

**THIS FILING LETTER DOES NOT CONTAIN ANY PRIVILEGED OR CONFIDENTIAL INFORMATION. ATTACHMENT I - THE BODY OF REPORT, ALONG WITH THE REDACTED VERSIONS OF TABLES 2 THROUGH 6 (MARKED PUBLIC) DOES NOT CONTAIN ANY PRIVILEGED OR CONFIDENTIAL INFORMATION. ATTACHMENT II - CONFIDENTIAL TABLES AND DEMAND SIDE ANCILLARY SERVICES PROGRAM DETAILS, INCLUDES THE UNREDACTED TABLES, WHICH CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION, AND IS SUBMITTED SEPARATELY.**

January 15, 2015

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: Annual Report in Docket No. ER01-3001-000;  
Request for Privileged Treatment of Attachment II**

Dear Ms. Bose:

Enclosed for filing in the above-referenced docket is the New York Independent System Operator Inc.'s ("NYISO") annual report to the Federal Energy Regulatory Commission ("Commission") on the NYISO's Demand Side Management programs. By Order dated February 19, 2010, the Commission directed the NYISO to file this report for informational purposes only.<sup>1</sup>

### **I. List of Documents Submitted**

The NYISO submits this filing letter, accompanied by: (i) Attachment I, the NYISO 2014 Annual Report on Demand Response Programs, which includes redactions in Tables 2 through 6 of confidential, commercially sensitive information, and (ii) Confidential Attachment II, which contains the unredacted versions of Tables 2 through 6. Confidential Attachment II also contains an update on the status of resources participating in the NYISO's Demand Side Ancillary Service Program.

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<sup>1</sup> *New York Independent System Operator, Inc.*, Letter Order, Docket Nos. ER01-3001-021, *et al.* (Feb. 19, 2010).

## II. Request for Confidential Treatment of Attachment II

In accordance with Sections 388.107 and 388.112 of the Commission's Regulations,<sup>2</sup> Article 6 of the NYISO's Market Administration and Control Area Services Tariff, and Sections 12.1(4) and 12.4 of the NYISO's Code of Conduct in Attachment F of the NYISO Open Access Transmission Tariff, the NYISO requests Privileged and Confidential treatment of the contents of Attachment II to this filing letter. The NYISO also requests that the confidential Attachment II be exempted from public disclosure under the Freedom of Information Act ("FOIA"), 5 U.S.C. §552.<sup>3</sup>

Attachment II includes information regarding the number of demand response resources in a load zone that, when aggregated, are not greater than five (5). With such a small number of resources in the load zone, the NYISO's aggregation of the data reported for that load zone may not sufficiently mask confidential and commercially sensitive Market Participant information that the NYISO does not make public. Attachment II also includes a brief discussion of the status of enrollment and registration for the resources seeking to participate in the NYISO's Demand Side Ancillary Services Program. The number of resources described in this discussion similarly may not sufficiently mask confidential and commercially sensitive Market Participant information that the NYISO does not make public.

Attachment II, therefore, contains privileged, commercially sensitive, trade secret information that is exempt from disclosure under 5 U.S.C. §552(b)(4). Disclosure of such information could cause competitive harm to the affected Market Participants,<sup>4</sup> and could adversely affect competition in the markets administered by the NYISO. For this reason, the NYISO requests that the contents of Attachment II receive Privileged and Confidential treatment and be exempt from FOIA disclosure. Attachment II is identified and marked in accordance with the Commission's regulations and rules published by the Secretary's Office for submitting Privileged information.

## III. Correspondence

Copies of correspondence concerning this filing should be addressed to:

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<sup>2</sup> 18 C.F.R. §§ 388.107 and 388.112 (2014).

<sup>3</sup> The information provided by the NYISO for which the NYISO claims an exemption from FOIA disclosure is labeled "Contains Privileged Information – Do Not Release."

<sup>4</sup> Terms with initial capitalization not defined herein have the meaning set forth in the NYISO's Market Administration and Control Area Services Tariff.

Kimberley D. Bose, Secretary  
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#### IV. Conclusion

WHEREFORE, the New York Independent System Operator, Inc. respectfully requests that the Commission accept this informational filing and treat the contents of Attachment II as Privileged and Confidential and exempt from FOIA disclosure.

Respectfully submitted,

/s/ Gregory J. Campbell

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<sup>5</sup> The NYISO respectfully requests waiver of 18 C.F.R. § 385.203(b)(3) (2011) to permit service on counsel for the NYISO in both Washington, D.C. and Richmond, VA.

