Distributed System Platform (DSP)
Stakeholder Webinar

April 23, 2020
Welcome and Logistics

• Welcome and thank you for joining!
• Questions can be submitted via the ‘question function’ on the webinar interface
• Webinars are open to the public and recordings will be posted following the webinar on the Joint Utilities website: www.jointutilitiesofny.org
• Please contact info@jointutilitiesofny.org if you have any additional questions following the webinar

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<td>JU DSP Updates Since DSIP Webinar in December</td>
<td>David Conroy (NYSEG/RG&amp;E) and David Lovelady (National Grid)</td>
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<td>Advancing Hosting Capacity Efforts</td>
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<td>Summary of New York Electric Vehicle Activities</td>
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<td>Update on JU-NYISO Discussions</td>
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<td>Q&amp;A Session on JU DSP Efforts</td>
<td>All presenters are happy to answer questions</td>
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Based on the current COVID-19 emergency, the Joint Utilities* have modified DG work as follows:

- Site visits are to be done using social distancing and appropriate PPE. Most utilities are considering virtual options for site visits if feasible.

- Distribution line work is continuing for DG projects with a PTO date prior to 09/01/2020.

- Substation construction work is continuing for DG projects (for Orange and Rockland, this is limited to projects with a PTO date prior to 09/01/2020).

- All office work, including application processing and engineering studies, is continuing in accordance with the New York Standardized Interconnection Requirements.

*DG Construction work is paused for Con Edison due to the magnitude of the coronavirus outbreak in their service territory.
JU Distributed System Implementation Plans (DSIPs) and Stakeholder Engagement
Recent and Upcoming JU Stakeholder Engagement

**Stakeholder Survey** released to help inform the 2020 DSIPs

- **Today's Webinar** on Distributed System Implementation Plans (DSIPs)
- **Next quarterly newsletter** posted to JU Website
- **Company-specific stakeholder meetings** on DSIPs (dates TBA)

- **51%** of respondents are using the JU website: www.jointutilitiesny.org

Quarterly **DSP Enablement Newsletter** published with updated structure based on October survey

- **Individual DSIPs** are filed

- **Stakeholder Survey** released to help inform the 2020 DSIPs

- **JU Stakeholder Webinar** on Distributed System Implementation Plans (DSIPs)

- **Today's Webinar** on Distributed System Implementation Plans (DSIPs) Stakeholder Webinar

- **Next quarterly newsletter** posted to JU Website

- **Company-specific stakeholder meetings** on DSIPs (dates TBA)
Opening new sources of value for customers and market participants

Expanded customer choice, greater use of DER as system resources, and enhanced access to value streams

Growing emphasis on large-scale renewables

DSP becomes even more flexible and adaptable

DSP delivers safe, reliable, efficient, and clean electricity to customers

DSP investments enable management of a more fully integrated grid

Remaining responsive to evolving state objectives (REV, CLCPA) and market dynamics

Three interrelated DSP aspects
Overview of JU DSP Topics

Focus of Today’s Webinar

- Hosting Capacity
- Customer Data
- System Data
- Electric Vehicles
- ISO-DSP Coordination

Three interrelated DSP aspects:

- DER Integration Services
- Market Services
- Information Sharing Services
Advancing Hosting Capacity Efforts
Advancing Hosting Capacity Efforts

The Joint Utilities continue to make progress aligned with the hosting capacity roadmap. Stage 3.0 of the hosting capacity displays was released in October 2019.

- The major enhancements made in Stage 3 are focused on including existing DER in the analysis and providing sub-feeder level hosting capacity.
- The Joint Utilities have since made additional updates to the displays, incorporating stakeholder feedback as part of a Stage 3.1 release in April 2020.

The Joint Utilities held three stakeholder engagement sessions after the release of Stage 3.0 to solicit input and feedback on the displays.

