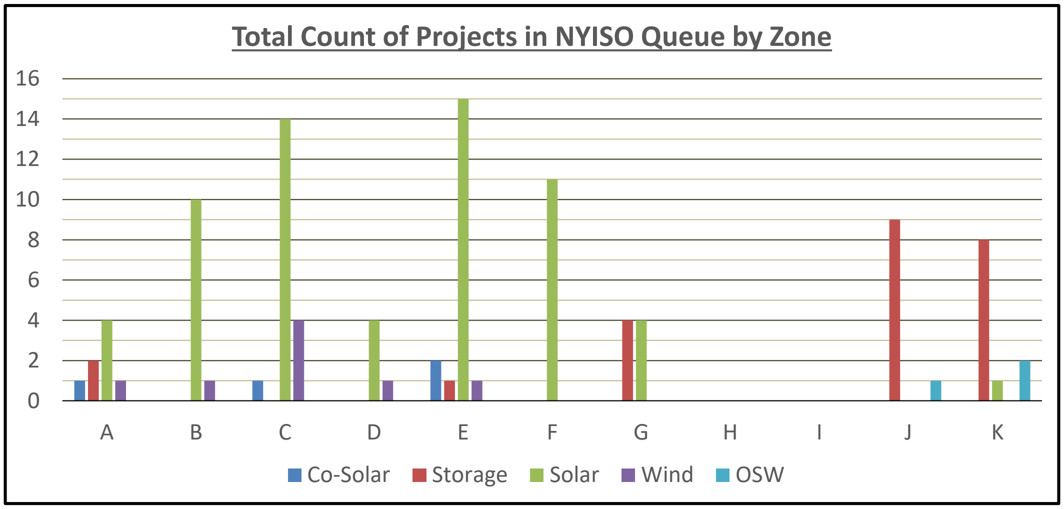
Interconnection Queue: Monthly Snapshot – Storage / Solar / Wind / CSRs (Co-located Storage)

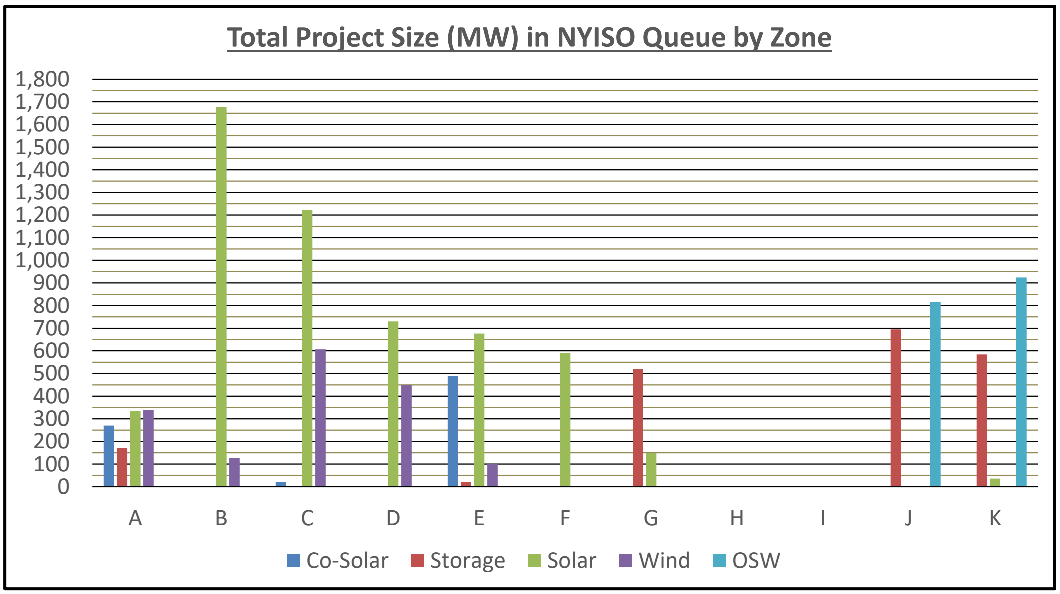
The intent is to track the growth of Co-Located Solar / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and in total for the state. The information was obtained from the NYISO Interconnection Website, based on information published on December 20th, and representing the Interconnection Queue as of November 30th. Note that two projects were added, and 113 projects were withdrawn during the month of November.

