



High Intermittent Renewable Resource Unforced Capacity under the Tailored Availability Metric

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Agenda

- Review definition of “as found”
- Review use of Unforced Capacity (“UCAP”) in NYSRC High Intermittent Renewable white paper
- Present to the ICS the preliminary results of the as found UCAP changes under the Tailored Availability Metric (“TAM”) for the high intermittent renewable case
- Receive comments and feedback

Background

- The term “as found,” as used throughout this presentation, refers to the sum of existing capacity of all internal NYCA generating units, contracts and net capacity imports with external control areas, and capacity associated with special case resources (SCR)

Background

- ICS performed an analysis of the potential impact on the IRM and locational capacity factors from a hypothetical case in which NYCA has a high immediate penetration of intermittent renewable resources
 - The Impact of High Intermittent Renewable Resources on the Installed Reserve Margin for New York, 3/31/20
 - <http://nysrc.org/PDF/MeetingMaterial/ECMeetingMaterial/EC%20Agenda%20252/4.2a%20HR%20White%20Paper%20-%20Clean%20Final%20Draft-Attachment%204.2a.pdf>
- **This case added:**
 - 12,000 MW of intermittent renewable as found ICAP to 2020-21 Preliminary Base Case assumptions, and
 - a corresponding 3,043 MW of as found UCAP based on existing capacity market rules
 - found in **Table 8b** of the aforementioned white paper

Background

- NYISO Management Committee (“MC”) approved changes to Sections 5.12.6.2 and 5.12.14.3 of the NYISO’s Market Administration and Control Area Services Tariff as more fully described in the presentation “Tailored Availability Metric” made to the MC on April 29, 2020
- The Tailored Availability Metric (“TAM”) project is a part of the ongoing Performance Assurance effort, which was prompted by a 2017 Analysis Group report that identified areas where the NYISO could improve its market design in order to incentivize performance and reliability of capacity suppliers
- This initiative has focused on exploring modifications to the derating factor calculations to improve the measurement of the availability of a resource relative to peak load periods
- The scope of the project has included evaluating availability-based resources that use the EFORD or UOL as their derating factor, as well as wind and solar resources

Objective

- This presentation will discuss the corresponding as found UCAP in NYCA, Zone J, and Zone K, as calculated under TAM

UCAP Calculations

UCAP Added to Preliminary Base Case

	As Found UCAP			Tan45
in MW	Existing Capacity Rules	6 Hour Weighting	8 Hour Weighting	UCAP Removed
NYCA	+3,044	+2,980	+2,959	+2,268
Zone J	+588	+575	+568	+233
Zone K	+789	+775	+767	+484

Conclusions

- **The additional as-found UCAP of the hypothetical renewable resources provides insight into the relative reliability value of these resources**
- **The UCAP calculated using the 8-hour TAM weighting is closest to the UCAP removed yielded from the Tan45 method– though there is still a significant difference**
 - This result indicates further need to investigate the impact of EFORd assumptions, the shifting methodology of the Tan45 procedure, and other factors

Questions?

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

