

# Establishing NYISO Telemetry Communications

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# Background

- **“Generation Providers will communicate with the NYISO through the facilities of its area Transmission Owner. The Generation Provider shall satisfy the practices of the Transmission Owner.” - Sec. 2.6 of the Control Center Requirements Manual**
- **“A DSASP Provider may elect to register DSASP Resources that receive the NYISO's dispatch signals through the Transmission Owner or via Direct Communication with the NYISO.” - Sec. 6.2.3.2 Ancillary Services Manual**
  - “The NYISO has established a NYCA-wide limit of 200 MW for DSASP Resources using Direct Communications in order to limit the exposure of the amount of Operating Reserves that is not under Transmission Owner control during Interim Control Operations.” - Sec. 6.2.3.9 Ancillary Services Manual
- **Analog Telemetry (Phase I) of MW to the NYISO is required: (Sec. 3.2.4 Control Room Requirements Manual)**
  - “For generation units of 500 MW or above, or intermittent generation of 200MW or above.”
  - “For complexes where (a) the total generation is 500 MW or more, or there is 200 MW or more of intermittent generation connected to a single transmission station, and (b) where loss of the complex is determined by the NYISO Staff to have a significant impact on NYS Power System security.”
- **Generation Providers and DSASP Providers have the option to additionally establish Direct Communication to the NYISO**
- **Currently, all Phase II telemetry to the NYISO is via ICCP over MPLS, additionally the NYISO allows ICCP over SD-WAN (up to 100MWs per Supplier)**
  - With the DER Model Deployment the NYISO will also allow optional Direct Communication using DNP3 over SD-WAN (up to 100MWs per Supplier)

# NYISO Process to Establish a Direct MPLS Connection

- **A Generator or DSASP Provider reaches out to the NYISO to indicate that it would like to establish an ICCP over MPLS communications connection to the NYISO**
- **The following steps illustrate the NYISO process to set up an ICCP over MPLS connection:**
  - This process assumes the Generator or DSASP Provider has network connectivity from the street to the Generator or DSASP Provider site. If network connectivity is not installed to the site, then it can take significantly longer for the telecommunications company to establish connectivity from the street to the site.
  - The following occur in parallel:
    - Telecommunications company sets up the MPLS circuit
    - The NYISO deploys an EMS database update to model the Generator or DSASP Provider
    - ICCP configuration is completed for the MPLS connection
    - NYISO Network Services configures the appropriate firewall rules for the ICCP connection to be possible
  - Testing then occurs over a few days but may take longer to coordinate any issues that are revealed during testing that require the vendor, the NYISO, and the Generator to resolve.

# NYISO Process to Establish a Direct SD-WAN Connection

- **A Generator or DSASP Provider reaches out to the NYISO to indicate that it would like to establish an ICCP over SD-WAN communications connection to the NYISO**
- **The following steps illustrate the NYISO process to set up an ICCP over SD-WAN connection:**
  - This process assumes the Generator or DSASP Provider has network connectivity from the street to the Generator or DSASP Provider site. If network connectivity is not installed to the site, then it can take additional time for the internet company to establish connectivity from the street to the site.
  - The following occur in parallel:
    - Generator or DSASP Provider contacts NYISO SD-WAN vendor and deploys SD-WAN equipment to establish SD-WAN connection that is configured and managed by the SD-WAN vendor
    - The NYISO deploys an EMS database update to model the Generator or DSASP Provider
    - ICCP configuration is completed for the SD-WAN connection
    - NYISO Network Services configures the appropriate firewall rules for the ICCP connection to be possible
  - Testing then occurs over a few days but may take longer to coordinate any issues that are revealed during testing that require the vendor, the NYISO, and the Generator to resolve.
  - NYISO EMS modeling is likely the lengthiest activity, however, the Transmission Node design will allow for streamlined Aggregation EMS modeling

# Our Mission & Vision



## Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



## Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

# Questions?