

2020 RNA

Con Edison Preliminary Findings

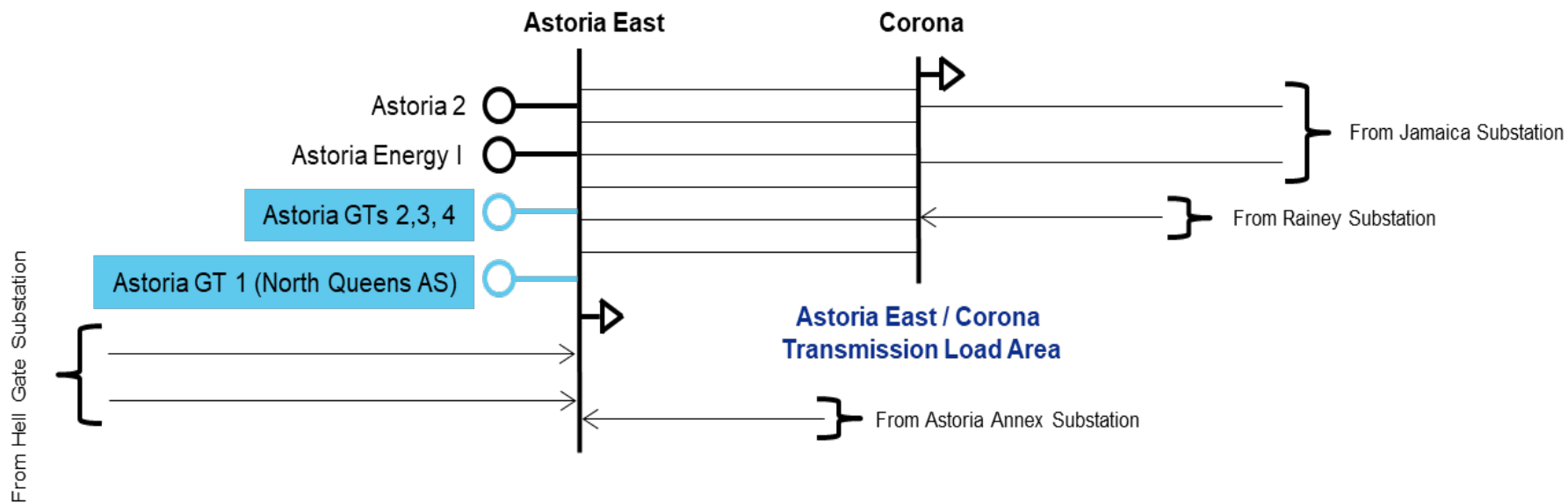
Items for Discussion

- Affected Generation within Con Edison Service Area
- (Non-BPTF) Astoria East / Corona TLA
- (Non-BPTF) Greenwood / Fox Hills TLA
- In-City Capacity Issue

(Non-BPTF)
Astoria East / Corona TLA

2020 RNA – Con Edison Preliminary Analysis Astoria East / Corona TLA

- Astoria East/Corona 138 kV is designed for N-1/-1/-0



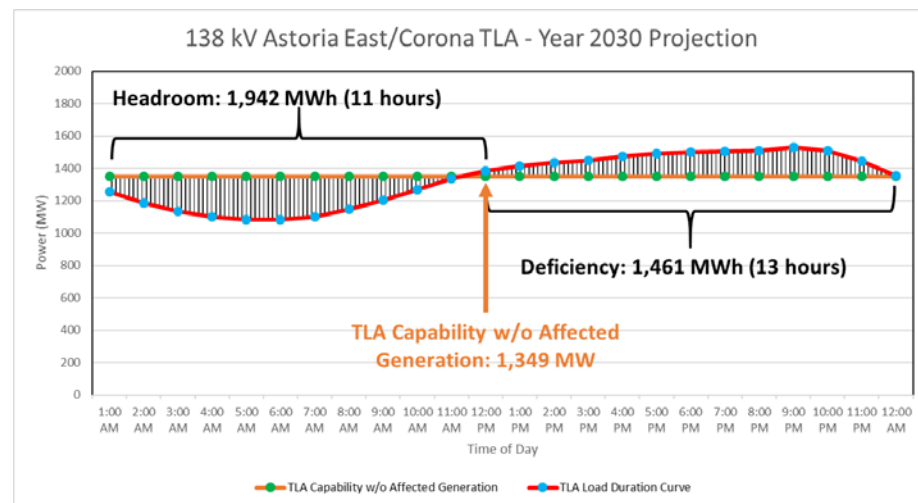
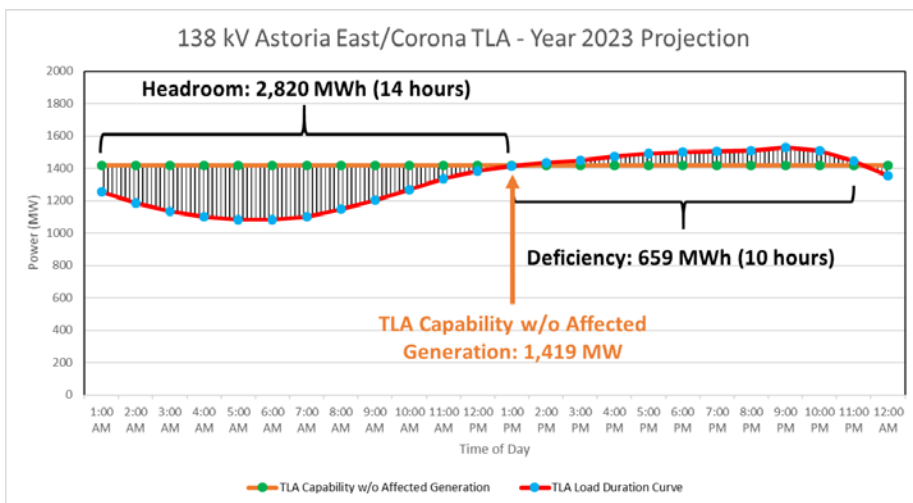
2020 RNA – Con Edison Preliminary Analysis Astoria East / Corona TLA

