Attachment #9.1
Return to Agenda

De-Carbonization / DER Report for NYSRC Executive Committee Meeting 2/12/2026

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

- Avangrid: New England Clean Energy Connect (NECEC) Project Is Complete and Energized
- Politico: (NECEC) Transmission Line Stopped Sending Hydropower During Arctic Storm
- A Closer look at CHPE and Hitachi HVDC Light
- EPRI and DOE: Solid-State Transformers: Medium-Voltage Applications and Laboratory Testing
- IEEE / PES Magazine: Stability and Control in Power Electronics – Dominated Grids
- 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

Avangrid's New England Clean Energy Connect (NECEC) Project Is Complete and Energized

On January 16th, Avangrid announced that the New England Clean Energy Connect (NECEC) project is complete and energized. The NECEC stands as one of the region's largest sources of baseload energy, strengthening grid reliability and lowering energy costs. With the introduction of 1,200 MW of new hydropower into ISO-New England's system, the NECEC will diversify its power supply, strengthen grid stability, and mitigate risks to the grid during extreme weather events. At the same time, NECEC's low-cost energy supply and predictable pricing structure will help reduce fuel-related volatility, create a strategic hedge that enhances regional competitiveness, and reduce wholesale electricity prices, delivering long-term cost savings for New England ratepayers.

The Massachusetts Department of Public Utilities found that the NECEC will save New England rate payers $3.38 billion over the 20-year of the life of the current contracts. The Department further found that significant qualitative benefits will flow to customers under the contract in the areas of reliability, mitigated environmental impacts, and economic development. The Department ultimately found that the purchase power agreements are a cost-effective mechanism for procuring low-cost energy on a long-term basis.

The NECEC transmission line consists of an overhead 145-mile, high voltage direct current (HVDC) transmission line (Symmetrical Monopole Configuration) from the Quebec-Maine border to the new Merrill Road converter substation located in Lewiston and new 1.2-mile 345 kV alternating current (AC) transmission line from the new Merrill Road converter substation to the existing Larrabee Road substation.

NECEC utilizes Hitachi Energy's HVDC Light® technology to enable efficient, long-distance power transmission with minimal environmental impact. The project includes approximately 150 miles of new +/-320 kV HVDC transmission line from the Maine–Quebec border to a DC/AC converter station in Lewiston, Maine, along with upgrades to existing substations and transmission facilities owned by Central Maine Power Company (CMP).

The project is secured by a combination of a 40-year Transmission Service Agreement with Hydro-Québec and 20-year contracts with Massachusetts utilities and Hydro-Québec, providing stable, inflation-protected revenue streams and minimizing market volatility. Capital expenditures totaled approximately $1.6 billion. As a result of negotiated contract provisions, the project will recover cost increases due to electoral challenges, ensuring the end project achieves the anticipated economic value.

Supporting Links:

- ISO-New England filing document
- USA Dept of Energy Information and FAQs
- Iberdrola NECEC Infographic
- Iberdrola Map showing NECEC in Maine

Politico: (NECEC) Transmission Line Stopped Sending Hydropower During Arctic Storm

This Article recounts how the recently energized New England Clean Energy Connect (NECEC) experienced an abrupt shutdown shortly after entering commercial operation. The line stopped transmitting power during a major winter storm, operating for only one hour on Sunday at half capacity and resuming Monday evening at approximately 25% capacity. The interruption occurred as Quebec withheld power to meet surging domestic electricity demand during an Arctic cold snap.

The project is a cornerstone of Massachusetts' climate strategy under a 2016 law directing utilities to procure large amounts of offshore wind and hydropower. Hydropower imports were expected to relieve winter stress on constrained natural gas pipelines and complement variable wind generation.

The interruption reopened long-standing debates about New England's energy reliability. Critics argued the stoppage demonstrated the continued need for additional natural gas pipeline capacity, while others said it validated concerns that the transmission project would fail during extreme weather—precisely when power is most needed. Worse yet, prolonged drought conditions in Canada have reduced reservoir levels and limited Hydro-Quebec's export flexibility, raising questions about long-term contract performance.

New England's grid faces chronic winter reliability risks. Natural gas supplies about half of the region's annual electricity generation, but pipeline capacity is limited and shared with heating demand. NECEC was intended to mitigate this risk, but opposition to the project has been persistent. In Maine, where the line crosses sensitive environmental areas, voters rescinded its permit via referendum before the decision was overturned by the state's highest court. Power plant owners also opposed the project, warning that Hydro-Quebec would withhold electricity during cold weather to serve domestic needs.

Massachusetts regulators dismissed those concerns, pointed to penalties in the contract that required Hydro-Quebec to pay the difference between contract prices and market prices when power is not delivered. They concluded the penalties would incentivize winter delivery. However, Hydro-Quebec's chief officer acknowledged the utility expects to pay those penalties under extreme conditions, noting Quebec's demand surged past 40,000 megawatts, approaching a record set in 2023.

