JOINT UTILITIES OF NEW YORK

DISTRIBUTED SYSTEM PLATFORM (DSP) ENABLEMENT QUARTERLY NEWSLETTER

WHAT'S INSIDE

Utilities Roll Out New Programs for EV Customers

EV Make-Ready Program Gets Recharged

Following the Commission's November 16, 2023 Order approving Midpoint Review Whitepaper's Recommendations with Modifications, the JU implemented new Make-Ready Program modifications to support the deployment of commercial EV charging infrastructure across New York. Notable highlights include a total budget authorization of $1.243B (an increase of $542M), adjusted EV charging station targets, adjusted eligibility criteria for multifamily, curbside, and medium- and heavy-duty vehicle charging projects, enhanced opportunities for Disadvantaged Communities, a new Micromobility Pilot, and refreshed program reporting requirements. The JU documented their program plans in revised filings including the Make-Ready Program Participant Guide, Medium- and Heavy-Duty Pilot Implementation Plan, and each utility's Make-Ready Program Implementation Plan and 2023 Annual Reports, all of which can be found on DMM under Case 18-E-0138.

As part of the roll out of Make-Ready Program changes, the JU provided new resources on the JU website including:

- A web-based form for fleets to express interest in utility Fleet Assessment Services.
- Information on the expanded eligibility requirements for the Medium- and Heavy-Duty Vehicle EV Make-Ready Pilot. Eligible fleets now have a wider range of vehicle voucher incentive programs they can participate in, and incentives are also available to some fleets who do not participate in a voucher program. The updated eligibility details are outlined on the Medium- and Heavy-Duty Pilot webpage.
- An Eligible Equipment List of EV chargers that meet the new technical standards requirements for the Light-Duty Make-Ready Program. The Eligible Equipment List is updated weekly with new chargers, and the list and other resources, including applications for manufacturers to submit their equipment to the list, are available on the EV Make-Ready webpage.

- A monthly tracker of committed and completed EVSE plugs installed and incentivized through the Make-Ready Program, also available on the EV Make-Ready webpage.

During the early implementation of new Make-Ready Program requirements, the JU heard from concerned customers, contractors, and charging equipment manufacturers that the equipment communication standards eligibility requirements are challenging to implement as written in the Commission's Order. In response to stakeholder feedback, the JU filed a petition on March 15, 2024, requesting a reconsideration of the communication standards requirements by the Commission to better reflect the state of the market. The petition also included a request for clarification on the Medium- and Heavy-Duty Pilot's eligibility for customer-side cost incentives. Stakeholders who wish to file public comments in support of the JU petition are encouraged to do so via the DMM under Case 18-E-0138. Interested stakeholders may contact the JU for more information about the petition and the public comment process at info@jointutilitiesofny.org.

Demand Charge Relief Now Available for Commercial EV Customers

As of January 19, 2024, eligible commercial customers can enroll in a Demand Charge Rebate to provide operating cost relief for EV charging activities. The Demand Charge Rebate was approved by the Commission's November 20, 2023 Order Implementing Immediate Solutions Programs as part of the Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging. The 50% Demand Charge Rebate is available to customers installing commercial EV charging in upstate utility service territories or publicly accessible fast charging stations in downstate utilities. The rebate will be available until the utilities implement an EV phase-in rate, which is pending Commission approval.

IEDR Takes Critical Steps Forward, Now Looks to Phase 2

Commission Approves Utility Data Sharing Agreements

In January, the Commission approved filings by the utilities to finalize data sharing agreements and to approve utility budgets to support NYSERDA's implementation of the Integrated Energy Data Resource (IEDR) platform. This is an important step in progressing the IEDR program, which seeks to leverage energy data to inform marketplace stakeholder decision-making, support new and innovative clean energy business models, and ultimately advance state climate and policy initiatives.

Those agreements were necessary to begin transferring data from each utility to the IEDR platform. The JU has been working collaboratively with NYSERDA and E Source (the IEDR platform administrator) to develop solutions to implementation challenges and ensure responsible, secure transfer of customer data to the IEDR, which is being done in accordance with NY PSC Order

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 IDER 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.