- Retirement of Astoria Gas Turbines would result in a deficiency starting immediately in 2023

Year	2023	2024	2025	2026	2027	2028	2029	2030
N-1/-1/-0 Deficiency (MW)	110	115	110	115	120	125	170	180

2020 RNA – Con Edison Preliminary Analysis Astoria East / Corona TLA

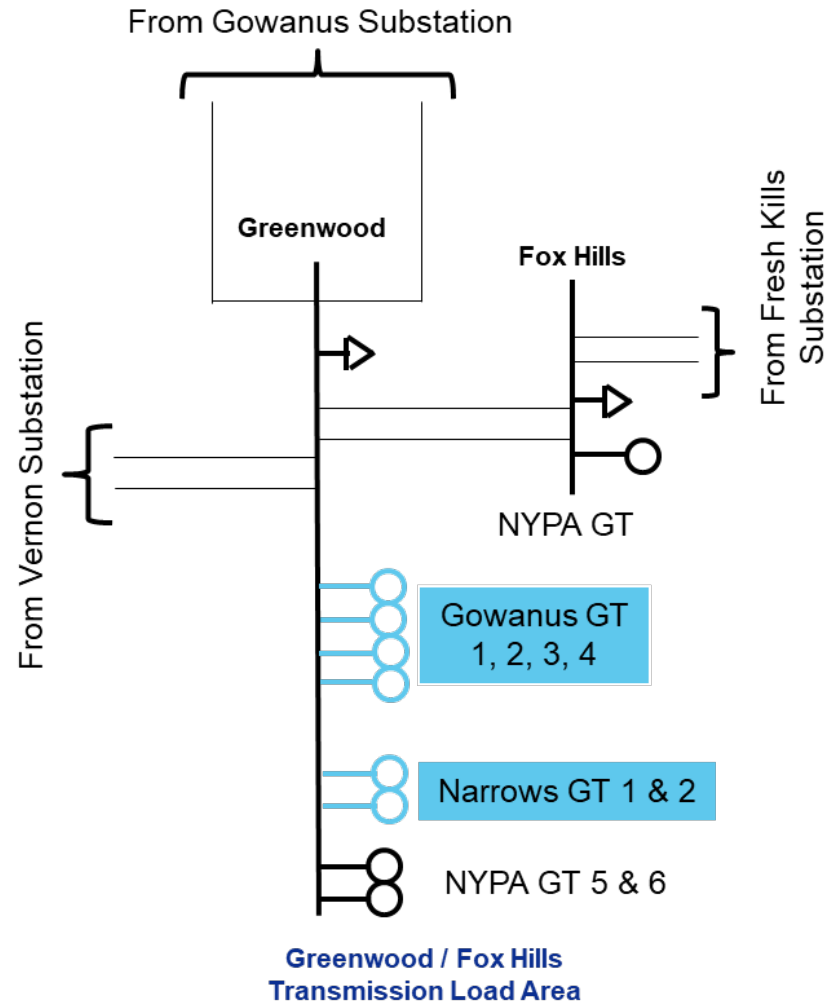
- The deficiency extends over a 10 hour period (2023) and expands to a 13 hour period (2030)



