



SUMMER PREPARATION 2023

May 10, 2023



TRANSMISSION & DISTRIBUTION

2

T&D CAPITAL PROJECTS

Major projects completed or expected to complete for summer 2023:

- **Transmission System Installations/Upgrades**
 - Arverne to Far Rockaway New 33 kV Underground Circuit
 - Upgrade splices on Greenlawn to Elwood 69 kV Circuit
 - Flowerfield to Terryville New 69kV Underground Circuit
 - Backfeed for South Fork Wind Farm at East Hampton Substation
- **Substation Installations/Upgrades**
 - Pilgrim – 69kV Bus Reconfiguration
 - Rockaway Beach – Install 28 MVA bank and switchgear
 - Barrett – Install 33 MVA bank and switchgear
 - Brooklyn Ave (New Substation) –Install one 33 MVA bank and switchgear
 - Glenwood – Replace 138/69 kV Bank #6
 - East End - Complete planned phases of summer 33kV configuration at Buell, Amagansett, Navy Rd, Culloden Pt, and Hero substations
- **Distribution System Installations/Upgrades**
 - Brightwaters substation – three new 13 kV feeders installed
 - Navy Road substation – three new 13 kV feeders installed
 - Barrett – Install two new 13 kV feeders (associated with Bay Park Sewage treatment plant)
 - Bridgehampton – Install two new 13 kV feeders
 - Brooklyn Ave – Install two new 13kV feeders
 - Suffolkaire – Install one new 13 kV feeder
 - Garden City and Broadway – Feeder upgrades

T&D MAINTENANCE

Scheduled work scope to be completed prior to summer period:

- Inspect 1597 capacitor banks and make repairs by June 30
- Trim 100% of 2023 transmission circuit mileage plan
- Trim 50% of 2023 distribution circuit mileage plan
- Perform thermographic analysis of critical substation facilities
- Make reliability improvements to prioritized circuits
- Install and commission 95 new ASUV smart switches
- Patrol and repair of critical items on 50 circuits over 200 miles of mainline
- Patrol and repair of substandard conditions on 115 poor performing branch taps
- System upgrades to 27 pockets of poor performance
- Commissioning of 10 Automatic Circuit Reclosers
- Complete pre-summer substation equipment maintenance as required

T&D CAPITAL PROJECTS WITH DELAYS

- New 33 MVA bank at Bridgehampton will not be in service for summer 2023 due to the delay in receiving the control panel for the project
- Mitigation measures are available to support the forecasted load at the substation under outage conditions

T&D — OTHER ACTIONS

Interties

- Y-49 Intertie Outage: On October 1, 2022 the 345kV AC interconnection Y-49 cable (Sprainbrook, Con Edison – East Garden City, LIPA) was taken out of service to replace the land portion of the cable between LIPA's East Garden City and South Transition substations. This project is currently on track to return to service on June 1, 2023.
- Neptune DC Tie: On September 2, 2020 the 345/138 kV 5M Newbridge Rd Bank 1 failed. Replacement bank was put in service and made available to the system on July 19, 2022 which restored Neptune to full capacity of 660MW.
- Y-50 Intertie: The 345kV AC interconnection Y-50 cable (Dunwoodie, Con Edison – Shore Rd, LIPA) cable had experienced four oil leaks since May 1, 2022 within Con Ed's territory and were mitigated. PSEG Long Island has held several discussions with Con-Edison regarding the reliability of the Y50 cable. Con-Edison has taken some steps to improve the reliability of this cable.

Major Transmission

- Northport to Elwood 138-681 pipe type cable failed on December 5, 2022, reducing the power transfer capability out of Northport substation by 287 MW. The cable is back in service on April 27, 2023.
- Barrett to Valley Stream 138-292 pipe type cable circuit had an oil leak due to a Town of Hempstead DPW contact case and the cable suffered from water intrusion on January 11, 2023. Pipe repairs and reconductoring efforts are currently underway to restore the circuit with the expected in-service date on July 15, 2023. This circuit reduces Barrett generation exit capability by approximately 112 MW.

