



DATE: April 28, 2017

TO: Jason Pause, Electric Distribution Systems,
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Department of Public Service
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FROM: Joint Utilities of New York – Interconnection Technical Working Group

RE: 03/29/17 ITWG Meeting Follow-Ups – Monitoring and Control Screens

Pursuant to your request, this memo provides the response from the Joint Utilities of New York (“JU”) regarding identifying potential methods or options for screens to identify if an interconnection project should require Monitoring and/or Control. This response reflects the position of all of the utilities identified on this letterhead, although it does not necessarily apply to network systems. This information is preliminary for discussion purposes and is not intended to represent a final position on any issues. This response is not intended to replace the previously submitted Planning and Operational drivers for Monitoring and Control requirements.

JU Recommended Screening Criteria

The Joint Utilities have begun developing a list of screening criteria elements to determine when control would be required for solar PV systems larger than 50kW. Other generation technologies are out of the scope of this document. The screening criteria listed below has been developed under the guideline that monitoring is a requirement for all systems 50 kW and above. The Joint Utilities may alter this number depending upon interconnection circuit voltage, total aggregation of distributed energy resources, and available solutions on the circuit. If it is mutually decided to move in the direction of screening criteria, the Joint Utilities expect the final screen for monitoring and control to include an appropriate combination of the screening criteria listed below. Please note that this list was developed within the context of the ITWG, and has been designed to allow for more detailed discussion by the appropriate working groups, i.e. Monitoring and Control and ISO-DSP. Brackets indicate placeholder values to be discussed at a later date or in other forums.

Utility System Voltage – Control may be required for lower proposed solar PV system sizes interconnecting at utility 5kV voltage classes and below.

Hosting Capacity – Control may be required as a means to increase hosting capacity.

Anti-Islanding Requirements – Per the JU's Anti-Islanding requirements, a PCC recloser may be required for monitoring and control.

SIR Screen Borderline Violations – Solar PV systems that only marginally pass or fail a given screen will require monitoring if it is not already a requirement, and may also require control.

ISO Requirements – If the proposed PV system is subject to ISO requirements, monitoring and/or control will be required if it is not already a requirement.

Distribution Automation – Potential monitoring and control screens must consider the aggregate line section generation in multiple circuit configurations. The need for control due to the proposed solar PV system's impact on neighboring line sections is an increasing concern as Distribution Automation continues to be rolled out across utility service territories to ensure customer reliability and efficiency is not sacrificed. The utility may require control if the existing distributed generation exceeds an aggregate capacity of [X] kW on any of the neighboring line sections.

Minimum Daytime Loading – Solar PV output exceeding the local loading raises a number of concerns across voltage, thermal, and protection power system criteria. If the proposed solar PV system exceeds a capacity of [X] % of the minimum daytime loading the utility may require control in addition to monitoring.

Phase Balancing – Aggregate solar PV generation on single phase line sections may create adverse impacts to utility planning and operations. If the proposed PV system on a single phase line section creates a greater than [X] % unbalance at the next upstream 3 phase location but is still allowed to interconnect, the utility may require control in addition to monitoring.

Note: The above criteria shall be evaluated under the assumption that all interconnected and queued DG are operating. The JU will evaluate and implement lower cost solutions to monitoring and control as advances in smart inverter technologies and testing, communication protocols, and applicable standards are made.