More information on the IEDR program can be found on the NYSERDA IEDR Program site. Interested parties can follow IDER developments in Case 20-M-0082.

Commission Approves JU IEDR Budgets, Work Begins Toward IEDR Phase 2

The long-planned IEDR Phase 2 is beginning to get underway. NYSERDA's initial IEDR Phase 2 Proposal was filed with the Commission in May 2023. In January, the Commission

approved budget proposals for utilities for Phase 2 of the IEDR Program, which the utilities filed on March 31, 2023.

Phase 2 of IEDR development is set to last through 2026 with three goals: expand on Phase 1 successes, accelerate climate action, and deliver advanced capabilities. In Phase 2, NYSERDA plans to expand Phase 1 successes by adding a wide range of use cases that are relevant and of high value to stakeholders. The JU will work with the IEDR program to identify complex data needed to support use cases, while ensuring the proper protection of information systems, data systems, and customers' privacy.

As we begin to kick off Phase 2 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.

Joint Utilities Discuss Approach for Multimode Inverter Configurations, Explore Multiple CESIR Options

Recently, the Joint Utilities have seen an increase in interconnection applications wherein DERs propose to interconnect with multimode inverters (multimode inverters are capable of exporting power to the utility grid as well as serving local load only) and microgrid interconnect devices (MIDs). These systems can intentionally form and operate in islanded mode. However, at present, no tests exist in the SIR to ensure that such islanding functionality will not compromise the safety and reliability of the electric system, and not pose a risk to utility workers.

Consequently, the JU explored a requirement to ensure appropriate Underwriters Laboratories (UL) certifications for DER multimode inverters and MIDs. Upon discussion with UL and the authors of UL 1741 Certification Requirements Decision (CRD) for Multimode, the JU received confirmation that this certification will test the capability of DER to not inadvertently export power to the grid during an intentional island condition.

Accordingly, the JU has aligned on a requirement that new multimode inverters with MIDs interconnecting to the distribution system must be certified to UL CRD for Multimode. Discussions with Industry and DPS Staff regarding the timeline for implementation of this requirement are ongoing.

Additionally, the JU are also engaged in conversations with industry and DPS Staff on the necessity for inverter manufacturers to incorporate each company's utility required profile (URP) into the inverter firmware. Furthermore, the JU are also asking developers to communicate their applied inverter settings to the utilities using EPRI's common file format (CFF) documentation. The goal of this initiative is to ensure DER project compliance with each company's required inverter setpoints. The implementation of the correct inverter

setpoints aids in faster interconnection times and projects achieving operational status more rapidly.

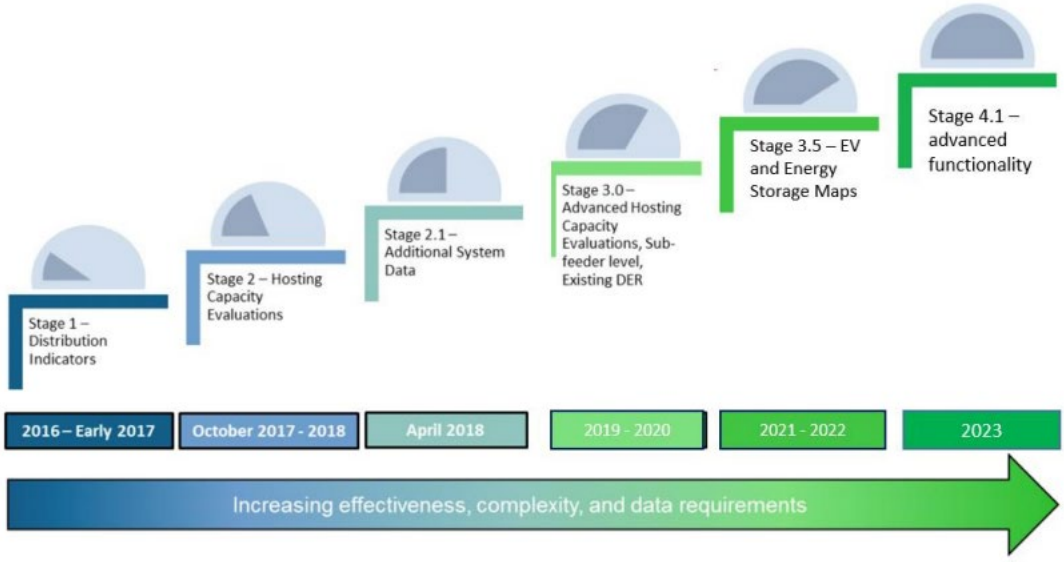
Finally, the JU are also discussing the potential of providing developers with multiple interconnection options and configurations as an output of the CESIR study. This would contrast with the current utility practice, which is to only study the project configuration proposed by the developer. However, following developer feedback, the JU are assessing the means to study multiple configurations for a single project, the implications of conducting multiple studies from a timing and cost perspective, and project characteristics that might trigger the provision of multiple options.