T&D — OTHER ACTIONS

Generation

- West Babylon GT & Glenwood GT1 are available to support under emergency conditions for summer 2023.
- Northport Unit #4 Generator Step-Up (GSU): A project is currently in-flight to replace the unit with a system spare, and is expected to be available to the system with full capacity by June 23, 2023.
- Northport APG and Port Jeff APG is not available as of May 1, 2023 to comply with the DEC peaker rule. These units will be available for emergency blackstart support only.

Mobile Transformers

- Mobile bank will be available at 9Z Amagansett to support East of Buell 33kV conversion.

T&D STORM RESTORATION — TRAININGS/DRILLS

2023 MAJOR EMERGENCY RESPONSE DRILLS	WHEN
Restoration Contingency Functional Exercises (16 total)	Dec 2022 – April 2023
Alternate Control Center Drill	May 11, 2023
Emergency Capacity (Load Shedding) Event Table Top Exercise	May 2023
Annual Hurricane Tabletop Exercise	June 22, 2023
Restoration Flooding Exercise	Oct – Dec 2023
Annual Division PRC Operation Exercises: (2) Primary Control personnel	June 2023
Annual Dispatch Area Operation Exercises: (4) Division Leadership, Damage Assessment Coordination & Dispatch, and Primary Control	June 2023
Annual Division Operation Exercises: (8) Dispatch Area Leadership, Coordination and Dispatch personnel	June 2023
Situation Status and Documentation Unit Table Top Exercise – Planning Section	September 2023
Customer Communications Drill	July - Sept 2023
TRAINING	WHEN
Damage Assessment (Field Survey Personnel) Initial & Refresher Training	May – October 2023
ETR Training (E-Learning)	June 2023
Operational Refresher Training: Primary Control Damage Assessment Coordination Decentralized Dispatch	May – June 2023
Customer Communications Training	July-Sept 2023
Crew Guide Training	June – Aug 2023



POWER SUPPLY

POWER SUPPLY — STEAM UNITS

Northport Units No. 1-4

- Routine Maintenance - all units
- Unit 1: Generator Exciter Cooler Replacement
- Unit 2: Digital Control System Software Control Upgrade
- Unit 4: Main Transformer Replacement ongoing, Stack Refurbishment

E.F. Barrett Units No.1-2

- Routine Maintenance – all units
- Unit 2: Economizer Header replacement

Port Jeff Units 3-4

- Routine Maintenance
- Unit 4: Turbine/Generator Major Overhaul

POWER SUPPLY — OTHER UNITS

Combustion Turbines

- Annual routine maintenance for the fleet will be completed prior to Jun 1st
- Port Jefferson GT2: Generator Rotor Removal/Installation/Commissioning completed