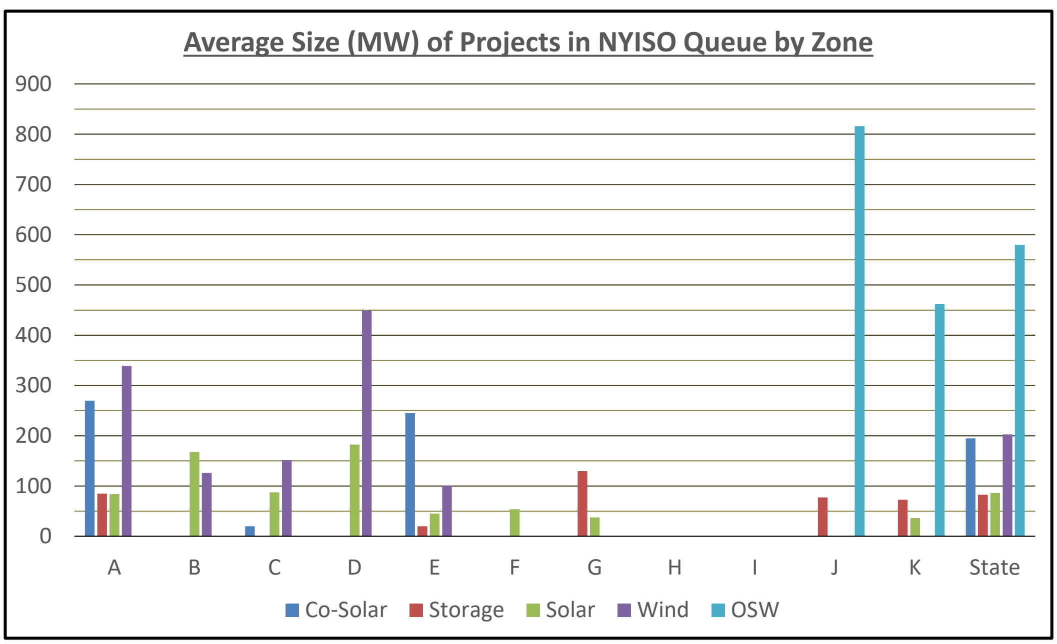
Total Count of Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	1	2	4	1	
B			10	1	
C	1		14	4	
D			4	1	
E	2	1	15	1	
F			11		
G		4	4		
H					
I					
J		9			1
K		8	1		2
State	4	24	63	8	3

Total Project Size (MW) in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	270	170	335	339	
B			1,678	126	
C	20		1,223	607	
D			730	449	
E	490	20	676	101	
F			591		
G		519	150		
H					
I					
J		695			816
K		584	36		924
State	780	1,988	5,418	1,622	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	126	
C	20		87	152	
D			183	449	
E	245	20	45	101	
F			54		
G		130	38		
H					
I					
J		77			816
K		73	36		462
State	195	83	86	203	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
1,700
1,600
1,500
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
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)

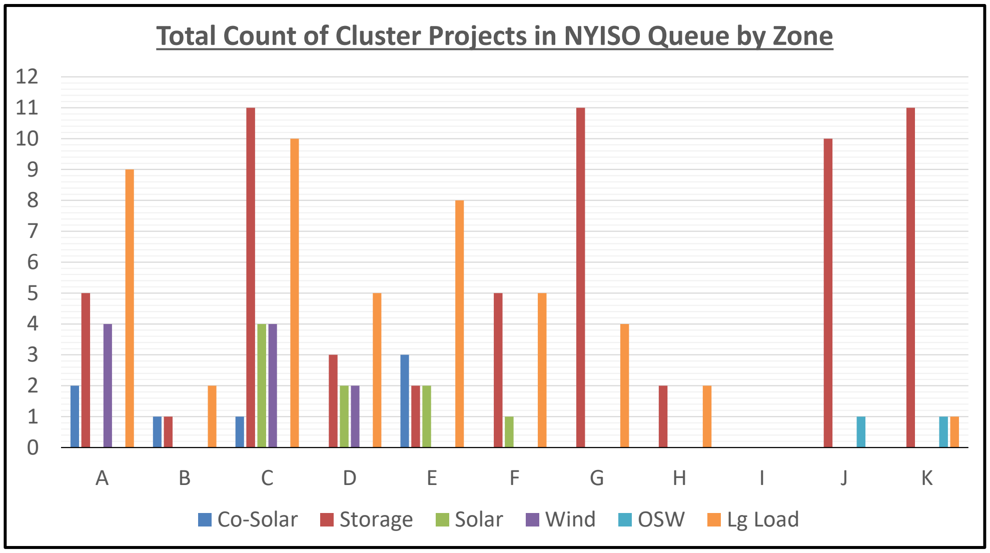
The intent is to track the growth of the Cluster-based projects, including Co-Located Solar and Wind / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and in total for the state. The information is based on the Cluster Interconnection Queue as of November 30th, and published on December 20th.

