



Summer Preparation 2021

LIPA Board



May 19, 2021

Power Supply Summer Preparation - National Grid Fleet

Maintenance Activities

Steam Units

- Northport No. 1, 2, 3 & 4
 - Routine Maintenance - all units
 - Unit 2: Major Overhaul; Installed 316b upgrades
 - Unit 3: Turbine inspection
- E.F. Barrett Unit No.1 & 2
 - Routine Maintenance – all units
 - Unit 1: Completed Periodic Overhaul, Upgraded Economizer tube bank, West side air heater cold end baskets, Fuel oil burner isolation valves
 - Unit 2: Upgraded air heater expansion joints, Fuel oil burner isolation valves
- Port Jeff Unit 3 & 4
 - Routine Maintenance

Unit Status

Steam Units

- All steam units (except Port Jeff Unit 4) expected to return from maintenance outages to full operation by June 1, 2021. Port Jeff Unit 4 will be available starting June 4.

Power Supply Summer Preparation - National Grid Fleet

Maintenance Activities

Combustion Turbines

- Annual routine maintenance has been completed
- Some additional work which was performed included but not limited to:
 - Barrett Units 9A & 10A: Stack replacements
 - Barret 3: Rotor life extension
 - Barrett 5: Turbine nozzle replacement 1st and 2nd stage
 - Barrett Jet Engines: 4 overhauls/repair, 2 hot section inspections, 2 turbine overhauls
 - Holtsville: 8 and 10 A Engine Hot section inspections
 - East Hampton Diesels: Modified exhaust manifold installations
- Glenwood and Port Jefferson Energy Centers:
 - Glenwood Unit # 5 Failure: Repair High Pressure Compressor section & High and Low Pressure Turbine sections by 05/31
 - Port Jeff Unit # 3 Failure: Install leased engine by 05/31
 - Glenwood #4 and Port Jeff #2: Completed HPC 3-5 blade replacements

Unit Status

Combustion Turbines

- All Combustion Turbine units expected to return from maintenance outages to full operation by June 1, 2021