# Attachment I

# NYISO 2014 Annual Report on Demand Response Programs

## I. Program Descriptions

The New York Independent System Operator, Inc. (“NYISO”) administers four demand response programs for the dual purposes of system reliability and to reduce overall production costs. The Emergency Demand Response Program (“EDRP”)<sup>1</sup> and the Installed Capacity – Special Case Resource (“ICAP/SCR”) program support the reliability of the NYISO system. These two programs are designed to reduce power use by directing demand response resources to reduce load and/or by directing qualified Local Generators to remove Load from the system during grid emergencies or when additional generation supply is limited. Loads supplied by the New York State Transmission and/or distribution systems are eligible to participate in these programs, and aggregators enroll Demand Side Resources and coordinate with the NYISO to notify resources when the NYISO deploys demand response.

The NYISO also offers two economic demand response programs, the Day-Ahead Demand Response Program (“DADRP”) in its Energy Market, and the Demand-Side Ancillary Services Program (“DSASP”) in the Ancillary Services Market. The DADRP allows Loads supplied by the NYS Transmission and/or distribution systems to offer their load reductions into the Day-Ahead energy market as a supply resource. This program allows flexible loads to effectively increase the amount of supply in the market and moderate prices. The DSASP provides program participants with an opportunity to offer their load curtailment capability into the Day-Ahead Market (“DAM”) and/or Real-Time Market (“RTM”) to provide Operating Reserves and Regulation Service. Each of these four programs is described in greater detail below.

### Emergency Demand Response Program

The NYISO’s EDRP offers demand resources an opportunity to earn the greater of \$500/MWh or the prevailing Locational-Based Marginal Price (“LBMP”) for curtailing energy consumption when the NYISO calls on the program’s resources to reduce load. EDRP resources must be enrolled through Curtailment Service Providers (“CSPs”), which serve as the interface between the NYISO and the resource. EDRP resources are not obligated to curtail their load during an EDRP event.

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<sup>1</sup> Capitalized terms not defined herein have the meaning ascribed to them in the NYISO’s Market Administration and Control Area Services Tariff (“Services Tariff”).

## Installed Capacity – Special Case Resource Program

The ICAP/SCR program offers demand resources, referred to as Special Case Resources (“SCRs”), that meet certain eligibility requirements the opportunity to offer Unforced Capacity (“UCAP”) into the ICAP market as Resources. SCRs participate through Responsible Interface Parties (“RIPs”) which aggregate SCRs and serve as the interface between the NYISO and the resources.

Demand response events are called by the NYISO during grid emergencies or when reserve shortages are anticipated or actually occur. SCRs that have sold ICAP are obligated to reduce their system load when called upon by the NYISO with two or more hours notice, provided that the NYISO notified the RIP the day before any such SCR load reduction call. Resources may be enrolled in either the EDRP or the ICAP/SCR program, but not both. In addition to receiving a capacity payment, RIPs are eligible to receive energy payments during an event or test based on hourly market prices, plus a Bid Production Cost Guarantee. Energy payments are calculated by the NYISO using the same performance calculation used to calculate payments for the performance of EDRP resources.

Enrolled SCRs must verify their capability to achieve the amount of enrolled load reduction in each Capability Period. Failure of an SCR to reduce load during an event or test may result in penalties being assessed to the applicable RIP in accordance with the NYISO’s Services Tariff and the ICAP/SCR program rules and procedures.

## Targeted Demand Response Program

The Targeted Demand Response Program (“TDRP”), introduced in July 2007, is a NYISO reliability program that deploys existing EDRP and SCR resources on a voluntary basis, at the request of a Transmission Owner (“TO”), in targeted subzones to solve local reliability problems. The TDRP program is currently available only in Load Zone J (New York City). RIPs are eligible to receive energy payments during an event or test based on hourly market prices, plus a Bid Production Cost Guarantee. Energy payments are calculated by the NYISO using the same performance calculation used to calculate payments for the performance of EDRP resources.

## Day-Ahead Demand Response Program

The NYISO’s DADRP allows demand resources to offer load curtailment into the DAM as an energy supply resource. Resources participating in the DADRP submit offers by 5:00 a.m. specifying the hours and amount of load curtailment for the following day, and the price at which they are willing to curtail. The current offer floor price is \$75/MWh.

DADRP offers are structured like those of generation resources: they specify minimum and maximum run times and the hours in which they are available. Load scheduled in the DAM is obligated to curtail the next day. DADRP resources are also eligible for Bid Production Cost Guarantee payments to make up for any difference between the market price received and their block offer price across the day. Failure of a DADRP resource to curtail its Load may result in penalties being assessed to the applicable resource in accordance with the NYISO's Services Tariff and the DADRP program rules and procedures.

