

**DER Report For NYSRC Executive Committee Meeting 8/14/20**

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The August edition of the Distributed Energy Resources (DER) Report is focused primarily on Joint Utilities (JU) of New York, which have published new Distribution System Implementation Plans (DSIP's) on the JU [website](#) in late June. Additional information is also available for each utility on the site, with links shown below.

The [Joint Utilities Quarterly Newsletter](#) is an easy read that highlights some of the latest efforts of the member utilities to develop, organize and promote a common development environment for all of the Energy-based initiatives in the state. Topics include: Ongoing efforts to procure energy storage, heat pump development, data sharing and Collaboration Pilot program, response to CLCPA directives, and Hosting Capacity application development.

This is the 3<sup>rd</sup> round of publication for the DSIP's, each of which now include hundreds of pages of information. Links are included below for the DSIP's, along with NWA's (Non-Wires Alternatives) and BCA's (Benefit Cost Analysis) Handbooks are provided below. Note that the JU website has links to each utility's hosting capacity applications, which require users to register for access.

Central Hudson	<a href="#">DSIP</a>	<a href="#">NWA</a>		
Con Edison	<a href="#">DSIP</a>	<a href="#">NWA</a>	<a href="#">Climate Vulnerability</a>	
National Grid	<a href="#">DSIP</a>	<a href="#">NWA</a> *	<a href="#">BCA Handbook</a>	
NYSEG / RG&E	<a href="#">DSIP</a>	<a href="#">NYSEG / RG&amp;E</a>	<a href="#">BCA Handbook</a>	<a href="#">Guidance Requirements</a>
Orange & Rockland	<a href="#">DSIP</a>	<a href="#">NWA</a>		

\* Requires user registration

As an example, excerpts from the Executive Summary of each Utility's DSIP follow:

Central Hudson: In the Initial DSIP and its prior and subsequent rate plans, Central Hudson outlined a number of Foundational Investments as part of its Grid Modernization Program designed to improve system reliability, improve system and customer efficiency, further enable DER integration, defer distribution capital investment by leveraging redundancy, and position itself for the transition from a static to a dynamic distribution operating system. Central Hudson's Grid Modernization Program is comprised of six major components:

- Facilitating energy storage by removing technical and economic barriers through programs, procurements, pilot projects, and tariffs.
- Distribution Automation (DA) – automated devices, distribution infrastructure (poles and wires)
- ESRI System Model Geographic Information System (GIS) – providing a single consolidated mapping and visualization platform
- Distribution Management System (DMS) – the centralized software “brains”
- Distribution System Operations (DSO) – the organization responsible for the use of the DMS
- Network Communications Strategy (NS) – the two-way communication system between the DA devices and DMS
- Substation Metering Infrastructure – Substation feeder metering upgrades required for accurate DMS power flow calculations

Con Edison: The Company is working on a new DER forecasting tool that will better incorporate new technologies and end-uses, such as storage and building electrification, and will have the architecture and design in place to allow for future extension to EVs, solar PV, and other DER technologies. The new tool and other advancements in forecasting will allow the Company to adapt the forecast as trends shift and policy actions are implemented. Examples that Con Edison within planning and operations to better integrate DER by:

- Installing advanced relays and telemetry in the underground system to facilitate two-way power flow.
- Forecasting DER at more granular levels to more accurately reflect its impact on demand, which will be facilitated by smart meter data and new forecasting tools.
- Continuing to identify and evaluate NWS as part of the capital planning process.
- Enhancing the hosting capacity map to provide additional data and insight to developers.

- Improving the interconnection process to increase transparency and bring projects online quicker and expanding it to address more technologies and configurations.
- Facilitating energy storage by removing technical and economic barriers through programs, procurements, pilot projects, and tariffs.

**National Grid:** The 2020 DSIP Update aligns with National Grid USA’s Northeast Decarbonization Pathway with a commitment to exceed customer expectations, enable growth and prosperity in the communities we serve, and make possible an affordable, sustainable, and secure energy system for tomorrow. Bringing this energy vision to life, will require a proactive, customer-centered, mission-driven approach. The Company's DSIP plans are based on the following four clarifying principles:

- Enable the energy transition for all by supporting the achievement of the Climate Act’s targets, delivering and enabling cost-effective clean energy solutions, improving our ability to integrate a greater portfolio of DERs, and delivering a future DSP model.
- Deliver for our customers efficiently by improving our processes and systems, ensuring choice and control over their energy services, enabling a high degree of situational awareness, lowering energy costs through optimizing our network, and enabling a thriving market for new and innovative services.
- Cultivate an efficient, reliable, and resilient grid that can adapt to the evolving paradigms of two-way power flows, optimize system performance and network resiliency with fewer and shorter power outages, and improve reliability, responsive demand, and customer participation.
- Maximize the effectiveness of performance incentives in driving these important outcomes.

**NYSEG / RG&E:** New York State Electric & Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E) (collectively, the “Companies”) present our 2020 Distributed System Implementation Plan (DSIP). Our “north star” is preparing the Companies to serve as the Distributed System Platform (DSP) provider that will promote New York’s policy goals, provide our customers with greater control over their energy usage and total energy bills, and provide developers and other market participants with the information they need to make informed investment decisions. Priorities for the next 5 years include:

- Implement Advanced Metering to measure electric flows at the grid edge and enable pricing and programs that help customers make informed energy decisions.
- Make significant progress implementing our long-term Grid Automation program, including investments in grid devices<sup>1</sup> that measure, monitor and control electric power flows along the network, capabilities that are necessary to accommodate large numbers of connected distributed energy resources (DER) and beneficial electrification loads while also enhancing the resiliency of the grid.
- Enhance the accuracy and integrity of data and network models that correctly represent our distribution system assets, and all connected DER and electrification loads - information that is required to plan and operate the grid.
- Improve our integrated planning methodologies and the data and insights we share with developers.
- Enable the deployment of clean DER and electric vehicle charging stations to make progress toward New York’s clean energy goals.
- Implement an Advanced Distribution Management System (ADMS) and design and build other control systems that will be needed to optimize our grid and DER.

**Orange & Rockland:** O&R focuses its DSP implementation efforts on three aspects of the platform: DER Integration Services, Information Sharing Services, and Market Services. The Company’s progress in these areas benefits customers and market participants by:

- Providing increased and better information that helps developers and third parties make informed market choices
- Stimulating DER deployment by assisting developers in realizing the compensation value with the Value of DER framework; and
- Implementing planning and operational methodologies and infrastructure that enable continued safe and reliable system operation at higher DER penetration levels.