

Queue Interconnection Studies of Projects Potentially Affecting Neighboring Systems

IPSAC WebEx

Supriya Tawde

SENIOR PLANNING ENGINEER, NYISO



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/services-requests/interconnection-queues.aspx>
- Several projects will now be discussed with the IPSAC
 - Slides show the effective date of April 1, 2022 for every ISO/RTO Queue
 - Changes from the December 10, 2021 IPSAC meeting are shown in red

NYISO TRANSMISSION AND GENERATION PROJECTS WITH POTENTIAL INTERREGIONAL IMPACTS

Supriya Tawde – NYISO

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

Transmission Project	Queue Number(s)	Zone(s)	Regions Affected	Proposed I/S Date
Grand Isle Intertie Development	386	D	ISO-NE	12/2023
Empire State Connector HVDC	506	E, J	ISO-NE / PJM	10/2025
AVANGRID Connect NY Edic – PV	540	E, G	ISO-NE / PJM	12/2020
AVANGRID Connect NY Edic – Ramapo	541	E, G	ISO-NE / PJM	12/2020
National Grid Segment B Knickerbocker-PV	543	F, G	ISO-NE / PJM	12/2023
LS Power Segment A Double Circuit	556	E, F	ISO-NE / PJM	06/2022
NS Power Express	631	J	ISO-NE/PJM	10/2026
GridAmerica Holdings Alps - Berkshire	632	F	ISO-NE	09/2021
Renovo Energy Center	654	C	PJM	12/2024
ITC Lake Erie Connector	684	A	PJM	03/2024
CH Uprate	887	J	ISO-NE/PJM	10/2026
Empire State Connector II	1001	E, J	ISO-NE/PJM	10/2025
Barrett Ridge Energy - PARs	1013	G	PJM	04/2024
Catskills Renewable Connector	1120	F, J	ISO-NE / PJM	06/2026
Werner - Ravenswood	1121	J	ISO-NE / PJM	12/2026
Northern New York Priority Transmission Project (NNYPTP)	1125	D, E	ISO-NE	12/2025
Excelsior Connect - Edic to Rainey	1131	E, J	ISO-NE / PJM	10/2025
Excelsior Connect – Edic to Farragut	1132	E, J	ISO-NE / PJM	WITHDRAWN
New Scotland Interconnection	1155	F, J	ISO-NE / PJM	12/2025
CPNY	1167	E, J	ISO-NE / PJM	06/2026
CPNY-MH	1168	E, J	ISO-NE / PJM	WITHDRAWN
Bowline to West 49th Street	1170	G, J	ISO-NE / PJM	WITHDRAWN

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

Transmission Project	Queue Number(s)	Zone(s)	Regions Affected	Proposed I/S Date
NY Interconnection 2	1206	J	PJM	06/2027
NY Interconnection 1	1207	J	PJM	06/2027
Atlantic Gateway	1271	H, K	ISO-NE / PJM	12/2026
Downstate Clean Powerlink	1273	I,J,K	ISO-NE / PJM	12/2028
Propel NY Energy - Base Solution 2	1274	I,J,K	ISO-NE / PJM	12/2028
Propel NY Energy - Base Solution 4	1275	J, K	ISO-NE / PJM	12/2028
Propel NY Energy - Base Solution 1	1276	I,J,K	ISO-NE / PJM	12/2028
Propel NY Energy - Base Solution 3	1277	I,J,K	ISO-NE / PJM	12/2028
New York Renewable Connect - Core 1	1278	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 2	1279	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 3	1280	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 4	1281	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 5	1282	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 6	1283	I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Core 7	1284	H,I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Enhanced 1	1285	H,I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Enhanced 2	1286	G,H,I,J,K	ISO-NE / PJM	12/2030
New York Renewable Connect - Plus 3	1287	I,J,K	ISO-NE / PJM	12/2030
CPNY-X	1288	E,J	ISO-NE / PJM	12/2026
Propel NY Energy - Alternate Solution 5	1289	I,J,K	ISO-NE / PJM	12/2028
Propel NY Energy - Alternate Solution 6	1290	I,J,K	ISO-NE / PJM	12/2030
Propel NY Energy - Alternate Solution 7	1291	I,J,K	ISO-NE / PJM	12/2030

