



JOINT UTILITIES OF NEW YORK

Hosting Capacity Stakeholder Webinar

(May 23, 2024)



JOINT UTILITIES
OF NEW YORK



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



Engagement Group Ground Rules*

- All stakeholder engagement (Advisory Group and Engagement Group) meetings, webinars and information exchange are designed **solely** to provide an open forum or means for the expression of various points of view **in compliance with antitrust laws**.
- **Under no circumstances** shall stakeholder engagement activities be used as a means for competing companies to reach any understanding, expressed or implied, which tends to restrict competition, or in any way, to impair the ability of participating members to exercise independent business judgment regarding matters affecting competition or regulatory positions.
- Proprietary information **shall not be disclosed by any participant** during any stakeholder engagement meeting or its subgroups. In addition, no information of a secret or proprietary nature shall be made available to stakeholder engagement members.
- All proprietary information which may nonetheless be publicly disclosed by any participant during any stakeholder engagement meeting or its subgroups **shall be deemed to have been disclosed on a non-confidential basis**, without any restrictions on use by anyone, except that no valid copyright or patent right shall be deemed to have been waived by such disclosure.
- AG & EG discussions will be **open forums without attribution** and no public documents by the AG or EG will be produced unless publication is agreed upon by the group.

**Ground Rules adapted from the JU Advisory Group*



JOINT UTILITIES
OF NEW YORK

draft for discussion

1



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



Agenda

1. Meeting Goals
2. Overview of HC Maps
3. PTID Nodes
4. Synchronizing HC Map Updates
5. Electrification Map
6. Progress on IEDR
7. Collaboration with Interconnection Working Group (ITWG)
8. Next Steps, Q&A, and Contact Information

Meeting Goals

The JU has four goals for this stakeholder session.



1. Overview

Share brief history of HC roadmap and provide an overview of functionality and benefits to stakeholders.

2. Progress

Provide an overview of the advancements and developments made since the previous stakeholder session.

3. Next Steps

Provide current thinking on next steps and take questions and feedback.

