

EMERGENCY DEMAND RESPONSE PROGRAM MANUAL



# **Emergency Demand Response Program Manual**

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## **Table of Contents**

1.	DEF	INITIONS AND ACRONYMS	1-1
	1.1.	MARKET SERVICES TARIFF DEFINITIONS	1-1
		ADDITIONAL TERMS RELEVANT TO THE EMERGENCY DEMAND RESPONSE PROGRAM:	1-4
	1.2		
2.	ELIC	GIBILITY CRITERIA / PARTICIPANT QUALIFICATION	2-1
	2.1.	WHO CAN PARTICIPATE?	2-1
	2.2.	MINIMUM QUALIFICATIONS FOR CSPS	2-2
	2.3.	RESTRICTIONS	
	2.4.	REQUIREMENTS FOR CURTAILMENT CUSTOMERS WITH LOCAL GENERATION	
	2.5.	COMPATIBILITY WITH ICAP SPECIAL CASE RESOURCES	
	2.6.	COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS	
	2.7.	SMALL CUSTOMER AGGREGATION	
	2.8.	EDRP PROGRAM EVALUATION	2-6
3.	CSP	REGISTRATION PROCEDURES	
	3.1.	LOAD SERVING ENTITIES (LSE) SERVING RETAIL LOAD	3-1
	3.2.	AN INDIVIDUAL LOAD TAKING SERVICE FROM AN LSE AND REGISTERED TO TAKE SERVICE DIRECTLY FROM	
		) TO SUPPLY ITS OWN LOAD IN THE NYCA	
	3.3.	CURTAILMENT CUSTOMER AGGREGATORS	
	3.4.	CURTAILMENT PROGRAM END USE CUSTOMER (EUC)	3-4
4.	OPE	RATING MECHANISM / IMPLEMENTATION	4-1
	4.1.	WHEN WILL THE PROGRAM BE CALLED?	4-1
	4.2.	NYISO PROTOCOL FOR LOCAL GENERATOR PARTICIPATION	
	4.2.1		
	4.3.	NOTIFICATION PROCEDURES	
	4.4.	NOTIFICATION MESSAGE EXAMPLES	
	4.4.1		
	4.4.2		
5.	MET	TERING, VERIFICATION, BILLING AND SETTLEMENT	
	5.1.	METERING REQUIREMENTS	5-1
	5.1.1	0 1	
	5.1.2		
	5.1.3		
	5.2.	CALCULATION OF CUSTOMER BASELINE LOAD (CBL)	
	5.2.1		
	5.2.2 5.2.3		
	5.2.5		
	5.3.	Performance Measurements and Compliance	
	5.3.1		
	5.3.2	· · · · · · · · · · · · · · · · · · ·	
	5.4.	SETTLEMENT PROCEDURES	
	5.4.1		
	5.4.2		
	5.4.3		
	5.4.4	. Calculation and Payments	5-17
	5.4.5		
	5.5.	ASSESSMENT OF PROGRAM CHARGES TO LOAD	5-19

#### ISO NEW YORK INDEPENDENT SYSTEM OPERATOR

	5.5.1. Objectives of Cost Allocation	
	5.5.2. Causes for EDRP Being Invoked	
	5.5.3. EDRP Cost Allocation	
	5.5.4. Cost Allocation Formula	
5.6	. TIMELINE FOR SETTLEMENT	
6.	TARGETED DEMAND RESPONSE PROGRAM	
_	DEFED INCLO	
7.	REFERENCES	
1.	DEFINITIONS AND ACRONYMS	<del>1_1</del>
$\frac{1.1}{1.1}$	<u></u>	BER FOLLOWING
TH	<u>E TERM:</u>	<del>1-1</del>
	Additional Terms relevant to the Emergency Demand Response Program:	1-1
<u>1.2</u>	<u>.</u>	1-1
2	ELIGIBILITY CRITERIA / PARTICIPANT OUALIFICATION	2.1
2.	ELIGIDILITI CATTERIA/FARTICIFART QUALIFICATION	····· 4-1
2.1		
2.2		
2.3	RESTRICTIONS	<u> </u>
$\frac{1}{24}$		2.2
2.5	COMPATIBILITY WITH ICAP Special Case Resources	23
$\frac{2.5}{2.6}$	COMPATIBILITY WITH LEAF STREET CASE RESOURCES	<u> </u>
<u>2.0</u> 2.7	<u>Community with ESE Dronsored Cortainment Productions</u>	2-3
$\frac{2.7}{2.8}$		25
<del>2.0</del>	EDRE FROGRAM DVALUATION	
3	CSP REGISTRATION PROCEDURES	
		2.1
<u>3.1</u>		
<u>3.2</u>	An individual load taking service from an LSE and registered to take service di	<u> ∢ECTLY FROM</u>
TH	<u>E ISO TO SUPPLY ITS OWN LOAD IN THE NYCA</u>	
<u>3.3</u>	<u>- Curtailment Customer Aggregators</u>	
<u>3.4</u>	CURTAILMENT PROGRAM END USE CUSTOMER (EUC)	
4	OPERATING MECHANISM / IMPLEMENTATION	4.1
<u>+-</u>		
4.1	WHEN WILL THE PROGRAM BE CALLED?	
4.2		
	4.2.1. — Program Limitations	<u> </u>
43		4-2
4.4		4_2
<u></u>	A 1 - Dry Ahead Advisory	<u> </u>
-	$\frac{7.7.1}{4.2}  In Day Advisory$	
	<u>4.4.3. Activating EDRP 2 Hour Notification</u>	+
	<u>4.4.3. Activating EDRP 2 Hour Notification</u>	
:		<del></del>
:	4.4.5. <u>Extending an EDRP Event</u>	
:	4.4.6. <u>Terminating an EDRP Event</u>	
5	METERING, VERIFICATION, BILLING AND SETTLEMENT	5-1
<u></u>		
<u>5.1</u>	<u>.        Metering Requirements</u>	
	<u>5.1.1. Metering Device Requirements</u>	
:	5.1.2. <u>Metering Configuration Requirements</u>	<del></del>
	5.1.3. Historical Operating Data	<u>5 2</u>
5.2		<u></u>
	5.2.1.—Select a CBL method	<u></u>
-	5.2.2.—Baseline Calculation Method (Interruptible Load or Both Local Generation and Interrup	
:	5.2.3. Example Customer Baseline Calculation	<u></u>
	5.2.5. Example Customer Duseune Culenumon.	

#### ISO NEW YORK INDEPENDENT SYSTEM OPERATOR

_		
<u>5.</u>	2.4. <u>Baseline Calculation Method (Local Generation Only)</u>	<del></del>
<u>5.3.</u>	Performance Measurements and Compliance	
5.	3.1.—Performance	<u></u>
5	3.2. — Compliance	<del></del>
5 1	Serie Ment Droceniules	5-12
<del>3.4.</del>	<u>DEFILEMENT FROCEDORES</u>	
<u>5</u> .	4.1.—Data Submission	<u>5-12</u>
<u>5</u> .	4.2.— EDRP Reporting	<del></del>
5	4.3. — Data Format	<del></del>
5	4.4Calculation and Payments	5 13
5	4.5. Verification, Errors and Fraud.	<u></u>
<u>-</u>	4.5. <u>Verification, Errors and Fraua</u>	
<u>5.5.</u> -	ASSESSMENT OF PROGRAM CHARGES TO LOAD	<del></del>
5.	5.1. — Objectives of Cost Allocation	<del></del>
5	5.2. Causes for EDRP Being Invoked	<del></del>
5	5.3. EDRP Cost Allocation	<u></u>
5		<u></u>
<u>.</u>	<u>5.4.</u> <u>Cost Anocunon Pormutu</u>	
<u>5.6.</u> -	<u>—— Timeline for Settlement</u>	<del></del>
<u>6. 1</u>	ARGETED DEMAND RESPONSE PROGRAM	<del></del>
<u>7.—</u> R	EFERENCES	5_19
<del>7.</del> <u>R</u>		
1D	EFINITIONS AND ACRONYMS	11
<u>.</u> <u>.</u>		
<del>1.1.</del>	THE TERMS BELOW ARE DEFINED IN THE MARKET SERVICES TARIFF BY THE REFERENCE NUME	ER FOLLOWING
THE	TERM	1.1
THE	A DEFENSIVE TERM (C DEFENSIVE TO THE EVER CENCY DEVEND DESCRIVE DROCK VA	
	ADDITIONAL TERMS RELEVANT TO THE EMERGENCY DEMAND RESPONSE PROGRAM:	<del>1-1</del>
<u>1.2.</u>		
<u>а</u> Б	LIGIBILITY CRITERIA / PARTICIPANT OUALIFICATION	2.1
<u>2.                                    </u>	LIGIBILITY CRITERIA / PARTICIPANT QUALIFICATION	2-1
<del>2.1.</del> -	WHO CAN PARTICIPATE?	2.1
		2-1
<u>2.2.</u> -	MINIMUM QUALIFICATIONS FOR CSPs	····· 2 T
<u>2.3.</u> -		<u></u>
<del>2.4.</del> -	REQUIREMENTS FOR CURTAILMENT CUSTOMERS WITH LOCAL GENERATION	
25	COMPATIBILITY WITH ICAP SPECIAL CASE RESOLICES	2-3
2.6	COMPACTIBLE TV WITH LESE SPONSORED CHET ALL MENT DROCHAMS	2-3
2.0.	COMPARISTIC A DESCRIPTION OF CONTAILMENT FROM AMS	
<u>2.7.</u> -	SMALL CUSTOMER AGGREGATION	
<u>2.8.</u>	EDRP Program Evaluation	
•		
<u>3.</u>	<u>SP REGISTRATION PROCEDURES</u>	
2.1	LOAD SERVICE ENTERING (LSE) SERVICE DET : Y LOAD	2.1
<u>3.1.</u> -	<u>EUAD DERVING ENTITIES (EDE) SERVING KETAIL LOAD</u>	
<u>3.2.</u> -	An individual load taking service from an LSE and registered to take service dir	ECTLY FROM
THE	ISO TO SUPPLY ITS OWN LOAD IN THE NYCA	
22	CURTAILMENT CUSTOMER AGGREGATORS	3-3
2 1	CURTAILMENT PROGRAM END USE CUSTOMER (EUC)	3-3
<del>3.4.</del> -	CURTAILMENT FRUGRAM END USE CUSTUMER (EUC)	······································
<u>4.</u> 0	PERATING MECHANISM / IMPLEMENTATION	<del>4-1</del>
<u></u> 5		
41-	WHEN WILL THE PROGRAM BE CALLED?	<del></del>
4.2	NYISO PROTOCOL FOR LOCAL GENERATOR PARTICIPATION	4.1
4.	2.1. Program Limitations	<u>4 1</u>
<u>4.3.</u> -	NOTIFICATION PROCEDURES	4-2
4.4		
	NOTIFICATION MESSAGE EXAMPLES	<u></u> 4-2
<u> </u>	NOTIFICATION MESSAGE EXAMPLES	
<u>4.</u>		
<u>4.</u> <u>4.</u>		4-2 
<u>4.</u> <u>4.</u> 4.	<u>NOTIFICATION MESSAGE EXAMPLES</u> <u>4.1. Day Ahead Advisory</u> <u>4.2. In-Day Advisory</u> <u>4.3. Activating EDRP 2 Hour Notification</u>	4 2 4 3 
4 4 4 4	<u>Notification Message Examples</u> <u>4.1. Day Ahead Advisory</u> <u>4.2. In-Day Advisory</u> <u>4.3. Activating EDRP 2 Hour Notification</u> <u>4.4. Activating EDRP Immediate Notice</u>	4-2 
4. 4. 4. 4. 4. 4. 4.	<u>Notification Message Examples</u> <u>4.1. Day Ahead Advisory</u> <u>4.2. In-Day Advisory</u> <u>4.3. Activating EDRP 2 Hour Notification</u> <u>4.4. Activating EDRP Immediate Notice</u>	4 2 4 3 
4. 4.	<u>NOTIFICATION MESSAGE EXAMPLES</u> <u>4.1. Day Ahead Advisory</u> <u>4.2. In-Day Advisory</u> <u>4.3. Activating EDRP 2 Hour Notification</u>	4 2 4 3 4 3 4 3 4 3 4 3 4 3



_	<u>ME</u> T	FERING, VERIFICATION, BILLING AND SETTLEMENT	
	51	-METERING REQUIREMENTS	5.1
	<u>5.1.1</u>		<u> </u>
	5.1.2		<del></del>
	5.1.3		<u></u>
	5.2.	-CALCULATION OF CUSTOMER BASELINE LOAD (CBL)	
	<u>5.2.1</u>		<del></del>
	5.2.2		rruptible Load)5-3
	5.2.3		
	5.2.4	Baseline Calculation Method (Local Generation Only)	<u> </u>
	5.3.	-PERFORMANCE MEASUREMENTS AND COMPLIANCE	<del></del>
	5.3.1	<u>Performance</u>	<u>5-10</u>
	5.3.2		<del></del>
	5.4.		5-12
	<u>5.4.1</u>		<u></u>
	5.4.2	EDRP Reporting	<del></del>
	5.4.3	— Data Format	<u></u>
	5.4.4	<u>—Calculation and Payments</u>	<u></u>
	5.4.5	Verification. Errors and Fraud	<del></del>
	5.5	ASSESSMENT OF PROGRAM CHARGES TO LOAD	
	5.5.1		<u></u>
	5.5.2		<del></del>
	5.5.3		<u> </u>
	5.5.4	<u>—Cost Allocation Formula</u>	<u></u>
	5.6	TIMELINE FOR SETTLEMENT	<del></del>
_			
<u>7.</u>		GETED DEMAND RESPONSE PROGRAM	<del></del>
<del>8.</del> -		ERENCES	<u></u>
1	DEE	INITIONS AND ACBONYMS	1 11 1
±-			<u> </u>
<u> </u>	- FKU	<u>GRAM SUMMARY</u>	<u>i-i</u> -i-i-i-i-i-i-i-i-i-i-i-i-i-i-
<u>3.</u> -		GIBILITY CRITERIA / PARTICIPANT QUALIFICATION	
	2.1	-EFFECTIVE PERIOD OF THE PROCRAM	2 1 2 1
	<u>3.1.</u> 3.2	– <u>EFFECTIVE PERIOD OF THE PROGRAM</u> –Who Can Dadticidate?	<u></u>
	<u>3.3.</u>	- <u>who can farticipate:</u> -Minimum Qualifications for CSPs	2 13 2
	<u>3.3.</u> 2.4	-WINIMUM QUALIFICATIONS FOR COPS	······2 13 2 1 12 1
	<u>2.4.</u> 2.5	- <u>Reoludements for Curtailment Customeds with Local Generation</u>	<u></u>
	<u>3.3.</u> 2.6	- <u>Requirements for curtailment customers with local Generation</u>	2 33 3
	<u>3.6.</u>		
	27		
	<u>3.7.</u>	COMPATIBILITY WITH LSE-Sponsored Curtailment Programs	
	<u>3.7.</u> <u>3.8.</u> 2.0	-Compatibility with LSE-Sponsored Curtailment Programs -Small Customer Aggregation	<u>233-3</u> 233-4
	<u>3.7.</u> <u>3.8.</u> <u>3.9.</u>	COMPATIBILITY WITH LSE-Sponsored Curtailment Programs	
<u>4.</u> -		-Compatibility with LSE-Sponsored Curtailment Programs -Small Customer Aggregation	<u>2-33-3</u> <u>2-33-4</u> <u>2-33-4</u> <u>2-53-5</u>
<u>4.</u> -		- <u>Compatibility with LSE-Sponsored Curtailment Programs</u> - <u>Small Customer Aggregation</u> - <u>EDRP Program Evaluation</u>	<u>2-33-3</u> <u>2-33-4</u> <u>2-33-4</u> <u>2-53-5</u>
<u>4.</u> -		-COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS -SMALL CUSTOMER AGGREGATION -EDRP PROGRAM EVALUATION REGISTRATION PROCEDURES -Load Serving Entities (LSE)	2 - 33 - 3 
<u>4.</u> -		-Compatibility with LSE-Sponsored Curtailment Programs -Small Customer Aggregation -EDRP Program Evaluation REGISTRATION PROCEDURES -Load Serving Entities (LSE)	2 33 3 2 33 4 2 33 4 2 53 5 3 14 1 3 14 1 3 24 2
<u>4.</u> -		-Compatibility with LSE-Sponsored Curtailment Programs -Small Customer Aggregation -EDRP Program Evaluation REGISTRATION PROCEDURES -Load Serving Entities (LSE)	2 - 33 - 3 
	<u>CSP</u> <u>4.1.</u> <u>4.2.</u> <u>4.3.</u> <u>4.4.</u>	COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS SMALL CUSTOMER AGGREGATION -EDRP PROGRAM EVALUATION REGISTRATION PROCEDURES -Load Serving Entities (LSE) -Direct Customers -Curtailment Customer Aggregators -Curtailment Program End Use Customer (EUC)	2-33-3 2-33-4 2-33-4 2-53-5 
4 <u>.</u> -	<u>CSP</u> <u>4.1.</u> <u>4.2.</u> <u>4.3.</u> <u>4.4.</u>	COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS SMALL CUSTOMER AGGREGATION -EDRP PROGRAM EVALUATION REGISTRATION PROCEDURES -Load Serving Entities (LSE) -Direct Customers -Direct Customers -Curtailment Customer Aggregators -Curtailment Program End Use Customer (EUC) RATING MECHANISM / IMPLEMENTATION	2-33-3 2-33-4 2-33-4 2-53-5 
	<u>CSP</u> <u>4.1.</u> <u>4.2.</u> <u>4.3.</u> <u>4.4.</u>	COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS SMALL CUSTOMER AGGREGATION -EDRP PROGRAM EVALUATION REGISTRATION PROCEDURES -Load Serving Entities (LSE) -Direct Customers -Direct Customers -Curtailment Customer Aggregators -Curtailment Program End Use Customer (EUC) RATING MECHANISM / IMPLEMENTATION -WHEN WILL THE PROGRAM BE CALLED?	2-33-3 2-33-4 2-33-4 2-53-5 3-14-1 
	<u>CSP</u> <u>4.1.</u> <u>4.2.</u> <u>4.3.</u> <u>4.4.</u> <u>OPE</u> <u>5.1.</u> <u>5.2.</u>	COMPATIBILITY WITH LSE-SPONSORED CURTAILMENT PROGRAMS. SMALL CUSTOMER AGGREGATION -EDRP PROGRAM EVALUATION. REGISTRATION PROCEDURES. -LOAD SERVING ENTITIES (LSE) -DIRECT CUSTOMERS -DIRECT CUSTOMERS -CURTAILMENT CUSTOMER AGGREGATORS -CURTAILMENT PROGRAM END USE CUSTOMER (EUC) RATING MECHANISM / IMPLEMENTATION -WHEN WILL THE PROGRAM BE CALLED? -NYISO PROTOCOL FOR LOCAL GENERATOR PARTICIPATION	2-33-3 2-33-4 2-33-4 2-53-5 
	<u>CSP</u> <u>4.1.</u> <u>4.2.</u> <u>4.3.</u> <u>4.4.</u>	Compatibility with LSE-Sponsored Curtailment Programs Small Customer Aggregation -EDRP Program Evaluation REGISTRATION PROCEDURES -Load Serving Entities (LSE) -Direct Customers -Curtailment Customer Aggregators -Curtailment Program End Use Customer (EUC) RATING MECHANISM / IMPLEMENTATION -When Will the Program be Called? -NYISO Protocol for Local Generator Participation	2-33-3 2-33-4 2-33-4 2-53-5 3-14-1 



