

Queue Interconnection Studies of Projects Potentially Affecting Neighboring Systems

IPSAC WebEx

Stojan Nikolov

SENIOR PROJECT MANAGER TRANSMISSION PLANNING, PJM



Summary

- Projects in the respective ISO/RTO interconnection queues may have potential interregional effects on neighboring systems
 - This requires coordination of studies across ISO/RTO borders
- The Joint ISO/RTO Planning Committee continues to
 - Coordinate system data bases and models
 - Identify and evaluate the performance of projects affecting interregional system performance
- The ISO/RTO interconnection queues can be found at:
 - <https://www.iso-ne.com/irq>
 - <https://www.nyiso.com/interconnections>
 - <https://www.pjm.com/planning/service-requests/services-request-status>
- Several projects will now be discussed with the IPSAC
 - Slides show the effective date of April 1, 2025 for every ISO/RTO Queue
 - Changes from the December 2, 2025 IPSAC meeting are shown in red

NYISO TRANSMISSION AND GENERATION PROJECTS WITH POTENTIAL INTERREGIONAL IMPACTS

Supriya Tawde – NYISO

NYISO Interconnection Queue Transmission Projects with Potential ISO-NE/PJM Impact

Transmission Project	Queue Number	NYISO Zone(s)	Regions Affected	Proposed I/S Date
National Grid Segment B Knickerbocker-PV	543	F, G	ISO-NE / PJM	Jun-25
Northern New York Priority Transmission Project (NNYPTP)	1125	D,E	ISO-NE	Dec-25
Propel NY Energy - Alternate Solution 5	1289	I,J,K	ISO-NE	Jun-30
Queensboro Renewable Express Circuit A	1365	J	PJM	Apr-29
Queensboro Renewable Express Circuit B	1366	J	PJM	Apr-29
Liberty Green Line	1555	J	PJM	Jan-29
Designated Public Policy Project Rainey Breaker Replacement	1667	J	ISO-NE	May-30
Clean Borough Power Link #1	1685	I,J	PJM	Dec-32
Clean Borough Power Link #2	1686	J	PJM	Dec-32
Clean Borough Power Link #3	1687	J	PJM	Dec-32
Liberty Link 1	1688	J	PJM	Dec-32
Liberty Link 2	1689	J	PJM	Dec-32
Liberty Link 3	1690	J	PJM	Dec-32
Energy Link NY Solution 1	1691	I,J	PJM	Jan-33
Energy Link NY Solution 2	1692	I,J	PJM	Jan-33
Energy Link NY Solution 3	1693	I,J	PJM	Jan-33
Energy Link NY Solution 4	1694	I,J	PJM	Jan-33
Energy Link NY Solution 5	1695	I,J	PJM	Jan-33

NYISO Interconnection Queue Transmission Projects with Potential ISO-NE/PJM Impact (Cont.)

Transmission Project	Queue Number	NYISO Zone(s)	Regions Affected	Proposed I/S Date
Energy Link NY Solution 6	1696	I, J	PJM	Jan-33
Energy Link NY Solution 7	1697	I, J	PJM	Jan-33
Energy Link NY Solution 10	1698	I, J	PJM	Jan-33
Five Boro Energy Connect - Mint	1694	E, J	PJM	Jan-33
Energy Link NY Solution 8	1696	I, J	PJM	Jan-33
Energy Link NY Solution 9	1697	I, J	PJM	Jan-33
Five Boro Energy Connect - Sage	1702	J	PJM	Sept-32
Five Boro Energy Connect - Ruby	1703	J	PJM	Sept-32
Five Boro Energy Connect - Rose	1704	J	PJM	Sept-32
Five Boro Energy Connect - Olive	1705	E, J	PJM	Jun-33
Five Boro Energy Connect - Kelly	1706	J	PJM	Aug-33
Five Boro Energy Connect - Hazel	1707	E, J	PJM	Dec-33
Five Boro Energy Connect - Navy	1708	I, J	PJM	Sept-32
Five Boro Energy Connect - Royal	1709	J	PJM	May-33
Five Boro Energy Connect - Golden	1710	E, I, J	PJM	Oct-33
Five Boro Energy Connect - Honey	1711	E, J	PJM	Oct-33
Five Boro Energy Connect - Cobalt	1712	E, J	PJM	Oct-33