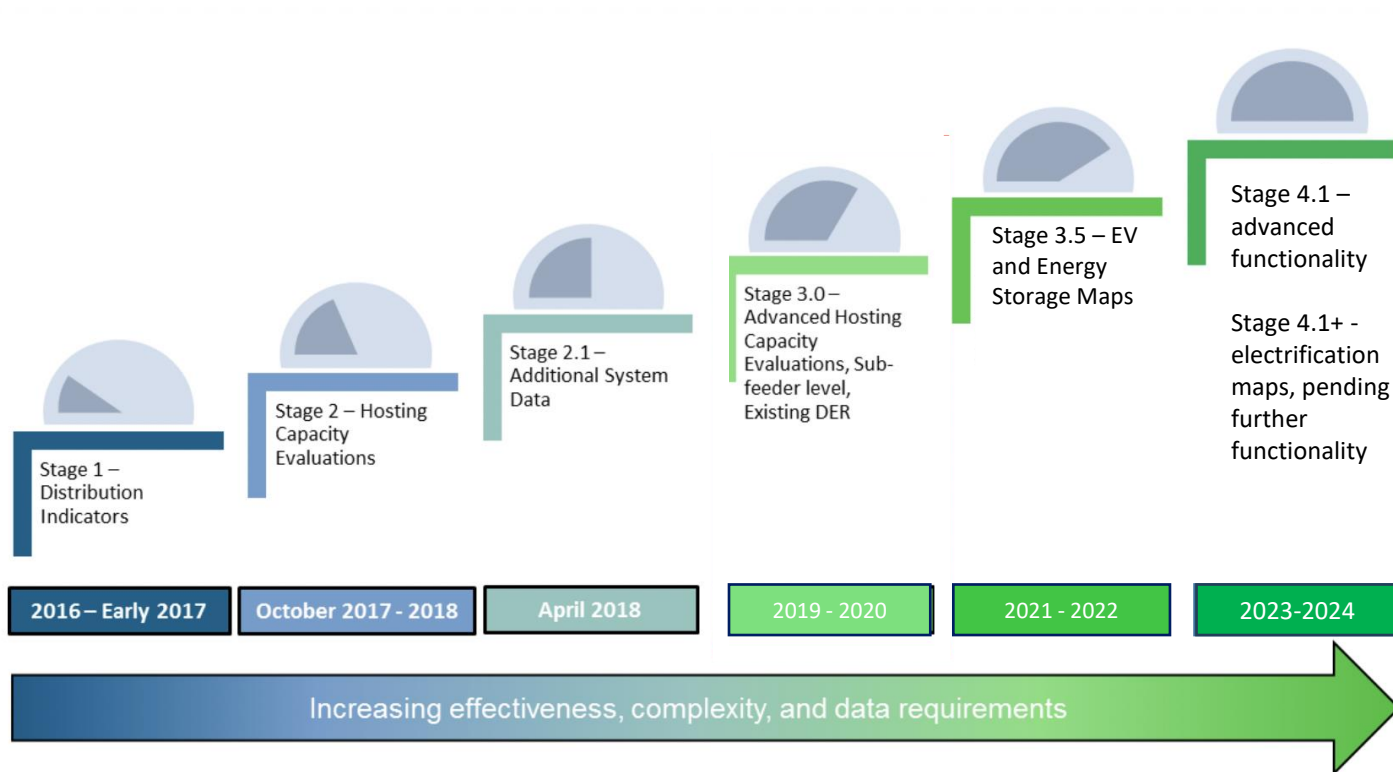
4. Q&A

Take questions on topics presented throughout the call.



Evolution of the Roadmap

The Joint Utilities, with guidance from stakeholders developed a four staged Hosting Capacity implementation roadmap. This was incorporated into New York Utility filings.



JOINT UTILITIES
OF NEW YORK

draft for discussion



nationalgrid

Orange & Rockland
Rockland Electric Company


conEdison



Overview: Stage 3.5

In 2022, the JU published Storage (ESS) HC maps showing...

- 1 Feeder-Level Hosting Capacity (min/max)
- 2 Additional System Data
- 3 Downloadable Feeder-Level Summary Data
- 4 Reflect Existing DER in Circuit Load Curves and Allocations



Due to stakeholder feedback, all map views also showed...

- post sub-transmission circuits that are available to host distributed generation on their individual portals to help developers best evaluate options for storage connections.



JOINT UTILITIES
OF NEW YORK

draft for discussion

5



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



Overview: Stage 4.1

Based upon your feedback, in 2023, the JU published HC updates showing...

1 Sub Feeder Level for Storage HC Map

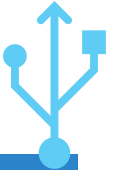
2 DG Connected Since Last HCA Refresh

3 Nodal Constraints (Criteria Violations on PV and Storage Maps)

4 Cost Share 2.0 Items on PV and Storage Maps

The JU is also providing the following information...

- Six-month update for circuits that increase in DG > 500kW on the PV maps
- Links and/or instructions to access 8760 data
- Storage HC data made available via the API



PTID Nodes

The utilities published PTID nodes at the end of 2023.

- FERC approved NYISO's go live of their DER participation market.
- An aggregation needs to fall within the same pricing node in this market.
- The nodes have been published in alignment with NYISO's progress. This is another means by which aggregators can access this information.
- Aggregators will be using the HC Maps as a means to access the proper PTID nodes

Substation Level Data	
Feeder	36_17_33351
Pricing Transmission Interface Data - PTID	109202
Substation/Bank Installed DG (MW)	1.76
Substation/Bank Queued DG (MW)	8.55
Total Substation/Bank Installed and Queued DG (MW)	10.31
Substation/Bank DG Connected Since Last HCA refresh (MW)	0.00
Substation Refresh Date	3/15/2023
Substation/Bank Peak (MW)	6.60
Substation/Bank Thermal Capacity (MW)	12.48
Substation Backfeed Protection	No
Estimated 3V0 Protection Threshold (MW)	0.00
HCA Refresh Date	3/30/2023
NYISO Load Zone	E-3



JOINT UTILITIES
OF NEW YORK



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



Synchronizing HC Map Updates

To streamline efficiency, the utilities have synchronized the release of updates to the PV and ESS HC Maps

- Henceforth, the utilities will refresh their PV and ESS Maps each spring with approximately three to four weeks between map releases.
- Utilities will continue to maintain a six-month update for circuits that increase in DG > 500kW on the PV maps

Electrification Maps

Two orders directed the evolution of the EV Load Capacity Map to an Electrification View.

- Electric Vehicle Process Mid-point Review in 2023
- Energy Efficiency and Building Electrification
 - Issued and Effective: July 20, 2023
 - Utilities “shall, within 180 days of this Order, consult with Department of Public Service Staff, and expand the Electric Vehicle Load Serving Capacity Maps into “Electrification Load Serving Capacity Maps,” as discussed in the body of this Order.”

Utilities collaborated with DPS Staff to develop functionality for the Electrification Maps.