NECAC is contracted to supply 9.45 Terawatt-hours of electricity annually, or roughly 7 percent of New England's power demand. The hydro line sells power at a contracted price of about $70 per megawatt-hour. That figure would be much higher if it were specifically designed to guarantee peak power needs. During its first week, NECEC delivered about 1,100 MW—roughly 6–8% of New England's power needs—and contributed to reduced oil generation ahead of the storm. During the weekend interruption, electricity demand in Quebec was so high that another transmission line connecting with New England experienced reverse power flow, exporting electricity to Quebec.

Despite the loss of hydro imports, New England's grid remained stable. Prices spiked briefly, reaching $800 per megawatt- hour, but the grid operator issued only a low-level emergency alert. Oil-fired generation surged after hydro imports ceased, prompting the Energy Department to approve an emergency order Sunday, allowing some plants to exceed environmental permit limits to ensure reliability. It should also be noted that during this period. wind generation reached 1,560 MW, the third-highest total on record, with offshore wind playing a stabilizing role.

Hydro-Quebec acknowledged the need for additional capacity and plans to add 9,000 MW of new generation by 2035, including wind and hydro. While NECEC remains a major decarbonization asset, the interruption underscores the limits of relying on energy imports alone and highlights the continued importance of fuel security, system diversity, and resilience planning under extreme weather conditions.

A Closer look at CHPE and Hitachi HVDC Light

Construction of the Champlain Hudson Power Express® (CHPE) is expected to be completed by June 2026, when CHPE becomes operational and begins delivering clean, renewable energy directly to New York City. CHPE will be operated at +/- 400 kV, with maximum power throughput capable of 1250 MW in either direction, and +/-400 MVARs at either terminal. CHPE utilizes Hitachi's HVDC Light technology, which uses Grid Forming inverters that are capable of full active and reactive power control, and provide dynamic and steady state voltage support.

The HVDC line starts at a new HVDC Light converter station located at Hydro-Quebec's Hertel Substation in La Prairie, Quebec. The line runs underground for 36 miles through Quebec, and another 340 miles via underwater and underground routes until reaching the converter station at Astoria in New York City. Additional information on the Canadian portion of the line can be found at Hydro Quebec's website. An interactive map of the American portion of the path can be found at the CHPE website.

As of September 2025, over 102 miles of trenching has been completed, representing 99% of the project's total. Approximately 99% of the project's Horizontal Directional Drilling (HDD) pilot holes have been drilled and more than 95% of the cable has been pulled and is in place. All of the work performed has been approved by New York State, along with detailed plans for each construction segment along CHPE's route, which can be found here: *Environmental Management & Construction Plans (EM&CPs)*. Additional supporting material can be found in the PA Consulting Report entitled *Champlain Hudson Power Express Analysis of Economic, Environmental, Resiliency, And Reliability Benefits To The State Of New York*.

In addition, a 3.5-mile buried high-voltage alternating current (345 kV AC) cable is being constructed in Astoria, Queens that is known as the Astoria-Rainey Cable (ARC). As of September 2025, 84% of necessary excavation and shoring is finished and over 67% of duct bank has been installed. Major construction is expected to be completed by the end of 2025.

Hitachi HVDC Light

HVDC Light®, based on VSC technology (Voltage Sourced Converter), is designed to transmit power underground and underwater, over long distances. It offers numerous environmental benefits, including "invisible" power lines, neutral electromagnetic fields, oil-free cables, and compact converter stations. The technology extends the power range of HVDC transmission from a few tens of Megawatts (MW). In the upper range, the technology now reaches 3,000 MW and ±640 kV, and enable power transmission over 1200 miles.

HVDC Light provides many operational advantages:

- Active and reactive power independently and rapidly controlled
- Operation down to short-circuit ratios of zero
- Loop flows of power can be avoided
- Black start is possible
- Stabilization of connected AC grids
- Share spinning reserve between areas
- Continuously variable power from full power in one direction to full power in reverse
- Emergency power support
- Increase power in parallel AC lines
- No commutation failures
- Additional reactive compensation is not required (only small harmonic filters may be needed)
- The converter stations can be used as a STATCOM at each terminal, even if the DC line is not energized

Cable Laying Ship Atalanti in Hudson River

Laying the double HVDC cable

HVDC Light Converter Station typical layout

HVDC Light Converter Valve Hall ([ABB])