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

Generation Project	Queue Number(s)	Zone(s)	Regions Affected	Proposed I/S Date	MW
Invenergy Alle Cat II Wind	596	A	PJM	02/2023	339
Liberty Generating Alternative	668	J	PJM	12/2024	1171
Renovo Energy Center Uprate	693	C	PJM	04/2023	515
EDF Renewables Genesee Road Solar Energy Center	858	A	PJM	09/2024	350
Empire Solar	954	A	PJM	08/2023	158
Renewable Energy Aggregators, Inc. - Mifflin	1004	E	PJM	01/2024	300
Vineyard Wind I	1010	K	ISO NE	07/2026	1400
Vineyard Wind II	1011	K	ISO NE	07/2026	1400
South Ripley-BESS	1014	A	PJM	WITHDRAWN	29
Equinor Wind US - El Fort Salonga	1020	K	ISO NE	12/2026	1300
Equinor Wind US - El East Shoreham	1021	K	ISO NE	12/2026	1300
Equinor Wind US - El Glenwood Landing	1022	K	ISO-NE	12/2026	1300
Juno Power Management - Mainesburg ESS <i>(Energy Storage Project Located in PJM)</i>	1036	C	PJM	10/2023	300
Juno Power Management - East Sayre ESS <i>(Energy Storage Project Located in PJM)</i>	1037	C	PJM	02/2022	75
Fort Edward Solar Farm (NY53)	1042	F	ISO-NE	10/2024	100
Bay State Wind - NY Wind - Pilgrim	1058	K	ISO-NE	01/2026	1275
Mineral Basin Solar Power <i>(Energy Storage Project Located in PJM)</i>	1080	C	PJM	01/2023	400
SED NY Holdings LLC - Kingbird Solar	1098	A	PJM	10/2022	20

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

Generation Project	Queue Number(s)	Zone(s)	Regions Affected	Proposed I/S Date	MW
Ray Solar, LLC	1100	F	ISO-NE	04/2024	20
Chestertown-BESS	1101	F	ISO-NE	WITHDRAWN	20
Bangor Solar	1108	D	ISO-NE	11/2023	107
CLIES 10MW	1112	K	ISO-NE	04/2022	10
CLIES 20 MW	1113	K	ISO-NE	04/2022	20
Wading River Energy Center	1114	K	ISO-NE / PJM	09/2023	50
Flat Creek Solar 2	1115	F	ISO-NE	08/2024	100
CLIES 70MW	1117	K	ISO-NE / PJM	09/2024	70
Fuller Storage	1119	G	ISO-NE / PJM	06/2023	20
KCE NY 29	1123	K	ISO-NE / PJM	09/2024	150
Allegany 2 Battery 2	1128	C	PJM	07/2023	20
Wintergreen Solar	1138	F	ISO-NE	06/2024	75
Taproot Solar	1140	E	ISO-NE	06/2024	205
Minerva BESS I	1142	J	ISO-NE / PJM	03/2021	600
Minerva Power Connection LLC	1143	J	ISO-NE / PJM	WITHDRAWN	600
Champlain Solar	1146	F	ISO-NE	08/2024	100
Wawayanda Solar	1147	G	PJM	02/2023	20
York Run Solar	1151	A	PJM	09/2024	90
Arcade Solar	1160	A	ISO NE	08/2024	75
Oakdale Energy Center	1177	C	PJM	03/2025	200
OW Ocean Winds East 4	1190	J	PJM	09/2029	1600
OW Ocean Winds East 6	1192	J	PJM	09/2029	1600