Progressing the Hosting Capacity Roadmap: Recent Enhancements, Next Steps, and Introduction of Electrification Maps

Overview

Hosting capacity (HC) refers to the anticipated capability for integrating distributed energy resources (DERs), such as solar and storage, that can be added to the electric grid without compromising power quality or reliability or necessitating infrastructure upgrades.

Over the last eight years, the Joint Utilities (JU) first developed and subsequently progressed through the increasingly advanced stages of their Hosting Capacity Roadmap. This roadmap stands as our strategic blueprint for implementing enhanced functionality in HC maps. By integrating insights from a diverse set of stakeholders, the JU have gained a deeper understanding of the additional features and information that would most significantly elevate the quality of existing Photovoltaic (PV) HC Maps and Storage (ESS) HC Maps. These collaborative endeavors have played a pivotal role in driving noteworthy progress through the various stages outlined in the overarching HC Roadmap, as illustrated below.



Recent Additions to the PV and ESS HC Maps

In the fall of 2023, as part of Stage 4.1, the utilities added advanced functionality to the HC maps, including:

- Sub-feeder level data for storage HC map
- DG connected since last HC analysis refresh
- Nodal constraints (criteria violations on PV and storage maps)
- Cost Share 2.0 items in tabular or geographic format on PV and Storage maps
- Links and/or instructions to access 8760 data
- Storage HC data made available via the API

This winter, the utilities published Transmission Node PTIDs as an additional data field on the PV HC maps, as shown by the example below. This holds significant importance given the launch of the NYISO DER aggregation market; participants looking to enroll in NYISO's market will need this information. The publication of Transmission Node PTIDs on the HC maps is synchronized with NYISO's advancements, providing yet another avenue for aggregators to access the required information.

Substation Level Data	
Feeder	36_17_33351
Substation/Bank Name	SHERMAN CRCC TB 1
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
Operating Company	0.00
Transmission Node PTID	109202