DC Terminal Room with Smoothing Reactor

AC Switch Yard

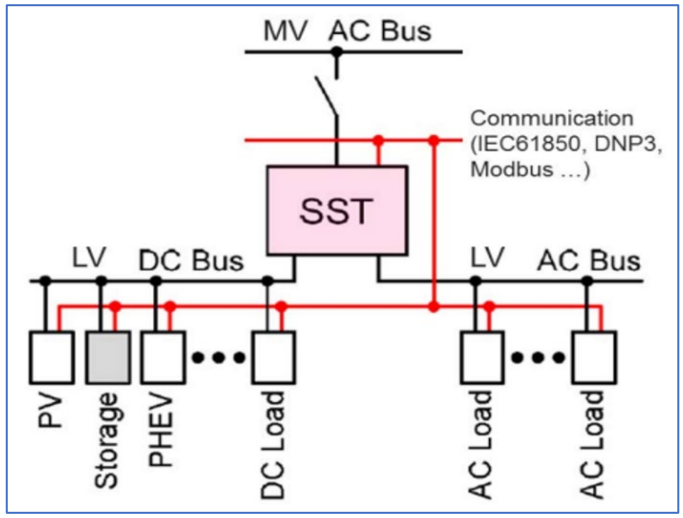
EPRI and DOE: Solid-State Transformers: Medium-Voltage Applications and Laboratory Testing

This EPRI White Paper (Publicly available Download Link) describes the latest technological developments and challenges associated with Solid State Transformers (SSTs). These power electronic transformers are capable of AC-AC, AC-DC, and DC-DC conversion at medium- to high-voltage levels, offering a smarter alternative to conventional 50/60 Hz transformers.

SSTs incorporate semiconductor-based converters and high-frequency isolation to reduce size/ weight and enable new functionalities. SST technology has garnered intense interest for grid applications including voltage regulation, bidirectional power flow, and direct integration of DC systems - features that are not available with traditional iron-core transformers.

The schematic below from the shows the extent of capabilities for a typical SST configured for support of distribution and DERs, including these features:

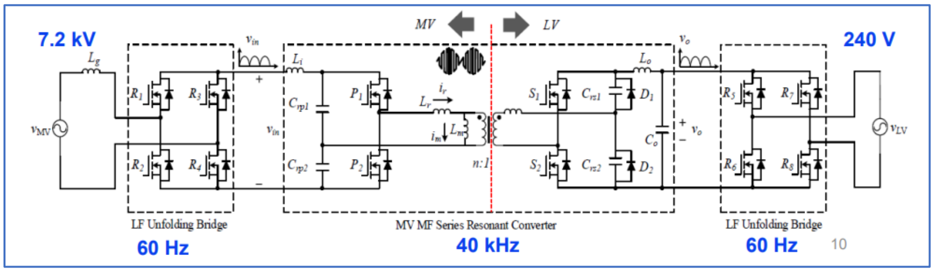
- Fault management
    - Current limiting
    - Disconnect/reconnect
- Power Management
    - Control power flow and power factor
    - Change/Control customer voltage
    - Provide DC power
    - Eliminate harmonics
    - Low voltage ride through
    - Support islanding mode
- Energy Management
    - Monitor energy usage
    - Control/dispatch power
    - Demand side management



Solid state transformers use high-frequency switching power electronics and high-frequency transformers (HFT) to achieve the same isolation between AC and DC, and voltage conversion in a fraction of the size along with integrated sensing and control. The following are key features of SSTs:

- Voltage and frequency regulation: SSTs can actively boost or buck output voltage and even provide frequency conversion or phase shifting. For example, an SST can eliminate the need for capacitor banks and voltage regulators by adjusting output by ±10%.
- Bidirectional power flow: Many SST designs allow bi-directional power flow between the high-voltage (HV) and low-voltage (LV) sides, supporting applications like vehicle-to-grid (V2G) and distributed storage feeding back into the grid.
- AC/DC hybrid capability: With built-in AC-DC stages, SSTs can provide a direct DC output to enable DC microgrid links, direct EV fast charging, or integrating solar PV and batteries without separate converters.
- Power quality improvement: SSTs can rapidly mitigate harmonics, sags, or surges using fast electronic control means they can act like a combined transformer + STATCOM + filter, maintaining a stable voltage and reducing distortions.
- Reduced size/weight: The magnetic core of the SST can be much smaller by operating the transformer at tens of kHz instead of 60 Hz. SST prototypes have demonstrated comparable efficiency to traditional transformers while decreasing the transformer footprint.

The One-Line image below shows the conversion from Medium Level Voltage to Distribution Voltage through Solid State conversion and a high frequency resonant converter.



SSTs shows promise in their ability to enable a more intelligent grid which may be crucial for managing the intermittency of distributed resources and the electrification of transportation while maintaining reliable and resilient electric service to customers. For instance, medium-voltage (MV) SSTs are being explored for connecting 13 kV distribution feeders directly to high-power DC fast chargers or data centers, eliminating multiple conversion steps. Electric companies see SST technology as a potential replacement for distribution transformers, increasing resilience and flexibility (e.g., rapid outage recovery or dynamic load balancing).