NYISO Interconnection Queue Generation Projects with Potential ISO-NE/PJM Impact

Project	Queue Number	NYISO Zone	Affected System(s)	Requested ERIS (MW)	Proposed Initial Backfeed Date
Coral Energy Storage	C24-066	C	PJM	100	Jun-27
Seventy Seven Project	C24-015	C	PJM	100	Oct-29
Salt Rush Wind Energy	C24-016	C	PJM	150	Aug-30
Oakdale Battery Storage LLC	C24-032	C	PJM	150	Mar-30
Basecamp BESS	C24-097	A	PJM	170	Sep-28
Grateful Storage, LLC	C24-050	G	PJM	250	Feb-30
Gemma Energy Storage	C24-060	C	PJM	200	Jun-27
Hemlock Hollow Wind	C24-052-001	A	PJM	95	Jul-29
Maplehurst Energy Park	C24-065	A	PJM	75	Jun-27
Iris Bloom Solar	C24-115	A	PJM	150	Sep-29
Dunkirk Energy Storage	C24-124	A	PJM	100	Oct-28
Crescent Energy Storage	C24-127	A	PJM	75	Oct-28
Lighthouse Energy Storage	C24-074	A	PJM	250	Feb-27
Arch 2	C24-087	G	PJM	150	Oct-28
Braen Energy Storage Phase 1	C24-089	G	PJM	500	Mar-28
Bath Solar	C24-103	C	PJM	185	Apr-28
Grapevine Storage	C24-257	A	PJM	200	Jun-28
Winner Solar	C24-128	C	PJM	120	Jun-28
Willard Storage	C24-148	F	ISO-NE	300	Oct-28
Zenobe Stockton LLC	C24-155	A	PJM	100	Dec-27
Southern Tier Energy Center	C24-182	C	PJM	200	Oct-29
Ball Hill BESS	C24-168	A	PJM	250	Dec-27
Stargazer I	C24-175	A	PJM	325	Jan-29
Stargazer II	C24-176	A	PJM	325	Jan-29
Dewdrop Wind	C24-230	A	PJM	62	Jun-29
Zenobe Harmony LLC	C24-216	A	PJM	100	Jun-28
Zenobe Rotterdam LLC	C24-191	F	ISO-NE	100	Dec-27

NYISO Interconnection Queue Generation Projects with Potential ISO-NE/PJM Impact (Cont.)

Project	Queue Number	NYISO Zone	Affected System(s)	Requested ERIS (MW)	Proposed Initial Backfeed Date
Zenobe Lancaster LLC	C24-213	A	PJM	100	Jun-28
NY Chateaugay 0 Willis Rd Storage	C24-304-004	D	ISO-NE	150	Feb-28
PA-Hockenberry LLC	C24-245	A	PJM	400	Sep-29
Zenobe Wellsville LLC	C24-239	A	PJM	100	Jun-28
Cohocton	C24-224	C	PJM	130	Jul-29
South Dow 2 (Lucy's Energy Reserve 2)	C24-227	A	PJM	125	Dec-27
Shallow Seam BESS	C24-233	C	PJM	400	Sep-28
Van Buren Storage	C24-325	A	PJM	150	Sep-28
Empire	C24-249	A	PJM	60	Nov-28
Berry Farm Storage	C24-264	A	PJM	120	Jan-29
Resilient New York Energy Storage	C24-283	J	PJM	349	Nov-28
Mossy Bank Solar	C24-288	C	PJM	200	Sep-29
Loganberry Energy Storage, LLC	C24-292	A	PJM	150	Jul-30
Hickling Storage, LLC	C24-350	C	PJM	90	Sep-27
Kimberlite Solar	C24-300	C	PJM	175	Sep-28
Moonlight Flats Solar	C24-301	C	PJM	250	Sep-28
Black Cherry Wind 1	C24-298	A	PJM	350	May-29
Black Cherry Wind 2	C24-299	A	PJM	150	May-29
PA-Fritz Kiln LLC	C24-335	A	PJM	300	Sep-29
Black Cherry BESS	C24-309	A	PJM	400	May-29
Southport Solar PV Project	C24-313	C	PJM	42	Sep-28
NS Power Express	631	J	ISO-NE/PJM	1000	May-26
CH Uprate	887	J	ISO-NE/PJM	250	May-26
York Run Solar	1151	A	PJM	90	May-26
Mineral Basin Solar Power	1080	C	PJM	401.64	Oct-27
CPNY-X	1288	E,J	ISO-NE / PJM	1300	Jun-28

NYISO Interconnection Queue Update

- The NYISO opened its Transition Cluster Application Window on August 1, 2024. The deadline to submit an application for the Transition Cluster window was October 15, 2024.
- NYISO is in the Phase 1 portion of the Transition Cluster Study
 - Identification and cost estimate of CTOAFs, Local SUFs, and Distribution Upgrades