- To help solicit further input from a broader audience and users of the displays, the Joint Utilities conducted a stakeholder survey reaching ~ 1,475 stakeholders.
- The results of the stakeholder survey have helped to prepare and prioritize ongoing discussions with stakeholders.
## Recent Updates to the Hosting Capacity Displays

<table>
<thead>
<tr>
<th>Stage</th>
<th>Release Date</th>
<th>Additional System Data</th>
<th>Reflect Existing DER in Circuit Load Curves and Allocations</th>
<th>Sub Feeder Level Hosting Capacity</th>
<th>Add Incremental Feeder Level DER Installed since HCA Refresh</th>
<th>DER Included in Circuit Models as Input to HCA</th>
<th>Large PV</th>
<th>Other DG (CHP, etc.)</th>
<th>Small PV</th>
<th>Additional Supporting Reference Material</th>
<th>Downloadable Feeder Level Summary Data</th>
<th>Additional System Data on Upstream Constraints</th>
<th>Annotated Circuit Notes</th>
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<tbody>
<tr>
<td>Stage 2.1</td>
<td>April 18, 2018</td>
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<tr>
<td>Stage 2.1 Refresh</td>
<td>October 1, 2018</td>
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<td>Stage 3.0</td>
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<td>Stage 3.1</td>
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Stakeholder Survey Results

Overall level of engagement is up with 141 completed surveys.

The survey audience was primarily solar PV developers.

More than half of stakeholders report to use the maps on at least a weekly basis.

The results of the stakeholder survey will be discussed in greater detail at the next engagement sessions, currently targeted for mid-May.
Available Reference Materials

Developers are encouraged to reach out to the respective DG contacts at each utility with specific questions relating to the hosting capacity portal.

The Joint Utilities also encourage developers to visit the Joint Utilities hosting capacity page, as it has been recently updated with common reference material such as:

- Previous stakeholder engagement presentation slides and information on upcoming engagement sessions
- Links to each utility’s hosting capacity displays
- Descriptions of the analysis methodology and assumptions
- FAQs
- A user demo and tutorial of the Stage 3 maps

[https://jointutilitiesofny.org/utility-specific-pages/hosting-capacity/](https://jointutilitiesofny.org/utility-specific-pages/hosting-capacity/)
Information Sharing
The Joint Utilities continue to make valuable information more available and accessible to customers and market participants.

The existing utility system data portals provide access to system data, hosting capacity information, and non-wires solution opportunities.

The Joint Utilities are also participating in evolving and shaping new data platforms and resources to provide improved access to customer energy usage and system data, including:

- NYSERDA / Utility Energy Registry (UER)
- DPS Staff / NYSERDA / Orange and Rockland (O&R) Pilot Integrated Energy Data Resource
- Green Button Connect update
- New Commission proceeding on “Strategic Use of Energy Related Data”

*NYSERDA = New York State Energy Research and Development Agency*
The UER is a database platform managed by NYSERDA that provides public access to aggregated, community-scale, utility-reported energy data. The UER is intended to facilitate and support data needs for community energy planning and management.

- The UER was authorized by the Commission in April 2018.
- The JU worked with NYSERDA in developing the aggregation methodology and provided NYSERDA with the data sets while protecting customer specific data, including addresses, names, or account information.
- The UER Status Report was issued in December 2019 and made a number of recommendations to evolve the UER platform.
- The JU submitted comments on the UER Status Report and are looking forward to advancing the platform to meet customer needs through the establishment of a working group.

More information is available at: [https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Communities/Community-Energy-Use-Data](https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Communities/Community-Energy-Use-Data)
Orange and Rockland (O&R) is participating in an important data platform pilot program coordinated by DPS Staff and NYSERDA.

The “Pilot Integrated Energy Data Resource” design phase was completed in 2019 and went live in January 2020.

The pilot’s objective is to help DER developers to identify, evaluate and initiate DER development opportunities in New York State.

The data platform incorporates customer data as well as system data which developers can use (with proper qualification and authorization) to identify locations where their products and services may provide value to customers as well as meet utility system and potentially electric market needs.

The data platform does not allow access to a customer’s identifiable utility account information without the express consent of the utility customer.

The learnings from this pilot data platform may help inform the Commission’s new proceeding on Strategic Use of Energy Related Data.