- The Maps were published January 16, 2024, and show the following.
 - Feeder level data with capability of showing the winter peak and summer peak circuit level data.
 - Environmental Justice locations.
 - For both summer and winter views, the Electrification Maps shows the same color scheme and breakpoints as the EV currently show.

Electrification Maps – Summer and Winter View

The winter view will be most valuable for those engaged in building electrification use-cases. The view most valuable for EV stakeholders will likely be whichever (summer vs winter) is more constrained.

Summer Load Serving Capacity	
Feeder	36_31_12351
Substation/Bank Name	NORTH TROY
Operating Voltage (kV)	13.20
Summer Peak Load (MVA)	4.27
Feeder Summer Rating (MVA)	8.35
Substation/Bank Summer	23.30
Summer Load Capacity Headroom (MW)	4.08
Refresh Date	9/30/2023

[Zoom to](#)

Winter Load Serving Capacity	
Feeder	36_31_12351
Substation/Bank Name	NORTH TROY
Operating Voltage (kV)	13.20
Winter Peak Load (MVA)	3.22
Feeder Winter Rating (MVA)	9.28
Substation/Bank Winter Rating (MVA)	23.30
Winter Load Capacity Headroom (MW)	6.07
Refresh Date	9/30/2023

[Zoom to](#)



JOINT UTILITIES
OF NEW YORK

draft for discussion



Progress on Integrated Energy Data Resource (IEDR) Program

IEDR deployed 5–10 prioritized stakeholder Use Cases in Phase 1

- Joint Utilities have supported NYSERDA in advancing IEDR Program Goals for secure collection, integration, and provision of diverse data sets to satisfy IEDR Order requirements (February 11, 2021).
- So far this year, the JU has helped the IEDR Program Administrators to enhance and support [Initial Public Version](#) use cases, and to [complete the Phase 1 development of the IEDR](#).
- As part of the IEDR program, utilities are directed to provide quarterly filings on the status of the ongoing and planned projects and investments in support of the enablement of the IEDR.
- The Companies met all data requirements for Phase 1 Use Case implementation by the IEDR Development Team and, on March 28, 2024, NYSERDA announced the completion of Phase 1 of the IEDR.

Progress on Integrated Energy Data Resource (IEDR) Program

JU supports IEDR improvements, begins Phase 2 of IEDR implementation

- The JU continues to collaborate with the IEDR Program Team by convening discussions with IEDR Program administrators through regular bi-weekly Utilities Coordination Group meetings and one-on-one discussions.
- The JU is focused on delivery, implementation milestones, and mapping data specifications needed for IEDR initiatives.
- The JU is supporting IEDR Administrators' efforts to improve existing data sets and use cases, and anticipates release of new high-value use cases in 2024.
- Subject matter experts will continue to support and inform IEDR development, data quality testing to support Phase 2 requirements.

ITWG Collaboration – Background

Complete	Pending	Next Steps
2023	2024	TBD
<ul style="list-style-type: none"> ▪ Sub Feeder Level HC ▪ Incremental Feeder Level Installed Since HCA Refresh ▪ Six-month Update for Circuits that Increase in DG > 500kW ▪ Continue to implement Cost Sharing 2.0 	<ul style="list-style-type: none"> ▪ Additional updates based on collaboration with ITWG and Industry 	<ul style="list-style-type: none"> ▪ Continued functionality



ITWG Collaboration – Context

We are seeking to update the HC portal to provide additional information that is valuable to the SIR and CESIR requirements.

- Changes to the HC maps should align with information that developers require through the work in the ITWG.
- As such, we initiated collaboration with the ITWG to request advancements in alignment with their stakeholder feedback and with the intention to update the maps to reflect updates to interconnection, SIR, CESIR, and other processes.

ITWG Collaboration – Next Steps

Through the ITWG, each utility has published tentative ESS schedules.

- Utilities and industry will collaborate to determine the utilization of these schedules, i.e., how the schedules may inform updates to the interconnection process, CESIR, SIR, etc.
- The Integrated Planning WG intends to update the storage HC map considering these changes, as information allows.

Lookahead: 2024

Continued work with ITWG. Once the ITWG aligns on how to utilize the ESS schedules, the Integrated Planning WG will take this information to discuss next steps for advancing ESS HC maps

Continued Support to IEDR. The utilities will continue to provide data through the HC and electrification maps for utilization by the state-wide IEDR.