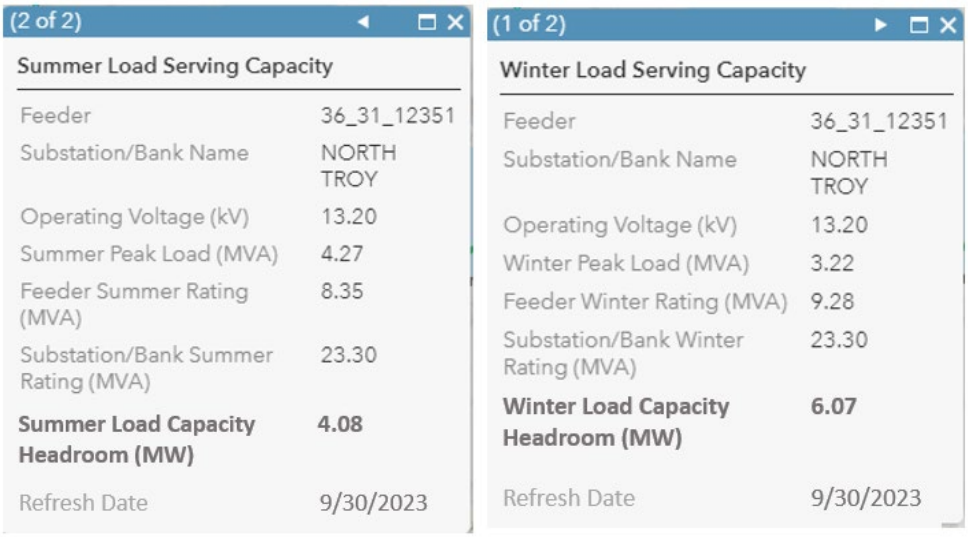
The JU have also updated the PV and ESS refresh cycle. Starting this year, the JU will annually refresh both the PV and ESS HC Maps in the spring to enable resource alignment.

Next Steps for the ESS HC Maps

To optimize the effectiveness of the HC Maps, the included data should exhibit a transparent connection to the CESIR & SIR. Responding to a directive from the Integrated Planning Working Group, the Interconnection Technical Working Group (ITWG) has been tasked with engaging developers in discussions and aligning on BES schedules, with the overarching aim of introducing enhanced functionality to the HC maps. The JU have taken a proactive step by presenting their initial energy storage schedules to stakeholders via the ITWG, actively seeking feedback, and are currently in the process of thorough review.

NEW: Electrification Maps!

In January 2024, the utilities published circuit level electrification maps, with a winter and summer view that stakeholders can toggle between. Load serving capacity is provided in both summer and winter views to allow for use cases that are seasonally driven. Like on the PV and ESS HC Maps, additional data fields are shared via pop-up menu. For illustrative purposes, see the summer and winter pop-ups below.



(2 of 2)

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 Rating (MVA)	23.30
Summer Load Capacity Headroom (MW)	**4.08**
Refresh Date	9/30/2023

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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

The color scheme on the electrification maps is represented below and is the same for the winter and summer; the level of capacity is the only difference presented.

Breakpoints	Color
>1.5 MW Capacity Remaining 3P Lines	
600 kW to 1.5 MW Capacity Remaining 3P Lines	
< 600 kW Capacity Remaining 3P Lines	
One- and Two-Phase Lines	
ESRI Base Layer	

The electrification maps have replaced the EV maps, but keep all the functionality of the EV maps, such as environmental locations.

JU Prepare for the Launch of NYISO's 2019 DER Participation Model

The Joint Utilities continue to steadily make progress on readiness activities pertaining to the NYISO DER Market Participation Model Launch (DER market launch). The Joint Utilities continue to collaborate with the NYISO to advance market readiness by resolving DER participation topics. Most recently, the Joint Utilities have worked on the following items:

- Registration and enrollment processes
- Settlement issues
- Customer authorizations for DER owners prior to enrollment into aggregations

The Joint Utilities are also reviewing the list of documents that NYISO will provide to DER aggregators along with the NYISO's User Guide. Since only the User Guide will be provided to the utilities at the time of aggregator registration and the supplemental documents will not be provided, the JU are using this opportunity to understand and study the contents of the supplemental documentation. The JU are also assessing the creation of their own one-page document to serve as an aid for aggregators. The JU anticipate that this document will list the following key requirements that an aggregator must adhere to, barring which an aggregator's registration will be rejected:

- Customers proposed to be part of an aggregation should have advanced metering infrastructure (AMI) or MV90 meters installed.
- Injecting/ power exporting DERs proposed as part of an aggregation should have a valid interconnection agreement (IA).
- The appropriate transmission node (T-node) should be identified correctly.
- Telemetry communications should have already been established with the NYISO and the relevant utility.
- All DERs within an aggregation should be served by the same load serving entity (LSE).