Note there are three different types of power electronic SSTs:

- AC-AC: SSTs that ultimately provide an AC output, often via internal AC/DC/AC conversion
- AC-DC: SSTs used as AC grid to DC converters (e.g., for EV charging or data centers)
- DC-DC: SSTs use for direct high-voltage DC conversion (none explicitly listed above, though Power Router can also do DC-DC between its ports)

Several challenges remain before SSTs see widespread adoption for medium voltage electric company applications:

- Cost: Present SST prototypes cost significantly more than conventional transformers. As one expert noted, advanced semiconductors and complex multi-stage designs drive up cost, though volume production and design refinement could narrow the gap.
- Reliability: Power converters must prove they can manage surges, lightning, faults, and years of operation. Extensive field testing is necessary to validate that SSTs can meet utility standards for robustness and long-term performance.
- Standards and interoperability: Efforts are in progress (IEEE and CIGRÉ working groups) to develop guidelines for SST integration into grids and to ensure they safely interoperate with protection systems and grid codes. For instance, insulation coordination for the high-frequency transformer and fault response strategies are Active research areas.
- Efficiency vs. functionality trade-offs: While some SST designs approach 97–98% efficiency (close to traditional transformers), adding features like voltage regulation or multi-port outputs can introduce extra conversion losses.

Solid-state transformers are poised to play a transformative role in the distribution grid of the future by combining the functions of transformers, voltage regulators, and protection into single unit. Early deployments show the possibility of wide applications of SST from utility distribution SSTs for homes to massive EV charging hubs fed directly from MV.

As technology matures, SSTs could enable more resilient and flexible grids, facilitating the transition to electric transportation and high levels of renewables. The coming decade is likely to see the first commercial rollouts of SSTs in niche applications, paving the way for broader adoption by electric companies.

IEEE / PES Magazine: Stability and Control in Power Electronics – Dominated Grids

The entire January / February issue of IEEE Power and Energy (PES) Magazine is dedicated to "Stability and Control in Power Electronics – Dominated Grids." Titles from the issue's articles are listed below. Content and downloads are only available to those with IEEE / PES membership.

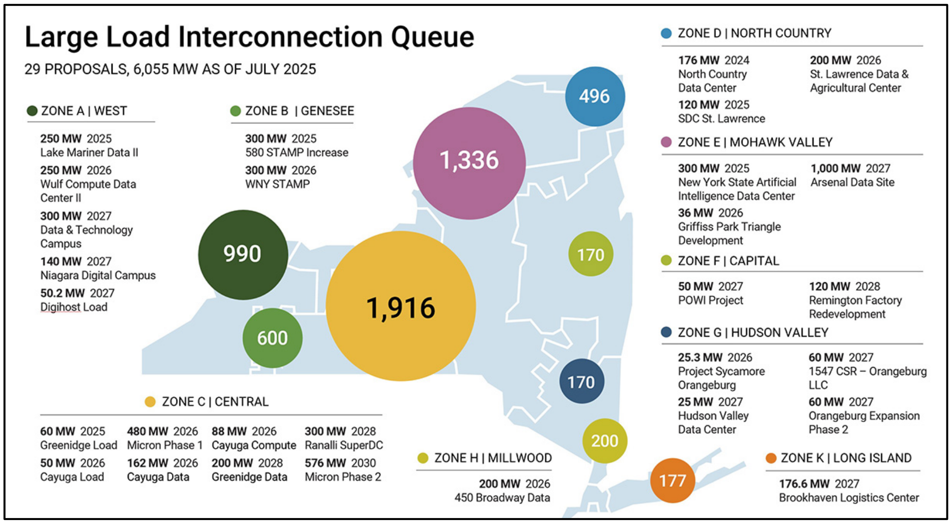
Extract from PES Editor's Voice: *In today's grid, stability is no longer governed by rotating mass; it is governed by algorithms. By 2030, more than 80% of global electricity will pass through a power electronics interface before reaching consumers. With that shift comes profound consequences:*

- *Inertia is no longer inherent; it must be synthesized.*
- *Fault current is no longer abundant; it is digitally limited and software controlled.*
- *Oscillations that constrain power transfer occur not only at low frequencies but across control and electromagnetic bandwidths.*
- *Stability is no longer purely electromechanical; it is cyber-physical.*

In short, we are no longer operating an electromechanical grid; we are operating a real-time control system. The tools, models, controls, and regulatory frameworks that served the synchronous era must now be reengineered for a converter-driven future, one where stability engineering becomes as central to grid design as adequacy and reliability.