Q&A

info@jointutilitiesofny.org

Utility	Contact
Central Hudson	Distributed Generation Group <ul style="list-style-type: none">Email: dg@cenhud.comPhone: 845-486-5215
Con Edison	Monitored mailbox <ul style="list-style-type: none">dgexpert@coned.com
National Grid	Monitored mailbox <ul style="list-style-type: none">IMAP@nationalgrid.com with the subject line: NY System Data Portal
NYSEG RG&E	Monitored mailbox <ul style="list-style-type: none">distributedgenerationadmin@avangrid.com
O&R	Monitored mailbox <ul style="list-style-type: none">ORHostingCapacityMap@ORU.com



JOINT UTILITIES
OF NEW YORK

draft for discussion

17



nationalgrid

**Orange & Rockland
Rockland Electric Company**

conEdison



Appendix

Summary of Follow-Up Items (1/3)

Topic	Question	Response
ITWG Collaboration	IREC and NY Best advocated for utilities to share restricted and unrestricted view on the hosting capacity maps. IREC also expressed that publishing the most restrictive hours becomes less relevant when hourly data is published like in CA	Once the ITWG aligns on how to utilize the ESS schedules, the Integrated Planning WG will take this information to discuss next steps for advancing ESS HC maps.
ESS Schedules	Stakeholders requested the utilities circulate the ESS schedules.	The available preliminary schedules can be found at the end of the Appendix.
8760 load circuit data	Greenpark Solar requested each utility share where they share their 8760 data.	This information can be found on slide 22.



OF NEW YORK

draft for discussion



Summary of Follow-Up Items (2/3)

Topic	Question	Response
N-1	US Light Energy requested each utility confirm whether utilities use N-1 design or loop design, and to provide a response for viewing on one page.	See slide 23.
Electrification Maps	NY Best and IREC inquired whether electrification maps will be developed to have the same level of granularity as Hosting Capacity (HC) maps.	The utilities agreed to bring this to the EVWG and shared that a stakeholder forum will be held to discuss map utilization.



Follow-Up Items (3/3)

Topic	Question	Response
EV Orders	Stakeholders requested links to the orders directing the Electrification Maps.	<p>The Midpoint review order can be found HERE.</p> <p>The Energy Efficiency and Building Electrification Order can be found HERE.</p>
Guidance Document	IREC requested the utilities reshare the Guidance Document.	The Guidance Document can be found HERE .



8760 Data by Utility (Cont.)

Utility	8760 Data
Central Hudson	Hourly Load Data – Direct link to System Data Portal Can also get to it from our DG website Solar Energy & Distributed Generation (cenhud.com)
Con Edison	Con Edison provides 8760 data in a hyperlink from their Data Box inside the HC portal. Data is typically updated with the DSIP filing and is a 3-year forecast.
National Grid	Both historical 8760 loading data at the feeder level and 5 years of forecasted 8760 loading data at the feeder level is available on our NY System Data Portal, specifically on the Distribution Assets Overview tab via a link in both the feeder popup and attributes table.
NYSEG RGE	NYSEG and RG&E's load forecasts are available through emailed request to NYRegAdmin@avangrid.com
O&R	8760 data is available on the HC map via a pop-up when you click on the circuit.



N-1

Utility	N-1 Practice for substations with multiple transformer banks
Central Hudson	Does not operate with n-1 design for substations with multiple transformer banks. Users do not need to account for interconnection and in-queue for both banks.
National Grid	Assumes n-1 design for thermal rating.
NYSEG RGE	Does not study for n-1 on distribution circuits. There is no need for users to account for it in their maps. It is more complicated for transmission circuits.
O&R	Performs n-1 studies for substations with two or more transformer banks



Central Hudson Preliminary BESS Schedule

Charge Window Permitted

- All year: 10pm-1pm

Charge	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
January																								
February																								
March																								
April																								
May																								
June																								
July																								
August																								
September																								
October																								
November																								
December																								

96	Charge not permitted
192	Charge permitted

Discharge Window Permitted

- All year: 7am-1am

Discharge	12am	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
January																								
February																								
March																								
April																								
May																								
June																								
July																								
August																								
September																								
October																								
November																								
December																								