<u>53</u>	IOTIFICATION PROCEDURES	4-25-3
<u>5.3.1.</u>	-Day Ahead Advisory	<u> </u>
<u>532</u>	<u>– In Day Advisory</u>	4 35 4
5 2 2	<u>Activating EDRP – 2-Hour Notification</u>	4-35-4
<u>5.3.3.</u>	<u>Activating EDRP – 2-Hour Nonjicution</u>	4 35 4
<u></u> 5 3 5		
<u></u> -	- <u>Extending an EDRP Event</u>	<u></u>
<u> 5.3.6.</u> –	- <u>Terminating an EDRP Event</u>	<del>4-35-4</del>
<u>6. METE</u>	RING, VERIFICATION, BILLING AND SETTLEMENT	<del>5-16-1</del>
<del>6.1.</del> —•N	AFTERING REQUIREMENTS	<u>5-16-1</u>
<del>6.1.1.</del>	-Metering Device Requirements.	<u> </u>
612	Metering Configuration Requirements	5 16 2
<u>6.2.</u>	ALCULATION OF CUSTOMER BASELINE	5-26-2
<u>6.2.1.</u>	Historical Operating Data	<u></u>
<u>6.2.2.</u>	<u>—Baseline Calculation Method (Interruptible Load or Both Local Generation and Interruptible</u>	
<del>0.2.2.</del> 36-3	Baseline Calculation Method (Interruptione Loud of Boin Local Generation and Interruption	<u>.e 1.0000</u>
<del>50-5</del> <del>6.2.3.</del> -	Energy Container Developer Colordation	<del>5-66-6</del>
<u>0.2.3.</u> 6.2.4_	<u>– Example Customer Baseline Calculation</u> – Baseline Calculation Method (Local Generation Only)	<u> </u>
0.2.7.	Busenne Calculation Method (Becar Generation Only)	
0.5.	ERFORMANCE MEASUREMENTS AND COMPLIANCE	<u>5 76 8</u>
<u>6.3.1.</u>	- <u>Performance</u>	<del>5-86-8</del>
<u>6.3.2.</u>	- <u>Compliance</u>	<u>5 96 9</u>
<u>6.4.</u> §	<u>ettlement Procedures</u>	<del>5-106-10</del>
<u>6.4.1.</u>	<u>– Data Submission</u>	<del>5-106-116-10</del>
<u>6.4.2.</u> -	- <u>EDRP Reporting</u>	<u>5 106 11</u>
<del>6.4.3.</del> -	-Demand Side Resource Reduction Data	<u>5 106 11</u>
<del>6.4.4.</del>	-Data Format	<u>5-106-11</u>
6.4.5.	Calculation of Payments	5 116 12
646	-Distribution of Payments	5 126 13
<del>6.4.7.</del>	<u>Verification, Errors and Fraud</u>	<u></u>
6.5/	SEESSMENT OF PROCEMA CHARGES	<u>5 136 146 13</u>
<u>6.5.1.</u>	-Objectives of Cost Allocation	<u>5 136 146 13</u>
6.5.2	<u>– Causes for EDRP Reing Invoked</u>	5-136-14
<u>0.5.2.</u> <u>6.5.3.</u> -	<u>-EDRP Cost Allocation</u>	<u></u>
<u>0.3.3.</u> 6.5.4.		
0.5.7.		<u>5 136 156 14</u>
<u>6.6.</u> 1	<u>Imeline for Settlement</u>	<del>5-146-15</del>
<u>7. – REFE</u>	RENCES	<del>5-146-17-1</del>
Аттасни	ENT A - CURTAILMENT SERVICE PROVIDER (CSP) REGISTRATION	<u>A-11</u>
Аттасни	ENT B EMERGENCY DEMAND RESPONSE PROGRAM END USE CUSTOMER	ŧ
REGISTRA	TION	- 
ATTACHM	ENT C NYISO EMERGENCY DEMAND RESPONSE PROGRAM END-USE	
	TION FORM DETAILED INSTRUCTION	<u> </u>
ATTACHM		D 11
AIIACHM	ENI DC.5V FILE FURMAI FUR EDKE	······ <i>D</i> -11



## Table of **Figures**Tables

FIGURE 6.1 - METERING CONFIGURATIONS	<del></del>
FIGURE 6.6: DAYS FROM CURTAILMENT EVENT	<del>5-146-15</del>
TABLE 5-1. EXAMPLES OF PERFORMANCE DURING AN EDRP EVENT	
TABLE 5-2. EDRP COST ALLOCATION	

## **Table of Figures**

TABLE 6.3.2: EXAMPLES OF PERFORMANCE DURING AN EDRP EVENT	<del>5-96-10</del>
TABLE 6.5.3: EMERGENCY DEMAND REDUCTION PROGRAM COST ALLOCATION	5-136-156-14
FIGURE 5-1. METERING CONFIGURATION	
FIGURE 5-2: EXAMPLE OF CBL WINDOW SELECTION - SINGLE WEEKEND EVENT	
FIGURE 5-3. EXAMPLE OF CBL WINDOW SELECTION - MULTIPLE WEEKDAY EVENTS	
FIGURE 5-4: EXAMPLE OF CBL WINDOW SELECTION - WEEKEND EVENT	
FIGURE 5-5. TIMELINE FOR SETTLEMENT	



#### What's New

A number of changes to the EDRP program have been approved by the NYISO Market Participants:

- 4Allow Distributed Generation to receive energy payments for output in excess of the host facility's load, provided that utility parallel interconnection requirements are met.
- 4Eliminate requirement that CSPs submit DEC permits for Distributed Generation resources to NYISO.
- 4Amend certain deadlines by which the NYISO will notify LSEs of customer registrations in the EDRP program, as well as deadlines by which program participants will be deemed registered in the absence of specific action by the NYISO



# **Revision History**

Revision	Date		Changes
6.0	<del>1/31/08</del> 7/20/08		Reinstated use of "Direct Customer" to simplify definitions. Generally accepted term adopted at program inception in 2001.
			Removed registration form attachments and file format attachments. Available on Demand Response page of NYISO website.
			Revised language for section 4.2.1 Program Limitations.
			Modified Notification Procedures (section 4.3 and 4.4) to update messages.
			Added CBL Window Day selection examples to section 5.2.2: Single weekday event, Multiple weekday events, Weekend event.
			Reformatted tables in section 5.2.3 Example Customer Baseline Calculation.
			Corrected figure and table cross-references.
			Revised timeline for settlement to reflect revised settlement language in section 5.6 Timeline for Settlement.
			Corrected TOCs for Tables and Figures.
		EDITS: 5/19/08	
		MULTIPLE REFER	ENCES
			Updated NYISO website references
			Direct Customer changed to align with the secondary definition of an LSE in the Market Services Tariff: an entity that takes service directly from the ISO to supply its own Load in the NYCA.
		Section	Торіс
			Removed What's New page.
		1	Revised definitions to align with Market Services Tariff definitions. Included reference to Market Services Tariff, where applicable. Removed Direct Customer definition.
		2	Program Summary removed.
		3.1	NEW 2.1: Effective period of the program removed; program is permanent.
		3.3	NEW 2.3: Tariff reference to permit sharing of data with Transmission Owners for planning and system operation. Added statement about compliance with DEC rules and regulations.
		3.7	NEW 2.7: Added statement restricting resources included in small customer aggregations to one NYISO reliability program. Other minor wording changes.



Revision	Date		Changes
	Date	4.1	NEW 3.1: Removed automatic registration after 30 days – NYISO will notify the LSE of approved registration. Also added annual re-registration each spring.
		4.2	NEW 3.2: Removed automatic registration after 30 days – NYISO will notify the entity that takes service directly from the ISO to supply its own Load in the NYCA of approved registration. Also added annual re-registration each spring.
		4.3	NEW 3.3: Removed automatic registration after 30 days – NYISO will notify the Curtailment Customer Aggregator of approved registration. Also added annual re-registration each spring.
		4.4	NEW 3.4: Removed automatic registration after 30 days – NYISO will notify the Curtailment Program End Use Customer of approved registration. Also added annual re-registration each spring.
		5.2.1	NEW 4.2.1: Revised program limitation language. and removed references to NYSERDA's reimbursement of expenses.
		5.2.2	Removed references to NYSERDA's reimbursement of expenses.
			NEW 4.4: Added new sub-section titled "Notification Message Examples"
		6.1	NEW 5.1: Added sentence: "Transmission Owner or MDSP certification is required to read the revenue grade meter on load.
		6.1.2	NEW 5.1.2: Added descriptions of identifiers in Metering Configuration diagrams
		6.2	NEW 5.2: CBL Section will be completely revised to make it easier to follow, including better examples. Not complete in time for first presentation of manual revisions.
		6.3.1	NEW 5.3.1: "load" changed to "load reduction" in several places.
		6.4.3	Section titled: Demand Side Resource Reduction Data removed. Specified requirements for billing data for entire bill period surrounding an event.
		6.4.4	NEW 5.4.3: Added statement requiring one file per day with meter and CBL data for the event period. Updated contact information and website links.
		6.4.5	NEW 5.4.4: Revised statement to align with tariff language (Attachment G, article 10).
		6.5.1	NEW 5.5.1: Changes to wording of subsection: Objectives of Cost Allocation
		6.5.2	NEW 5.5.2: Changes to wording of subsection: Causes for EDRP Being Invoked – now references section 4.4 of NYISO Emergency Operations manual.
		6.5.3	NEW 5.5.3: Reworded reference to previous section and removed last line of table 6.5.3 regarding an external control condition.
		6.6	NEW 5.6: Redrawing of Timeline for Settlement
		7	NEW 6: Added Targeted Demand Response Program information from Technical Bulletin 164.



Revision	Date		Changes		
		OTHER NOTATIO	NS		
		Highlighted text	Internal document references that will change as a result of the manual update. Figures and table numbers may also change as a result of these revisions.		
		SECTIONS STILL	TO BE EDITED		
			CBL rules and examples –revisions to clarify program rules and improve examples		
			Attachments: Registration Forms and End-Use Participation Fomr		
5.0	4/02/04	Section	Торіс		
5.0	4/02/04	3.3 (2)	Footnote removes host load size restriction on DG resources.		
		3.5	Removed host load size restriction on DG resources.		
		4.1.3	Remove 2-day notification requirement for LSE.		
		4.1.4	Change deemed approved time limit from 14 to 30 days		
		4.3.5	Remove 2-day notification requirement for LSE.		
		4.3.6	Change deemed approved time limit from 14 to 30 days		
		4.4.5	Remove 2-day notification requirement for LSE.		
		4.4.6	Change deemed approved time limit from 14 to 30 days		
		5.2.1	Clarify that CSP, not NYISO, is responsible for 200 hour per year DG operating limit. Remove requirement that DG units submit permits to NYISO.		
4.0	4/29/03	Section	Торіс		
<b></b> 0	4/2//03	2.0	Removed 25 MW cap on small customer aggregation program		
		4.3 (#2), 4.4 (#2)	Revise to say that these sections of the Registration Packet should be completed: A, B, G, H, I, L, N and O.		
		5.2.1	Notes that program participants are responsible for ensuring compliance with the ultra-low sulfur fuel requirements and for the emissions testing requirements for model 1994 and older generators.		
		5.2.2	Clarifies NYSERDA's rules for program expense reimbursement.		
		6.1	Clarifies meter installation and reading language.		
		6.1.1	Clarifies that meter certification data is required only for non-revenue grade meters.		
		6.2.1	Notes that the CSP is responsible for CBL calculation.		
		6.6.4	Clarifies that the NYISO provides hourly payment information by customer to CSPs separate from the consolidated invoice.		
3.0	2/28/03	Section	Торіс		
		2.0	Removed 25 MW cap on small customer aggregation program		
		5.2.1	Notes that program participants are responsible for ensuring compliance with the ultra-low sulfur fuel requirements and for the emissions testing requirements for model 1994 and older generators.		

NYISO Emergency Operations Manual Demand Response Program Manual Revision 56.0, Effective Date: 4/06/04Update: January 31, 20087- 2008



Revision	Date		Changes
		5.2.2	Clarifies NYSERDA's rules for program expense reimbursement.
		6.1	Clarifies meter installation and reading language.
		6.1.1	Clarifies that meter certification data is required only for non-revenue grade meters.
		6.2.1	Notes that the CSP is responsible for CBL calculation.
		6.6.4	Clarifies that the NYISO provides hourly payment information by customer to CSPs separate from the consolidated invoice.
2.0	3/20/02	Section	Торіс
		3.8	Alternative Performance Measures for Small Customer Aggregations can be submitted for approval to the NYISO.
		3.9	Curtailment Service Providers must participate in NYISO sponsored EDRP program evaluations.
		5.2	On-site generators must supply evidence that they have applied for or received from the NYS Dept. of Environmental Conservation (DEC) one of the following permits (i) Title V, (ii) State Facility, or (iii) Registration.
		5.3	Updated EDRP Notification Procedures to reflect the procedures put in place during the summer 2001.
		6.1	Updated Metering Requirements
		6.2.1.1	Alternative weather-sensitive Customer Base Line (CBL) options
		6.7	Updated Settlement Payment timeline
		Att. A, B	
		Att. D	Added .csv event data reporting format description.
1.0	7/11/01	Initial Release	



## 1. Definitions and Acronyms

#### 1.1. The terms below are defined in the Market Services Tariff Definitions

by the The reference number following the term identifies the Market Services Tariff:

**Capability Period:** —MST 2.17Six (6) month periods that are established as follows: (1) from May 1 through October 31 of each year ("Summer Capability Period"); and (2) from November 1 of each year through April 30 of the following year ("Winter Capability Period").

Curtailment Customer Aggregator (or Aggregator): MST 2.33a

- An organization qualified as a CSP that enters into contracts with Demand Side Resources to either interrupt load or start up Local Generation under the EDRP.

**Curtailment Program End Use Customer (EUC)** – A retail end-user that qualified as a CSP and can either interrupt load or start up Local Generation under the EDRP.

**Curtailment Services Provider (CSP):** -MST 2.33b – A qualified provider that can produce real-time

verified reductions in NYCA Load of at least 100 kW, pursuant to the Emergency Demand Response Program ("EDRP") and related ISO procedures. Curtailment Service Providers can be either a LSE, a Direct Customer, a Curtailment Customer Aggregator, or a Curtailment Program End Use Customer.