- **View the entire Magazine (IEEE / PES members)**
- **Feedback and Oscillations**
  Dynamic phenomena that link to inverter-based resources (IBRs) have gained global attention.
- **Multilayered Defense Against Oscillations**
  The global transition to a decarbonized electricity sector is fundamentally reshaping power systems.
- **System Strength in Power Electronics-Dominated Power Systems**
  Rethinking the meaning, analysis, evaluation, and enhancement of system strength in power electronics (PE)-dominated power systems.
- **A New Paradigm for Small-Signal Stability Analysis in Modern Power Systems**
  Electrical energy systems face the dual challenge of decarbonization while maintaining reliability and cost efficiency.
- **T&D Interactions and Future-Grid Stability**
  The power grid is rapidly evolving, leading to unplanned operating conditions where the distribution system is no longer a passive consumer
- **Inverter-Dominated Future Power Systems**
  The power supply system is transforming to achieve climate neutrality, with renewable energy sources (RES) becoming the dominant generation technology.
- **Advanced STATCOM Technologies to Mitigate Sub-synchronous Oscillations**
  AC power systems are designed to operate at a fundamental frequency, i.e., 50 or 60 Hz.
- **Upgraded Control Strategies to Safeguard Resiliency in Hybrid AC-DC Networks**
  The global transition to renewable energy is transforming power systems, necessitating advanced transmission solutions to ensure reliability.
- **Future-Ready Metro Power System**
  Conventional metro traction power systems (TPSs) based on diode rectifiers have been used for decades but face two significant challenges in the future.
- **Converting Energy**
  As the share of IBRs in large power systems increases, displacing synchronous generators, it is critical that standardized methods are available to ensure operational stability, reliability, and resilience.

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 January 20th, 2026

	Zone	County	Queue Pos.	Project Name	Points of Interconnection	Utility	SP (MW)	Date of IR	Last Yodate	In Svc Date
1	A	Niagara	1465	Digihost load	Walck Rd. 115kV	NM-NG	50	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	56	8/29/2025	10/31/2025	01-2027
7	A	Niagara	1747	Globe Digital Holdings - 1	Line 197 and 198	National Grid	200	10/17/2025	11/30/2025	01-2027
8	A	Niagara Falls	1748	GLOBE DH 2	LINE 197 AND 198	National Grid	200	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	0580	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	0776	Greenidge Load	Greenidge 115kV	NYSEG	60	10/22/2018	4/30/2024	06-2025
13	C	Cayuga	0850	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#1	National Grid	50	10/15/2025	10/31/2025	03-2029
21	E	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	0979	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	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
28	E	St. Lawrence	1728	Arsenal Data Site 250	Haverstock to Adirondak 345kV line HA-1	NYPA	233	3/7/2025	9/30/2025	03-2027
29	E	St. Lawrence	1729	Arsenal Data Site 500	Haverstock to Adirondak 345kV line HA-1	NYPA	233	3/7/2025	9/30/2025	03-2027
30	E	St. Lawrence	1730	Arsenal Data Site 1000	Haverstock to Adirondak 345kV line HA-1	NYPA	467	3/7/2025	9/30/2025	03-2027
31	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
32	E	Oneida	1737	Griffiss Park Triangle Development	Gulf to Rome 115kV line	NM-NG	56	6/3/2025	6/30/2025	12-2027
33	E	St. Lawrence	1742	St. Lawrence Infrastructure 1	NYPA HA-2, 345kV Transmission Line	NYPA	860	9/2/2025	9/30/2025	12-2029
27	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	Village of Ilion	100	5/2/2025	5/31/2025	07-2028
36	F	Albany	1750	Al Tech Steel Site	Maplewood Menands 18	NM-NG	60	10/21/2025	10/31/2025	06-2027
37	F	Albany	1753	NY State Dept. of Health Lab (Harriman Campus, Albany NY)	Woodlawn-State Campus #12	National Grid	20	11/4/2025	11/30/2025	01-2030
38	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
39	F	Albany	1755	Site Master Plan Expansion Phase I	Patroon Creek and McKnownville	National Grid	45	12/18/2025	12/31/2025	01-2029
40	F	Albany	1756	Site Master Plan Expansion Phase II	Patroon Creek and McKnownville	National Grid	90	12/18/2025	12/31/2025	01-2040
41	G	Rockland	1713	Project Sycamore Orangeburg	Oak Street 138kV	O&R	22	6/19/2024	6/30/2025	01-2026
42	G	Rockland	1714	Hudson Valley Data Center	Line 60 138KV - Ramp to Tallman	O&R	50	7/2/2024	6/30/2025	02-2027
43	G	Rockland	1715	1547 CSR - Orangeburg LLC	138kV Line 703 between Corporate Drive and Harings Corner	O&R	30	7/2/2024	6/30/2025	01-2027
44	G	Orange	1716	Orangeburg Expansion Phase 2	Oak St 38kV substation	O&R	30	8/5/2024	6/30/2025	12-2027
45	H	Westchester	1717	Proposed Datacenters at 450 Broadway, Buchanan, NY, 10511	Buchanan 138kV Substation	ConEd	200	8/7/2024	9/30/2025	09-2026
46	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
47	K	Suffolk	1721	Brookhaven Logistics Center	138-872 Holbrook to Sills Rd or 138-873 West Bus to Sills Rd.	LIPA	177	10/28/2024	7/31/2025	01-2027
48	F	Herkimer	1740	Incremental Load Req Remington Factory Redevelopment	Line 1: 345KV EDIC to Fraser. Line 2: Marcy to Coopers Corners	NYPA	500	8/29/2025	9/30/2025	08-2028
						Total	11946			

Month over month increase in Project Count = 2. However, a net decrease in Total Project Load = 630 MW.

