

Part 2 – DSASP Overview

DSASP Aggregations Overview (Demand Side Ancillary Services Program)

Michael Lavillotti
Product Business Analyst
New York Independent System Operator

Tuesday, March 5th, 2013 09:00 AM – 12:00 PM

Thursday, March 14th, 2013 01:00 PM – 04:00 PM

Web Ex - Rensselaer, NY

Training Topics

- ◆ Part 1: Introduction to DRIS
 - *DRIS User Requirements*
 - *User Privileges*
 - *Access to DRIS*
- ◆ **Part 2: DSASP Overview**
- ◆ Part 3: DSASP Resource Enrollment in DRIS
 - *Export Enrollment File*
 - *Import DSASP Resources*
 - *Resource Import Validations*
 - *Manage Import Results*
- ◆ Part 4: DSASP Aggregations in DRIS
 - *View DSASP Aggregations and Resources*
 - *DSASP Resource Enrollment Statuses*
 - *Manage DSASP Aggregations*
- ◆ Part 5: DSASP Resource Registration for MIS
 - *Export DSASP Resource Report from DRIS*
 - *Submit DSASP Registration Report*
- ◆ Part 6: Submitted Aggregations in DRIS
 - *View History of Submitted Aggregations*
- ◆ Part 7: View DSASP Resource Enrollment in DRIS
- ◆ Part 8: Deployment
 - *Additional Training Sessions*
 - *Deployment Activities*

DSASP Overview Topics

- ◆ Demand Side Ancillary Services Program
- ◆ DSASP Terminology
- ◆ DSASP Aggregation Functionality
 - *DSASP Aggregations*
 - *Program Participation*
 - *Registration*
 - *Communication*
- ◆ Ancillary Services Manual Language

DEMAND SIDE ANCILLARY SERVICES PROGRAM

DSASP

- ◆ Deployed in 2008
- ◆ Allows for Demand-Side Resources to participate in the Ancillary Services Program to provide operating reserves or regulation
 - *Interruptible loads for Spinning Reserves and/or Regulation*
 - *Loads with a qualified behind-the-meter Local Generator for Non-Synchronous Reserves*
 - **Behind the Meter Generation Rule: NPCC A06 – Section 3.10.2:**
“Loads cannot provide Synchronized Reserve if the reduction in Load is dependent on starting a generator to replace energy that is supplied from the grid.”
- ◆ Must be 1 MW or greater
- ◆ Modeled at physical location
- ◆ May communicate through the Transmission Owner or have Direct Communication with the NYISO

Resource Response Obligations when Jointly Enrolled

- ◆ **When jointly enrolled in a reliability program and an economic program:**
 - ***DSASP resources must respond to SCR or EDRP activations***
 - **If any specific DSR within a DSASP Resource is jointly enrolled in a reliability program, the entire DSASP Resource is automatically pulled out of Dispatch**
 - **At the time of the Event Notification for a 2-Hour Activation or an Immediate Activation, any scheduled DSASP Resources are automatically pulled out of Dispatch for the duration of the Event Hours (Automated process triggered by event notification)**
 - **If an Event is terminated early, the MP is responsible for resubmitting any DSASP bids**

DSASP TERMINOLOGY

DSASP Terminology

◆ Demand Side Resource:

- *A resource located in the NYCA that is capable of controlling demand in a responsive, measurable and verifiable manner with in time limits, and that is qualified to participate in competitive Energy, Capacity, Operating Reserves or Regulation or in the EDRP*
 - Ex: Retail locations, office buildings, etc.

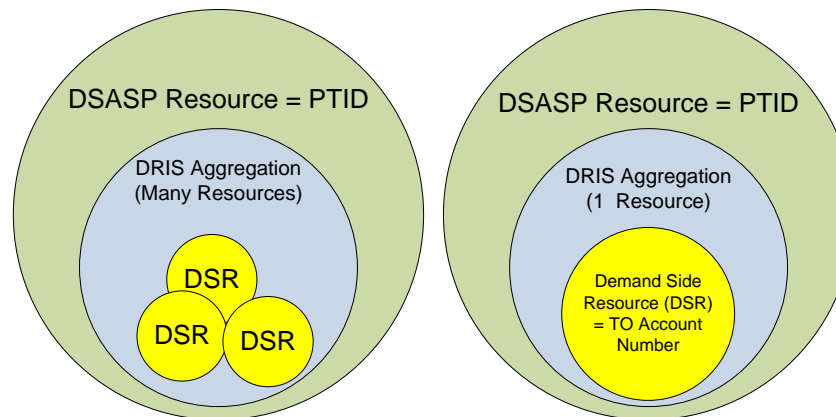
◆ DSASP Resource (MIS & Tariff term):

- *The representation of the capability of an individual resource or a DSASP Aggregation as an ancillary service supplier located in the NYCA with at least 1 MW of reduction that is represented by a point identifier (PTID) assigned to a Load Zone or Subzone by the ISO*
 - Ex: Individual or Aggregate of DSRs represented as a single entity

DSASP Terminology continued

- ◆ **DSASP Aggregation (DRIS term):**
 - *One or more individual demand-side resources that make up a DSASP Resource. Resources are grouped by zone and resource type for participation in either operating reserves or regulation services*

 - *The DSASP Aggregation cumulative offering must be greater than or equal to 1 MW to participate*



