

ICS Report to Executive Committee

June 29th ICS Meeting #262

Prepared for: July 10th, 2022 EC Meeting
Prepared by: Brian Shanahan, ICS Chairperson

4.1.1 ICS Review of Preliminary IRM Assumptions Matrix – EC Approval Item

ICS reviewed and approved the initial 2023-2024 IRM PBC Assumptions Matrix that includes all modeling and data updates for this year's PBC.

Compared to the review from last month, the preliminary Matrix includes additional topology changes and generation additions and removals. The preliminary Matrix and planned Topology changes are attached for approval.

4.1.2 List of 2023-2024 IRM Sensitivity Cases

The list includes four (4) special Sensitivities that will be used to assess changes to the PBC in MARS (#6, 7, 8 &9). Sensitivity #9 for Y49 outage is added based on last ICS discussion. The full list is an attachment to this report.

This will be an EC approval item next month.

4.1.3 LFU Phase 3 Study Scope – For EC Approval

A Study Scope for a Phase 3 LFU Whitepaper was presented by NYISO Staff for ICS discussion. A summary of previous Phase 1 & 2 whitepaper results was also provided.

LFU Study Scope for Phase 3 will address remaining areas of inquiry on LFU and load shape assumptions, with a focus on issues that will become more critical over time:

- -The NYISO is projected to trend toward a winter peaking system due to the increasing penetration of electric vehicles and electric heating
- -Impacts of climate change will enhance focus on extreme weather assumptions and scenarios
- -Increasing levels of BTM solar will continue to add to load variability and contribute to evolving shapes

Specific Study Topics will include:

- 1 -Off-Peak Load Variability
- 2 -Winter LFU Development
- 3 -Load Shape Weather Assumptions
- 4 -On-Peak Solar Variability

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Next Steps

1. Present pertinent analyses and findings to LFTF and/or ICS as available, beginning in 2022 Q3.
2. Target 2023 Q1 to deliver conclusions on Phase 3 study topics

4.1.4 Draft High Renewables Phase 3 Results – For EC Approval/Acceptance

Part 3 of the High Renewables Phase 3 White Paper was presented to ICS by the NYISO Staff. As requested by the NYSRC Executive Committee, the NYISO conducted a “High Renewables” Phase 3 study of the potential impact on the NYCA with a hypothetical case using, roughly, the years 2030-35 CLCPA renewable goals, for the NYSRC in three parts. Part 3 of the White Paper study was developed based on Part 2 and adds the deactivation of generation units that will be unavailable starting in the summers of 2023 and 2025 due to the Peaker Rule (approximately 1,600 MW ICAP). As seen below, this last action did not result in significant changes to either the Installed or Unforced Capacity Reserve Margins in comparison to the results of Part 1 and 2.

Two results Tables are shown below for initial reference for this meeting report. The full High Renewables White Paper is attached to the EC Agenda.

The ICS accepted the Draft report.

Table 4 – Results Comparison

Case and Scenarios	2022 FBC	2022 FBC*	Phase 3 Part 1	Phase 3 Part 2	Phase 3 Part 3
Resource Changes	N/A	N/A	FBC* + 27,000 MW Renewables	Part 1 + 6,000 MW ESR	Part 2 - 1,567 MW Peakers
Transmission Constraints	Included	Removed	Removed	Removed	Removed
Installed Capacity Reserve Margin Comparison					
NYCA	119.7%	117.0%	180.2%	198.5%	198.8%
Unforced Capacity Reserve Margin (URM) Comparison					
NYCA	105.0%	102.7%	112.3%	125.3%	125.0%

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Table 5 – ICAP and UCAP Changes Comparison

NYCA	FBC	FBC*	Part 1	Part 2	Part 3
NYCA Peak Load	32,139	32,139	32,139	32,139	32,139
ICAP Changes					
As Found ICAP (MW) ¹³	41,037	41,037	68,037	74,037	72,470
ICAP @ LOLE = 0.1 (MW)	38,470	37,614	57,903	63,781	63,906
ICAP Removed (MW)	2,567	3,423	10,135	10,256	8,564
ICAP Reserve Margin	119.7%	117.0%	180.2%	198.5%	198.8%
UCAP Changes					
As Found UCAP (MW)	36,084	36,084	42,938	47,256	46,035
UCAP @ LOLE = 0.1 (MW)	33,746	33,017	36,081	40,255	40,188
UCAP Removed (MW)	2,338	3,067	6,857	7,001	5,847
UCAP Reserve Margin	105.0%	102.7%	112.3%	125.3%	125.0%

Action Requested:
Executive Committee Approval/Acceptance