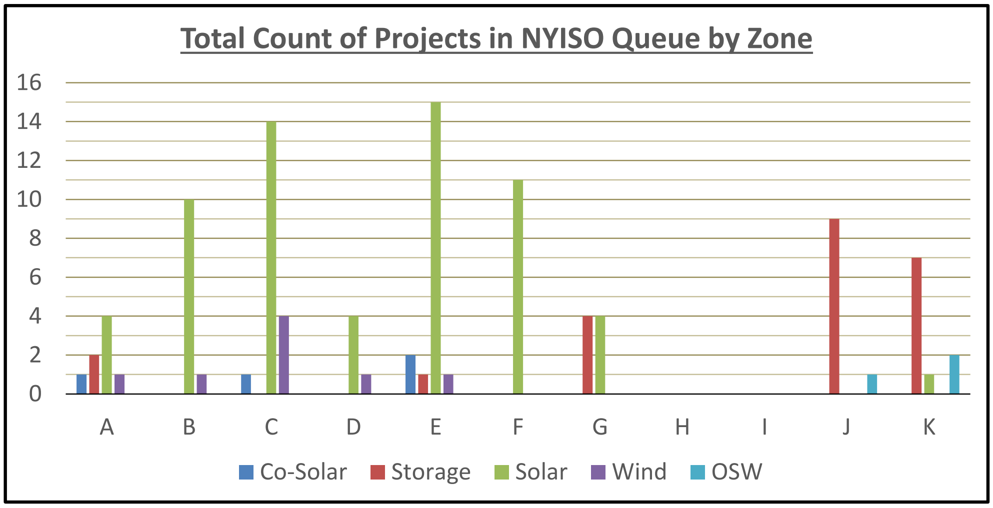
Interconnection Queue: Monthly Snapshot – Storage / Solar / Wind / CSRs (Co-located Storage)

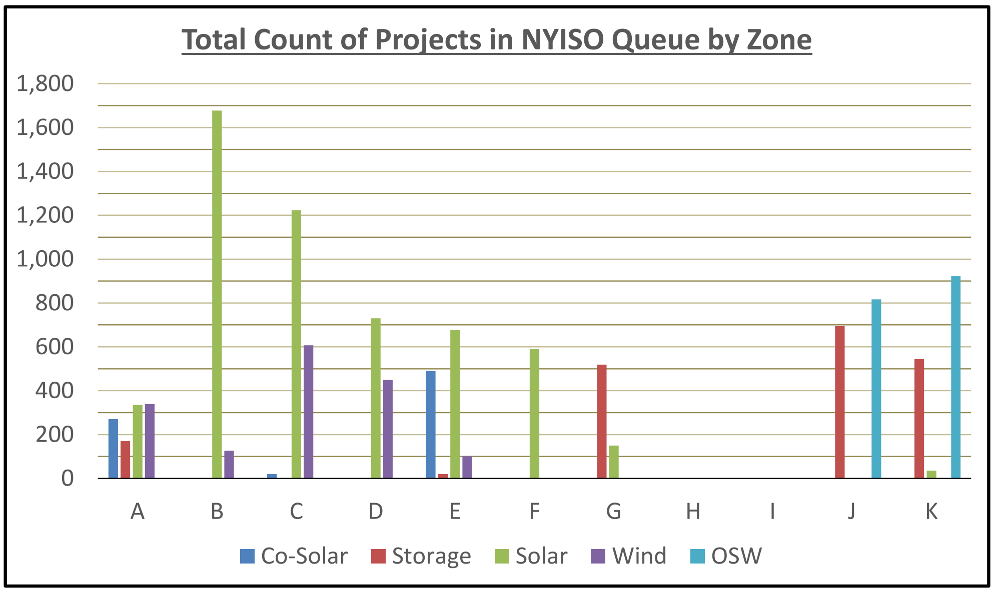
The intent is to track the growth of Co-Located Solar / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and in total for the state. The information was obtained from the NYISO Interconnection Website,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