**Customer Base Load (CBL)** – Average hourly energy consumption as calculated in Section 6, used to determine the level of load curtailment provided.

**Day-Ahead Zonal LBMP:** -MST 2.36 – The price (in \$/MWh) for combined energy, losses, and transmission congestion determined on an hourly basis in the day-ahead electricity market.

**Demand Side Resources:** MST 2.39-Resources that result in the reduction of a Load in a responsive and measurable manner and within time limits established in the ISO Procedures.

EDRP: MST 2.47a - Emergency Demand Response Program, described in this manual.

**EDRP Loads** – Retail end-users that provide load reduction and have been registered through a CSP to participate in the Emergency Demand Response Program.

**Emergency** Condition State: MST 2.48- Any abnormal system condition as specified by the ISO that requires immediate automatic or manual action to prevent or limit loss of transmission facilities or Generators that could adversely affect the reliability of the electric system.



**Emergency Generation** - An electrical generator installed to handle emergency outages at a facility, for short periods of time.

**In-Day Peak Hour Forecast** – Forecasted morning and evening peak loads as determined by the NYISO Shift Supervisor or his assignee, used to evaluate total operating capacity.

**Installed Capacity (ICAP)**: MST 2.74 – A Generator or Load facility that complies with the requirements in the Reliability Rules and is capable of supplying and/or reducing the demand for energy in the New York Control Area for the purpose of ensuring that sufficient energy and capacity are available to meet reliability rules. The Installed Capacity requirements, established by the

New York State Reliability Council, include a margin of reserve in accordance with the Reliability Rules.

**Interval Metering** – An approved metering device, which records electricity usage for each fifteen-minute period during a billing period.

**Load Bank** - An electric resistance coil or similar device that creates an electric load which is used for testing generators under load.

**Load Curtailment (or Reduction)** - A reduction in energy usage at a retail end user's facility that is the result of the retail end user either reducing the energy consumed or operating an onsite generator.

Load Serving Entity (LSE): MST 2.91 – Any entity, including a municipal electric system and an electric cooperative, authorized or required by law, regulatory authorization or requirement, agreement, or contractual obligation to supply Energy, Capacity and/or Ancillary Services to retail end users located within the NYCA, including NYISO Direct Customers.

Load Zone: MST 2.93

**Local Generator:** MST 2.94a – A generator operated by or on behalf of loads offering load reductions pursuant to the Emergency Demand Response Program. Such generators are not synchronized to a utility's local distribution system or, if synchronized to the local distribution system

, must certify to the NYISO that they have obtained all necessary regulatory approvals to sell energy at wholesale and meet applicable utility parallel interconnection requirements. On site generators that are base-loaded do not qualify for the EDRP.

**Locational Based Marginal Price (LBMP):** MST 2.97 – The price of energy bought or sold in the LBMP Markets at a specific location or zone.

Meter Service Provider (MSP) - An entity that provides meter services, consisting of the installation, maintenance, testing and removal of meters and related equipment.



Meter Data Service Provider (MDSP) – An entity providing meter data services, consisting of meter reading, meter data translation and customer association, validation, editing and estimation.

**New York Independent System Operator (NYISO)** - Not for profit organization created to supply New York's electric power needs and to facilitate the power market equitably.

**New York Control Area (NYCA):** MST 2.110—The Control Area that is under the control of the NYISO which includes transmission facilities listed in the ISO/TO Agreement Appendices A-1 and A-2, as amended from time-to-time, and Generation located outside the NYS Power System that is subject to protocols which allow the ISO and other Control Area operator(s) to treat some or all of that Generation as though it were part of the NYS Power System.

**NYISO Customer:** MST 2.34—An entity which has complied with the requirements contained in the ISO Services Tariff, including having signed a Service Agreement, and is qualified to utilize the Market Services and the Control Area Services provided by the NYISO under the ISO Services Tariff; provided, however, that a party taking services under the Tariff pursuant to an unsigned Service Agreement filed with the Commission by the NYISO shall be deemed a Customer.

**NYISO Direct Customer** – An entity, which takes or provides service directly from or to the NYISO, and is responsible for bidding, scheduling, and billing functions for their facilities.

**NYISO Limited Customer:** MST 2.88b—An entity that joins the NYISO to participate in the EDRP; registration requirements are the same as for a NYISO Customer except that a Limited Customer:

-Is not required to satisfy the financial assurance obligations imposed on Customers,

•Their status as a Limited Customer expires at the end of the EDRP program, and •Voting privileges are waived with respect to the governance process.

All NYISO Customers meeting the eligibility criteria set forth in Section 3 qualify as Limited Customers, and may participate in the EDRP subject to the registration procedures defined in Section 4.

**NYISO Services Tariff** — The document that sets forth the provisions applicable to the services provided by the ISO related to its administration of competitive markets for the sale and purchase of Energy and Capacity and for the payments to Suppliers who provide Ancillary Services to the ISO in the ISO Administered Markets and provision of Control Area Services, including services related to ensuring the reliable operation of the NYS Power System.

NYS DEC - New York State Department of Environmental Conservation

**Operating Reserve Shortage** – Failure to maintain the Minimum Operating Reserve Requirement as defined in Section 4.1.1 of the NYISO System Operating Procedures.



**Real-Time Zonal LBMP:** MST 2.154—The price (in \$/MWh) for combined energy, losses, and transmission congestion determined on a roughly five-minute basis in the real-time electricity market.

Remote Metering - Metering equipment, which allows for remote collection of metering data.

Special Case Resource MST 2.172c

— Additional Terms relevant to the Emergency Demand Response Program:- Loads capable of being interrupted upon demand, and distributed generators, rated 100 kW or higher, that are subject to special rules set forth in the NYISO

Services Tariff, in order to facilitate their participation in the Installed Capacity market as Installed Capacity Suppliers.

Zone - One of eleven geographical areas located within the NYCA that is bounded by one or more of the fourteen New York State Interfaces. During the implementation of the LBMP Markets, all Loads located within the same Load Zone pay the same Day-Ahead LBMP and the same Real-Time LBMP for Energy purchased in those markets.

1.2.

**Curtailment Program End Use Customer (EUC)** – A retail end-user that qualified as a CSP and can either interrupt load or start up Local Generation under the EDRP.

**Customer Base Load (CBL)** – Average hourly energy consumption as calculated in Section 6, used to determine the level of load curtailment provided.

**Direct Customer** – An entity, which takes or provides service directly from or to the NYISO, and is responsible for bidding, scheduling, and billing functions for their facilities. Also referred to as a type 2 LSE: an entity that takes service directly from the ISO to supply its own load in the NYCA.

**EDRP Loads** – Retail end-users that provide load reduction and have been registered through a CSP to participate in the Emergency Demand Response Program.

**Emergency Generation -** An electrical generator installed to handle emergency outages at a facility, for short periods of time.

**In-Day Peak Hour Forecast** – Forecasted morning and evening peak loads as determined by the NYISO Shift Supervisor or his assignee, used to evaluate total operating capacity.

**Interval Meter** – An approved metering device, which records electricity usage for each fifteen-minute period during a billing period.

**Load Bank** - An electric resistance coil or similar device that creates an electric load which is used for testing generators under load.



**Load Curtailment (or Reduction) -** A reduction in energy usage at a retail end user's facility that is the result of the retail end user either reducing the energy consumed or operating an onsite generator.

**Meter Service Provider (MSP)** - An entity that provides meter services, consisting of the installation, maintenance, testing and removal of meters and related equipment.

**Meter Data Service Provider (MDSP)** – An entity providing meter data services, consisting of meter reading, meter data translation and customer association, validation, editing and estimation.

**NYISO Services Tariff** – The FERC-approved document that sets forth the provisions applicable to the services provided by the ISO related to its administration of markets for the sale and purchase of Energy, Ancillary Services, and Capacity.

NYS DEC – New York State Department of Environmental Conservation

**Operating Reserve Shortage** – Failure to maintain the Minimum Operating Reserve Requirement as defined in **Section 4.4 of the NYISO Emergency Operations Manual**.

Remote Metering - Metering equipment, which allows for remote collection of metering data.





## 2.Program Summary

The Emergency Demand Response Program (EDRP) provides a mechanism for load reduction during emergency conditions, more specifically defined in this document, thereby facilitating the reliability of the New York State bulk power system.

Retail end users who agree to participate in the EDRP can be accommodated through one of four types of Curtailment Service Providers (CSPs):

- •Load Serving Entities (LSEs), either that currently serving the load or another LSE
- •Through NYISO-approved Curtailment Customer Aggregators
- •As a Direct Customer of the NYISO
- •As a NYISO-approved Curtailment Program End Use Customer

Curtailment Customer Aggregators and Curtailment Program End Use Customers must register with the NYISO as Limited Customers as defined in Section 4.0.

Curtailment Service Providers should be able to provide load reduction of at least 100 kW per Zone and be able to respond within two hours of emergency notification.

Participation in the EDRP is voluntary and no penalties attach if a CSP fails to respond to a NYISO notice to reduce load.

Retail end users participating in the EDRP cannot participate in the NYISO's Special Case Resources Program. Special Case Resources that have registered with the NYISO but that have not sold their capacity will be added to the list of EDRP participants for that period of time when their capacity is unsold, and will be called with EDRP participants if an EDRP event is activated.

The NYISO will allow participation by aggregations of smaller customers, the curtailed usage of which will be determined by using an alternative to the basic provisions regarding the metering and measurement of performance. Direct-generation and self-generation resources are not eligible. Direct serve customers are also prohibited from operating under alternative performance measures. Section 3.8 describes the details of this program option.

CSPs are given advance notice of two hours, when possible, pursuant to NYISO emergency operations procedures. Curtailment Service Providers will be given notice no less than two hours in advance of the time specified to reduce load, pursuant to NYISO emergency operations procedures. If the ISO activates the Emergency Demand Response Program for more than four hours, each CSP shall be paid the higher of \$500/MWh, or the zonal Real-Time LBMP per MWh of demand reduced, starting with the hour specified by the ISO as the starting time of the activation, or, in the event that the ISO specified that the demand reduction begin as soon as possible, starting with the hour that the CSP began its response.

If the ISO activates the EDRP for four hours or less, each CSP shall be paid as if the EDRP had been activated for four hours using a modified payment schedule. Each CSP that reduces demand shall be paid the higher of \$500/MWh or the zonal Real-Time LBMP per MWh of demand reduced, for the duration of the ISO activation of the EDRP or for two hours whichever is greater, starting



with the hour specified by the ISO as the starting time of the activation, or, in the event that the ISO specified that the demand reduction begin as soon as possible, starting with the hour that the CSP began its response. Each CSP shall be paid the zonal Real-Time LBMP per MWh of demand reduced for the remainder of the four-hour minimum payment period, provided that a verified demand reduction was effectuated by the time specified in the ISO's notice.

A detailed explanation of payments can be found in Section 6.

The program will be effective May 1, 2001 and will continue through October 31, 2005. At the end of each Capability Period, the program will be evaluated and changes recommended as necessary.

Effective July 1, 2007, the Targeted Demand Response Program, provides the NYISO with the capability of responding to requests for assistance from the Transmission Owner in Zone J (New York City) by activating EDRP and SCR resources in one or more of eight sub-load pockets in Zone J. Section 7 provides details on this program.



## 3.2. Eligibility Criteria / Participant Qualification

#### 18.1.Effective Period of the Program

The program begins on May 1, 2001, and will continue through October 31, 2005. At the end of each Capability Period (May October and November April), program performance will be evaluated to see if any rules and procedures need to be modified.

Entities wishing to participate may apply for entry into the program at any time.

#### 3.2.2.1. Who Can Participate?

The EDRP allows wholesale electricity market participants to subscribe retail end users able to provide Load Reduction (Demand Side Resources) when called upon during emergency conditions. Wholesale market participants are grouped into four broad classes of Curtailment Service Providers (CSPs):

- Load-Serving Entities (LSEs) as defined in [2]-the Market Services Tariff that currently serve retail end users capable of load reduction or an LSE that subscribes another LSE's load solely for the purpose of participating in the NYISO EDRP. LSEs may claim load reductions from their retail end users or the retail end users of another LSE. Load curtailment programs currently in place or under implementation may directly qualify for the EDRP (see 3.4 Restrictions below).
- Demand Side Resources participating in the ISO Energy Market or the Ancillary Services Market may also participate in EDRP.
- An individual retail customer taking service as an Direct CustomerLSE and registered to take service directly from the ISO to supply its own Load in the NYCAs of the NYISO as defined in [2] the Market Services Tariff. may claim their own load reductions.
- NYISO-approved Curtailment Customer Aggregators (Aggregators) of retail end users capable of load reduction. Aggregators may claim load reductions from Demand Side Resources with which they have a contractual arrangement. An Aggregator is required tomay join the NYISO as a NYISO Limited Customer.
- NYISO-approved Curtailment Program End Use Customers (EUC), end-use customers
  whose load is normally served by an LSE but who wish to participate directly with the
  NYISO solely for purposes of the EDRP. Curtailment Program End Use Customer's
  (EUCs) must be capable of reducing at least 100 kW of load. An EUC is required to join
  the NYISO as a NYISO Limited Customer.

Participation in the EDRP is voluntary. The EDRP program imposes no penalties are imposed upon CSPs or Demand Side Resources for not responding to load reduction requests; other load reduction programs to which the EDRP customer may be simultaneously enrolled, may impose penalties for failure to reduce.



#### 3.3.2.2. Minimum Qualifications for CSPs

To serve as a CSP, you must:

- 1. Be a NYISO Customer (in the case of LSEs and individual retail customers registered as Direct CustomerLSEs that take service directly from the ISO to supply their own Load in the NYCAs) or a NYISO Limited Customer (in the case of Aggregators and EUCs) of the NYISO and be able to pledge Load Reduction in the NYCA.
- 2. Be able to completely disconnect from the local distribution system and supply required load via local generators<sup>1</sup> or to reduce a measurable and verifiable portion of the load.
- 3. Be capable of reducing at least 100 kW of load per Zone.
- 4. Be capable of responding within two hours of notice from the NYISO.
- 5. Follow the registration procedures defined in Section 4 of this manual.
- 6. CSPs are required to pProvide hourly interval metering data to validate performance. <del>;</del> sSpecific metering requirements are given in Section 6-5 of this manual.

#### 3.4.2.3. Restrictions

An individual Demand Side Resource can subscribe to either EDRP or the ICAP SCR program, but not both. Special Case Resources (SCRs) that have registered with the NYISO but have not sold their capacity will be added to the list of EDRP participants for that period of time when their capacity is unsold, and will be called with EDRP participants if an EDRP event is activated.

To participate in the program Program, an individual Demand Side Resource cannot subscribe the same metered load with more than one CSP.

Information provided by CSPs may be shared with their local Transmission Owner for planning or system operation. Retail end users under a contract that prevents them from curtailing energy are prohibited from participating in the program. T∓he NYISO will consult with the appropriate LSE and Electric Distribution Company to verify that the load to be reduced is not under any other specific contractual obligation that would prevent participation in the EDRP.

Local generators that are base-loaded do not qualify for the EDRP.

NYISO Emergency Demand Response Manual Revision 56.0, Effective Date: Draft update 047-20084/06/04

<sup>&</sup>lt;sup>1</sup> These generators can be either non-synchronized to the grid or synchronized to the grid.

Demand Side Resources using distributed generation to provide load relief through EDRP are subject to all DEC rules and regulations. Demand Side Resources determined not to be complying with DEC requirements will not be permitted to participate in the EDRP.

#### **3.5.2.4.** Requirements for Curtailment Customers with Local Generation

Owners of on-site and emergency generators including, but not limited to hospitals, data centers, office buildings, warehouses and industrial locations are eligible to participate in the EDRP. Local Generation will serve all or part of what otherwise would be NYISO load (i.e., the retail end user's specific load delivered from their LSE), thereby reducing the total NYISO load during declared emergencies. The requirements for participation are as follows:

1. Be capable of responding within 2 hours of a request to reduce load.

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- 2. H<del>Must have an integrated hourly or permanent recording meter as described in Section 5.16.1</del>, Metering Requirements.
- 3. Be capable of receiving notification from a Curtailment Service Provider (CSP).
- 4. Demand Side Resources that will use on-site generators to reduce load and that have Load Banks for testing purposes must ensure that the Load Bank is not operating during the hours required by the EDRP.

Nothing in the EDRP expands or reduces the rights, <del>or</del> obligations, or restrictions a Local Generator may have to buy or sell energy into the NYCA's wholesale market.

#### 3.6.2.5. Compatibility with ICAP Special Case Resources

The EDRP pays for energy during times of emergency, but does not pay for capacity. The NYISO has a separate program called Special Case Resources (SCR) within the Installed Capacity (ICAP) market that pays for capacity and energy. SCR is available to generators and load reduction providers that meet testing, metering and other requirements. While there are no penalties for non-performance as an EDRP provider, the SCR program will reduce future capacity payments if the NYISO calls for operation and the SCR does not perform. There also may be penalties imposed for non performance by other programs in which the SCR resource is simultaneously enrolled. In the event that the NYISO activates SCR to reduce their consumption of energy in accordance with the criteria set forth in Section **5**, the NYISO may activate the EDRP. SCRs that have registered with the NYISO but not sold their capacity will be added to the list of EDRP participants for that period of time when their capacity is unsold, and will be called with EDRP participants if an EDRP event is activated. See the ICAP Manual located at

http://www.nyiso.com/public/products/demand\_response/scr\_icap.jsp<u>www.nyiso.com/markets</u> /icapinfo.html for more details on SCR.