Questions



ISO NEW ENGLAND TRANSMISSION AND GENERATION PROJECTS WITH POTENTIAL INTERREGIONAL IMPACTS

Stojan Nikolov – ISO-NE

ISO New England Interconnection Requests that had, are having, or will need Interregional Coordination

Active Projects

QP	Type	Requested	Name	Net MW	ST	OpDate	Interconnection Point	SIS
501	ETU	2/16/2015	HVDC Tie - Import only	1000	VT	12/31/2027	HQ 735 kV substation to VELCO 345 kV Coolidge substation	Yes
639	ETU	4/19/2017	HVDC Tie	1000	ME	01/07/2026	CMP Larrabee Rd 345 kV Substation	Yes
1381	ETU	4/11/2023	1200 MW (+/- 400 kV) HVDC External ETU	1200	NH	07/01/2029	1. In New Hampshire, the point of interconnection is near the old Monroe yard (AC capacitors and reactors and Phase II filters presently reside in this yard). The project will tie into the currently existing Comerford 230 kV substation. 2. The northern section of the project will connect with the Hydro-Quebec system at the US-Canada border near Canaan, Vermont.	No
1513	G	4/08/2024	Battery Storage	408.1	MA	8/30/2028	Bear Swamp- Pratts Junction 230kV	No
1515	G	4/09/2024	Battery Storage	508.39	MA	08/30/2028	Alps-Berkshire 345kV line	No
1561	G	6/06/2024	Battery Storage	141.6	CT	4/01/2027	115 kV line between Rocky River and Bulls Bridge substations	No
1566	G	6/11/2024	Wind	197.39	ME	10/01/2028	Orrington – Albion Road 345kV	No

Questions



PJM GENERATION PROJECTS WITH POTENTIAL INTERREGIONAL IMPACTS

Mojtaba Hoshmand– PJM

PJM Cycle Study Timeline

Interconnection Cycle Study Timeline									
Phase	Transition Cycle #1			Transition Cycle #2			Cycle #1		
	Start Date	End Date	Duration	Start Date	End Date	Duration	Start Date	End Date	Duration
Fast Lane End Date <i>executed by Developer & TO OR filed unexecuted</i>	12/15/2023	4/18/2025							
Application Deadline	N/A	N/A	N/A	12/17/2024	12/17/2024	0	4/24/2026	4/24/2026	0
Application Review	N/A	N/A	N/A	12/18/2024	5/27/2025	161	4/27/2026	7/25/2026	90
Model Posting	2/1/2024	2/1/2024	0	4/28/2025	4/28/2025	0	6/27/2026	6/27/2026	0
Phase 1	1/22/2024	5/21/2024	120	5/28/2025	9/24/2025	120	7/27/2026	11/23/2026	120
DP1	5/22/2024	6/20/2024	30	9/25/2025	10/24/2025	30	11/24/2026	12/23/2026	30
Phase 2	6/21/2024	12/20/2024	182	10/27/2025	4/24/2026	180	12/24/2026	6/21/2027	180
DP2	12/23/2024	1/21/2025	30	4/27/2026	5/26/2026	30	6/22/2027	7/21/2027	30
Phase 3	4/21/2025	8/31/2025	133	5/27/2026	11/22/2026	180	7/22/2027	1/17/2028	180
DP3	9/2/2025	10/1/2025	30	11/23/2026	12/22/2026	30	1/18/2028	2/16/2028	30
Final Agreement	9/2/2025	10/31/2025	60	11/23/2026	1/21/2027	60	1/18/2028	3/17/2028	60

Notes:

- **Transition Cycle #1 Phase 3** cannot formally start until Fast Lane is officially closed out. PJM will begin preparatory work activities for Phase 3 SIS in March 2025.
- **Transition Cycle #2 Phase 1** start date is dependent on Transition Cycle #1 DP2 close, Transition Cycle #2 Review completion and Transition Cycle #2 Model being posted for 30 days
- **Transition Cycle #2 Phase 2** start date is dependent on Transition Cycle #1 DP3 close
- **Transition Cycle #2 Phase 3** start date is dependent on Transition Cycle #1 GIAs executed or filed unexecuted
- **Cycle #1 Phase 1** start date is dependent on Transition Cycle #2 DP2 close, Cycle #1 Review completion and Cycle #1 Model being posted for 30 days
- **Cycle #1 Phase 2** start date is dependent on Transition Cycle #2 DP3 close
- **Cycle #1 Phase 3** start date is dependent on Transition Cycle #2 GIAs executed or filed unexecuted

