

# Targeted Demand Response Program (TDRP)

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**Demand Response In-Depth**

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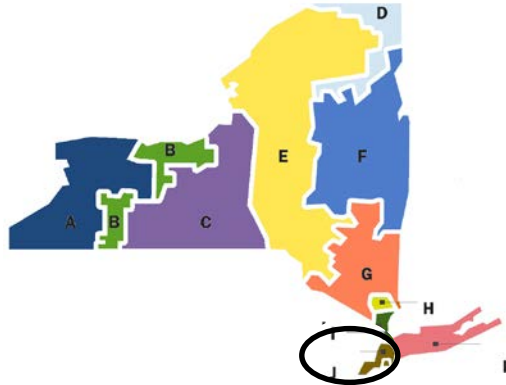
Rensselaer, NY

# Session Objectives

- **Define the purpose of the Targeted Demand Response Program (TDRP)**
- **Identify conditions for deploying the TDRP**
- **Explain similarities to NYISO's other reliability-based Demand Response programs (e.g., Event Notification, Event Response, Meter Verification, Settlement)**

# Targeted Demand Response Program

- One of NYISO's reliability-based demand response programs
- Purpose: Provide load reductions under specific conditions, in response to a Transmission Owner's request for assistance, to solve local reliability problems
- Only available in targeted areas within Load Zone J (New York City)



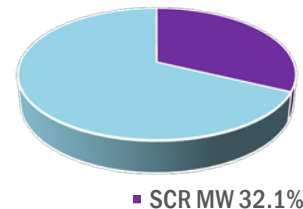
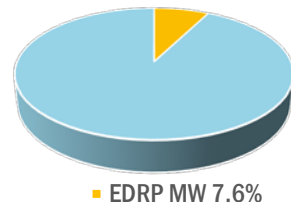
# TDRP Deployment – Load Zone J

- NYISO deploys DR resources in one or more sub-load pockets in Load Zone J
- The sub-load pockets correspond to the following Transmission Owner network area substation groupings

Sub-Load Pocket Identification	Area Substation Grouping
J1	Sherman Creek/Parkchester/E 179 <sup>th</sup>
J2	Astoria West/Queensbridge
J3	Vernon/Greenwood
J4	Staten Island
J5	Astoria East/Corona/Jamaica
J6	W 49 <sup>th</sup>
J7	E13 <sup>th</sup> /East River
J8	Farragut/Rainey
J9	Shared Subzone

# TDRP Resources

- TDRP deploys existing wholesale market EDRP resources and SCRs enrolled in Zone J
- Load reduction during a TDRP reliability event is voluntary
- Load reduction through interruptible loads or loads with a qualified behind-the-meter Local Generator
- In 2017, 7.6% of total NYCA EDRP MW and 32.1% of total NYCA ICAP/SCR MW participated in the TDRP



NYCA EDRP/SCR Resources participation in TDRP

# Conditions for Deploying TDRP

- A TDRP event is called (either for specific sub-load pockets or for the entire Zone J) when
  - Contingencies exist that cannot be cleared through available Generation resources, or
  - Significant service interruptions are anticipated unless Load relief measures are employed
- Contingencies could exist in
  - The Transmission and Sub-Transmission System (69kV or higher)
  - Lower Voltage Systems (33kV or below)
- Based on the contingencies, NYISO might put forth Day Ahead advisories, or In-Day Deployment notices for TDRP deployment

# TDRP Characteristics

- **Program Eligibility Requirements:**
  - Resources geographically present in Zone J, currently enrolled in either the EDRP or SCR programs can participate in TDRP events; no separate eligibility requirements
- **Enrollment Process:**
  - No separate enrollment required
- **Baselines for Performance Measurement:**
  - Customer Baseline Load (CBL), as calculated for EDRP/SCR resources
    - Weekday or weekend CBL calculation similar to EDRP resources
    - In-day weather adjustment allowed
- **Performance Measurements:**
  - Load reduction during a TDRP event measured using metering data submitted, similar to EDRP/SCR resources