### 3.7.2.6. Compatibility with LSE-Sponsored Curtailment Programs

There are curtailment programs in New York State both currently in place and under development that are designed to help the local utility with distribution load management. Each program is aimed at enhancing the reliability of the local electric system during time of high usage or outages. The EDRP is designed to be compatible with these programs.

Demand Side Resources may participate in both the EDRP and the Day-Ahead Demand Reduction Program (DADRP) offered by the NYISO. If an EDRP event is called and a Demand Side Resource is participating in both programs, payments will be made as follows:

- —1. If the Demand Side Resource has not had a demand reduction bid accepted in the Day-Ahead Market for the day of the EDRP event, demand reduction provided as a result of the EDRP event call will be paid in accordance with the rules set forth in this manual.
- —2. If the Demand Side Resource is responding to the schedule determined from the bid accepted in the Day-Ahead Market, payments will be made in accordance with the DADRP rules up to the demand reduction scheduled in the Day-Ahead Market. Additional verified demand reduction above that scheduled in the Day-Ahead Market will be paid in accordance with the rules set forth in this manual.

## 3.8.2.7. Small Customer Aggregation

- —1. Aggregations must be at least 0.5 MW for EDRP. The NYISO will establish an upfront means of certifying that the aggregation has an expectation of meeting this requirement. This will be established as part of the approval of the verification methodology; the sampling plan or other measurement methodology will assign an initial (a priori deemed) estimate of the response per site in order to drive the sample size. Resources included in the aggregation may only participate in one NYISO reliability program. The NYISO may request confirmation that all resources are only registered for participation in the Emergency Demand Response Program. The aggregation can be comprised of two or more different sampling methods, provided that such a super aggregation was allowed by the NYISO. The MW limit can also be met by combining participants enrolled by different brokers (CSP or LSE) provided that the brokers agree to submit all participants under a single program entity.
- •Aggregations receive an initial settlement of 75% of the deemed response. For any event that results in payments to participants of an aggregation, the NYISO will pay out 75% of the amount determined by applying the curtailment payment rates to the a priori deemed performance level as defined in (1) above in the normal course of settlements for PRL program participants. At the end of the contract term under which the aggregation was approved, and after all required analyses have been conducted, the NYISO will perform a final settlement assessment and pay out or demand payment of the amount determined by that settlement assessment process.
- —2. Aggregators must accept full responsibility will be held responsible and liable for payments to and penalties levied against the members of the aggregation. The NYISO will require that each member



of the aggregation execute an agreement to participate indicating that it accepts the provisions of the ISO program and authorizes the LSE/CSP to act as its broker for the purposes of participation

- -3. Proposals for measuring aggregation performance can involve one of several methods:
  - —a) The deployment of approved whole-premise kW metering devices on a sample of participants
  - —b) The deployment of approved end-use device or process kW metering devices on a sample of participants that elect to limit <u>PRL-EDRP program-participation</u> to specified end-use devices or processes.
  - -c)Provision for supplying verifiable behavioral actions, equipment operating logs, or other data that is deemed to be sufficiently, indicate indicating the load level the customer otherwise would have consumed, but for the PRL-EDRP program event participation
  - —d)Other measurement systems that indicate the load level the customer otherwise would have consumed, but for the PRL-EDRP program event participation
- 4. Promulgate provisions that govern applicationsSmall Customer Aggregation:: A process and procedures will be drawn to govern how applications are made, processed and ruled upon, and to set limits to aggregation projects by zone, provider, program, or any other category. The number of aggregations allowed needs to accommodate all of the utilities plus a reasonable number of CSPs and LSEs. Each initial proposal (or significant revision thereof) for small customer aggregation will be reviewed by the NYISO staff and the Price Responsive Load Working Group, and must be approved by a majority of the Chairs and Vice-Chairs of the Management Committee and Business Issues Committee and the Chairman of the Price Responsive Load Working Group.
- -5. The Aggregation-Small Customer Aggregatorbroker is responsible for all costs associated with developing and administering the alternative performance methodology. Applications for approval of alternative methodologies must include an explicit description of the methodology and how it would be tracked and administered, accompanied by the specific administration processes required. The NYISO in approving an application will specify the costs associated with administration that the applicant must bear. The aggregation applicant must agree to be responsible for all such costs, including costs incurred by the ISO for developing and administrating the alternative methodology. The ISO may, at its discretion, require that some or all of such cost be reimbursed by the applicant upon approval of the methodology, or deduct all costs from payments for curtailments by participants, or a combination of the two methods of cost recovery.
- -6. One method per end-use premise. End-use electricity customers may subscribe load at a given premise to PRL-EDRP programs only under a single performance methodology, either the standard method or an approved alternative methodology.
- -7. Failure to comply with aggregation procedures. The NYISO may, at any time, terminate its agreement with an aggregation broker if it determines that the broker is not



fulfilling it obligation under the aggregation agreement. Customers belonging to such aggregation may henceforth participate by signing up under any approved means of participation.

#### 3.9.2.8. EDRP Program Evaluation

Curtailment Service Providers must-shall participate in any-all NYISO--sponsored EDRP program evaluations, for which NYISO requires their participation.



## 4.3. CSP Registration Procedures

To qualify as a Curtailment Service Provider (CSP) you must be an LSE serving retail load, an individual customer taking service from an Direct CustomerLSE and registered to take service directly from the ISO to supply its own Load in the NYCA, Curtailment Customer Aggregator or a Curtailment Program End Use Customer. The registration form is posted on the NYISO web site (www.nyiso.com) and included in Attachment A to this manual. The general requirements for each CSP class are as follows:

#### 4.1.3.1. Load Serving Entities (LSE) serving Retail Load

For LSE's that are enrolling a retail end user whose load is served by the LSE:

- —1. Complete Attachment A of this manual. An electronic version of Attachment A is available on the NYISO website at: <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_a2003.doc</u> <u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp</u>
- —2. Register each Demand Side Resource with the NYISO after signing a contract using the EDRP Certification form provided in Attachment B of this manual. - Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, and, except pursuant to Tariff Section 13.2, will not be disclosed to third parties without the express permission

of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality. provided however it will be shared with the local Transmission Owner if needed for reliability or planning purposes. All sections of Attachment B must be complete in order to registerfor registration in the program. An electronic version of Attachment B is available on the

NYISO website at: <u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp</u> <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_resp</u> <u>onse/edrp\_att\_b2004.doc</u>

—3. By submitting Attachment B (the EDRP Certification Form), the LSE confirms that the load to be

reduced is not under any specific contractual obligation that would prevent participation in the EDRP.

- —4. The EDRP participant registration is deemed approved 30 calendar days after LSE submission of Attachment B for each retail end user when the NYISO contacts the LSE to notify them of approval of the resource in the EDRP and provide a customer ID is provided. unless the NYISO contacts the LSE via phone or e-mail to the contrary.
- 5. Annual Re-registration. Each spring, prior to the Summer Capability Period, the NYISO will provide each LSE with a list of active resources with specific registration information. The LSE will confirm which resources will remain active in the program by May 1.



For LSE's that are enrolling a retail end user whose load is served by a different LSE:

- —1. Complete Attachment A of this manual. An electronic version of Attachment A is available on the NYISO website at: <u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp</u>
- -2. Register each Demand Side Resource with the NYISO after signing a contract using the EDRP Certification form provided in Attachment B of this manual. Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, provided however it will be shared with the local Transmission Owner if needed for reliability or planning purposes.and will not be disclosed to third parties without the express permission

of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality. All sections of Attachment B must be complete in order to register in the program. for registration in the program. An electronic version of Attachment B is available on the NYISO website at:

http://www.nyiso.com/public/products/demand\_response/edrp.jsp

- —3. After receipt of Attachment B, (the EDRP Certification Form), the NYISO will forward the registration to the appropriate LSE and Electric Distribution Company to confirm that the load to be reduced is not under any specific contractual obligation that would prevent participation in the EDRP.
- The EDRP participant registration is <del>deemed</del> approved when the NYISO contacts the LSE to notify them of approval of the resource in the EDRP. The application process can take up to 30 days.
- —4. The EDRP participant registration is deemed approved in 30 calendar days after notification is provided to the LSE unless the NYISO contacts the LSE via phone or email to the contrary.
- 5. Annual Re-registration. Each spring, prior to the Summer Capability Period, the NYISO will provide each LSE with a list of active resources with specific registration information. The LSE will confirm which resources will remain active in the program by May 1.

# 4.2.3.2. An individual load taking service from an LSE and registered to take service directly from the ISO to supply its own Load in the NYCA<del>Direct</del> Customers

 Direct Customer An individual load taking service from an LSE and registered to take service directly from the ISO to supply its own Load in the NYCA s of the NYISO should fill out Attachment A and one copy of Attachment B. Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, provided however it will be shared with the local Transmission Owner if needed for



reliability or planning purposes. An eElectronic versions of Attachment A and Attachment B are-is available on the NYISO website at: <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_a2003.doc</u> http://www.nyiso.com/public/products/demand\_response/edrp.jsp

- 2. All sections of Attachment B must be complete in order to register for registration in the program. An electronic version of Attachment B is available on the NYISO website at: <a href="http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_b2004.doc">http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_b2004.doc</a>
- 3. The EDRP participant registration is <del>deemed</del> approved when the NYISO contacts the <del>Direct Customer</del> individual load taking service from an LSE -to notify them of the approval of the resource in the EDRP. The application process may take up to 30 days.
- 4. Annual Re-registration. Each spring, prior to the Summer Capability Period, the NYISO will request confirmation from the Direct Customer individual load taking service from an LSE -as to the status of their participation in EDRP. To remain an active resource, the Direct Customer individual load taking service from an LSE -will be asked to confirm their its participation in the program by May 1.

#### 4.3.3.3. Curtailment Customer Aggregators

Curtailment Customer Aggregators are companies-NYISO Limited Customers that work with owners of generation and load reduction to make it easier to participate in the NYISO Emergency Demand Response program. To register as a Curtailment Customer Aggregator, you must become at least a NYISO Limited Customer. If you are applying for NYISO Limited Customer status as a Curtailment Customer Aggregator and will only be a seller to the NYISO:

- 1. ——Complete Attachment A of this manual. An electronic version of Attachment A is available on the NYISO website at: http://www.nyiso.com/public/products/demand\_response/edrp.jsp
- 1. <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_resp</u> <u>onse/edrp\_att\_a2003.doc</u>
- —2. Complete Sections A, B, F, G, H, J and K of the NYISO Registration Packet, available at the NYISO website at: http://www.nyiso.com/public/services/nyiso\_registration/index.jsp
- -3. Sign the Market Services Tariff as a NYISO Limited Customer.
- 4.• ——Register each Demand Side Resource with the NYISO after signing a contract using the EDRP Certification form provided in Attachment B of this manual. Any information on the identity of a Demand Side Resource that is provided to the NYISO



will be treated as confidential, provided however it will be shared with the local Transmission Owner if needed for reliability or planning purposes.and will not be disclosed to third parties without the express permission of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality. All sections of Attachment B must be complete in order tofor registration register in the program. An electronic version of Attachment B is available on the NYISO website at: <a href="http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_b2004.doc">http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_b2004.doc</a>

The application process can take up to 30 days.

7. -Annual Re-registration. Each spring, prior to the Summer Capability Period, the NYISO will provide each Curtailment Customer Aggregator with a list of active resources with specific registration information. The Curtailment Customer Aggregator will confirm which resources will remain active in the program by May 1.

#### 4.4.3.4. Curtailment Program End Use Customer (EUC)

An EUC is any Local Generation owner or retail end user capable of interrupting load that can reduce at least 100kW in a-zone- load zone and wants to participate in the EDRP directly with the NYISO as a Limited Customer of the NYISO.

If you are applying for NYISO Limited Customer status as an EUC and will only be a seller to the NYISOAn EUC shall:

- Complete Attachment A of this manual. An electronic version of Attachment A is available on the NYISO website at: <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_a2003.doc</u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp
- Complete Sections A, B, F, G, H, J and K of the NYISO Registration Packet, available at the NYISO website, available at the NYISO website at: http://www.nyiso.com/public/services/nyiso\_registration/index.jsp-
  - 3. Sign the Market Services Tariff as a Limited Customer.



- 4.Register each Demand Side Resource with the NYISO after signing a contract using the EDRP Certification form provided in Attachment B of this manual. All sections of Attachment B must be complete in order to register in the program. An electronic version of Attachment B is available on the NYISO website at: http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_response/edrp\_att\_b2004.dochttp://www.nyiso.com/public/products/demand\_response/edrp\_isp
- 4.
- 5. After receipt of Attachment B (the EDRP Certification Form), the NYISO will forward the registration to the appropriate LSE and Electric Distribution Company to confirm that the load to be reduced is not under any specific contractual obligation that would prevent participation in the EDRP.
- 5. The EDRP participant registration is deemed approved when the NYISO contacts the End Use Customer to notify themit of approval of the resource in EDRP. The EDRP participant registration is deemed approved in 30 calendar days after notification is provided to the LSE unless the NYISO contacts the EUC via phone or e-mail to the contrary.
- 6. The application process can take up to 30 days.
- 7. Annual Re-registration. Each spring, prior to the Summer Capability Period, the NYISO will contact each End Use Customer to confirm participation in the upcoming season. The End Use Customer will confirm theirits participation or notify the NYISO that they will no longer pargticipate by May 1.



## 5.4. Operating Mechanism / Implementation

#### 5.1.4.1. When Will the Program be Called?

The EDRP is limited to when called by the NYISO as a part of the In-day Peak Hour Forecast response to an Operating Reserve Peak Forecast Shortage as defined in [3]. The EDRP may be called in conjunction with Special Case Resources.

The NYISO will invoke the EDRP as one of its emergency procedures in conjunction with the In-day Peak Hour Forecast response to an Operating Reserve Peak Forecast Shortage, as defined in Section 4.4 of the NYISO Emergency Operations Manual[3], or in response to the Major Emergency state as defined in Section 4.4 of the NYISO Emergency Operations Manual[4]. Day-ahead notice of a potential operating reserve shortage shall be provided to CSPs when possible. The program is intended to support the New York State power system during emergency periods and the NYISO reserves the right to use its discretion in calling upon EDRP resources to relieve system or zonal emergencies. The EDRP may be called in conjunction with Special Case Resources.

The NYISO will declare an Alert State, or Major Emergency for real-time shortage of Operating Reserve, and activate all available in-state generating resources to re-establish the Operating Reserve i.—If required levels of real-time Operating Reserves cannot otherwise be re-established.; Tthe NYISO will utilize the EDRP to re-establish real-time Operating Reserves.

#### 5.2.4.2. NYISO Protocol for Local Generator Participation

This section describes the circumstances under which state agencies, state authorities, regulated utilities, and non-regulatedNYISO and its market participants have agreed that CSPs may contract with customers who agree to reduce demand on the electricity grid by offloading all or a portion of their own power needs through the operation of emergency generators ("self generation").

This protocol was agreed upon by the New York Public Service Commission (PSC), New York Department of Environmental Conservation (DEC), New York Energy Research and Development Agency (NYSERDA), New York Power Authority (NYPA), Long Island Power Authority (LIPA), and the NYISO.

The terms and conditions contained in this protocol are intended to be incorporated into utility demand reduction programs regulated by the PSC and are to be made preconditions to participation in the Emergency Demand Response Program (EDRP) by the NYISO.



#### 5.2.1.4.2.1. Program Limitations

Self-generation customers participating in the program will be activated only by the NYISO emergency demand response program, or the transmission owner (TO) in the event of a localized distribution emergency.

Self generation operated in response to either an EDRP or a TO call for EDRP resources shall be limited to no more than 200 hours annually. Program participants informed by state or local rule, regulation, or policy that annual hours of operation for generation facilities they intend to offer as EDRP resources are limited or that they are required to use specified diesel fuel in their emergency generators, for instance, ultra-low sulfur fuel, shall limit their hours of generation operation accordingly or use such fuel in activations in response to a call as well as for testing purposes. Program participants, not the NYISO, are responsible for ensuring compliance with the 200 hour maximum operation-operating requirements of their units and will report to the NYISO all instances in which self generation is activated in response to a TO call and the duration of such activations where these requirements may-exist.

Wherever supplies are available for delivery, program participants utilizing diesel fueled emergency generators will use ultra-low sulfur diesel fuel in generators that will be activated in response to a call, as well as for testing purposes. Program participants, not the NYISO, are responsible for ensuring compliance with the ultra-low sulfur fuel requirement. This fuel requirement applies to all tank fills made during the calendar year in which the customer has contracted to participate in the program. NYSERDA will make the determination as to when supplies are available for purposes of this guideline.