DSASP Aggregation Functionality

DSASP Aggregations

- ◆ **Allows for smaller Demand-Side Resources to Aggregate in order to participate in the Ancillary Services Program**
 - *Aggregate by zone*
 - *The aggregation must be 1MW or greater*
 - *A DSASP Resource comprised of an aggregation of Demand-Side Resources will be modeled at one predetermined location within each zone*
 - *Must specify a reduction for both Capability Periods*
 - *May communicate through the Transmission Owner or have Direct Communication with the NYISO*
- ◆ **Deployment for the Demand Response Information System (DRIS) scheduled for March 2013**
- ◆ **Aggregations will be permitted to begin submitting DSASP Resource Registrations for the program as of April 1st, 2013**

DSASP – Zonal Bus Points

- ◆ **DSASP Aggregations will be modeled at the following Zonal Bus Points:**

Zone	Zone Name	Station	Aggregate DR Station
A	WEST	PACKARD 115	DRA PACK 115
B	GENESE	S42 115	DRB S42 115
C	CENTRL	SOLVAY 115	DRC SLVY 115
D	NORTH	PL-6C 115	DRD POTL 115
E	MHK VL	EDIC PTR 115	DRE EDIC 115
F	CAPITL	PATROON 115	DRF PATR 115
G	HUD VL	ROCKTVRN 115	DRG RCKT 115
H	MILLWD	MILLWOOD 138	DRH MLLW 138
I	DUNWOD	DUNWODIE 138	DRI DUNW 138
J	N.Y.C.	E13THSTA 69	DRJ E13T 69
K	LONGIL	BRENTWOD 69	DRK BRNT 69

- ◆ **Modeled as a Generator**

- *Single DSR– At closest physical bus point*
- *Aggregation of multiple DSRs – Assigned bus point per zone*

Program Participation

◆ DSASP Resource Participation

- *Two DSASP Aggregations of multiple DSRs allowed, per Market Participant (MP) per Zone*

- *Aggregation Product Types (One of each)*
 - Synchronous
 - Ability to offer Regulation Services
 - Non-Synchronous

- *No Limit on Individual Demand Side Resources participating as an aggregation of one and modeled as a single PTID at the closest physical bus point*

DSASP Resource Registration Process Flow

- ◆ Enrollment of Demand Side Resources into DRIS
- ◆ Registration of DSASP Resource
- ◆ Modeling
- ◆ Testing
- ◆ Market Participation



DSASP Resource Enrollment: DRIS

- ◆ **Demand Side Resources will be validated and be aggregated through DRIS**
 - *MPs will import individual Demand Side Resources, to form a DSASP Resource (Aggregation)*
 - *MPs will manage resources to create aggregations*
 - *DRIS will validate individual and aggregate level information in order to prepare for registration submittal*
 - *DRIS will perform validation, enrollment and record keeping functionality*

DRIS manages and tracks individual Demand Side Resources which make up the DSASP Resource (Aggregation/Gen PTID).

DSASP Resource Registration: Gen PTID

- ◆ **MP will send DSASP Resource Registration Packet with DSASP Resource Report to NYISO Member Relations (MR)**
- ◆ **Operations will model Aggregation (Multiple Demand Side Resources) as a single Unit (DSASP Resource)**
- ◆ **Member Relations enter DSASP Resource into MIS, with a single Gen PTID**
- ◆ **DSASP Resource Provider contacts Stakeholder Services to schedule:**
 - *Communications Test (IT Grid Ops)*
 - *Pre-Qualification Test (Operations)*

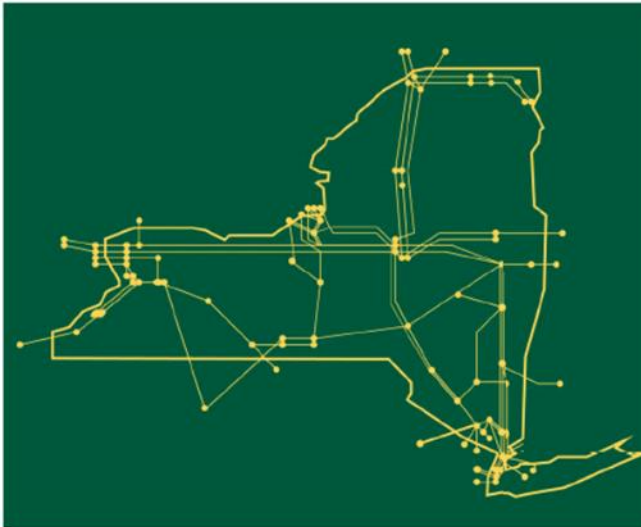
Communication Path

- ◆ **DSASP Resources have two choices for Communication**
 - ***Direct Communication (ICCP)***
 - **Connect and communicate directly with the NYISO**
 - **Initial Program wide 150MW cap**
 - ***Communication through TO (ICCP)***

Ancillary Services Manual

- ◆ **New DSASP section under 6.2.3 “Other Supplier Requirements”**
- ◆ **Topics:**
 - *Requirements for DSASP Resources*
 - *DSASP Provider Responsibilities*
 - *Interaction with other NYISO Demand Response Programs (existing DSASP program rule)*
 - *Participation Requirements*
 - *Enrolling Demand Side Resources in DSASP*
 - *Modeling of DSASP Resources*
 - *Communication Requirements*
 - *Limit on Direct Communications for DSASP*
 - *Changes to DSASP Resources*
 - *Metering and Measurement of DSASP Resources*

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



www.nyiso.com