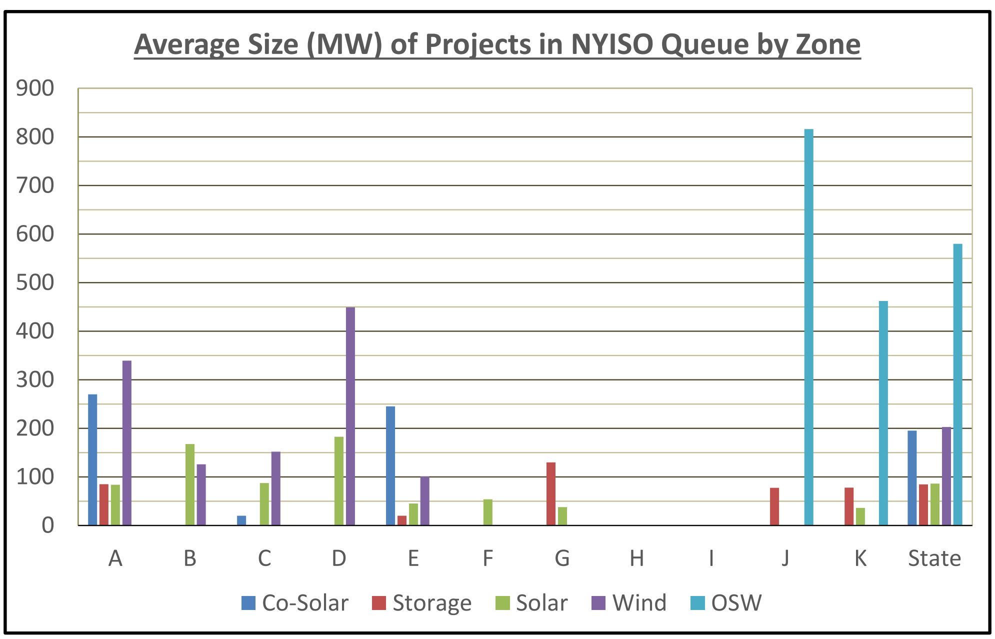
Total Count of Projects in NYISO Queue by Zone					
Zone	Co-Solar	Storage	Solar	Wind	OSW
A	1	2	4	1	
B			10	1	
C	1		14	4	
D			4	1	
E	2	1	15	1	
F			11		
G		4	4		
H					
I					
J		9			1
K		7	1		2
State	4	23	63	8	3

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		544	36		924
State	780	1,948	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		78	36		462
State	195	85	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 Count of Projects 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)

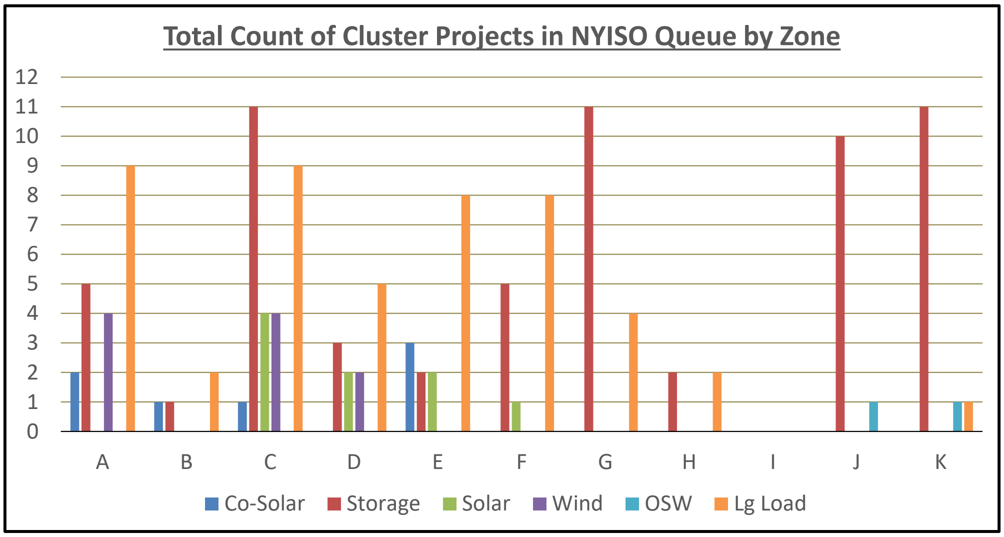
The intent is to track the growth of the Cluster-based projects, including Co-Located Solar and Wind / Storage, Energy Storage, Solar, Wind, and Offshore Wind (OSW) projects in the NYISO Interconnection Queue, looking to identify trends and patterns by zone and total for state. The information is based on the Cluster Interconnection Queue as of December 31st, and published on January 20th.