Legend

Actual date

Projected date

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
Y2-089	Increase to X4-048 (PJM Project) a combined cycle natural gas facility connected at the Lackawanna 230 kV bus	Natural Gas	PPL	1370	370	370	In Service
Y3-092	Merchant transmission project (HVDC) connected at the Erie West 345 kV bus	N/A	PENELEC	1000 MW firm injection; 500 MW firm withdrawal; 500 MW non-firm withdrawal			Withdrawn
AA1-111	Natural gas generating facility along the Moshannon-East Towanda 230 kV line	Natural Gas	PENELEC	463	463	463	Withdrawn
AB1-092	Uprate to the AA1-111 project connected as a tap of the Chapman-Lobo 230 kV line	Natural Gas	PENELEC	504	17	41	Withdrawn
AB1-160	Wind facility uprate to the Z1-069 project tapping the Gold-Sabinsville 115 kV line	Wind	PENELEC	90	3.8	20	In-service
AB1-182	Storage facility connected at the Bear Creek 69kV	Battery/Storage	PPL	20	0	20	Withdrawn
AC2-092	Susquehanna-Lackawanna 500kV	Natural Gas	PPL	1105	65	55	In-service
AD1-108	Grover 34 kV	Natural Gas	PENELEC	21.4	1.5	1.5	In-service
AD1-109	Canton 34.5 kV	Natural Gas	PENELEC	21	1.1	1.1	In-service
AD1-110	North Meshoppen 34.5 kV	Natural Gas	PENELEC	21.4	1.5	1.5	In-service
AD1-142	Milan 34.5 kV	Natural Gas	PENELEC	21	1.1	1.1	In-service
AD2-009	McConnellsburg 138 kV	Solar	APS	70	48.1	70	In-service

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AD2-035	Ontelaunee 230 kV	Natural Gas	METED	630	14	38.9	In-service
AD2-055	Moshannon-East Towanda 230 kV	Natural Gas	PENELEC	548	35	44	Withdrawn
AE1-051	East Carbondale-Lackawanna 69kV	Battery/Storage	PPL	74.5	10	0	Withdrawn
AE1-059	Stanton-Summit 230 kV	Hydro	PPL	200	200	200	Withdrawn
AE1-128	Bedford North-Wills Mounain 115 kV	Solar	PENELEC	120	72	120	Withdrawn
AE1-160	Venango 34.5 kV	Solar	PENELEC	20	12.7	20	Withdrawn
AE2-074	Potter 46 kV	Solar	PENELEC	35	15.11	35	Engineering and Procurement
AE2-113	Farmers Valley-Ridgeway 115 kV	Solar	APS	120	61.9	120	Engineering and Procurement
AE2-126	Dubois-Curwensville 34.5 kV	Solar	PENELEC	20	12	20	In Service
AE2-139	East Towanda-Grover 230 kV	Solar	PENELEC	100.5	60.3	100.5	Engineering and Procurement
AE2-224	Bearrock-Johnstown 230 kV	Solar	PENELEC	100	60	100	In Service
AE2-249	Bedford North-Pennsylvania Hollow 23 kV	Solar	PENELEC	16.6	9.96	16.6	Withdrawn
AE2-299	Erie East 230 kV	Battery/Storage	PENELEC	160	32	160	Suspended
AE2-344	Edinboro South-Venango Junction 115 kV	Solar	PENELEC	116.5	69.9	116.5	Suspended

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AF1-043	Moshannon-East Towanda 230 kV	Natural Gas	PENELEC	640	105	92	Withdrawn
AF1-006	Fairview East 34.5 kV	Solar	PENELEC	20	12.8	20	In Service
AF1-177	Warren 115 kV	Natural Gas	PENELEC	62	5	5	In-service
AF1-170	Springboro-Venango Junction 115 kV	Solar	PENELEC	77.5	46.5	77.5	Withdrawn
AF1-198	Blossburg #1 CT 34.5 kV	Natural Gas	PENELEC	22.5	2.5	2.5	In Service
AF1-277	Lewis Run-Pierce Brook 2 230 kV	Solar	PENELEC	200	67	100	Withdrawn
AF1-103	Warren 34.5 kV	Solar and Battery	PENELEC	20	20	20	Withdrawn
AF1-106	East Sayre 34.5 kV	Solar and Battery	PENELEC	20	20	20	Engineering and Procurement
AF1-104	Erie West 34.5 kV	Solar and Battery	PENELEC	20	20	20	Withdrawn
AF1-286	East Sayre 34.5 kV II	Solar	PENELEC	13.6	5	13.6	Withdrawn
AF1-287	Edinboro South 34.5 kV II	Solar	PENELEC	20	12	20	Suspended
AF1-304	Titusville-Grandview 115 kV	Solar and Battery	PENELEC	100	60	100	Withdrawn