(Non-BPTF)
Greenwood / Fox Hills TLA

Greenwood/Fox Hills 138kV

- Greenwood/Fox Hills 138kV is designed for N-1/-1



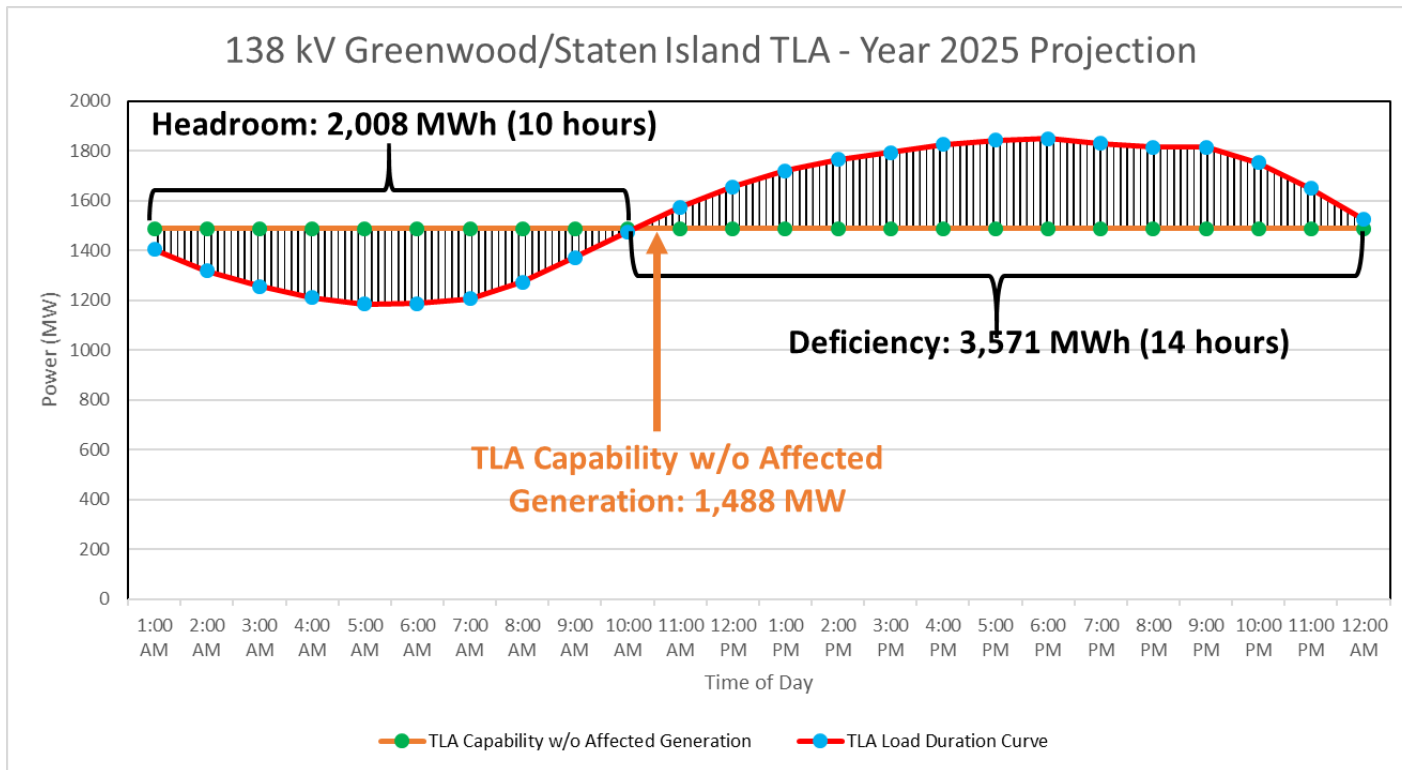
Greenwood/Fox Hills 138kV

- Summer Operating Season (“Ozone Season”) unavailability of Gowanus and Narrows Barges would result in a deficiency starting immediately in 2025
 - Thermal and voltage violations in the steady state condition (N-0)
 - Approximate transmission overload of about 70 MW above the feeders’ *normal rating*

Year	2025	2026	2027	2028	2029	2030
N-1/-1 Deficiency (MW)	360	350	360	360	370	370

2020 RNA – Con Edison Preliminary Analysis Greenwood/Fox Hills 138kV

- The area deficiency extends over a 14 hours period



In-City Capacity Issue

In-City 345 kV TLA ('as found')

- In-city 345 kV TLA is designed for N-1/-1/-0
 - Identified controlling N-1/-1/-0 is Ravenswood 3 followed by the 345 kV Feeder 72
 - Clearing the remaining 345 kV in-city supplies (especially feeder 71) to Normal Rate
 - Year 2023 violation: None; but **0 MW** margin
 - Year 2025 violation: **700 MW**
 - Year 2030 violation: **1,075 MW**