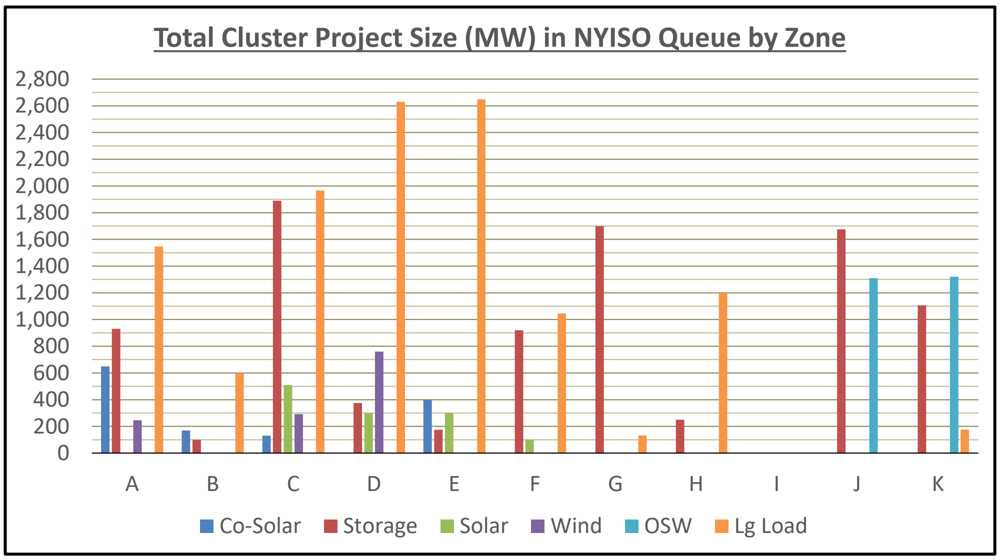
Note that within the Cluster Queue, there are currently 92 projects totaling 15,610 MW. There was no change from the previous month. A total of 284 projects representing 59,873 MW are listed as having been withdrawn to date.

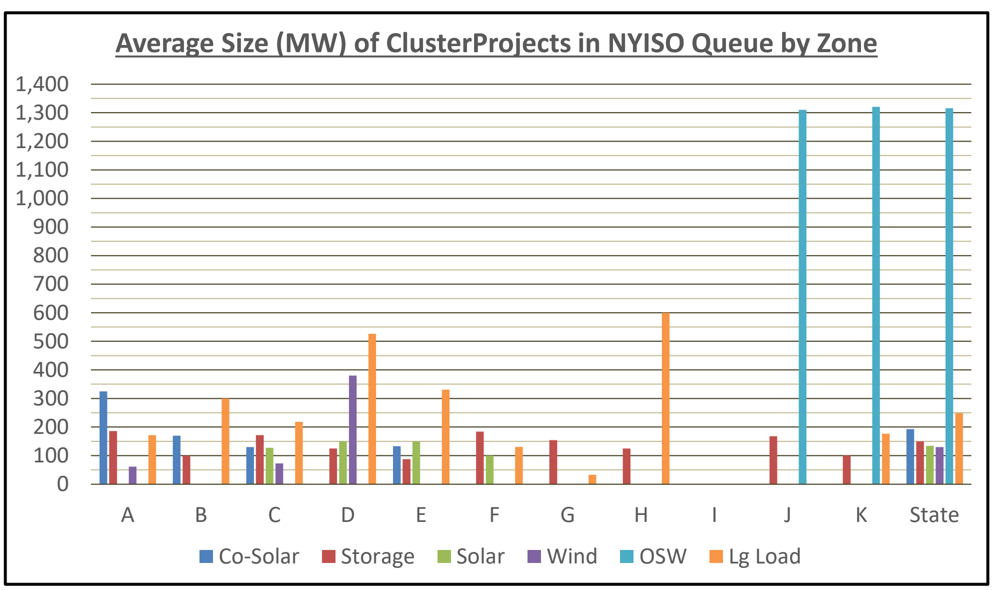
Total Count of Cluster Projects in NYISO Queue by Zone						
Zone	**Co-Solar**	**Storage**	**Solar**	**Wind**	**OSW**	**Lg Load**
A	2	5		4		9
B	1	1				2
C	1	11	4	4		9
D		3	2	2		5
E	3	2	2			8
F		5	1			8
G		11				4
H		2				2
I						
J		10			1	
K		11			1	1
State	7	61	9	10	2	48

Total Cluster Project Size (MW) in NYISO Queue by Zone						
Zone	**Co-Solar**	**Storage**	**Solar**	**Wind**	**OSW**	**Lg Load**
A	650	930		246		1,546
B	170	100				600
C	130	1,890	510	292		1,966
D		375	300	760		2,631
E	400	175	300			2,649
F		920	100			1,045
G		1,699				132
H		250				1,200
I						
J		1,676			1,310	
K		1,107			1,321	177
State	1,350	9,122	1,210	1,298	2,631	11,946

Average Size (MW) Cluster Projects in NYISO Queue by Zone						
Zone	**Co-Solar**	**Storage**	**Solar**	**Wind**	**OSW**	**Lg Load**
A	325	186		61		172
B	170	100				300
C	130	172	127	73		218
D		125	150	380		526
E	133	88	150			331
F		184	100			131
G		154				33
H		125				600
I						
J		168			1,310	
K		101			1,321	177
State	193	150	134	130	1,316	249


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
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