# TDRP Characteristics

- TDRP Event Notification and Customer response: Event notification for a TDRP event and customer response to Event notification are similar to a NYISO event (SCR/EDRP activation)
  - Communication from NYISO contain similar information, and will clearly be marked as a TDRP Event
- The CSP or the RIP for the EDRP/SCR resource provides expected kW response (expected curtailment value) to the NYISO in response to the notification



# TDRP Characteristics

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## Demand Response Information System

### Notification Summary

Main MP Resource SCR Performance Factors DR Event Mitigation Tables Notification DSASP BTM

Capability Period: Summer 2016 Notification Type: TDRP Event  
 Events From Date: [ ] Program: [ ]

Summary  
 Response Summary  
 View Available MW Values  
 Expected MW for Scarcity Pricing  
 Scarcity Events

Capability Period	Notification Type	Notice Date/Time	Message Type	Program	Date/Time	Event End Date/Time	Zones	Response Expiration Date/Time
Summer 2016	TDRP Event	08/15/2016 11:58	Activation(2 Hour Notice)	EDRP	08/15/2016 14:00	08/15/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/15/2016 12:58
Summer 2016	TDRP Event	08/15/2016 11:58	Activation(2 Hour Notice)	SCR	08/15/2016 14:00	08/15/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/15/2016 12:58
Summer 2016	TDRP Event	08/14/2016 13:40	Day-Ahead Advisory	EDRP	08/15/2016 14:00	08/15/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/14/2016 14:40
Summer 2016	TDRP Event	08/14/2016 13:40	Day-Ahead Advisory	SCR	08/15/2016 14:00	08/15/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/14/2016 14:40
Summer 2016	TDRP Event	08/14/2016 07:17	Activation(2 Hour Notice)	EDRP	08/14/2016 14:00	08/14/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/14/2016 08:17
Summer 2016	TDRP Event	08/14/2016 07:17	Activation(2 Hour Notice)	SCR	08/14/2016 14:00	08/14/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/14/2016 08:17
Summer 2016	TDRP Event	08/13/2016 19:51	Day-Ahead Advisory	EDRP	08/14/2016 14:00	08/14/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/13/2016 20:51
Summer 2016	TDRP Event	08/13/2016 19:51	Day-Ahead Advisory	SCR	08/14/2016 14:00	08/14/2016 22:00	J1, J2, J3, J4, J5, J6, J7, ...	08/13/2016 20:51
Summer 2016	TDRP Event	08/13/2016 14:16	In-Day Activation	EDRP	08/13/2016 16:00	08/13/2016 20:00	J3	08/13/2016 15:16
Summer 2016	TDRP Event	08/13/2016 14:16	In-Day Activation	SCR	08/13/2016 16:00	08/13/2016 20:00	J3	08/13/2016 15:16
Summer 2016	TDRP Event	08/13/2016 12:50	In-Day Activation	EDRP	08/13/2016 15:00	08/13/2016 22:00	J8	08/13/2016 13:50
Summer 2016	TDRP Event	08/13/2016 12:49	In-Day Activation	SCR	08/13/2016 15:00	08/13/2016 22:00	J8	08/13/2016 13:49
Summer 2016	TDRP Event	08/13/2016 12:47	In-Day Activation	EDRP	08/13/2016 14:00	08/13/2016 20:00	J4	08/13/2016 13:47
Summer 2016	TDRP Event	08/13/2016 12:47	In-Day Activation	SCR	08/13/2016 14:00	08/13/2016 20:00	J4	08/13/2016 13:47
Summer 2016	TDRP Event	07/25/2016 12:41	Immediate Activation	EDRP	07/25/2016 13:00	07/25/2016 19:00	J1, J2, J3, J4, J5, J6, J7, ...	07/25/2016 13:41
Summer 2016	TDRP Event	07/25/2016 12:41	Immediate Activation	SCR	07/25/2016 13:00	07/25/2016 19:00	J1, J2, J3, J4, J5, J6, J7, ...	07/25/2016 13:41

