



Summer Preparation 2020

LIPA Board



May 20, 2020



Power Supply Summer Preparation - National Grid Fleet

Maintenance Activities

Steam Units

- Northport No. 1, 2, 3 & 4
 - Routine maintenance
 - Unit 1: Cooling system and condenser upgrades
 - Unit 2: Boiler ash pit tube replacement
 - Unit 3: Turbine / generator major overhaul
 - Unit 4: Control system upgrades

Unit Status

Steam Units

- All Northport steam units expected to return from maintenance outages to full operation by June 1, 2020



Power Supply Summer Preparation - National Grid Fleet

Maintenance Activities

Steam Units

- E.F. Barrett Unit No.1 , 2, 3 & 4
 - Routine maintenance
 - Unit 2 - Replaced radiators on Aux Transformer
 - Unit 3 - Air Heater Basket Replacement
 - Unit 4 - Traveling Screen Inspection and Bearing Replacement

Unit Status

Steam Units

- All steam units expected to return from maintenance outages to full operation by June 1, 2020



Power Supply Summer Preparation - National Grid Fleet

Maintenance Activities

Combustion Turbines

- Annual routine Maintenance has been completed
- Reliability Improvement work was also performed:
 - Barrett Units 9B & 10B: Stack replacements
 - Barrett Units 5, 6 & 8: Breaker upgrade
 - Holtsville Units 1, 2, & 5: Inspections & repairs completed or in progress
 - Shoreham: Fuel oil tank internal inspection
 - Southampton: Starting diesel engine replaced with more modern engine

Unit Status

Combustion Turbines

- All Combustion Turbine units expected to return from maintenance outages to full operation by June 1, 2020



Power Supply Summer Preparation - Balance of Long Island Fleet

Maintenance Activities

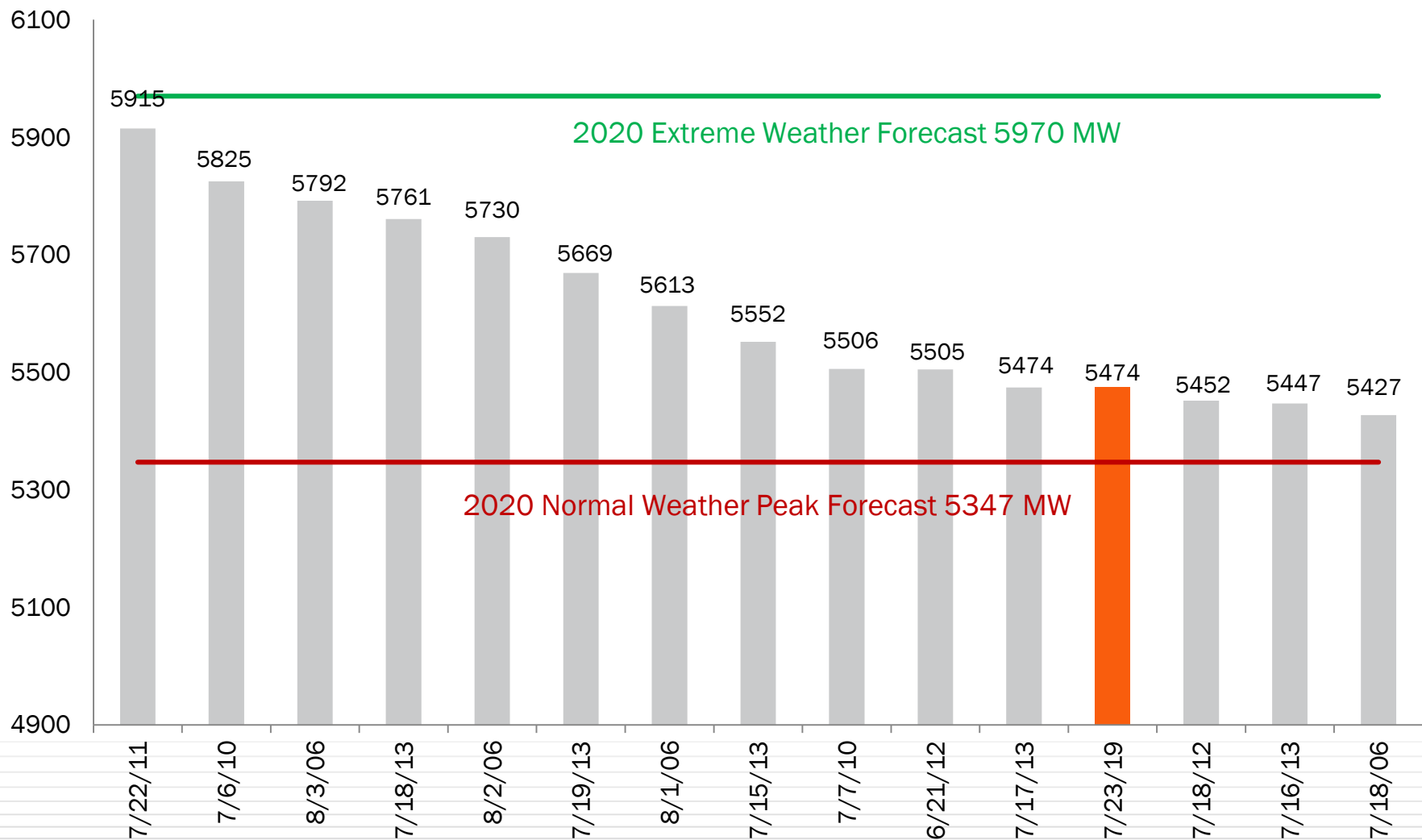
Balance of Long Island Fleet

- All units have undergone or will be going through maintenance, inspections and repairs as required for good maintenance practices
- Caithness:
 - Overhaul or replacement of selected components
 - Preventive maintenance