Where a supply of ultra-low sulfur fuel is not available for delivery and a state agency is the project sponsor, the participating state agency will mitigate the use of regular diesel fuel by purchasing ultra-low sulfur fuel for displacement of regular diesel fuel at a level that is no less than three times the amount of regular diesel fuel that would be expected to have been consumed by generators participating in its emergency self-generation program.

In addition to the above mitigation measures limitations, program participants informed by state or local rule, regulation, or policy that operation of generation facilities they intend to offer to the EDRP program will be limited to the following certain vintages, such as:

a) Model year 1995 or newer generators; or

b)

Model 1994 and older generators <del>must</del> that demonstrate, either by generator-specific manufacturer's data or through emissions testing, <del>that</del> their NOx emissions do not exceed 35 pounds per megawatt-hour (lb/MWh) shall comply with such rule, regulation or policy.

Participants with generation that requires Eemissions testing shall use emissions testing methods for "test and tune" purposes should be conducted consistent with industry-established protocols (such as the American Society of Testing and Materials [ASTM] D6522-00) and applicable DEC regulations.

Program participants, not the NYISO, are responsible for ensuring compliance with the emissions testing requirements for model 1994 and older generators. their units.



Units determined not in compliance with these limitations are not permitted as EDRP participants Participants shall not offer to the EDRP generation units that do not comply with any limitation or requirement established for their respective generation units.

#### 20.4.1.Reimbursement of Expenses

NYSERDA will reimburse System Benefits Charge (SBC) eligible customers within the Consolidated Edison service territory a portion of the qualifying costs for expenses involved in preparing for participation in the program. For all non-SBC eligible customers, expenses will be reimbursed by the participating state agency or authority as provided for in the respective demand reduction program.

Eligible expenses include; testing and tuning of emergency generators, advanced metering, communications and control devices, rewiring circuits, installation of transfer switchgear, environmental permitting, selective catalytic reduction technologies, stack modification, operational improvements, cost differential (if any) for use of ultra-low sulfur fuel, and implementation of advanced dual-fuel options.

#### 5.3.4.3. Notification Procedures

When the NYISO activates the Emergency Demand Response Program (EDRP), a specific set of messages will be sent to Curtailment Service Providers (CSPs). A CSP will be asked to take certain actions in response to NYISO notification. This section describes the contact procedures and actions that will be requested of CSPs.

The time frame for advisory and activation notices will be a function of the degree of warning the NYISO has in identifying and responding to operating reserve shortages / major emergencies.

Notification from the NYISO will always take place via two communications media:

- Burst e-mail messages to all listed CSP email addresses.
- Automated phone call to each CSP's main contact phone number.

After receiving an EDRP notification, the CSP should take the following steps:

1. The CSP should assess whether or not he/she has resources that can respond, and the MW level of response by zone.



- 2. Click on the web link within the notification email that was sent. This will provide a response page. Once the available MW by-zone- load zone information is entered and submitted, it will automatically be tallied at the NYISO with other CSP responses.
- 3. If for some reason this link is unavailable, the CSP should contact NYISO Market Services at 518-356-6060 or <u>edrp-scr@nyiso.com</u> with the information.

If the NYISO does not receive the automated response in a reasonable amount of time, they-it will call additional CSP cell phone and pager numbers in an attempt to make a connection. In this case, NYISO staff will identify themselves by name and indicate that the NYISO has activated the EDRP program, followed by the specific requests below.

Several types of notifications may be distributed. The notification types include: Day-Ahead Advisory, In-Day Advisory, 2-Hour Notification Activation, Immediate Activation, Extending an Event, Termination of an Event, or Test.

The email and phone messages specify the type of notification, hours of event or advisory, and zones called. The exact wording of the notices is subject to change and may include additional information.

Listed below are examples of the type of notices that may be received for a Day-Ahead Advisory and 2-Hour Activation:

# 4.4. Notification Message Examples

#### 5.3.1.4.4.1. Day-Ahead Advisory

EDRP resources may be needed tomorrow between the hours hh:mm and hh:mm. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K,. Please reply within one hour indicating:



If you expect to have resources participating, and MWs expected.

Day-ahead notice does not constitute activation of the EDRP program, and is only meant to be advisory.

# 20.11.4.In-Day Advisory

EDRP resources may be needed later today between the hours hh:mm and hh:mm. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K . Please reply within one hour indicating:

2.If you expect to have resources participating, 2.and MWs expected.



In-day notice does not constitute activation of the EDRP program, and is only meant to be advisory.

#### 5.3.3.4.4.2. Activating EDRP – 2-Hour Notification

EDRP resources are needed from hh:mm and-to hh:mm. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K

#### 20.11.11.Activating EDRP – Immediate Notice

EDRP resources that can respond immediately are needed from hh:mm and hh:mm. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K

#### 22.1.1.Extending an EDRP Event

The call for EDRP resources will be extended until hh:mm. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K

#### 24.1.1.Terminating an EDRP Event

As of hh:mm EDRP resources are no longer needed to respond. Zones included in this notification are: A,B,C,D,E,F,G,H,I,J,K



# 6.5. Metering, Verification, Billing and Settlement

# 6.1.5.1. Metering Requirements

CSPs must use PSC-certified Meter Service Providers (MSP) or Transmission Owners (TOs) to install, and PSC-certified Meter Data Service Providers (MDSP) to read, revenue-grade interval meters. Installation of any devices directly connected to the revenue meter, such as totalizers, must be performed by PSC-certified MSPs or TOs. Non-revenue-grade meters meeting the 2% accuracy requirement as defined in Section 5.1.16.1.1 may be installed by CSPs as long as they are certified by a Professional Engineer as meeting ANSI C12 standards and are periodically tested and calibrated in accordance with the standards applicable to MSPs. Transmission Owner or MDSP certification is required to read the revenue grade-meter on load. CSPs must use a PSC-certified MDSP to read such meters. Transmission Owner or MDSP certification is required to read the revenue grade meter on load. Acceptable interval metering for Demand Side Resources for load reduction or local generation is described below in Section 5.1.16.1.16.1.1

#### 6.1.1.5.1.1. Metering Device Requirements

Meters installed under the 2001 EDRP rules prior to March 20, 2002 can be used as the source of EDRP event reporting data.

Hourly interval metering data is required to validate performance. Demand Side Resources may use non-revenue interval metering devices with an overall accuracy of  $\pm 2\%$  as the source of performance data. For each non-revenue interval meter design used, the CSP will submit certification from the meter manufacturer that the model in question-use meets the  $\pm 2\%$  accuracy threshold, recognizing errors in:

▋⊲€	Current measurement
∎√₽	Voltage measurement
<u>  </u>	A/D conversion
<u>8.4</u> ₽	Calibration

Such meters <del>would</del> shall be periodically tested and calibrated in accordance with the standards applicable to MSPs and MDSPs.

Where a revenue meter exists, losses in secondary/service circuits between the revenue meter and the non-revenue interval meter may be compensated for so as to bring the reading within  $\pm 2\%$  of the revenue meter. The CSP must demonstrate compliance through comparison of the revenue and non-revenue meters, or show calculation of losses between the revenue and non-revenue meters.

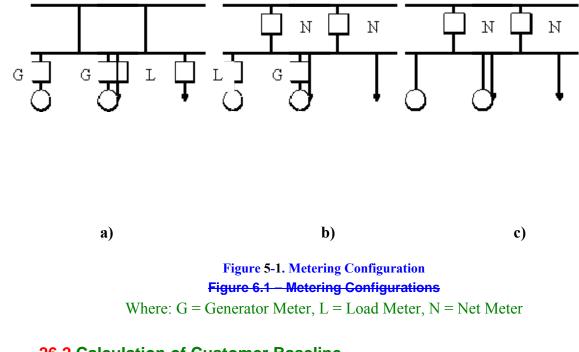


# 6.1.2.5.1.2. Metering Configuration Requirements

Premises participating in the EDRP shall subscribe under one of three configurations: Local Generation only, load only, or local generation and load. Integrated hourly metering devices shall be required as follows:

- 1. When a premises subscribes only the Local Generation, either an hourly interval meter can-shall be installed to measure the generator's output,, or interval metering of the total net load can-shall be used.
- 2. When a premises subscribes only the load reduction, the hourly interval meter shall be installed to meter the entire facility or for totalized load, an hourly interval meter is required for each participating load.
- 3. When a premises subscribes both the Local Generation and load reduction, metering can shall be configured so as to measure only the load or combined load and generation.

Figure 5-1 6.1-illustrates examples of acceptable configurations.



# 26.2.Calculation of Customer Baseline

# 6.2.1.5.1.3. Historical Operating Data

Upon request of the NYISO, CSPs shall be required to provide historical operating data for each load or on-site generator upon registration for participation in the EDRP. It is the responsibility of the CSP to provide the Customer Base Load (CBL) calculation to the



NYISO and ensure that calculations are complete and accurate. These requirements may be met by:

1. For Local Generation that is participating in the EDRP, the generator meter ID and MSP ID certifying meter installation <del>must be supplied</del> on the End-Use registration form in Attachment B;

2.For loads with existing interval meters,

2. Provide a minimum of 1-one complete billing period of hourly interval data immediately preceding the first Capability Period the load will participate in; or

4.For totalized loads with existing interval meters,

3. For totalized loads, provide hourly interval data for a minimum of 1-one complete billing period of hourly interval data for all participating loads at the premise; or

6.For newly installed load interval meters,

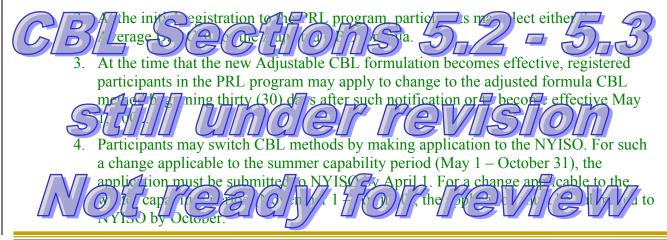
4. For newly installed interval meters, provide the prior three months summary of monthly MWh consumption and demand values, if available. If less than three months of data are available, a minimum of one month is required.

# 5.2. Calculation of Customer Baseline Load (CBL)

The Customer Baseline Load

#### 5.2.1. Select a CBL method

1. The participant selects the CBL formula when it registers, or is registered by its LSE or CSP, with the NYISO for program participation. The choice of CBL becomes effective when the NYISO accepts the registration.





5. The change in the CBL formula becomes effective at the beginning of the next capability period after the NYISO accepts the application.

# 6.2.2.5.2.2. Baseline Calculation Method (Interruptible Load or Both Local Generation and Interruptible Load)

It is the responsibility of the CSP to provide the Customer Base Load (CBL) calculation to the NYISO and ensure that calculations are complete and accurate.

#### I. The Average Day CBL

#### A. Average Day CBLs for Weekdays

*Step 1.* Establish the CBL Window. Establish a set of days that will serve as representative of participant's typical usage.

A.1.a Determine the participant's peak hourly load over the past 30 days or the period covered by the load data file, whichever is smaller. This value becomes the initial seed value for the average event period usage level.

- A.1.b Beginning with the weekday that is two days prior to the event:
  - A.1.b.1 ——Eliminate any holidays as specified by the NYISO.
  - A.1.b.2 Eliminate any days where the NYISO declared an EDRP event for which the participant was eligible for payment for a curtailment.
  - A.1.b.3 Eliminate any days in which the participant's DADRP curtailment bid was accepted in the DAM, whether or not the participant actually curtailed.
  - A.1.b.4 Create the average daily event period usage for that day, defined as the simple average of the participant's actual usage over the hours that define the event for which the CBL is being developed.
  - A.1.b.5 Eliminate low usage days. If the average daily event period usage is less than 25% of the average event period usage level, eliminate that day.
  - A.1.b.6 If the day has not been eliminated, update the average event period usage level by including the average daily event period usage for this day. If this is the first day added to the CBL Window, replace the average event period usage level (which was the initial seed value) with the average daily event period usage. Add this day to the CBL Window.

on day and

Figure 5-2: Example of CBL Window Selection - Single Weekend Event





SUN	MON	TUE	WED	THU	FRI	SAT
JUN 15	JUN 16	JUN 17	JUN 18	JUN 19	JUN 20	JUN 21
JUN 22	JUN 23	JUN 24	JUN 25	JUN 26	JUN 27	JUN 28
	CBL DAY 10 FOR	CBL DAY 9 FOR	CBL DAY 8 FOR	CBL DAY 7 FOR	CBL DAY 6 FOR	
	7/9	7/9	7/9	7/9	7/9	
JUN 29	JUN 30	JUL 1	JUL 2	JUL 3	JUL 4	JUL 5
	CBL DAY 5 FOR	CBL DAY 4 FOR	CBL DAY 3 FOR	CBL DAY 2 FOR	HOLIDAY	
	7/9	7/9	7/9	7/9		
JUL 6	JUL 7	JUL 8	JUL 9	JUL 10	JUL 11	JUL 12
	CBL DAY 1 FOR	INELIGIBLE DAY	SCR/EDRP			
	7/9	(DAY BEFORE	EVENT			
		ÈVENT)				

KEY:		SCR/EDRP	DADRP	INELIGIBLE DAY (DAY BEFORE	
	NON-EVENT DAY	EVENT	SCHEDULE	EVENT)	HOLIDAY

\* indicates CBL window days that exceed the 30-day limit

	CBL WINDOW FOR SINGLE WEEKDAY EVENT EXAMPLE											
EVENT DATE	EVENT DATE PROGRAM DAY 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY 6 DAY 7 DAY 8 DAY 9 DAY 10											
9-Jul	SCR/EDRP	7-Jul	3-Jul	2-Jul	1-Jul	30-Jun	27-Jun	26-Jun	25-Jun	24-Jun	23-Jun	



SUN	MON	TUE	WED	THU	FRI	SAT
IUN 15	JUN 16	JUN 17	JUN 18	JUN 19	JUN 20	JUN 21
	CBL DAY 10 FOR 6/30	CBL DAY 9 FOR 6/30	CBL DAY 8 FOR 6/30	CBL DAY 7 FOR 6/30	CBL DAY 6 FOR 6/30	
		CBL DAY 10 FOR 7/3	CBL DAY 9 FOR 7/3	CBL DAY 8 FOR 7/3	CBL DAY 7 FOR 7/3	
				CBL DAY 10 FOR 7/10	CBL DAY 9 FOR 7/10	
				CBL DAY 10 FOR 7/11	CBL DAY 9 FOR 7/11	
JUN 22	JUN 23	JUN 24	JUN 25	JUN 26	JUN 27	JUN 28
	CBL DAY 5 FOR 6/30	CBL DAY 4 FOR 6/30	CBL DAY 3 FOR 6/30	CBL DAY 2 FOR 6/30	CBL DAY 1 FOR 6/30	
	CBL DAY 6 FOR 7/3	CBL DAY 5 FOR 7/3	CBL DAY 4 FOR 7/3	CBL DAY 3 FOR 7/3	CBL DAY 2 FOR 7/3	
	CBL DAY 8 FOR 7/10	CBL DAY 7 FOR 7/10	CBL DAY 6 FOR 7/10	CBL DAY 5 FOR 7/10	CBL DAY 4 FOR 7/10	
	CBL DAY 8 FOR 7/11	CBL DAY 7 FOR 7/11	CBL DAY 6 FOR 7/11	CBL DAY 5 FOR 7/11	CBL DAY 4 FOR 7/11	
JUN 29	JUN 30	JUL 1	JUL 2	JUL 3	JUL 4	JUL 5
	DADRP SCHEDULE	CBL DAY 1 FOR 7/3	INELIGIBLE DAY	DADRP SCHEDULE	HOLIDAY	
	DADRP SCHEDULE	CBL DAY 1 FOR 7/3 CBL DAY 3 FOR 7/10	(DAY BEFORE EVENT)	DADRP SCHEDULE	HOLIDAT	
		CBL DAY 3 FOR 7/11				
JUL 6	JUL 7	JUL 8	JUL 9	JUL 10	JUL 11	JUL 12
	CBL DAY 2 FOR 7/10	CBL DAY 1 FOR 7/10	INELIGIBLE DAY	SCR/EDRP EVENT	DADRP SCHEDULE	
	CBL DAY 2 FOR 7/11	CBL DAY 1 FOR 7/11	(DAY BEFORE EVENT)		BREAK CONEDULE	
			· · · /			
KE	<i>.</i>			INELIGIBLE DAY		-
· \∟	NON-EVENT DAY	SCR/EDRP EVENT	DADRP SCHEDULE	(DAY BEFORE EVENT)	HOLIDAY	
	* indicates CBL window	days that exceed the 30	)-day limit			_
		,	,			
		CBL WINDOW FO	R MULTIPLE WEEKDA	Y EVENT EXAMPLE		

#### Figure 5-3. Example of CBL Window Selection - Multiple Weekday Events

		С	BL WINDO	W FOR MU	ILTIPLE WI	EEKDAY E	VENT EXA	MPLE					
EVENT DATE	EVENT DATE PROGRAM DAY 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY 6 DAY 7 DAY 8 DAY 9 DAY 10												
30-Jun	DADRP	27-Jun	26-Jun	25-Jun	24-Jun	23-Jun	20-Jun	19-Jun	18-Jun	17-Jun	16-Jun		
3-Jul	DADRP	1-Jul	27-Jun	26-Jun	25-Jun	24-Jun	23-Jun	20-Jun	19-Jun	18-Jun	17-Jun		
10-Jul	SCR/EDRP	8-Jul	7-Jul	1-Jul	27-Jun	26-Jun	25-Jun	24-Jun	23-Jun	20-Jun	19-Jun		
11-Jul	DADRP	8-Jul	7-Jul	1-Jul	27-Jun	26-Jun	25-Jun	24-Jun	23-Jun	20-Jun	19-Jun		

*Step 2.* Establish the CBL Basis. Identify the five days from the 10-day CBL Window to be used to develop CBL values for each hour of the event.