Each utility continues to advance GBC implementation as AMI deployment rolls out in their service territory. NYSEG/RG&E and National Grid anticipate using Con Edison’s model as a basis for design and implementation, allowing for modifications specific to each utility’s system requirements.

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<tr>
<th>Utility</th>
<th>Registered Third-Parties</th>
<th>GBC Phase I</th>
<th>Additional Phases</th>
<th>GBC T&amp;C</th>
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<tbody>
<tr>
<td>Con Edison</td>
<td>4 complete</td>
<td>Meter number(s), corresponding energy or net energy usage (kWh, net kWh, ccf), and reactive power (kVAR)</td>
<td>Phase 2 (2019): Total electric bill cost, total gas bill cost, service class per tariff, ICAP tag, billing history</td>
<td>Proposed following data security agreement (DSA) guidelines</td>
</tr>
<tr>
<td>O&amp;R</td>
<td>11 actively onboarding</td>
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<tr>
<td></td>
<td>12 paused onboarding</td>
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<tr>
<td>NYSEG/R&amp;GE</td>
<td>6 (Energy Manager Pilot)</td>
<td>Pending AMI approval</td>
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<tr>
<td>National Grid</td>
<td></td>
<td>March 31, 2021 – with AMR data</td>
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<tr>
<td>Central Hudson</td>
<td>Only Green Button Download (GBD) available. No immediate plans to implement AMI at scale.</td>
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Strategic Use of Energy Related Data

On March 19, 2020, the Commission initiated a new proceeding to address the strategic use of energy related data, acknowledging that addressing "data-related topics across numerous proceedings was not optimal way to develop a unified treatment of data issues."

The Order directed DPS Staff to develop two (2) whitepapers by May 19, 2020.

**Data Access Policy Framework Whitepaper**
- Standardize privacy, security and data quality requirements to address privacy

**Integrated Energy Data Resource Platform Whitepaper**
- Consider data resource design and use cases, implementation and operation
System Data Portals

The JU system data portals provide access to system data, hosting capacity information, and non-wires solution opportunities.

- Access to the utilities' system data portals is available through the JU website (https://jointutilitiesofny.org/system-data/) as well as on the individual utilities’ web sites.

- Available information includes:
  - Hosting Capacity maps and data
  - Load historical and forecasted data
  - Installed and queued distributed generation (DG)
  - Non-Wires Alternative opportunities
  - Capital Investment Plans
  - Reliability Statistics

- Future information may be added in response to Commission requests:
  - Comments from the JU on the EV whitepaper will be filed April 27
  - Upcoming white papers in the Commission’s new proceeding on the strategic use of energy information
Overview of Currently Accessible System Data

Load Forecast

Each utility varies for accessibility of load forecast data. Please follow the methods indicated below to obtain each utilities available load forecasts.

Granularity: System

Central Hudson’s load forecasts are available on their Distributed Generation web portal.

Con Edison’s load forecasts are available on their Distributed System Platform web portal.

National Grid’s load forecasts are available through their System Data portal.
The Joint Utilities remain engaged and always open to receive stakeholder feedback on data needs to support their operations and the state policy goals while providing customer value.

The Joint Utilities and the Information Sharing Working Group continue to extend the invitation to developers and stakeholders to reach out with their data questions, business use cases and information requests and look forward to developing and making available usable data and information that meet their needs.

For any inquiries or feedback please e-mail: info@jointutilitiesofny.org

Looking Ahead: Energy Usage Data Collaboration in New York
Electric Vehicles
Recent and Upcoming EV Proceeding Key Dates (Case: 18-E-0138)

- January 13, 2020: Staff Whitepaper released
- February 5, 2020: Staff Notice Soliciting Comments released
- April 1, April 3, April 7: EV Technical Conference (rescheduled as webinars)
- April 27, 2020: Initial comments are due
- May 11, 2020: Reply comments are due
The Joint Utilities support New York’s ambitious transportation electrification goals.

Flexibility, creativity, and simplicity will be necessary to meet these goals.

