



## **DISTRIBUTED AND TRANSMISSION-LEVEL PROJECT QUEUES: THE NEED FOR CROSS-QUEUE COORDINATION RULES**

Improvements in interconnection policies and significant expansion of the NY-Sun program since 2014 have led to explosive growth in the development of distributed generation (DG) projects of 5 MW-AC and below in New York, with annual DG installations growing by 111.3% from 2014 to 2018<sup>1</sup>, and an associated pipeline of 2.7 GW-AC of DG projects 1 MW-AC or larger in various stages of development as of July 2019<sup>2</sup>.

In parallel with the growth of the DG project pipeline, NYSERDA has conducted three solicitation rounds pertaining to large-scale renewables (LSR) projects (typically 20 MW-AC and higher in terms of capacity), with the most recent solicitation taking place in 2019. As a result of this, there has been an analogous build-up of LSR projects on the “transmission side” of the queue in various stages of maturity, with the solar PV pipeline alone standing at 8.7 GW-AC as of September 2019. Given the interdependence and shared constraints of the distribution and transmission systems, LSR projects, DG projects connecting through the SIR, and DG projects interconnecting through the non-SIR tariff are likely to affect each others’ transmission and distribution upgrades.

The simultaneous build-up of project pipelines at both the distribution and transmission level raises the need for fair, clear and orderly coordination rules regarding several aspects which have not been addressed, which include:

1. Firmness/maturity requirements for inclusion in Coordinated Electrical System Interconnection Review (CESIR) studies for DG projects and System Reliability Impact Study (SRIS) for LSR projects;
2. Rules for allocating substation/transformer capacity across DG and transmission-level projects;
3. Rules for allocating substation/transformer upgrade costs across DG and transmission-level projects;
4. Communication guidelines and timelines for cross-queue coordination regarding items 1-3;

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<sup>1</sup> SIR Inventory Information.

<http://www3.dps.ny.gov/W/PSCWeb.nsf/All/286D2C179E9A5A8385257F8F003F1F7E?OpenDocument>

<sup>2</sup> Ibid.

5. Jurisdictional issues regarding the authorization, implementation and enforcement of such rules;
6. Treatment of existing DG projects wishing to participate in wholesale markets.

Current queue inventory data for both DG and transmission-level (“NYISO”) projects suggests that this concern is not an abstract one, but an accident waiting to happen: As of October 2019, there were at least 16 substations associated with both DG projects over 1 MW-AC and large-scale projects under development in New York State<sup>3</sup>. Given hosting capacity and transmission constraints in New York’s grid, such instances are only likely to increase over time.

The absence of clear cross-queue coordination rules leaves both distributed and transmission-level projects open to the risk of significant increase in interconnection-related cycle times, which, if systemic, would pose a risk to the state’s legally mandated goals as regards both distributed solar PV deployment (6 GW by 2025) as well as decarbonization goals for the electric sector (100% carbon-free by 2040) and overall economy (85% carbon-free by 2050).

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<sup>3</sup> SIR Inventory Information (Ibid) and NYISO Interconnection Queue Data.  
<https://www.nyiso.com/documents/20142/1407078/NYISO-Interconnection-Queue.xlsx/c0fe9a9b-7011-ab05-0f51-fd4ad0ef33f0>