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

Generation Project	Queue Number(s)	Zone(s)	Regions Affected	Proposed I/S Date	MW
Stern Solar	1198	F	ISO-NE	07/2024	20
Brunswick Energy Storage	1262	J	PJM	WITHDRAWN	150
AGR NY-1	1330	J	PJM	12/2028	1600
AGR NY-2	1332	J	PJM	12/2028	1600

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
592	G	1/21/2016	Pumped Storage Upgrade	66	MA	05/31/2022	GRID 230 kV Bear Swamp substation	Yes
639	ETU	4/19/2017	HVDC Tie	1000	ME	12/13/2023	CMP Larrabee Rd 345 kV Substation	Yes
930	G	10/17/2019	Power Station Increase	1262	CT	05/13/2022	Eversource's Millstone 345 KV switchyard (15G)	Yes
1093	ETU	02/24/2021	NB TA#1365950 HVDC	0	NB	01/01/2030	Salisbury, New Brunswick	No

QP is Queue Position; ETU is Elective Transmission Upgrade; G is Generator; SIS: Yes means report available, No means system impact study is not complete and no report is available

PJM TRANSMISSION AND GENERATION PROJECTS WITH POTENTIAL INTERREGIONAL IMPACTS

Zach Van Ness— PJM

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 Lackawana 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			Suspended – ISA signed
AA1-111	Natural gas generating facility along the Moshannon-East Towanda 230 kV line	Natural Gas	PENELEC	463	463	463	Suspended – ISA signed
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	Suspended – ISA signed
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	Suspended – ISA signed
AC2-092	Susquehanna-Lackawanna 500kV	Natural Gas	PPL	1105	65	55	Engineering and Procurement
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	Engineering and Procurement

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	Suspended – ISA signed
AE1-051	East Carbondale-Lackawanna 69kV	Battery/Storage	PPL	74.5	10	0	Facilities Study
AE1-059	Stanton-Summit 230 kV	Hydro	PPL	500	250	500	Facilities Study
AE1-128	Bedford North-Wills Mounain 115 kV	Solar	PENELEC	120	72	120	Facilities Study
AE1-160	Venango 34.5 kV	Solar	PENELEC	20	12.7	20	Engineering and Procurement
AE2-074	Potter 46 kV	Solar	PENELEC	35	15.11	35	Facilities Study
AE2-113	Farmers Valley-Ridgeway 115 kV	Solar	APS	130	62.6	130	Facilities Study
AE2-126	Dubois-Curwensville 34.5 kV	Solar	PENELEC	20	12	20	Engineering and Procurement
AE2-139	East Towanda-Grover 230 kV	Solar	PENELEC	100.5	60.3	100.5	SIS
AE2-224	Bearrock-Johnstown 230 kV	Solar	PENELEC	100	60	100	Engineering and Procurement
AE2-249	Bedford North-Pennsylvania Hollow 23 kV	Solar	PENELEC	13.5	8.1	13.5	Suspended – ISA signed
AE2-299	Erie East 230 kV	Battery/Storage	PENELEC	160	32	160	Facilities Study
AE2-344	Edinboro South-Venango Junction 115 kV	Solar	PENELEC	116.5	69.9	116.5	Facilities Study

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	SIS
AF1-006	Fairview East 34.5 kV	Solar	PENELEC	20	12.8	20	Engineering and Procurement
AF1-177	Warren 115 kV	Natural Gas	PENELEC	62	5	5	Partially in service / under construction
AF1-170	Springboro-Venango Junction 115 kV	Solar	PENELEC	77.5	46.5	77.5	Facilities Study
AF1-198	Blossburg #1 CT 34.5 kV	Natural Gas	PENELEC	22.5	2.5	2.5	Partially in service / under construction
AF1-277	Lewis Run-Pierce Brook 2 230 kV	Solar	PENELEC	200	67	100	SIS
AF1-103	Warren 34.5 kV	Solar and Battery	PENELEC	20	20	20	Facilities Study
AF1-106	East Sayre 34.5 kV	Solar and Battery	PENELEC	20	20	20	Facilities Study
AF1-104	Erie West 34.5 kV	Solar and Battery	PENELEC	20	20	20	Facilities Study
AF1-286	East Sayre 34.5 kV II	Solar	PENELEC	13.6	8.1	13.6	Facilities Study
AF1-287	Edinboro South 34.5 kV II	Solar	PENELEC	20	12	20	Engineering and Procurement
AF1-304	Titusville-Grandview 115 kV	Solar and Battery	PENELEC	100	60	100	Facilities Study