#### Demand-Side Ancillary Services Program

The NYISO's DSASP provides demand resources (that meet telemetry and other qualification requirements) an opportunity to offer their load curtailment capability into the DAM and/or RTM to provide Operating Reserves and Regulation Service. Resources must qualify through standard resource testing requirements in order to provide these services. Offers are submitted through the same process as generation resources: resources participating in the DAM submit offers by 5:00 a.m. specifying the Ancillary Service they are offering (Spinning or Non-Synchronous Reserves, and/or Regulation) along with the hours and amount of load curtailment for the following day, and the price at which they are willing to curtail. DSASP resources may also submit Real-Time offers up to 75 minutes before the hour of the offer.

Although DSASP resources are not scheduled for energy in the DAM, they are required to submit energy offers, which are then used in the co-optimization algorithm for dispatching Operating Reserves resources. As with the DADRP, the energy offer floor price is currently \$75/MWh.

When the DSASP resources are converted to energy in the Real-Time dispatch, DSASP resources are not paid for energy, but are eligible for a Day-Ahead Margin Assurance Payment to make up for any balancing differences between their Day-Ahead Operating Reserves or Regulation schedule and Real-Time dispatch, subject to their performance for the scheduled service. Performance indices are calculated on an interval basis for both Operating Reserves and Regulation. Day-Ahead Margin Assurance Payments are adjusted by the performance index for the services provided.

## II. 2014 Program Summary

### EDRP and ICAP/SCR Program

As of July 31, 2014, a total of 31 CSPs and RIPs had eligible resources enrolled in the NYISO's EDRP and ICAP/SCR program.<sup>2</sup> Participating CSPs and RIPs include:

- 4 TOs
- 9 Competitive Load Serving Entities ("LSEs") (LSEs that are not TOs)
- 14 Aggregators (non-LSE or TO)
- 4 EDRP or ICAP/SCR direct participation resources (resources that represent themselves as the CSP/RIP)

These figures represent an increase of seven Competitive LSEs, a decrease of one aggregator, a decrease of three direct customers, and no change in the number of TOs from the 2013 report.

As of July 31, 2014 a total of 4,022 end-use locations were enrolled in the NYISO's EDRP and ICAP/SCR program. These locations were capable of providing a total of 1210.7 MW of demand response. This corresponded to a 4.6% decrease from the MW enrolled in 2013 and represents 4.1% of the 2014 Summer Capability Period peak demand of 29,782 MW. Of the 4,022 end-use locations, 134 participated in the EDRP program, nine were ICAP/SCR resources with unsold capacity, and the remaining 3,879 end-use locations participated in the NYISO's ICAP/SCR program. The ICAP/SCR program represents 96.7% of the total resources enrolled in the NYISO's reliability-based demand response programs and 92.9% of the total enrolled MW in those programs.

Aggregators and Competitive LSEs currently represent 87.5% of enrolled MW in the EDRP and ICAP/SCR program, up from 87.2% enrolled MW in 2013. In 2014, two non-TO market participants (out of six total EDRP participants) enrolled resources in the EDRP; all other EDRP resources were enrolled through their TO. In the ICAP/SCR program, three participants enrolled through their TO, while all other ICAP/SCR resources were enrolled through other means. Direct participation resources represented 4.2% of total MW in the ICAP/SCR program.

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<sup>2</sup> For several years, the date customarily used for reporting the NYISO's demand response program participation statistics was August 31. In 2011, the NYISO changed its reporting date from August 31 to July 31 to better align with several other reliability and planning reporting requirements. A July 31 reporting date also provides better transparency with other reporting requirements for the NYISO's demand response programs. The NYISO has evaluated the difference in enrollment between July and August and found it to be de minimis (2-3%). The data provided herein is based on a snapshot of the programs on July 31, 2014.

The TDRP, which deploys EDRP and ICAP/SCR resources in the various subzones in Zone J for local reliability, includes 29.1% of the total New York Control Area (“NYCA”) EDRP end-use locations and 16.6% of total NYCA EDRP MW. The TDRP also includes 49.7% of total NYCA ICAP/SCR end-use locations, representing 32.9% of the total NYCA ICAP/SCR MW, a decrease of 2.5% in total MW, and a decrease of 4.4% in total resources since 2013.