A.2.a Order the 10 days in the CBL Window according to their average daily event period usage level, and eliminate the five days with the lowest average daily event period usage.

A.2.b The remaining five days constitute the CBL Basis.

Step 3. Calculate Average Day CBL values for the event.

A.3.a For each hour of the event, the CBL is the average of the usage in that hour in the five days that comprise the CBL basis.

#### B. Average Day CBL for Weekends

Step 1. Establish the CBL Window

B.1.a The CBL Window is comprised of the most recent three like (Saturday or Sunday) weekend days. There are no exclusions for Holidays or event days.



SUN	MON	TUE	WED	THU	FRI	SAT
JUN 29	JUN 30	JUL 1	JUL 2	JUL 3	JUL 4	JUL 5
					HOLIDAY	CBL DAY 3 FOR 7/26
JUL 6	JUL 7	JUL 8	JUL 9	JUL 10	JUL 11	JUL 12
						CBL DAY 2 FOR 7/26
JUL 13	JUL 14	JUL 15	JUL 16	JUL 17	JUL 18	JUL 19
						CBL DAY 1 FOR 7/26
JUL 20	JUL 21	JUL 22	JUL 23	JUL 24	JUL 25	JUL 26
						DADRP SCHEDULE
KEY	,					7
NE I	•			INELIGIBLE DAY		

#### Figure 5-4: Example of CBL Window Selection - Weekend Event

KEY:				INELIGIBLE	
				DAY	
	NON-			(DAY	
	EVENT	SCR/EDRP	DADRP	BEFORE	
	DAY	EVENT	SCHEDULE	EVENT)	HOLIDAY

\* indicates CBL window days that exceed the 30-day limit

	CBL WINDOW FOR WEEKEND EVENT EXAMPLE												
EVENT DATE	EVENT DATE PROGRAM DAY 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY 6 DAY 7 DAY 8 DAY 9 DAY 10												
26-Jul													

Step 2. Establish the CBL Basis.

B.2.a Calculate the average daily event period usage value for each of the three days in the CBL Window.

B.2.b Order the three days according to their average daily event period usage level.

B.2.c Eliminate the day with the lowest average value

B.2.d The Weekend CBL Basis contains 2 days.

Step 3. Calculate Weekend Average Day CBL values for the event.

B.3.a For each hour of the event, the CBL value is average of usage in that hour in the two days that comprise the CBL basis.



#### II. Elective Weather-Sensitive CBL formulation



*Step 2.* Calculate the Event Final Adjustment Factor. This factor is applied to each of the individual hourly values of the Average Day CBL.

Stand leutre hours the adjustment period, the two-notic period

beginning with the start of the hour that is four hours prior to the commencement of the event through the end of the hour three hours



2.A.2.a Apply the Average Day CBL formula as described in I. Average Day CBL (page 2), to the adjustment period hours as though it were an event period two hours in duration, but using the five days selected for use in the Average CBL Basis (i.e., average the ten hours).

2.A.2.b Calculate the average of the two usage values derived in 2.A.2.a, which is the Adjustment Basis Average CBL.

B. Calculate the Adjustment Basis Average Usage

2.B.1 The adjustment basis average usage is the simple average of the participant's usage over the two-hour adjustment period on the event day.

C. Calculate the gross adjustment factor

2.C.1 The gross adjustment factor is equal to the Adjustment Basis Average Usage divided by the Adjustment Basis Average CBL

D. Determine the Final adjustment factor. The final adjustment factor is as follows:

2.D.1 If the gross adjustment factor is greater than 1.00, then the final adjustment factor is the smaller of the gross adjustment factor or 1.20

2.D.2 If the gross adjustment factor is less than 1.00, the final adjustment factors are the greater of the gross adjustment factor or .80.

2.D.3 If the gross adjustment factor is equal to 1.00, the final adjustment factor is equal to the gross adjustment factor.

*Step 3.* Calculate the Adjusted CBL values.

A. The Event Adjusted CBL value for each hour of an event is the product of the Final Adjustment Factor and the Average CBL value for that hour.



#### III. Selecting a CBL method

A.1 The participant selects the CBL formula when it registers, or is registered by its LSE or CSP, with the NYISO for program participation. The choice of CBL becomes effective when the NYISO accepts the registration.

A.2 At the initial registration to the PRL program, participants may elect either the Average Day CBL or the Adjusted CBL formula.

A.3 At the time that the new Adjustable CBL formulation becomes effective, registered participants in the PRL program may apply to change to the adjusted formula CBL method beginning thirty (30) days after such notification or to become effective May 1, 2002.

A.4 Participants may switch CBL methods by making application to the NYISO. For such a change applicable to the summer capability period (May 1 — October 31), the application must be submitted to NYISO by April 1. For a change applicable to the winter capability period (November 1 — April 30), the application must be submitted to NYISO by October 1. The change in the CBL formula becomes effective at the beginning of the next capability period after the NYISO accepts the application.



was sent out at 10 a.m.. The past 10 days MWh consumption for similar hours, along with the four hours prior to event initiation, was:

		$1 \square \Pi$								
<del>Time</del>	SI	<u>sttl</u>	A A	III)			re		SI	a th
<del>8-9</del>	<del>5</del>	4	4	4	<del>3</del>	¢	2	сф	<del>3</del>	4
<del>9-10</del>	<del>5</del>	3	<del>5</del>	4	4	2	3	3	2	4
<del>10-11</del> /	17	5/4	\$	5	F	5	4	4	4	<b>7</b> ,
<del>11-12</del> ∧	MA		60	$\mathcal{S}$	MV/	87 1		× C O		( <u>4</u> )
<del>12-1</del>								5		SU
<del>1-2</del>	11	<del>o</del>	<del>12</del>	8		\$	8	<b>\$</b>	<del>6</del>	<del>10</del>
<del>2-3</del>	7	<del>9</del>	<del>9</del>	<del>6</del>	<del>9</del>	<del>9</del>	8	\$	¢	<del>9</del>
<del>3-</del> 4	<del>5</del>	ф	7	<del>6</del>	7	7	<del>6</del>	7	<del>5</del>	<del>6</del>



Time	HB 8	HB 9	HB 10	HB 11	HB 12	HB 13	HB 14	HB 15	Avg Event Period Usage	Total Event Period Usage	Rank
CBL DAY 1	5	5	7	8	10	11	7	5	8.33	33	4
CBL DAY 2	4	3	5	6	8	6	9	6	7.25	29	7
CBL DAY 3	4	5	6	8	9	12	9	7	9.30	37	1
CBL DAY 4	4	4	5	6	7	8	6	6	6.75	27	8
CBL DAY 5	3	4	5	7	10	11	9	7	9.25	37	2
CBL DAY 6	6	2	5	8	12	8	9	7	9.00	36	3
CBL DAY 7	2	3	4	5	5	8	8	6	6.75	27	8
CBL DAY 8	3	3	4	6	7	8	8	7	7.50	30	6
CBL DAY 9	3	2	4	6	7	6	6	5	6.00	24	10
CBL DAY 10	4	4	5	7	8	10	9	6	8.25	33	5

Steps 1 and 2: sum the MWh for the hours 12-4 each day and select the 5 highest totals:

Time	HB 8	HB 9	HB 10	HB 11	HB 12	HB 13	HB 14	HB 15	Avg Event Period Usage	Total Event Period Usage	Rank
CBL DAY 1	5	5	7	8	10	11	7	5	8.33	33	4
CBL DAY 3	4	5	6	8	9	12	9	7	9.30	37	1
CBL DAY 5	3	4	5	7	10	11	9	7	9.25	37	2
CBL DAY 6	6	2	5	8	12	8	9	7	9.00	36	3
CBL DAY 10	4	4	5	7	8	10	9	6	8.25	33	5

	<del>MWh</del> <del>n-2</del>	<del>MWh</del> <del>n-3</del>	<del>MWh</del> <del>n-4</del>	<del>MWh</del> <del>n-5</del>	<del>MWh</del> <del>n-6</del>	<del>MWh</del> <del>n-7</del>	<del>MWh</del> <del>n-8</del>	<del>MWh</del> <del>n-9</del>	<del>MWh</del> <del>n-10</del>	<del>MWh</del> <del>n-11</del>
	<del>33</del>	<del>29</del>	<del>37</del>	<del>27</del>	<del>37</del>	<del>36</del>	<del>27</del>	<del>30</del>	<del>24</del>	<del>33</del>
Selected?	¥		¥		¥	¥				¥

Step 3: Calculate the CBL for each hour using the five highest days selected:

Time	HB 12	HB 13	HB 14	HB 15
Avg Day CBL	9.8	10.4	8.6	6.5

To calculate the hourly load reduction, for each hour, subtract the actual load from the CBL .

Time	HB 12	HB 13	HB 14	HB 15
Avg Day CBL	9.8	10.4	8.6	6.5
EVENT DAY - Actual				
Load	2	3	3	4
Load Reduction using Average Day CBL	7.8	7.4	5.6	2.5

- <del>Time</del>	<del>Day n-2</del>	<del>Day n-4</del>	<del>Day n-6</del>	<del>Day n-7</del>	<del>Day n-11</del>	CBL
<del>12-1</del>	<del>10</del>	9	<del>10</del>	<del>12</del>	8	<del>9.8</del>
<del>1-2</del>	11	<del>12</del>	11	8	<del>10</del>	<del>10.4</del>
<del>2-3</del>	7	9	9	<del>9</del>	9	<del>8.6</del>
<del>3-</del> 4	5	7	7	7	6	<del>6.</del> 4

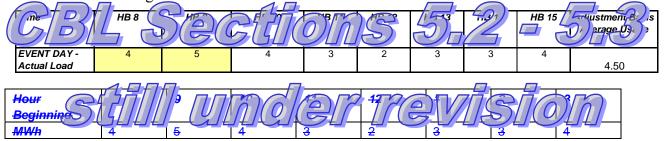
The CBL in the right-hand column above would be the non-weather –adjusted value. If this customer was signed up with the weather-sensitive calculation option, the CBL would be adjusted upward or downward based on the actual usage in the two hours prior to event notification. In this example, the Adjustment Basis Average CBL will be the average of the MWh for hours beginning 8 and 9 over the five days chosen for the CBL:



Time	HB 8	HB 9	Adjustment Basis Average CBL
Avg Day CBL - Adjustment Hours	4.4	4.0	4.2

Time	<del>Day n-2</del>	<del>Day n-4</del>	<del>-Day n-6</del>	<del>Day n-7</del>	<del>Day n-11</del>	
<del>8-9</del>	5	4	3	¢	4	
<del>9-10</del>	5	5	4	2	4	
Average						4 <del>.2</del>

On the day of the event (day n), assume the actual metered load consumption is as shown in the following table:



In this case, the Adjustment Basis Average Usage is the average of the MWh in hours 8

The Gross Adjustment Factor is the boot of the Adjustment Basis Average Usage to the Adjustment Basis Average CBL, 4.5/4.2 or 1.07.

Adjustment Basis Average Usage	Adjustment Basis Average CBL	Gross Adjustment Factor
4.50	4.2	1.07

The CBL will therefore be adjusted upward by 1.07 – the following table shows the resulting new CBL and the computed load reduction for the four-hour event period.

Time	HB 12	HB 13	HB 14	HB 15
Weather-Adjusted CBL	10.5	11.1	9.2	7.0
EVENT DAY - Actual				
Load	2	3	3	4
Load Reduction using Weather-Adjusted CBL				
	8.5	8.1	6.2	3.0

Hour Beginning	<del>-12</del>	4	2	3
<del>Load (MWh)</del>	2	3	<b>A</b>	4
<del>CBL (MWh)</del>	<del>10.5</del>	<del>11.1</del>	<del>9.2</del>	<del>6.8</del>
Load Reduction (MWh)	<del>8.5</del>	<del>8.1</del>	<del>6.2</del>	<del>2.8</del>

It is important to note that if the actual usage in the two hours prior to notification was *lower* than the Adjustment Basis Average CBL, the CBL curve would have been shifted *downward* and would result in load reduction performance that was lower than would have been determined using the Average Day CBL (without weather adjustment).

# 6.2.4.5.2.4. Baseline Calculation Method (Local Generation Only)

For Local Generation using separate metering, a similar CBL calculation is used to eliminate any base load portion of generation from the actual performance during the event.

- 1. Calculate the Local Generation during similar hours over the past 10 weekdays, beginning two days prior to the curtailment event and excluding days where curtailment due to participation in the EDRP or the Day Ahead programs occurred.
- 2. MWh(k) = sum(h(i)...h(j)) for each day k = d(n-2)...d(n-11)

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- 3. Select the 5 lowest values of MWh(k) and use those days d(l), l = 1...5 to calculate the CBL.
- 4. Calculate the CBL for each hour h(i) as the average of the five h(i) values for days d(l), l = 1...5.

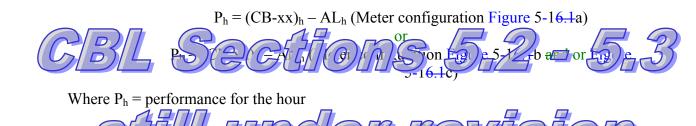
# 6.3.5.3. Performance Measurements and Compliance

# 6.3.1.5.3.1. Performance

Performance for metering configurations where load reduction is included is measured as the difference between the Customer Baseline and the actual metered usage by hour during the event. The Customer Baseline type used for computing performance shall be the same day-type as the day-type of the EDRP event. For Local Generation, the generator output as metered will be used for performance as defined below. The equations are given for the alternative metering configurations shown in Figure Figure 5-1. Metering Configuration 6-1.

# Load Reduction Only Configuration

For premises subscribing only the load reduction, performance for each hour shall be calculated as:



NYISO Emergency Demand Response Manual Revision 56, the tive Date 1/06/04 Update: 7-2008 5-12



 $CB-xx_h = Customer Baseline day-type (weekday - CB-WD, Saturday CB-SA, or Sunday-CB-SU) for the hour as calculated using the simple average method described above in Section 5.2.26.2.2$ 

 $AL_h$  = actual load for the hour using meter L in configuration Figure 5-16.1a

 $AN_h$  = actual load for the hour using meter N in configuration Figure 5-16.1b and Figure 5-16.1c

#### Local Generation Only Configuration

For premises subscribing only Local Generation, performance for each hour shall be calculated as:

$$Ph = OG_h - (GCB-xx)_h$$

Where  $P_h$  = performance for the hour

- $OG_h$  = Metered On-site generator output for the hour using meter G in either configuration 6.1a or 6.1b
- GCB-xx<sub>h</sub> = Customer Baseline day-type (weekday GCB-WD, Saturday GCB-SA or Sunday GCB-SU) for the hour h as determined for Local Generation described in Section 6.2.3.

#### Load and Local Generation Configuration

For premises subscribing both the Local Generation and the load reduction and participating in the same EDRP event, performance for each hour shall be the net of Local Generation and load as defined below:

$$P_{h} = [OG_{h}-(GCB-xx)_{h}] + [(CB-xx)_{h} - AL_{h}] \text{ (Meter configuration Figure 5-16.1a)}$$
  
or  
$$P_{h} = (CB-xx)_{h} - AN_{h} \text{ (Meter configuration Figure 5-16.1b and or Figure 5-16.1c)}$$

Where  $P_h$  = performance for the hour

 $OG_h$  = Metered On-site generator output for the hour

 $GCB-xx_h = Customer Baseline day-type (weekday - GCB-WD, Saturday - GCB-SA or Sunday GCB-SU) for the hour h as determined for Local Generation described in Section 6.2.3.$ 



- CB-xx<sub>h</sub> = Customer Baseline day-type (weekday CB-WD, Saturday CB-SA, or Sunday-CB-SU) for the hour as calculated using the simple average method described above in Section 6.2.2
- $AL_h$  = actual load for the hour using meter L in configuration 6.1a

 $AN_h$  = actual load for the hour using meter N in configuration 6.1b and 6.1c

# 6.3.2.5.3.2 Compliance tial Bui nce Sections 5.2 = 5.3

Initial Compliance (IC) is measured as the first event hour in which performance in the hour is greater than zero (actual load is less than baseline).