Status

- All facilities (including Neptune and Cross Sound) will be finishing their summer prep and will be fully operational by June 1, 2020 (except Edgewood, which will be back from Summer prep by June 10, 2020)

15 Highest Long Island Control Area Loads





Long Island Control Area 2019 vs. 2020

System Demand & Capability

DEMAND (MW)

	<u>2019</u> Forecast	<u>2020</u> Forecast
LICA Peak Load	5,357	5,347
Extreme Weather Load Addition	626	623
Total LI Extreme Weather Load	5,983	5,970
Load Modifiers	-83	-100
Load Reduction Programs	-41	-26
Net LI Extreme Weather Load	5,859	5,843

Power Capability Margin (MW)

	<u>2019</u> Forecast	<u>2020</u> Forecast
Normal Weather	1,678	1,690
Extreme Weather	1,176	1,194

CAPABILITY (MW)

TRANSMISSION OPERATION

	<u>2019</u> Forecast	<u>2020</u> Forecast
Total Long Island Generation	4,918	4,920
NYISO Import	927	927
ISO-NE Import	530	530
PJM Import (Neptune)	660	660
Total LI	7,035	7,037

New York ISO Requirements (UCAP MW)

	<u>2019</u> Forecast	<u>2020</u> Forecast
Long Island Forecast Peak Load	5,240	5,228
Long Island Locality Requirement (%)	97.4%	96.3%
Long Island Locality Requirement (MW)	5,102	5,031
Total Long Island Capacity (MW)	5,662	5,656
Capacity Margin (MW)	560	625

System Margins & Contingencies

- Sufficient margins exist for all major contingencies under 2020 forecast
- Operating procedures will be implemented, as required, to maintain system reliability during both normal and extreme weather conditions

T&D System Summer Preparation – Capital

Major projects completed since last summer :

- Transmission system installations/upgrades:
 - Whiteside - Installed 69 kV series reactor
 - Deer Park – Installed 69 kV capacitor bank
 - MacArthur – Installed 69 kV capacitor bank
 - Upgrade 33 kV circuit between Lake Success to Garden City Park substations (June 2020)
- Substation installations/upgrades
 - Hempstead – Upgraded from 23/4 kV to 69/13 kV (June 2020)
 - Belmont – Installed transformer, switchgear and feeder (June 2020)
 - Malverne - Upgraded from 23/4 kV to 69/13 kV
 - Kings Highway – Installed transformers, switchgear and feeders
- Distribution system installations/upgrades
 - Sterling
 - Rockaway Beach (June 2020)
 - Fire Island Pines
 - Riverhead
 - Herricks
 - Carle Place



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

Major pre-Summer 2020 projects delayed by COVID-19:

- Barrett 33 kV Bus Configuration Changes – Reliability risk from modified system configuration and limited work space. Project delayed to the Fall.
- Flowerfield transformer replacement – Impact on reliability supply to Stony Brook Hospital. Project delayed to the Fall.
- Mitigation Plans have been developed to address the contingency risk caused by the delayed in-service date



T&D System Summer Preparation – Maintenance

- Scheduled Work Scope to be Completed Prior to Summer Period
 - Inspect 1645 capacitor banks and make repairs
 - 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 New Switches on 109 Circuits
 - Complete pre-summer substation equipment maintenance



T&D System Summer Preparation – Emergency Generation

- South Fork:
 - Installed 3 MW of emergency generation at the Montauk substation

T&D System Summer Preparation - Storm Restoration

• Training/Drills:

	PRE-COVID		POST-COVID	
MAJOR EMERGENCY RESPONSE DRILLS	WHEN	HOW	WHEN	HOW
Alternate Control Center Drill (TBD)	May	On Site	May	On Site
Annual Hurricane Tabletop Exercise (September 10)	May	On Site	September	In-Person
Foreign Crew Processing Exercise	October	In-Person	October	In-Person
Situation Status and Documentation Unit Exercise	September	In-Person	September	Virtual Webex
Customer Communications Drill	September	In-Person	October	Virtual Webex
Annual Division Operation Exercises (Division Leadership, Damage Assessment Coordination & Dispatch, and Primary Control)	April/May	In-Person	April-June 2021	Waived due to past storm activity
Annual Dispatch Area Operation Exercises (Dispatch Area Leadership, Coordination and Dispatch personnel)	April/May	In-Person	April-June 2021	Waived due to past storm activity
Triennial Division 2-person Crew Console Operation Exercise (Division 2-person Crew Coordination and Dispatch personnel)	June	In-Person	April-June 2021	Waived due to past storm activity
TRAINING	WHEN	HOW	WHEN	HOW
OMS (CAD Dispatch) Refresher Training	March	Classroom	June - October	Virtual Webex
Damage Assessment (Field Survey Teams)	Monthly	Classroom	Fall	Considering Webex
Operational Refresher Training	April/May	Classroom	Sept/October	Virtual WebEx