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AF1-306	Squab Hollow 230 kV	Battery	APS	197.2	49.3	197.2	Withdrawn
AF1-278	Lewis Run-Pierce Brook 3 230 kV	Solar	PENELEC	280	53.44	80	Withdrawn
AF1-094	Union City-Cambridge Springs 34.5 kV	Solar	PENELEC	20	12	20	Engineering and Procurement
AF1-096	Titusville-Oil Creek 34.5 kV	Solar	PENELEC	20	12	20	Withdrawn
AF1-098	Four Mile Jct-Corry East 115 kV	Solar	PENELEC	80	48	80	Engineering and Procurement
AF1-276	Lewis Run-Pierce Brook 230 kV	Solar	PENELEC	100	67	100	Withdrawn
AF1-217	Edinboro -Cambridge Springs 34.5 kV	Solar	PENELEC	20	12	20	Engineering and Procurement
AF2-197	East Towanda 115 kV	Storage	PENELEC	100.8	40.32	100.8	Withdrawn
AF2-235	Titusville-Oil Creek 34.5 kV	Solar	PENELEC	30	6	10	Engineering and Procurement
AF2-265	South Troy-Athens 34.5 kV	Solar	PENELEC	15	8.6	15	Withdrawn
AF2-282	Edelle 12.47 kV	Solar; Storage	PPL	3	0	3	Withdrawn

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AF2-283	Greenfield 12.47 kV	Solar; Storage	PPL	2	0	2	Withdrawn
AF2-285	W. Damascus 12.47 kV	Solar; Storage	PPL	3	0	3	Withdrawn
AF2-294	Thompson 34.5 kV	Solar	PENELEC	17	10.2	17	Suspended
AF2-405	East Sayre 34.5 kV III	Storage	PENELEC	10	10	10	Withdrawn
AF2-406	Sayre 115 kV	Storage	PENELEC	75	75	75	Withdrawn
AF2-412	Mainesburg 115 kV	Storage	PENELEC	100	100	100	Withdrawn
AF2-417	West Damascus Tap-West Damascus 69 kV	Solar	PPL	20	12	20	Engineering and Procurement
AF2-436	Wyalusing 34.5 kV II	Natural Gas	PENELEC	21.4	1.5	1.5	In Service
AF2-437	Oxbow 34.5 kV III	Natural Gas	PENELEC	21.4	1.5	1.5	In Service

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AG1-040	Morgan Street-Mount Hope 34.5 kV	Solar	Penelec	20	12	20	Engineering and Procurement
AG1-100	Venango-Saegertown 34.5 kV	Solar	Penelec	20	12	20	Engineering and Procurement
AG1-140	Union City 34.5 kV	Solar	Penelec	2.6	1.7	2.6	Suspended
AG1-156	Jack Frost-Lake Harmony 69 kV	Solar	PPL	60	39.5	60	Engineering and Procurement
AG1-197	Morgan Street-Cochranon 34.5 kV	Solar	Penelec	15	9	15	Engineering and Procurement
AG1-198	Union City 34.5 kV	Solar	Penelec	12	7.2	12	Engineering and Procurement
AG1-202	Springboro 12.47 kV	Solar	Penelec	10	6.6	10	Withdrawn
AG1-206	Snyder Twp 34.5 kV	Solar	Penelec	10	6.5	10	Withdrawn
AG1-253	Erie East-Union City 34.5 kV	Solar	Penelec	4	2.7	4	Suspended
AG1-303	Geneva 115 kV	Solar	Penelec	44	26.4	44	Withdrawn

PJM QUEUE PROJECTS JOINTLY COORDINATED WITH NYISO AND ISO-NE

Queue ID	Project Description	Fuel Type	Transmission Zones	Total Facility	Capacity Value (MW)	Energy Value (MW)	Project Status
AG1-392	Gold 115 kV I	Solar	Penelec	40	24	40	Withdrawn
AG1-392A	Gold 115 kV II	Solar	Penelec	80	24	40	Withdrawn
AG1-392B	Gold 115 kV III	Solar	Penelec	100	12	20	Withdrawn
AG1-392C	Gold 115 kV IV	Solar	Penelec	120	12	20	Withdrawn
AG1-455	Springboro-Venango Junction 115 kV	Storage	Penelec	112.5	35	35	Withdrawn

Questions