Power Supply Summer Preparation - Balance of Long Island Fleet

Maintenance Activities

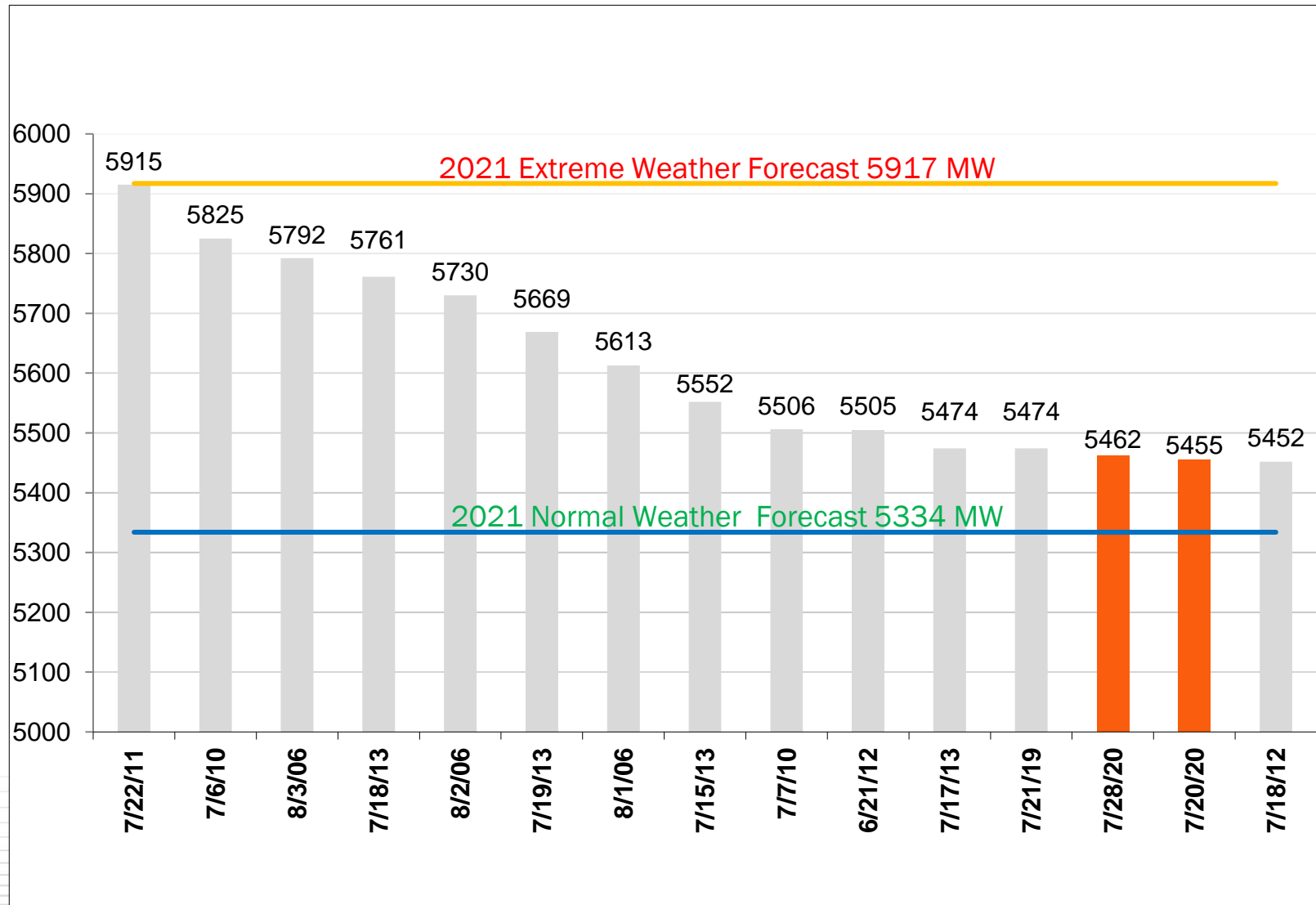
Balance of Long Island Fleet

- All units have undergone or will be going maintenance, inspections and repairs as required
- Greenport:
 - Hot section Inspection on both GTA and GTB
 - Rebuild of FT8 including certain blades, rotatables and recommended service bulletins
 - Routine Preventive Maintenance

Status

- Edgewood GT2 will be back from Summer prep by June 4, 2021
- NYPA Flynn unit won't be available for summer 2021 due to an internal fault
- Neptune Intertie is derated to 375 MW due to the transformer failure at Newbridge. New transformer is expected to be delivered by end of 2021 and installed by Q1 2022
- All other facilities (including Cross Sound) will be finishing their summer prep and will be fully operational by June 1, 2021

15 Highest Long Island Control Area Loads



Long Island Control Area 2020 vs. 2021

System Demand & Capability

DEMAND (MW)

	<u>2020</u> Forecast	<u>2021</u> Forecast
LICA Peak Load	5,347	5,334
Extreme Weather Load Addition	623	583
Total LI Extreme Weather Load	5,970	5,917
Load Modifiers	-100	-73
Load Reduction Programs	-26	-16
Net LI Extreme Weather Load	5,843	5,828

Power Capability Margin (MW)

	<u>2020</u> Forecast	<u>2021</u> Forecast
Normal Weather	1,690	1,254
Extreme Weather (1 in 30 year)	1,194	760

CAPABILITY (MW)

TRANSMISSION OPERATION

	<u>2020</u> Forecast	<u>2021</u> Forecast
Total Long Island Generation	4,920	4,756
NYISO Import	927	927
ISO-NE Import	530	530
PJM Import (Neptune)	660	375
Total LI	7,037	6,588

New York ISO Requirements (UCAP MW)

	<u>2020</u> Forecast	<u>2021</u> Forecast
Long Island Forecast Peak Load	5,228	5,248
Long Island Locality Requirement (%)	96.3%	97.9%
Long Island Locality Requirement (MW)	5,031	5,136
Total Long Island Capacity (MW)	5,656	5,548
Capacity Margin (MW)	625	412

System Margins & Contingencies

- Sufficient margins exist for all major contingencies under 2021 forecast
- The above margin assumes Y49 in service at a capability of 637 MW. Should the feeder become unavailable sufficient margin is available by implementing emergency procedures that allow the use of Glenwood and West Babylon units as well as emergency imports from neighboring utilities

T&D System Summer Preparation – Capital

Major projects completed since last summer :