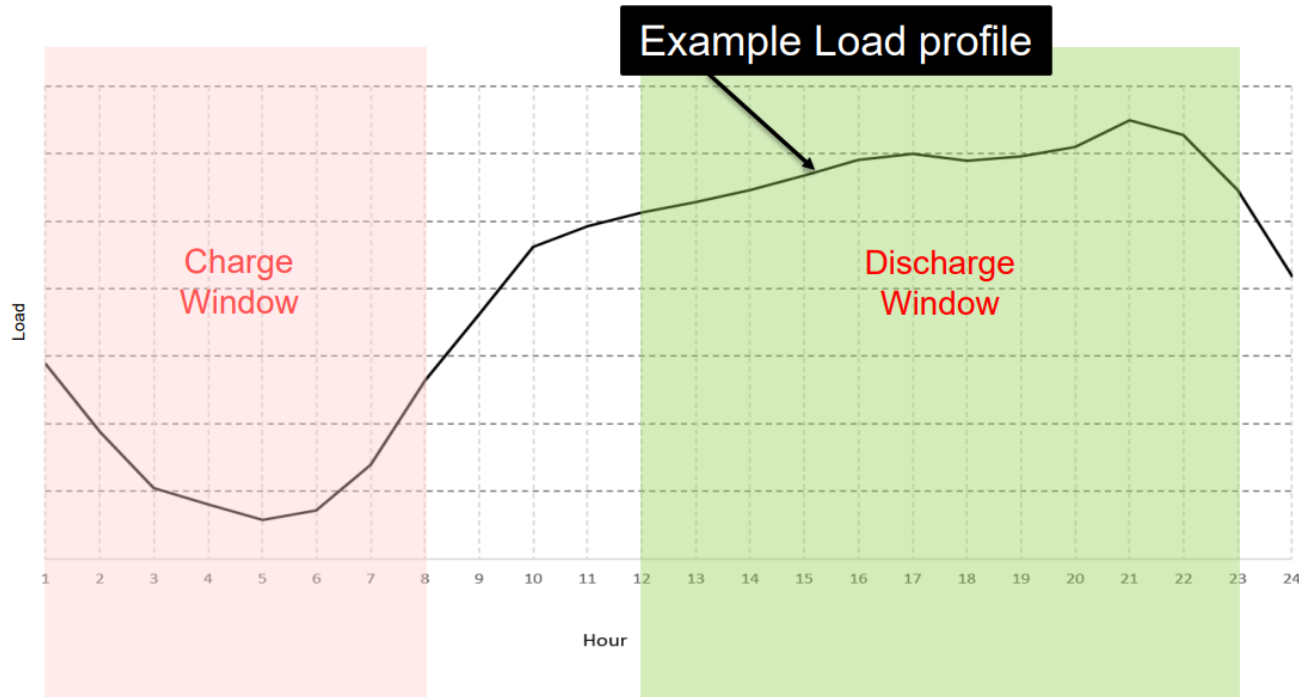
60	Discharge not permitted
228	Discharge permitted

draft for discussion

Con Edison Preliminary BES Schedule

Typical ESS Window Schedules

- ESS schedules vary between projects
- Technical studies may shift operating windows based on the load profile of area under review
- Typically discharging windows aligns with station peak or company programs
- Developers typically avoid charging during the system peak



Con Edison did not prepare a general schedule. They provide schedules to the developer at the time of the interconnection study.



JOINT UTILITIES
OF NEW YORK

draft for discussion

25



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



National Grid Preliminary BES Schedule

NATIONAL GRID PRELIMINARY BES SCHEDULES																									
	12am-1am	1am-2am	2am-3am	3am-4am	4am-5am	5am-6am	6am-7am	7am-8am	8am-9am	9am-10am	10am-11am	11am-12pm	12pm-1pm	1pm-2pm	2pm-3pm	3pm-4pm	4pm-5pm	5pm-6pm	6pm-7pm	7pm-8pm	8pm-9pm	9pm-10pm	10pm-11pm	11pm-12am	
Jan																									
Feb																									
Mar																									
Apr																									
May																									
Jun																									
Jul																									
Aug																									
Sep																									
Oct																									
Nov																									
Dec																									

	Charge Window
	Discharge Window
Charge Factor	50% of Nameplate

- Charge: 10pm-2pm
- Discharge: 2pm-10pm
- Charge Factor: 50% of maximum nameplate.
- Preliminary Schedule to be applied to service territory where applying.
- Customer still has capability to select unrestricted 24/7 operation.



JOINT UTILITIES
OF NEW YORK

draft for discussion



nationalgrid

Orange & Rockland
Rockland Electric Company

conEdison



NYSEG RGE Preliminary BES Schedule

Year around

Charging 12am – 5am

Discharging 4pm – 9pm

Summer only (Jun 1 – Aug 31)

Charging 12am – 7am

Discharging 2pm – 9pm

These are generic schedules, and each project will be evaluated on a case-by-case basis according to the load profile of the substation and circuit. Interconnection on a distribution system that is at least 12.5KV is recommended.



JOINT UTILITIES
OF NEW YORK

draft for discussion

27



nationalgrid

**Orange & Rockland
Rockland Electric Company**

conEdison