Stakeholders (such as developers, site hosts, trade allies, community groups) look at this opportunity differently. The scale of the challenge necessitates a variety of solutions and business models, participation of diverse players, and a structure that will allow these many stakeholders to engage in the program.

An iterative, comprehensive, and multi-pronged strategy will facilitate increased cross-sector customer adoption, continued integration of new technologies, and the ability to adjust the grid and changing ecosystem over time.

The more the ultimate state-wide make-ready program design embraces the concepts of flexibility, creativity, and simplicity, the greater will be the progress toward the State’s transportation electrification objectives.
ISO-DSP Coordination
Defining Operational Coordination Requirements

- The JU have worked with the NYISO to define operational coordination processes required to support DER wholesale market participation.
- Key focus areas include:
  - Information exchanges between the TO/DSP, NYISO, Aggregators, and DER
  - DER aggregation registration
  - Mapping DER to a transmission node
  - Metering and telemetry requirements
  - Dual participation in wholesale and distribution markets
- JU have developed requirements to align distribution and bulk system security into traditional market operations
  - DSP Communications and Coordination Manual
  - DSP-Aggregator Registration Agreement
- JU requirements go beyond NYISO’s primary focus on NYISO-TO and NYISO-Aggregator coordination

Draft DSP Communications and Coordination Manual
Draft DSP-Aggregator Registration Agreement
Iterative Process for DSP Coordination with Aggregator/DER

1. Review DER aggregation registration
   - DSP review to ensure aggregation is compatible with distribution safety/reliability and each DER is in only one aggregation

2. Map DER to a transmission node
   - DSP maps each DER to the electrically closest transmission pricing node; all DER in an aggregation are at the same node

3. Confirm approval, node mapping to NYISO
   - Provides NYISO information to model aggregations and allow wholesale market participation

4. Ongoing operational coordination

5. Support NYISO settlement process

6. Proposed changes in aggregation composition

Aggregator can propose updates to aggregation composition on a monthly basis

If necessary, DSP will support NYISO to complete the DER aggregation settlement process

DSP, Aggregator exchange info/data to ensure wholesale participation reflects distribution system conditions
Timeline for NYISO’s DER and Aggregation Participation Models

- **1/23** FERC approves NYISO’s DER and aggregation participation models
- **5/1** Dual participation becomes effective for existing NYISO market participants
- **Q2 – Q4** Utilities work with NYISO to define transmission pricing nodes
- **Q3** Utilities and NYISO begin components of Aggregator registration process
- **Q4** DER and aggregation participation model fully deployed

Other ongoing efforts for the Joint Utilities include:
- Refining (if necessary) operational coordination requirements
- Finalizing the DSP-Aggregator registration process
- Developing a NYISO-hosted portal to facilitate operational coordination

Adapted from: NYISO, DER Important Dates and Schedule, MIWG, February 26, 2020.
Q&A Session

• Please submit questions via the ‘question function’ on the webinar interface
• Additional questions may be emailed to info@jointutilitiesofny.org following the webinar
• Visit www.jointutilitiesofny.org for more information

• Check out our quarterly newsletter with meaningful, substantive updates related to the DSIPs
• Succinct snapshot of how the utilities are making progress on the DSP
• Readily accessible information sources that are updated more frequently than the two-year DSIP cycle
• Regulatory updates with a focus on the potential impact to the DSPs and the attainment of state goals
• Available on the Joint Utilities website (tab: Stakeholder Engagement)
Thank you!

Website: www.jointutilitiesofny.org
E-mail: info@jointutilitiesofny.org
Overview of JU DSP Topics

Today’s Webinar
- Hosting Capacity
- Customer Data
- System Data
- Electric Vehicles
- ISO-DSP Coordination

Other Joint Utilities of New York Working Groups

Key Proceedings
- Load & DER Forecasting: Utility-specific online portals
- Cybersecurity and Privacy: Case 18-M-0376
- Energy Efficiency: Case 18-M-0084
- Monitoring and Control: Utility-specific online portals
- DER Sourcing: JU Website: Non-Wires Alternatives Opportunities, REV Connect
- Energy Storage: Case 18-E-0130
- Demos: REV Demonstration Projects