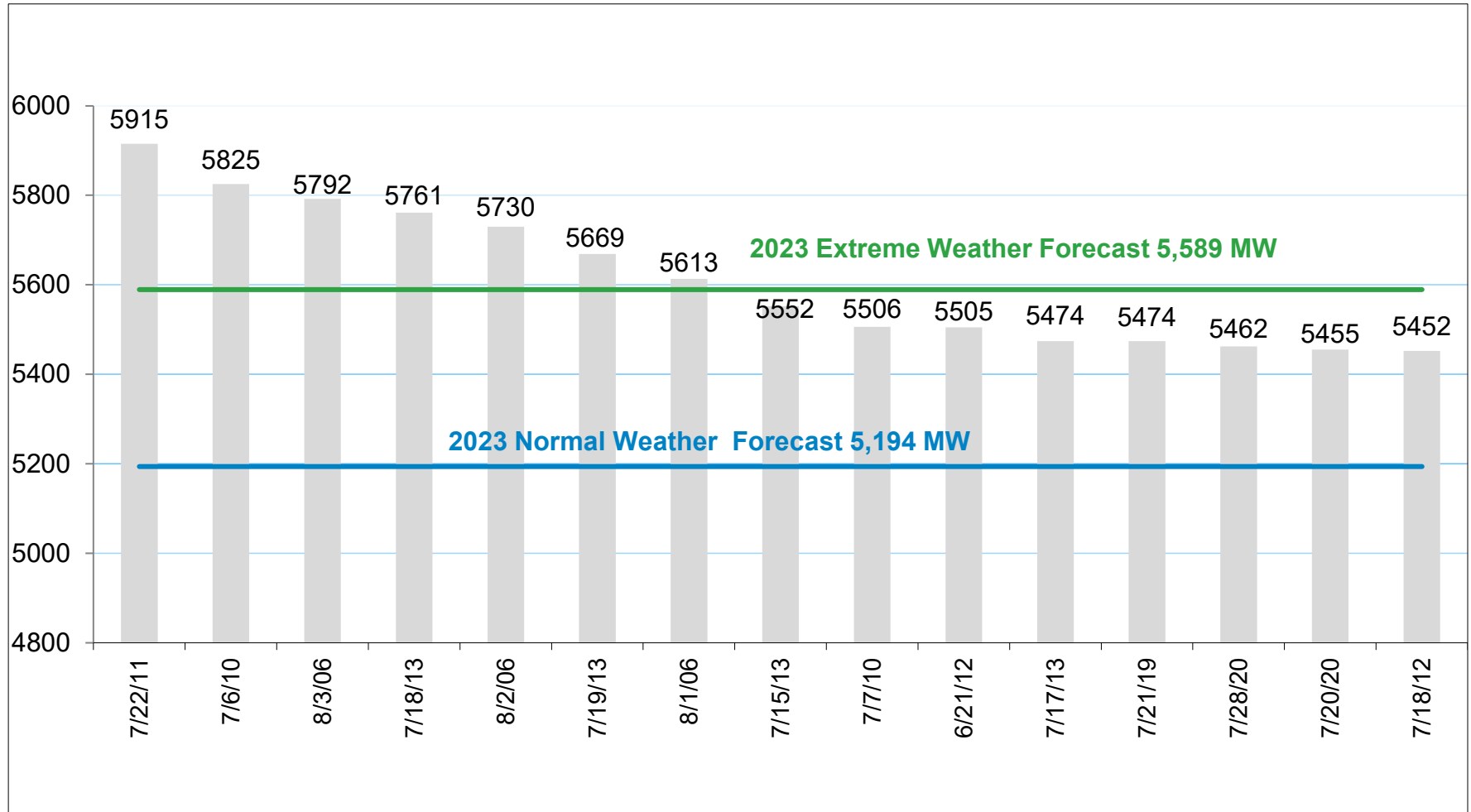
Balance of Long Island Fleet

- All units will have undergone maintenance, inspections, and repairs as required
- Commissioning of GT spray mist evaporative cooling system at Edgewood and Shoreham sites
- All other units are expected to be available for summer 2023 including Neptune and Cross Sound Cable

Other Actions

- Selected generating units converted from Kerosene to # 2 oil operation thereby improving the fuel reliability of the fleet

15 HIGHEST LONG ISLAND CONTROL AREA LOADS



LONG ISLAND CONTROL AREA MARGINS

System Demand & Capability (MW)

	Base	Extreme Weather
Generation	4,722	4,702
Inter-ties	2,117	2,117
Total Supply	6,839	6,819
Peak Load	5,194	5,589
Load Reduction + Load Modifiers ¹	-138	-138
Net Load	5,056	5,451
Margin	1,783	1,368

System Margins & Contingencies

- Sufficient margins exist for all major contingencies under 2023 forecast
- Operating procedures will be implemented, as required, to maintain system reliability during both normal and extreme weather conditions



Discussion

Questions?