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	246.5	49.3	246.5	SIS
AF1-278	Lewis Run-Pierce Brook 3 230 kV	Solar	PENELEC	280	53.44	80	SIS
AF1-094	Union City-Cambridge Springs 34.5 kV	Solar	PENELEC	20	12	20	Facilities Study
AF1-096	Titusville-Oil Creek 34.5 kV	Solar	PENELEC	20	12	20	Facilities Study
AF1-098	Four Mile Jct-Corry East 115 kV	Solar	PENELEC	80	48	80	Facilities Study
AF1-276	Lewis Run-Pierce Brook 230 kV	Solar	PENELEC	100	67	100	SIS
AF1-217	Edinboro -Cambridge Springs 34.5 kV	Solar	PENELEC	20	12	20	Suspended
AF2-010	Union City-Titusville 115 kV	Solar	PENELEC	77	46	77	Facilities Study
AF2-197	East Towanda 115 kV	Storage	PENELEC	100.8	40.32	100.8	SIS
AF2-235	Titusville-Oil Creek 34.5 kV	Solar	PENELEC	30	6	10	Facilities Study
AF2-265	South Troy-Athens 34.5 kV	Solar	PENELEC	15	8.6	15	Engineering and Procurement
AF2-282	Edelle 12.47 kV	Solar; Storage	PPL	3	0	3	Engineering and Procurement

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	Engineering and Procurement
AF2-285	W. Damascus 12.47 kV	Solar; Storage	PPL	3	0	3	Engineering and Procurement
AF2-294	Thompson 34.5 kV	Solar	PENELEC	20	12	20	Facilities Study
AF2-405	East Sayre 34.5 kV III	Storage	PENELEC	10	10	10	Facilities Study
AF2-406	Sayre 115 kV	Storage	PENELEC	75	75	75	SIS
AF2-412	Mainesburg 115 kV	Storage	PENELEC	130	130	130	SIS
AF2-417	West Damascus Tap-West Damascus 69 kV	Solar	PPL	20	12	20	Facilities Study
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	Facilities Study
AG1-100	Venango-Saegertown 34.5 kV	Solar	Penelec	20	12	20	Facilities Study
AG1-140	Union City 34.5 kV	Solar	Penelec	2.6	1.7	2.6	Engineering and Procurement
AG1-156	Jack Frost-Lake Harmony 69 kV	Solar	PPL	60	39.5	60	Facilities Study
AG1-197	Morgan Street-Cochranton 34.5 kV	Solar	Penelec	15	9	15	Engineering and Procurement
AG1-198	Union City 34.5 kV	Solar	Penelec	12	7.2	12	Facilities Study
AG1-202	Springboro 12.47 kV	Solar	Penelec	10	6.6	10	Facilities Study
AG1-206	Snyder Twp 34.5 kV	Solar	Penelec	10	6.5	10	SIS
AG1-253	Erie East-Union City 34.5 kV	Solar	Penelec	4	2.7	4	Engineering and Procurement
AG1-303	Geneva 115 kV	Solar	Penelec	44	26.4	44	Facilities Study

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	SIS
AG1-392A	Gold 115 kV II	Solar	Penelec	40	24	40	SIS
AG1-392B	Gold 115 kV III	Solar	Penelec	20	12	20	SIS
AG1-392C	Gold 115 kV IV	Solar	Penelec	20	12	20	SIS
AG1-455	Springboro-Venango Junction 115 kV	Storage	Penelec	112.5	35	35	SIS
AG1-548	Erie South-Union City 115 kV	Solar/Storage	Penelec	150	115	150	SIS

Questions