Final Constant a preculation of the previous for the preculation of the preculation of the previous for the

Final Compliance (FC) is measured as the last hour in which performance is greater than zero, or the last hour of the EDRP event, whichever is earlier.



The Compliance Period includes every nour in the EDRP event in which performance was greater than zero, beginning with the Initial Compliance hour and ending with the Final Compliance hour or the end of the EDRP event, whichever is earlier.

Table 5-1 Table 6.3.2 illustrates examples of Initial Compliance and Final Compliance for an event starting at noon and lasting for five hours.

	<b>r</b>			-	event		F		
			NYISO I	EDRP Ever	nt				
	10 - 11AM	11- 12 AM	12 - 1 PM	1 - 2 PM	2 - 3 PM	3 - 4 PM	4 -5 PM	5 - 6 PM	6 -7 PM
Custor	mer 1								
BL	125	125	125	125	150	150	150	150	125
AL	130	120	110	100	100	125	150	160	140
Perforn	nance	5	15	25	50	25	0		
			IC	Р	Р	FC			
Compli	ance Period								
Custor	mer 2								

# Table 6.3.2: Examples of Performance during an EDRP Event FDRP event



BL	200	200	250	250	250	200	200	200	200
AL	200	200	250	225	200	175	175	175	200
Performar	nce		0	25	50	25	25	25	
				IC	Р	Р	FC		
Complian	ce Period								
Custome	r 3								
BL	300	300	350	350	350	300	300	300	300
AL	300	300	350	325	325	325	275	275	300
Performar	nce		0	25	25	0	25	25	
				IC	Р	Р	FC		
Compliand	ce Period								
Legend	BL = Bas	eline		IC = Initia	•			P = Perfo	rmance
	AL = Actu	al Load		FC = Final Compliance					

# 6.4.5.4. Settlement Procedures

CSPs shall provide verification of load reduced within 45 607545 days of the emergency by providing interval billing meter data to the NYISO. Verification of load reduction not received by the NYISO within 45 607545 days of the emergency may shall not be compensated pursuant to this program. All load reduction is subject to NYISO audit, and market monitoring unit review. The NYISO will be responsible for calculating settlement payment.

#### 6.4.1.5.4.1. Data Submission

A CSP will-shall submit the response(s) of the Demand Side Resource(s) that participated in the emergency event to the NYISO within 45 607545 days of the event being called. However, Failure to so provide such data will result in a CSP not receiving payment for its participation in the EDRP. The ISO will not accept event data beyond 75 days after the event and shall not pay a CSP for claimed demand reductions, the supporting data for which the CSP has failed to provide to the NYISO, pursuant to ISO Procedures within 75 days of the event.

shall not pay a CSP that fails to provide the data within 45 days for that Curtailment Service Provider's claimed demand reductions. The ISO maintains the ability tomay subsequently review the data through the Market Monitoring Unit.

#### 6.4.2.5.4.2. EDRP Reporting

In establishing the reporting requirements for this program, information regarding the identity of Demand Side Resources participating in this program shall be treated as confidential by the NYISO, and will not be shared with third parties.

The Event Participation Report (found in Attachment C) or the equivalent .csv file format described in Attachment D shall be required for reporting performance in an EDRP event. Either version is intended to shall be completed for each load or Local Generation resource



participating in a CSP's EDRP program within 45607545 days of the event and no later than 75 days after the event. -

#### 26.4.3.Demand Side Resource Reduction Data

A CSP will submit response(s) of the Demand Side Resource(s) or Local Generation that participated in the emergency event aggregated by hour and by zone.

- a)Where the CSP's Demand Side Resource response is based on individual end use loads alone or for premises with both participating load and Local Generation, the CSP is required to provide metered hourly interval data for each load and the Local Generation for the entire billing period in which the EDRP event occurred.
- b)Where the CSP's Demand Side Resource response is provided only from Local Generation, the CSP shall provide interval data for the 24-hour period ending midnight of the day of the EDRP event.
- e)If the EDRP event occurs less than 10 days into a billing period for any end-use load or premises with participating load and Local Generation, the prior month's bill period data must also be provided for that end-use load and Local Generation.

#### 6.4.4.5.4.3. Data Format

CSPs should submit one file per day containing meter and CBL data for all participants.

Individual end-use or Local Generation hourly interval load data for the billing period in which an EDRP event occurred shall be submitted in electronic form to the NYISO in one of the following formats:

- a) Excel spreadsheet format (Event Participation Summary Report) as described in Attachment C. A template can be found on the NYISO website at: <u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp</u> <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_r</u> <u>esponse/event\_participation\_form\_050102.xls</u>
- b) Comma-Separated Variable format as described in Attachment D. A template can be found on the NYISO website at: <u>http://www.nyiso.com/public/products/demand\_response/edrp.jsp</u> <u>http://www.nyiso.com/services/documents/groups/bic\_price\_responsive\_wg/demand\_r</u> <u>esponse/end%20use.csv</u>

#### CSPs should submit one file per day containing meter and CBL data for all participants.

Electronic data files may be submitted via one of the following methods:

- a) e-mail to: <u>abreidenbaugh@nyiso.com</u> or <u>edrp-scr@nyiso.com</u>;
- b) CD-ROM or other electronic medium mailed to:

**EDRP** Coordinator

New York Independent System Operator

Auxiliary Market Operations



3890 Carman Road Schenectady, NY 12303

### 6.4.5.5.4.4. Calculation of and Payments

The ISO shall pay Curtailment Service Providers that cause a verified reduction in demand in response to the activation of the Emergency Demand Response Program. If the ISO activates the Emergency Demand Response Program, it shall pay Curtailment Service Providers for four hours of such demand reduction or for the period of time that the Emergency Demand Response program is activated, whichever is greater.

Payment to a CSP for an EDRP event will not be made unless the CSP has submitted all required data in the ISO-specified format within the timeframe established in this EDRP manual.

For interruptible load resources resources subscribing load reduction only or resources subscribing a combination of load reduction (see Figure 5-1Figure 6.1a) and Local Generation resources with a metering configuration such that the meter measures the net of load and local generation (see Figure 5-1b Figure 6.1b or Figure 5-1c6.1c) whose MW performance in any hour is at or below the peak load consumption of the resource, the NYISO will calculate the payment to CSPs using the following formula:

#### If the Emergency is four hours or longer:

 $P_h * max($500, LBMP_{RT Zonal, h})$  for each hour *h* of the emergency

#### If the Emergency is less than four hours:

 $P_h * max(\$500, LBMP_{RT Zonal, h})$  for each of the first two hours *h* of the emergency, or for the duration of the emergency, whichever is greater (a minimum two-hour payment for performance)

+

 $P_h * LBMP_{RT Zonal, h}$  for the remainder of the four-hour period.

 $P_h$  = performance during hour *h* as defined in Section 5.3.16.3.1 LBMP <sub>RT Zonal, h</sub> = Real-time zonal LBMP for hour *h* 

For Local Generation Resources, using separate metering, whose MW performance in any hour exceeds the peak load consumption calculated baseline of that resource, the NYISO



will pay the resource for that portion of the energy produced above peak load consumption reduction  $(G_h)$  as follows:

 $G_h * LBMP_{\text{ RT Zonal, }h}$ 

Where Gh is the performance of the Local Generation Resource in excess of the hourly peak load consumption.

In most cases, NYISO Operators will specify a start time and end time for the curtailment event. The start time may be immediate. This information will be provided at least two hours prior to the starting time. Demand Side Resources will beare expected to begin curtailment at the specified starting time. Participants who respond to a notice will be paid for performance in accordance with the above formulas for either the length of the curtailment period or four hours, whichever is greater. The four-hour minimum payment period will begin at the time when be identified by the NYISO directs the retail end user to reduce load-or, if load reduction is requested as soon as possible, when the retail end user begins his load reduction response.

CSPs that fail to provide load reduction when requested by the NYISO incur no penalties for failure to respond to the EDRP.

#### **26.4.6.**Distribution of Payments

Payments will be made by the NYISO directly to the CSPs.

Payments will be made by the ISO as part of the monthly bill generated by the ISO's monthly settlement process. The bill will record the total payment as an emergency energy payment and will break down the payment by total MWh by zone, hourly zonal price, and total payment.invoice entry will be labeled as Demand Response Statement on the Consolidated Invoice. A separate breakout of payment by hour by resource will also be provided outside the settlement and invoice process.- These payments will be made to the CSPs for all emergencies which have had data submitted and approved in accordance with the data policy prior to the end of the month.

# 6.4.7.5.4.5. Verification, Errors and Fraud

All load reduction data is subject to audit by the NYISO and its Market Monitoring unit. Disputes concerning erroneous payments shall be resolved through the ISO's Dispute Resolution Procedures.

If the ISO in it's review of the CSP's account determines the CSP or one of its customers has committed fraud to extract EDRP payments from the ISO, the ISO will have the right



to ban the CSP or the CSP's customer from the EDRP as well as pursue all of the ISO's legal rights, at its sole discretion.

# 6.5.5.5. Assessment of Program Charges to Load

#### 6.5.1.5.5.1. Objectives of Cost Allocation

The costs for the program will equal the sum of all payments to customers calculated and paid out Payments made to CSPs for EDRP events under Section 5.4.46.4.5 will be allocated to load as specified herein and in conformance with the provisions of the ISO Market Services Tariff, Attachment G.

In general, cost allocations should be designed with fairness and market efficiency (i.e., sending the correct price signals) in mind. If it can be determined that some locations provoke the need for a service and/or benefit from that service, then it is proper (from both a fairness and market efficiency perspective) to charge loads in those locations for the service specifically.

In the case of the EDRP, the cost allocation method should be done on a Zonal rather than statewide (i.e., "all loads - every time") basis so that price signals will be produced that help encourage reliability improvements where reliability needs to be improved.

# 6.5.2.5.5.2. Causes for EDRP Being Invoked

EDRP will be invoked as described in Section 4.4 of the NYISO Emergency Operations Manual.

during situations in which one or both of the following actually occur or are predicted to occur within a specific Zone or set of Zones:

#### EDRP Condition 1

Internal Load exceeds Available (Internal) Generation plus Import Capability

Supply Available for Import via that Transmission

#### EDRP Condition 2

Locational Operating Reserve Requirements exceed Available Operating Reserves.



#### 6.5.3.5.5.3. EDRP Cost Allocation

Based upon the objectives for cost allocation and the causes for initiating the EDRP (i.e., Conditions 1 and 2 as defined above), the following cost allocation method will be used:

Costs associated with EDRP will be allocated to all Loads in Zones for which EDRP will directly help to alleviate Conditions 1 and or 2 the conditions under which EDRP was invoked.

The above rule translates into the following table:

#### Table 5-2. EDRP Cost Allocation

#### Table 6.5.3: Emergency Demand Reduction Program Cost Allocation

Location of Condition 1 and/or 2	EDR Cost Allocation
All or Part of One NYCA-Zone- load zone (including relief for Local Reliability Rule problems within a-Zone- load zone as requested by a TO)	All Loads in that-Zone-load zone $(L_z)$
Two or More NYCA Zones	All Loads in those Zones (L <sub>zsum</sub> )
All Zones in NYCA	All Loads in NYCA (L <sub>system</sub> )
An External Control Area	The External Control Area (L <sub>external</sub> )

#### 6.5.4.5.5.4. Cost Allocation Formula

The monthly charge for cost of EDRP payments will be recovered from all Transmission Customers in the affected zones,, and will be calculated as the product of (A) payments made to Curtailment Service Providers and (B) the ratio of (i) the customer's billing units for the month to (ii) the sum of all billing units during that month.

Billing units shall be based on the Actual Energy Withdrawals for all Transmission Service to supply Load in the NYCA, and hourly Energy schedules for all Wheels Throughs and Exports. To the extent that the ISO activates the Emergency Demand Response Program in response to an Emergency or a real-time locational Operating Reserves shortage or a peak forecast of an Operating Reserves shortage in a particular zone load zone or zones, including relief to meet a Local Reliability Rule within a-zone load zone as requested by a Transmission Owner, the billing units for such charges will be based on the Actual Energy Withdrawals in the affected zone(s) during the hours in which the Emergency Demand Response Program was activated.

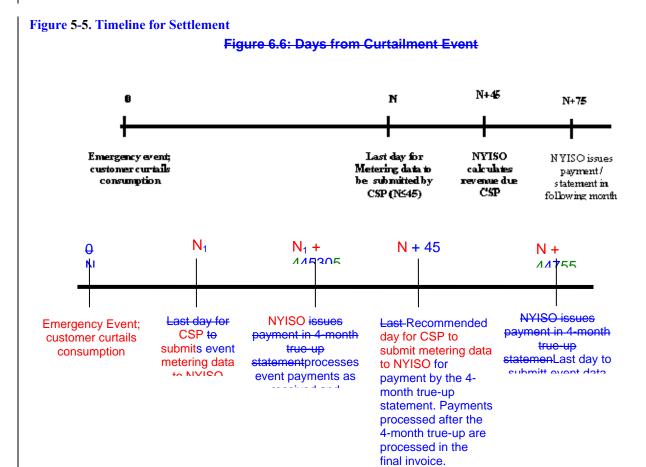
LSEs shall also be required to pay the monthly charges calculated above for Transmission Customers, which the LSE serves as retail access customers.

This charge will appear as a distinct line item on the customer billabeled as Demand Response Statement on the Consolidated Invoice. A breakout of payment by hour by resource will also be-s-eparately The NYISO will separately provide supporting material



that will include the amount of load response for each hour of the emergency provided outside the settlement and invoice process<del>.</del>

### 6.6.5.6. Timeline for Settlement





For the month immediately following the calculation of revenues to be paid to the CSP:

7.Approximately on 8th of following month NYISO bills are generated; costs and revenues will be posted to the CSP and LSE Billing Statements

8. Approximately on 16th payments are due from the LSEs

9.Approximately on 22nd revenues will be due from the ISO to the CSPs



# 6. 7.....Targeted Demand Response Program

#### 76.1 Program Overview

The NYISO will activate Emergency Demand Response Program (EDRP) in targeted areas within Load Zone J under certain specific conditions and in response to a request for TDRP assistance from the Transmission Owner.

# **Details:**

The NYISO will respond to requests for assistance from the Transmission Owner in-Zone- load zone J (New York City) by activating EDRP resources in one or more of eight sub-load pockets in Zone- load zone J. Notifications will be made through the NYISO's EDRP/SCR notification system; events will clearly be identified as Targeted Demand Response advisories or activations.

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 179th
J2	Astoria West/Queensbridge
J3	Vernon/Greenwood
J4	Staten Island
J5	Astoria East/Corona/Jamaica
J6	W 49th
J7	E13th/East River
J8	Farragut/Rainey
J9	Shared Subzone

There will be no changes to the cost allocation methodology for payment of energy reduction achieved by participating EDRP resources under a TDRP activation.

**76.2** Conditions for Activating Targeted Demand Response **Transmission and Sub- Transmission System (69kV or higher)** 



CSPs with resources in sub-load pockets will be notified of the possibility of program activation. The notification process is the same used for an EDRP advisory and will specify that the advisory is part of the Targeted Demand Response Program.

#### 76.2.1Day Ahead Advisory Conditions

Transmission Owner may request the NYISO to send an advisory notice day ahead if the following conditions exist in-Zone- load zone J:

- After all other available resources are committed, a shortfall is identified whereby normal feeder ratings or Transmission Owner 300-hour bank ratings will be exceeded following a contingency in a sub-load pocket, unless load relief measures are enacted.
- After all other available resources are committed, a reactive power shortfall is identified whereby post-contingency low voltage will exist in a sub-load pocket unless load relief measures are enacted.

CSPs with resources in sub-load pockets will be notified of the possibility of program activation. The notification process is the same used for an EDRP advisory and will specify that the advisory is part of the Targeted Demand Response Program.

#### 76.2.2 In Day Advisory/Activation Conditions

Transmission Owner may request the NYISO to activate the Targeted Demand Response Program if the following conditions exist in <u>Zone</u> load zone J:

- If, after the next contingency, a Transmission Owner Long-Term Emergency (LTE) or 3hour bank rating violation will exist that cannot be cleared with available resources and without load relief measures.
- If an anticipated or real-time violation of Normal feeder ratings or 300-hour bank ratings exists and cannot be cleared through available resources and without load relief measures.
- If an anticipated, real-time or post- contingency low voltage condition exists and cannot be cleared through available resources and without load relief measures.

#### Lower Voltage Systems (33kV or Below)

 The TDR program will be activated if it is anticipated that a network or load area could experience significant service interruptions following the loss of two additional feeders and secondary problems exist, such as low voltage and localized service interruptions.

CSPs with resources in sub-load pockets will be notified of the program activation. The notification process is the same used for an EDRP advisory/event and will specify the activation is for the Targeted Demand Response Program.

