

# How Real-Time Telemetry Impacts Real-Time Market Dispatch & Pricing

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# Real-Time Market Solution

- ♦ **Security Constrained Economic Commitment & Dispatch Model**
  - **All Significant Transmission Constraints Modeled**

# Real-Time Market Solution

## ◆ Inputs:

- **Hourly Internal Generation Resource Offers**
- **Hourly Transaction Offers**
- **Expected Transmission Topology**
- **Other Static Data (e.g. Regulation & Reserve Requirements)**
- **Forecast Zonal Loads**
- **Generator Operating Status & Dispatch**
- **Phase Angle Regulator Operation**
- **Transmission Owner Dynamic Facility Ratings**

# Real-Time Metering Inputs

- ◆ **Generator Operation**
  - **Current Real-Time MW**
  - **~320 Meter Points**
- ◆ **Phase Angle Regulator Operation**
  - **Current Real-Time MW**
  - **~40 Meter Points**
- ◆ **Zonal Loads Forecasts**
  - **Current Real-Time Zonal MW**
  - **Based on Generator and Tie Line Metering**
  - **~425 Meter Points**

# Real-Time Metering Inputs

- ♦ **Meter Errors Result in Price Corrections**
  - **Impacts Generator Dispatch**
  - **May result in incorrect pricing**
  - **Price may not be calculated in accordance with Tariff**
- ♦ **Intelligent Source Selection (ISS)**
  - **Redundant Metering**
    - **Multiple Metering Points and Sources**
  - **Checks and Filters Erroneous Data**
  - **Reduces Price Corrections**

# Price Corrections

- ◆ **Telemetry Errors in Real-Time Market**
- ◆ **RTD Intervals Corrected For Metering Errors**
  - **2006 – 51 Intervals / 46 Hours**
  - **2007 – 10 Intervals / 8 Hours**
  - **2008 (Jan-Apr) – 14 Intervals / 14 Hours**

# Intelligent Source Selection

- ◆ **Presented at Billing & Price Correction Task Force on 24 April 2006**
- ◆ **Metering Failure Will Not Result In Error Of Generator, Tie Line Or Phase Angle Regulator Values Used By RTS**
- ◆ **Coverage of telemetry sources**
  - **40% in 2006**
  - **83% in 2008**



The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and provides comprehensive reliability planning for the state's bulk electricity system.

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