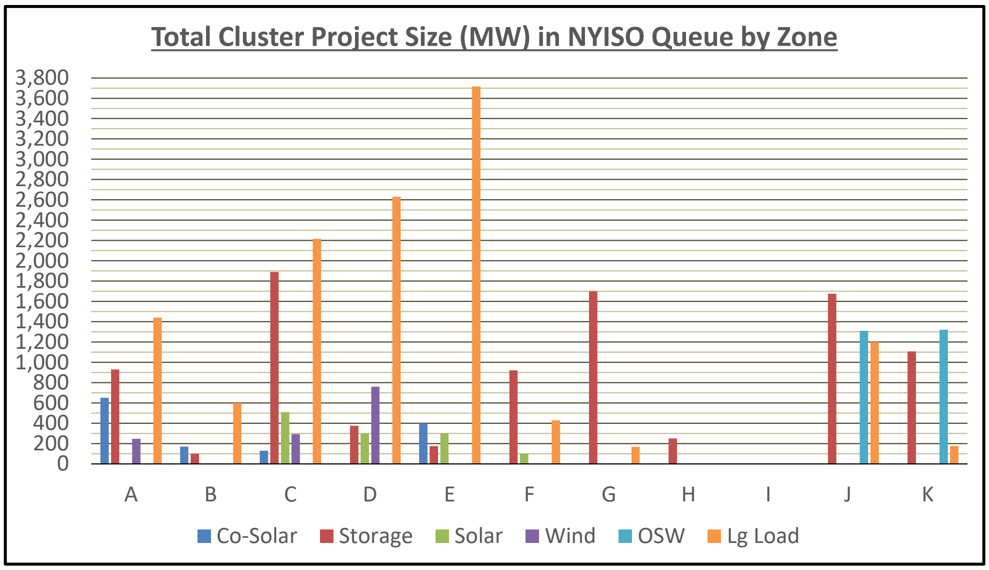
Note that within the Cluster Queue, there are currently 92 projects totaling 15,610 MW. This represents a drop of 88 projects totaling 12,400 MW from the previous month, attributable to the transition from phase one to phase two of the Cluster Study process. A total of 284 projects representing 59,873 MW are listed as having been withdrawn to date.

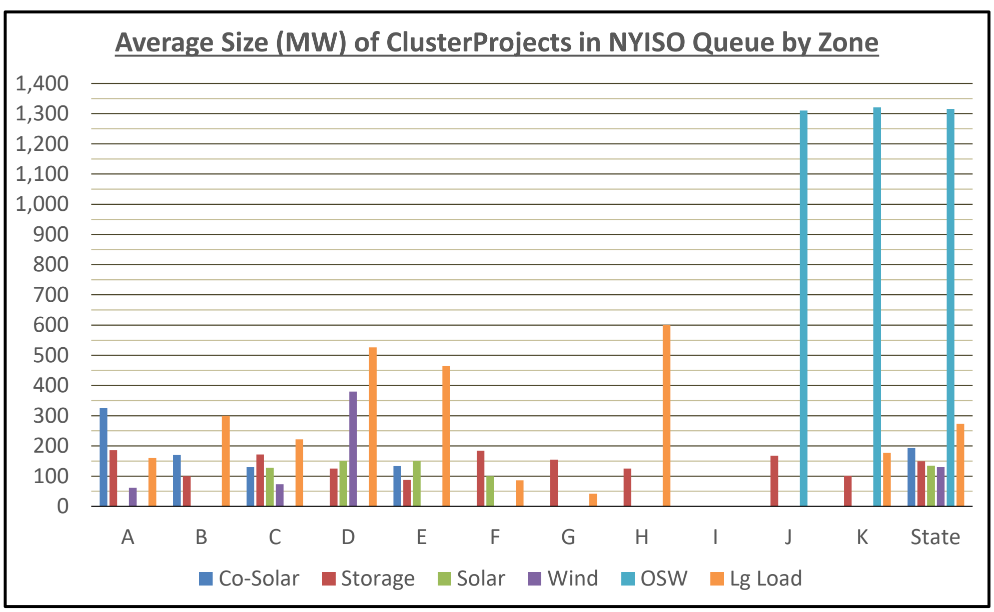
Total Count of Cluster Projects in NYISO Queue by Zone						
Zone	Co-Solar	Storage	Solar	Wind	OSW	Lg Load
A	2	5		4		9
B	1	1				2
C	1	11	4	4		10
D		3	2	2		5
E	3	2	2			8
F		5	1			5
G		11				4
H		2				2
I						
J		10			1	
K		11			1	1
State	7	61	9	10	2	46

Total Cluster Project Size (MW) in NYISO Queue by Zone						
Zone	Co-Solar	Storage	Solar	Wind	OSW	Lg Load
A	650	930		246		1,440
B	170	100				600
C	130	1,890	510	292		2,216
D		375	300	760		2,631
E	400	175	300			3,716
F		920	100			430
G		1,699				167
H		250				
I						
J		1,676			1,310	1,200
K		1,107			1,321	177
State	1,350	9,122	1,210	1,298	2,631	12,577

Average Size (MW) Cluster Projects in NYISO Queue by Zone						
Zone	Co-Solar	Storage	Solar	Wind	OSW	Lg Load
A	325	186		61		160
B	170	100				300
C	130	172	127	73		222
D		125	150	380		526
E	133	88	150			465
F		184	100			86
G		154				42
H		125				600
I						
J		168			1,310	
K		101			1,321	177
State	193	150	134	130	1,316	273


Total Count of Cluster Projects in NYISO Queue by Zone
12
11
10
9
8
7
6
5
4
3
2
1
0
A
B
C
D
E
F
G
H
I
J
K
Co-Solar
Storage
Solar
Wind
OSW
Lg Load


Total Cluster Project Size (MW) in NYISO Queue by Zone
3,800
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
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
Lg Load


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
Lg Load