#### 76.3 Verification, Billing and Settlement



All phases of meter verification, billing, and settlement will be handled in the same manner as an EDRP event. Section  $\frac{6}{6}$  of this manual has further details.





# 8. References

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- Stage 2-ICAP nstalled Capacity Manual 6.2, Dec. 30, 2002October 2006-(available on NYISO website at <a href="http://www.nyiso.com/services/documents/manuals/pdf/planning\_manuals/stage2\_icap\_m\_anual\_12\_30\_02.pdf">http://www.nyiso.com/services/documents/manuals/pdf/planning\_manuals/stage2\_icap\_m\_anual\_12\_30\_02.pdf</a> <a href="http://www.nyiso.com/public/products/demand\_response/scr\_icap.jsp">http://www.nyiso.com/services/documents/manuals/pdf/planning\_manuals/stage2\_icap\_m\_anual\_12\_30\_02.pdf</a> <a href="http://www.nyiso.com/public/products/demand\_response/scr\_icap.jsp">http://www.nyiso.com/services/documents/manuals/pdf/planning\_manuals/stage2\_icap\_m\_anual\_12\_30\_02.pdf</a> <a href="http://www.nyiso.com/public/products/demand\_response/scr\_icap.jsp">http://www.nyiso.com/services/documents/manuals/operations/icap\_manual.pdf</a>)
   Market Administration and Control Area Services Tariff (available on NYISO website at <a href="http://www.nyiso.com/services/oatt.html">http://www.nyiso.com/services/oatt.html</a> <a href="http://www.nyiso.com/services/oatt.html">http://www.nyiso.com/services/oatt.html</a> <a href="http://www.nyiso.com/services.jsp">http://www.nyiso.com/services/oatt.html</a> <a href="http://www.nyiso.com/services.jsp">http://www.nyiso.com/services/oatt.html</a> <a href="http://www.nyiso.com/services.jsp">http://www.nyiso.com/services/oatt.html</a> <a href="http://www.nyiso.com/services.jsp">http://www.nyiso.com/services.jsp</a> </a>)
   Section 4.4.1 of the NYISO Emergency Operations Manual (available on NYISO website at <a href="http://www.nyiso.com/public/webdocs/documents/manuals/operations/em\_op\_mnl.pdf">http://www.nyiso.com/public/webdocs/documents/manuals/operations/em\_op\_mnl.pdf</a>)
- <u>http://www.nyiso.com/services/documents/manuals/pdf/oper\_manuals/em\_op\_pro.pdf</u>)
   Section 3.2 of the NYISO Emergency Operations Manual (available on NYISO website at <u>http://www.nyiso.com/public/webdocs/documents/manuals/operations/em\_op\_mnl.pdf</u> <u>http://www.nyiso.com/services/documents/manuals/pdf/oper\_manuals/em\_op\_pro.pdf</u>).

NYISO Emergency Demand Response Manual Revision <del>5</del>6.0, Effective Date: 4/06/04Update: 7-2008



# Attachment A -**Curtailment Service Provider (CSP) Registration Emergency Demand Response Program** (EDRP) **The requirements for EDRP suppliers are** controlled by the New York Independent **System Operator's Services Tariff ("ISO** Services Tariff") and the "NYISO **Emergency Demand Response Program** Manual<sup>9</sup> This form must be faxed to 518-356-61466208, attention: Manager EDRP **Coordinator or e-mailed to** dlawrence@nyiso.com or edrpscr@nviso.com **Onerations Contact Information** All communications by the NYISO during an EDRP event w For sent to the primary

and emphary contacts listed below





# (additional contacts should be provided on a separate sheet).

Primary Contact Name: Organization:	
Organization:	
Address:	
Dhanay	
Phone:	
Cell phone:	
Pager:	
Fax:	
E-mail:	
Secondary Contact Name:	
Organization:	
Address:	
Phone:	
Cell phone:	
Pager:	
<del>Fax:</del>	
E-mail:	
	Administrative Contact Information
All inquiries and notice	s of an administrative nature by the NYISO will be sent to the address
	provided below:
Name:	-
Organization:	
Organization: Address :	
Address :	
Address : Phone :	
Address : Phone : Cell Phone :	
Address : Phone : Cell Phone : Pager :	
Address : Phone : Cell Phone : Pager : Fax :	
Address : Phone : Cell Phone : Pager :	
Address : Phone : Cell Phone : Pager : Fax :	
Address : Phone : Cell Phone : Pager : Fax :	Ton ⊋-1/urrent NYISO Custor Tor ? (Check one) □ Yes □ Mo
Address : Phone : Cell Phone : Pager : Fax : E-mail :	n 2 / urrent NYISO Custor Dr ? (Check one) - Yes - Mo
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Address : Phone : Cell Phone : Pager : Fax : E-mail : Is your organiz (If no, you must become cithe Manual Section 4 for upp Curtailment Customer	Load Serving Direct CustomerLSE Customer End Use Entity Customer C
Address : Phone : Cell Phone : Pager : Fax : E-mail : Is your organiz (If no, you must become citly Manual Section 4 for appl Curtailment Customer Aggregator	Load Serving Direct CustomerLSE Curtailment Program End Use Entity that takes service Customer Iso UNDO Cart net to the ISO
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	NYISO Customer ? (Check one)	<del>Yes 🗌</del>	No 🗌
	VYISO Customer or a NYISO Limited		
Customer to participate in this p	program. See Manual Section 4 for		
application	requirements)		
Please check all the LB	<b>/IP zone(s) in which you plan to provide a</b>	Demand Side Resource :	
West 🗌	Genesee 🗔	Central 🗌	
North 🗌	Mohawk Valley 🗌	Capital 🗌	
Hudson Valley 🗌	Millwood 🗔	<del>Dunwoodie 🗌</del>	
NYC	Long Island		
	requirements to be a Curtailment Servic		matio
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<del>contained in</del> <del>The CSP certifies that the end-u</del> <del>Furthermore, the CSP agre</del>	this form and its attachments is completion is completion in the second structure in the second structure in the second structure is a second structure in the second structure in the second structure is a second structure in the second structure in the second structure is a second structure in the second structur	te and correct. enrollment in the EDRP prog LEDRP Program evaluations	<del>ram.</del>
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contained in The CSP certifies that the end-t Furthermore, the CSP agre IN WITNESS WHEREOF, this Registration has been submitted of	this form and its attachments is completed use customer has been informed of their es to participate in any NYISO sponsored Curtailment Service Provider's Emergen	te and correct. enrollment in the EDRP prog I EDRP Program evaluations cy Demand Response Progra	<del>ram.</del>
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	Att	achment	t- <b>B</b>			
Emerg	<del>sency Dem</del>	and Res	ponse	Progr	<del>'am –</del>	
E	nd Use Cu	istomer	Regist:	ration	t	
	This form can be email to (Use one form for each I	- <u>dlawrence@nyiso.c</u> Demand Side Resour	om or <u>edrp-scr@r</u> ce Registered by	<del>iyiso.com</del> t <del>he CSP)</del>		
· · · · · · · · · · · · · · · · · · ·	NOTE : The inf	ormation in this se	ction is optiona	<b>.</b>	·	
Street Address :						
Name of energ	Emergency Demand Re y provider for this Demand Resource :		EDRP) Load Ce	rtification		
	Distribution Company	4		1		
LDC's Electric Acc Meter Servic Meter Data Se Provider :	ount Number (* / E 7 e Provider : / [ ] rvice	<u>E</u> G	MAG		S	
Side R CBL Choice (Check one) :	I zone of Permand Strand Carlos Perruptible Load	mde	MW (rounded to )		S-IOI	
For on-Site Gen Resource/	ion for the second seco	ady	MW/ runded to I	Hearest 0.1 MW		Ŵ
Type of Generator:	<mark>⊟ Lean Burn IC</mark> Engine			Microturbine		
Fuel Types:	Diesel-low sulfur	Diesel	<mark>─ Natural</mark> <del>Gas</del>	⊟ <mark>⊟ Biogas</mark>	- Other	
Permit Type: O		Example 1 Facility	Registrat	ion		
Existing utility	<del>Type of N</del>	Aetering (Check all Mete	<del>that apply)</del> <del>vr ID# :</del>			
Permanent in	ording meter on generator terval meter on generator, installed Attach MSP certification if	if new date installed	or to be	<del>Meter ID# :</del> <del>Meter I</del>	<del>D# :</del>	
	Iment Service Provider su Resource :		<del>)</del>			
Period for whi	ch CSP will supply Deman Resource :	<del>d Side</del> /_	/ t <del>o</del>			
Authorized Repr	esentative of Curtailment Service	Provider		Date		



# Attachment C NYISO Emergency Demand Response Program

# **End-Use Participation Form Detailed Instruction**

Complete one (1) form from each EDRP Demand Side Resource

This report identifies dates used for the CBL Basis, the CBL calculation dates, and the CBL and actual metered values used to compute the net load reduction/generator output for an EDRP event. The net load reduction/generator output for each participating Demand Side Resource is sent to the NYISO in the EDRP Event Detail Data file.

	ormation section :	1
Date of EDRP Event	Date EDRP event was called	-
CSP Name/ID	CSP Name or ID	
Name of LSE	Name of Load-Serving Entity for the Demand	
	Resource Side	
LSE's Electric Account No.:	LSE's Account number for the Demand Side	
	Resource	
Meter Number	Meter identifier	
Load Name NYISO PTID	Account of the Demand Side to service	
LBMP Zone load zone of EDRP Load	Zone location of the Demand Side Resource	
Type of EDR	If this metered account (premise) is using both on	
still un	site regency generation and load crtailms to reduce of the states of the	
	the keyboard to make a check mark.)	
Type of EDR – On Site Generator	Check this box if the Demand Side Resource is	
Not rea	usin an site bar 2 p generation for load reduction	en
Type of EDR – Interruptible Load	Cheer this box if the Demand Side Resource will	
	curtail load for load reduction under EDRP.	
	(Formatted as Monotype Sorts – use the 3 key on	
	the keyboard to make a check mark.)	-
Check box at left if Load is Net Metered	Check this box if this account is net metered.	
	(Formatted as Monotype Sorts – use the 3 key on	
	the keyboard to make a check mark.)	T
	Determination Data :	
Dates Included in CBL	Enter the 10 days used as a basis for selecting the	
	5 days that make up the CBL – reverse	
Basis for this EDRP event	chronological order (most recent day first)	4
		4
Dates used for this EDRP event (check max. of <del>5)</del>		
म म		<u> </u>



Enter Reason Code. If O – Other is used, also specify the reason the date was excluded from the CBL Basis Four (4) possible codes: E – EDRP participation D – DADRP participation S – Shutdown-calculated using NYISO provision O – Other – include a specific reason when using Other <u>Other</u> <u>reporting section :</u> Enter the 24 hourly values that make up the computed CBL (Col A1 for Load and Col A@ for
If O – Other is used, also specify the reason the date was excluded from the CBL Basis Four (4) possible codes: E – EDRP participation D – DADRP participation S – Shutdown-calculated using NYISO provision O – Other – include a specific reason when using Other <u>reporting section :</u> Enter the 24 hourly values that make up the computed CBL (Col A1 for Load and Col A@ for
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computed CBL (Col A1 for Load and Col A@ for
• •
• •
Metered On-site Generation
Enter the actual meter readings for the hours of
the EDRP event
Enter the generation output values (for EDRP
event hours only) for the separately metered on-
site emergency generation used during the EDRP
event
Compute the Hourly Performance using the
appropriate calculation shown in the Hourly
Performance Calculation box at the bottom of the
column – EDRP event hours only
Enter the name and contact information for the
individual preparing the form
5









								[]			
Date of EDRP Event: Program (EDRP or			-			NYISO PTID:		I			
SCR):						LBMP Zone of					
CSP/RIP Name/ID:				_		EDRP Load:					
SE's Electric Acct. No:				_		Type of EDR:	(checi	k all that apply)			
Meter Number:				_		On-site Generat	tor		Check box at left if	1	
Load Name:				_		Interruptible Loa	ad		Load is Net Metered		
CBL Method: (check one)		]									
Load Data - CBL Det	Weather-Sensitive ermination Data		Enter all values rounde A1	ed to .001 MWh <b>A2</b>		в		с	D		
Dates included in CBL Basis for this EDRP Event (mm/dd/yy in	Dates used for this		CBL - LOAD: Fill in simple	CBL - Metered On site Generation: Fill in simple		LOAD: Fill in only EDRP event hours		GENERATION: Fill in only EDRP event	Hourly Performance: (fill in		
reverse chronological order)	EDRP event (check max. of 5)	beginning)	average for each hour (CBL)	average for each hour (CBL)		with actual meter readings	I	hours with actual meter readings	only EDRP event hours)	I	
		0 1									
		2 3			-						
		4									
		5 6			-						
		6 7		11						2	
		8			5		h		Traf.		
		9			5/4	GAA	14	'/4/4/4	<i>₩14144</i>		
(Enter all dates excluded that sh	ould otherwise be	10 11									
included in the CBL Basis for thi Code for each date.)	s event and a Reason	12									
Dates Excluded:	Reason:	13									
	G		<i>t   †  </i> —	A H H	$\gamma$				DFV/FT	SIG	
		18 19			-						
		20									
	Γ <u>Λ</u> Υ <i>[</i> C	DÛ		22	Q		Ź	ØF	TG	PVI E	
						Ð					
			Reason Codes: E	EDRP Participation				Hourly Performance C Load only = col. A - col			
			D	DADRP Participation	n			Generation only (meter			
			s	Shutdown-use NYIS				Generation only (NET r	netered) =		
			0	Other - must specify	/		I	(col. A - col. B) Load and generation (N	ET metered)		
			*The extra hour ti	nat appears at the tir	me shift fr	om DST to EST		(col. A - col. B)			
			will be after the fil occurs during the	rst hour beginning 2 time shift from EST	and the n to DST w	issing hour that ill be represented		Load and generation (s (col. A1 - col. B) +			
			by an empty field	For example, the h	ours will a	ppear as					
			1,2,2,3, and 1,3	3,4,							
			1,2,2,3, and 1,3	3,4,							
		Prepared by:		3,4,			Date:		_		





The file format defined below can be used as an alternative to the spreadsheets found in Appendix D of the EDRP Manual for reporting event data to the NYISO. The format is intended to simplify the transfer of data from CSP's CBL and load reduction calculations to the NYISO's billing and accounting process.

The extra hour that appears at the time shift from DST to EST will be after the first hour beginning 2 and the missing hour that occurs during the time shift from EST to DST will be represented with one comma. For example, the hours will appear as 1,2,2,3,... and 1,3,4,... This format is only for EST/DST time change, all other times the file will follow the format below.

Procedure for 4 + Cir 4 - 8 (0

CSPs can submit either the Excel spreadsheet file defined in Attachment C of the EDRP Manual or the .csv file defined in this Attachment. The table below identifies the types and numbers of files that

End-Use Event Form

Form one sheet per demand side or resource participating in event

one file per demand side resource participating in event\*

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#### **Demand Side Resource Event Form**

The Demand Side Resource event form mirrors the information specified in the End Use Participation Form found in Attachment C of the EDRP Manual. CSPs should complete one Demand Side Resource event form for each Demand Side Resource that participated in the EDRP event.

File Name (EDRP Event Data): CSPID\_EDRPmmddyyyy.csv

CSPID: Each CSP will receive a CSP ID upon registration. The CSP ID will be used as part of file names for reporting EDRP event data.

PTID: Each End-Use will receive a PTID (PoinT IDentifier) upon registration. The PTID will be used to identify the Demand Side Resource participating in the EDRP event.

mm = month (01-12) dd = day (01-31) yyyy = year (1999 - 2099)



The load values will be sent to a precision of three decimal digits.



Note: For readability, the format shown below includes spaces after each comma; the data file should not include spaces after each comma. Example: Demand Side Resource Event Occurring on May 4, 2001 Filename, Program, EDRP, 0, ICAP/SCR, 1 **CSP/RIP Name, Curtailment Service Provider,** NYISO PTID, xxx001, LBMP Zone load zone of EDRP Load, C, Type of EDRP,On-site Generator,0,Interruptible Load,1,Load is Net metered,1, a CBL Determin The Data, CBL Basis.5/2/2001.5/1/2001.4/30/2001.4/27/2001.4/26/2001.4/25/2001.4/24/2001.4/23/2001.4/13/2001.4/1 2/2001. ed for this EDRP 🗲 ont, 1, 1, 1, 0, 0 excluded that should otherwise be included in the CBL Basis for this Reason dates event.Shutdown, Shutdown, Shutdown, Shutdown, Shutdown, **7,<del>16,17,18,19,20,21,22,23,24,</del>25** Hour of h<del>our\_ep1/ing),1,2,3,4,5,6,7,8,9,10/71,12,13,14</del> 74 (CBL) Metered on-site generation Fill in sin average for each hour (CBL), LOAD Fill in only EDRP event hours with actual meter readings,,,,,,,,,,,1.3,1.14,1.1,1.1,1.1, GENERATION: Fill in only EDRP event hours with actual meter readings, Prepared by, Date, Phone, Fax, E-mail,