Since 2003, when participation in EDRP and ICAP/SCR became mutually exclusive, EDRP end-use locations and MW have continued to decline. ICAP/SCR aggregations by RIPS now account for 98.4 % of ICAP/SCR resources and 79.9% of enrolled MW in the program, a 1.5% decrease in aggregation-enrolled MW from 2013.

During the 2014 Summer Capability Period, the NYISO did not deploy either of its reliability demand response programs, and the NYISO also did not receive a request to deploy the TDRP program during this period.

#### Day-Ahead Demand Response Program

During the analysis period of August 2013 through July 2014, there were no offers or schedules of DADRP resources. Given no activity during the analysis period, there is no market participation to report.

During the reporting period, however, 21 MW have withdrawn from the DADRP. Furthermore, an additional 16 MW of DADRP resources remain eligible to participate in the program, but have been removed from this report due to inactivity. The DADRP resources that have been removed from this report will be counted in future enrollment reports if their offer activity changes.

#### Demand-Side Ancillary Service Program

There are three demand side resources actively participating in the DSASP as providers of Operating Reserves. The resources represent 126.5 MW of capability and had an average performance of 154% during the analysis period of May 2014 through October 2014.

Additional detailed information on participation on the DSASP is found in confidential Attachment II.

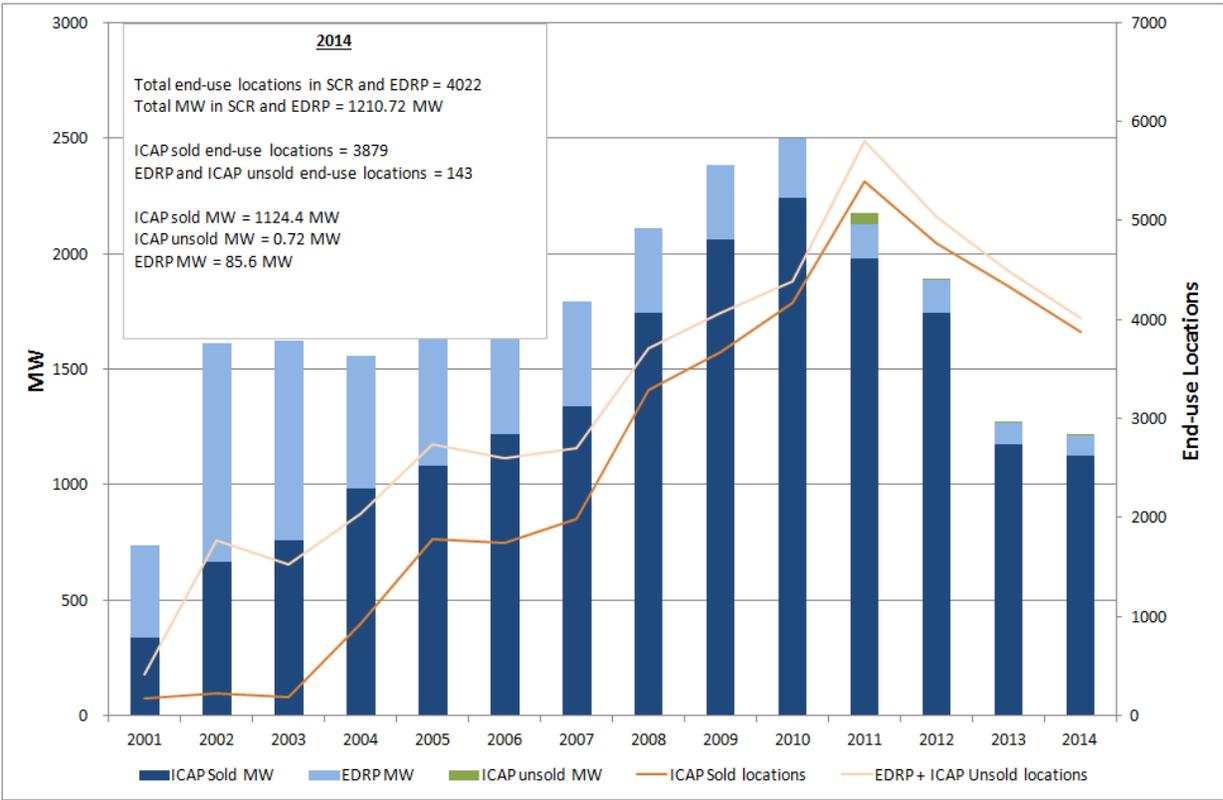
### III. Reliability Program Participation Detail

#### Historical Enrollment Data

Historical enrollment data for the NYISO’s reliability demand response programs is presented in Figure 1. The figure plots the growth in the NYISO’s reliability-based programs from inception through July 2014. The stacked bar chart plots enrolled MW by program and year, and the stacked lines plot the number of end-use locations by program and year.