The JU are also working with the ITWG to create and evaluate methods to conduct the safety and reliability assessment of DER aggregations (the “utility review”). The JU will continue to collaborate with the ITWG to align on common practices for the utility review to the extent feasible.

Separately, the Joint Utilities are implementing processes and procedures that will support the DER market launch and transition participating customers to appropriate requirements such as metering and tariffs, as well as DER Aggregator information pages or portals.

Tools and Informational Sources

Advanced Forecast	**Joint Utilities** Joint Utilities: Overview of Currently Accessible System Data Joint Utilities: Load Forecasts Joint Utilities: Historical Load Data				
Beneficial Locations	**Joint Utilities** Joint Utilities: Beneficial Locations				
Customer Data	**Central Hudson** Central Hudson: Privacy Policy	**Con Edison** Con Edison: Customer Energy Data	**National Grid** National Grid: NY System Data Portal	**NYSEG RG&E** NYSEG: Your Energy Data	**O&R** O&R Information on Requesting Aggregate Whole Building Data O&R Energy Service Company EDI O&R New York Rates and Tariffs O&R Share My Data
DER Integration & Inter-connection	**Joint Utilities** Joint Utilities: Distributed Generation Joint Utilities: Interconnection Joint Utilities: SIR Pre-Application Information				
	Central Hudson Central Hudson: Distributed Generation Homepage Central Hudson: Interconnection Queue	**Con Edison** Con Edison: Private Generation Energy Sources	**National Grid** National Grid: Systems Data Portal National Grid: Interconnection	**NYSEG RG&E** A Developer's Guide to the NYSEG/RG&E Interconnection On-line Application Portal NYSEG - Online Portal RG&E - Online Portal NYSEG - Queue RG&E – Queue *SIR Inventory requests:* NYRegAdmin@avangrid.com	**O&R** O&R: Distributed System Platform O&R Private Generation Energy Sources

Energy Efficiency	**Central Hudson** Central Hudson: Energy Efficiency	**Con Edison** Con Edison: Energy Star	**National Grid** National Grid: Energy Savings Programs	**NYSEG RG&E** NYSEG: Smart Energy RG&E: Energy Efficiency Incentives	**O&R** O&R: Energy Efficiency Rebates
Energy Storage	**Central Hudson** Central Hudson: Projects	**Con Edison** Con Edison: Energy Storage	**National Grid** National Grid: Battery Programs	**NYSEG RG&E** NYSEG RG&E: Energy Storage Service Agreement	**O&R** O&R Private Generation Tariffs
EV Integration	**Joint Utilities** Joint Utilities: EV Programs Joint Utilities: Approved Contractor List with New Filter Capabilities				
	Central Hudson Central Hudson: EV Homepage	**Con Edison** Con Edison: Electric Vehicles	**National Grid** National Grid: Upstate NY Electric Vehicles Hub	**NYSEG RG&E** NYSEG: Electric Vehicles RG&E: Electric Vehicles	**O&R** O&R Electric Vehicles Information O&R Electric Vehicle Guest Drive Event Video
Hosting Capacity	**Joint Utilities** JU Utility Specific Hosting Capacity				
	Central Hudson Central Hudson: Hosting Capacity Maps	**Con Edison** Con Edison: Hosting Capacity	**National Grid** National Grid: ESRI Portal	**NYSEG RG&E** NYSEG/RGE Hosting Capacity Map	**O&R** O&R Hosting Capacity and System Data
NWAs	**Joint Utilities** Joint Utilities: Utility-Specific NWA Opportunities				
	Central Hudson Central Hudson: NWAs	**Con Edison** Con Edison: Non-Wires Solutions	**National Grid** National Grid: NWA	**NYSEG RG&E** NYSEG - Non-Wires Alternatives RG&E - Non-Wires Alternatives	**O&R** O&R NWA Opportunities Non-Wires Alternatives Opportunities Portal

Progressing the DSP	**Joint Utilities** Joint Utilities: Utility DSIPs Joint Utilities: Capital Investment Plans Joint Utilities: Electric Reliability Reports