



The NYISO has the capability to accept DLRs via Inter-control Center Communications Protocol (ICCP) secure communications from asset owners. The NYISO uses the updated ratings in the Real-Time Energy market Solutions and Energy Management System (EMS) Security analysis functions.

The NYISO does not differentiate between Ambient Adjusted Ratings (AARs) or DLRs in the current real time implementation of adjusting line ratings. A majority of the Bulk Electric System (BES) equipment in NY is able to be rated using AARs or DLRs.

### **RESPONSES TO AGENDA QUESTIONS**

**Can RTOs/ISOs currently accept and use a DLR data stream from a transmission owner?**

**What needs to be modified to address any barriers to RTOs/ISOs accepting and using DLR data streams?**

The NYISO accepts DLR data from the transmission owners via ICCP for use in Real-Time Energy Market Solutions and EMS Security analysis functions. The current set of facilities in the New York Control Area (NYCA) that have DLRs are underground cables, the ratings of which do not change frequently. Any AARs that are received by the NYISO are typically based on a conservative forecast of temperature for the day, and do not vary significantly from the seasonal ratings values. This treatment is beneficial as DLRs that change frequently, especially those that could be reduced from seasonal ratings, may actually be detrimental to system security, price formation, and reducing uplift.

Addressing reliability, operators are required by NERC standards to plan for contingences and develop corrective action plans that will be implemented to respect System Operating Limits (SOL) if a contingency occurs. Frequently changing ratings, especially during emergency conditions, may require significant operator attention to be focused on redeveloping

corrective action plans. Of greater concern would be a scenario in which one rating set is in place that is used to develop a plan to resolve a projected post-contingency overload, and then after the contingency occurs and the actual loading on the facility increases, the DLR starts to decrease and continues to decrease even as corrective actions are being implemented. This scenario could impact real time reliability and cause equipment damage.

From a market perspective, many market operators, including the NYISO, have look-ahead tools that forecast and schedule fast start resources and transaction schedules. If the look-ahead tool has a higher rating on a facility, it may correctly schedule more economic interchange or transfers from other parts of the system. However, if the DLR updates to a lower value in Real-Time than was in place in the forward market evaluation, it may result in more congestion and potential uplift, as there is usually less flexibility in Real-Time market operations.

To address the volatility associated with changing limits, the NYISO may need to develop tools to “hold back” the use of some portion of the dynamic rating to address these concerns. Alternatively, dynamic ratings could be used in Real-Time Energy Markets only to increase seasonal rating values above what are considered in forward market evaluations. This is how NYISO generally implements DLR capability.

- **How does the implementation of AARs by an RTO/ISO differ from implementation of DLRs? If an RTO/ISO implements the use of AARs in its software and communications capabilities and standards (data formats, internet protocols, cyber security requirements, etc.), what else must it do to implement DLRs?**

The NYISO does not see any difference in our current practice in accepting AARs versus DLRs in Real-Time.

- **What responsibilities, if any, should the RTOs/ISOs have with regard to any verification of values provided by the transmission owners? How should any disputes regarding disagreements of values between the transmission owner and RTO/ISO be resolved?**

In the NYISO footprint, the asset owners (TOs) are responsible for the ratings provided. For seasonal ratings, the asset owners provide the ratings and the NYISO determines the most limiting element. Pursuant to NERC standards, the most limiting rating should be used until a disagreement can be resolved. In Real-Time, each facility is assigned a rating authority, so there are no disagreements between the TO and the NYISO on ratings.

- **If DLRs or AARs were adopted, what if any additional coordination might be necessary? For instance, coordination across RTO/ISO seams, across transmission owner seams, or within or between reliability coordinators.**

The Transmission Operators and Reliability Coordinators who control, monitor, or have visibility of transmission equipment need to be updated with the in-use equipment ratings. This could be done through many different methods, such as electronic communications or verbal communications, though electronic communication takes the burden off the operators. The NYISO makes DLRs available on ICCP so that all parties are using the same ratings.

- **What coordination of ARRs or DLRs are required between the RT, DAM and FTR markets?**

Reliability is the cornerstone of establishing and administering the markets in question. The NYISO Day Ahead Market incorporates both financial and reliability passes to present a secure day ahead plan to the operators. This plan may need to be augmented as needed to

address reliability concerns identified after the DAM, but the Day Ahead Market is the starting point for addressing these concerns. To avoid the risk of an unanticipated reduction in transmission capability, and potentially a reliability concern, the NYISO uses the seasonal ratings in the DAM. In Real-Time, DLR and AAR are accepted and utilized to make any additional transfer capability available. In the NYISO Energy Markets, additional transmission capability made available in Real-Time Energy Markets relative to the Day-Ahead Market may result in a return of Day-Ahead Market congestion costs (Balancing Market Congestion Costs) to NYISO end use consumers, thereby directly providing a cost benefit to consumers.

Forward Transmission Right (FTR) markets should not represent more transmission capability than is expected to be realized in the Day-Ahead Market. To this end, the NYISO TCC market will utilize the applicable seasonal ratings.