- **Transmission System Installations/Upgrades**
 - New East Garden City to Valley Stream 138 kV cable
 - New Riverhead to Canal 138kV Cable & Transformer
 - Riverhead to Wildwood; Upgraded 69 kV circuit to 138 kV scheduled to be completed June 2021
- **Substation Installations/Upgrades**
 - Belmont: Installed second transformer, switchgear and feeders
 - Flowerfield: Replaced 2 banks and associated distribution
 - Lindbergh: Installed transformers, switchgear and feeders
 - Roslyn: Install transformer, switchgear & feeders (June 2021)
 - Ronkonkoma: Replaced switchgear
 - Far Rockaway: Replace one 14 MVA bank with 33 MVA (June 2021)
 - Culloden Pt: Replaced one 14 MVA bank with 33 MVA bank
 - Fire Island Pines: Replaced Metal Clad Switchgear
 - Reconfigured 2WB Barrett 33kV Bus
- **Distribution System Installations/Upgrades**
 - Kings Point: 4kV to 13kV conversion
 - Massapequa: Overhead reconductoring
 - North Hills: Overhead reconductoring
 - Mitchel Garden: Overhead reconductoring
 - Rockaway Beach: New feeder & 4kV to 13kV conversion (June 2021)
 - Lake Success: Overhead reconductoring

T&D System Summer Preparation – Capital Projects W/Delays

Project Delays:

- Northport Phase Shifter - Replacement of LTC controls delayed from June to December 2021 due to manufacturer (ABB) travel restrictions associated with COVID-19

T&D System Summer Preparation – Maintenance

- Scheduled Work Scope to be Completed Prior to Summer Period
 - Inspect 1629 capacitor banks and make repairs with 93% availability by 6/30
 - Trim approximately 60% of distribution circuit mileage
 - Trim approximately 100% of transmission circuit mileage
 - Perform thermographic analysis of critical substations facilities
 - Make reliability improvements to prioritized circuits
 - Install and Commission 103 new Switches on Distribution Circuits by 6/30
 - Complete pre-summer substation equipment maintenance

T&D System Summer Preparation – Other Actions

- Intertie
 - Y49 faults repaired and circuit energized on 4/16/21
- Generation
 - West Babylon GT & Glenwood GT1 are converted to load modifiers for summer 2021
- Emergency Generation
 - 3 MW of emergency generation was installed at the Montauk substation to support South Fork

T&D System Summer Preparation - Storm Restoration

- Training/Drills:

2021 MAJOR EMERGENCY RESPONSE DRILLS	WHEN	HOW
Restoration Contingency Plan (Table Top – Loss of OMS & Telephony) Exercise #1	Jan 26	Virtual
Restoration Contingency Plan (Functional – Loss of OMS & Telephony) Exercise #2	April 14	Virtual
Restoration Contingency Plan (Crisis Management) Exercise #3	May 27	Virtual
Emergency Capacity (Load Shedding) Event Table Top Exercise	April 29	Virtual
Alternate Control Center Drill	May 12	On Site
Annual Hurricane Tabletop Exercise	June 16	Virtual
Annual Dispatch Area Operation Exercises: Dispatch Area Leadership, Coordination and Dispatch personnel	May	Virtual
Annual Division Operation Exercises: Division Leadership, Damage Assessment Coordination & Dispatch, and Primary Control	June	Virtual
Situation Status and Documentation Unit Exercise	September	Virtual
Customer Communications Drill	October	Virtual
TRAINING	WHEN	HOW
OMS 6.7 (CAD Dispatch) Refresher Training	June - October	Virtual
Damage Assessment (Field Survey Teams) Initial Training	May - June	In-Person
Damage Assessment (Field Survey Teams) Refresher Training	July-November	In-Person
Two-Person Restoration LV Training	May - June	In-Person
Operational Refresher Training - Enhanced Decentralized Dispatch Areas Refresher Training	April	Virtual
Operational Refresher Training - Divisional Survey Coordination	June	Virtual

T&D System Summer Preparation - Storm Restoration

- Other Items:
 - E2E testing of Telephony systems
 - E2E testing of OMS systems
 - Low Voltage manpower resource contracts nearing award
 - Additional contractor resources for Damage Assessment and Wire Watchers being established
 - New ETR Manager position filled in February
 - Emergency Planning Training Governance Specialist position to be filled by June
 - Tiered Restoration Protocols in place