# TDRP Characteristics

## ■ Event Reporting:

- Resource response to a TDRP event must be submitted to the NYISO through DRIS before the identified deadline
- Event response is imported into DRIS following the same guidelines as an EDRP/SCR resource during a NYISO reliability event
- Data required include:
  - CBL Dates (1-10) – Customer baseline calculation date (1-10)
  - CBL Include Indicator (1-10) – Field to indicate if the CBL date will be included in the CBL calculation
  - CBL kW (HB0-HB23) – Resource hourly CBL calculation for each Event hour
  - Metered kW (HB0-HB23) – Resource hourly metered load for each Event hour

## ■ Verification:

- All phases of meter verification and event response verification will be handled similarly to EDRP/SCR response to a NYISO reliability event

# TDRP Characteristics

## ■ Settlements:

- Settlements for a TDRP resource will be handled in accordance with the program that the resource is enrolled in
  - EDRP resources will be paid for verified load reduction during each hour of the payment eligibility period, as described earlier
  - SCR resources will be paid Energy payments for verified load reduction during each hour of the payment eligibility period, as described earlier
    - SCR resources may also be eligible for BPCG (Bid Production Cost Guarantee) payments
    - SCR resource response for TDRP events is voluntary, therefore no penalties apply
- The cost for TDRP payments will be recovered from the Transmission District owner for Zone J

# TDRP Performance Measurements and Settlement



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Demand Response Information System  
 Event Response Details

MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾ DSASP ▾ BTM ▾

Capability Period:	Summer 2016 ▾	Zone:	ID:	Status:			
Event:	TDRP Event - SCR - 01 ▾	MP:	Gen P ID:	Aggregation:	Reporting:	Display	

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Event Information

Type: TDRP Event	Program: SCR	Zones: J3
<b>Event Dates</b>	<b>Performance Hours</b>	<b>Response Submittal Dates</b>
Start: 08/13/2016 16:00	First: <input type="text"/>	Start: 08/16/2016 08:00
End: 08/13/2016 20:00	Last: <input type="text"/>	End: 10/27/2016 17:00
<b>Payment Hours</b>		<b>CBL Dates</b>
First: 08/13/2016 16:00		Start: 07/14/2016
Last: 08/13/2016 19:00		End: 08/11/2016

Performance Hourly Meter Data		Enrollment Hourly Meter Data		CBL Dates	Hourly Billing Data			
Resource ...	Hour	Net ACL	Verified ACL	CBL kW	Metered k...	Energy Red...	Declared Value/Test Value	Capacity Reduction kW
16		650	<input type="checkbox"/>	630	200	430	300	450
17		650	<input type="checkbox"/>	655	210	445	300	440
18		650	<input type="checkbox"/>	635	190	445	300	460
19		650	<input type="checkbox"/>	640	210	430	300	440

Performance Hourly Meter Data		Enrollment Hourly Meter Data		CBL Dates	Hourly Billing Data	
Resource ...	Hour	Status	Settlements kW	Zonal LBMP	Net Energy Payment	Adjusted for Market...
<b>Invoiced</b>						
16		Invoiced	430	200	215	<input type="checkbox"/>
17		Invoiced	445	150	222.5	<input type="checkbox"/>
18		Invoiced	445	150	222.5	<input type="checkbox"/>
19		Invoiced	430	180	215	<input type="checkbox"/>

**Data that must be reported for TDRP Event response include:**

- a) Customer baseline calculation date**
- b) Resource hourly CBL calculation for each Event hour**
- c) Resource hourly metered load for each Event hour**
- d) All of the above**

**Penalties apply for SCRs that do not participate in a TDRP event**

- a) True**
- b) False**

**BPCG does not apply for SCR resources participating in TDRP events**

- a) True**
- b) False**

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# References

- **Market Services Tariff (MST)**
- **Emergency Demand Response Program Manual**
- **Demand Response Information System (DRIS) User's Guide**