From May 2001 through July 2014, combined enrollment in the EDRP and ICAP/SCR program has grown from approximately 200 MW to 1,210.7 MW. The total number of end-use locations has increased from approximately 200 in March 2002, to 4,022 in July 2014. Since participation in the EDRP and ICAP/SCR program became mutually exclusive in 2003, the number of participating EDRP resources, and the MW they contribute, has decreased.

**Figure 1: Historical Enrollment of End-Use Locations and MW in NYISO Reliability Programs**



## Changes in Program Enrollment – 2013-2014

Enrollment in the NYISO’s reliability-based demand response programs for July 2013 and July 2014 is provided in Table 1. The number of end-use locations has declined in both the EDRP and ICAP/SCR program since the 2013 report. The ICAP/SCR Unsold category for July 2014 consists of ICAP/SCR resources that did not sell their full available capacity.

**Table 1: Program Enrollment by End-Use Location – July 2013 and July 2014**

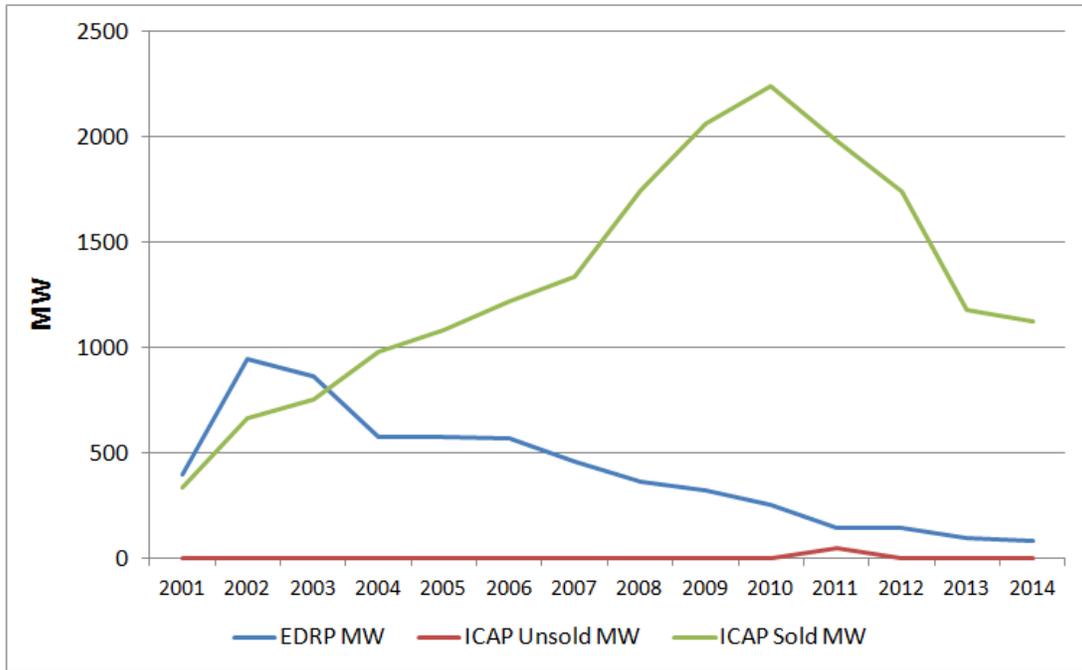
	2014		2013		MW Change	Percent Change From 2013 to 2014		MW per End-use Location		
	Count	MW	Count	MW		End-use Location Count	Enrolled MW	2014	2013	Percent Change
EDRP	134	85.6	147	93.9	-8.3	-9%	-9%	0.6	0.64	0%
ICAP Unsold	9	0.72	9	0.40	0.3	0%	80%	0.08	0.04	80%
ICAP Sold	3879	1124.4	4339	1175.2	-50.8	-11%	-4%	0.3	0.27	7%

Figures 2 and 3 present enrollment statistics in the EDRP and ICAP/SCR program over the period 2001 – 2014. Figure 3 presents the data based on end-use locations, whereas Figure 2 presents MW data.<sup>3</sup> The reductions in the number of end-use locations and enrolled MW in recent years are due in part to changes in market rules designed to better estimate the demand response capability available to the NYISO under peak load conditions. Since making EDRP and ICAP/SCR mutually exclusive, there has been a general decline in the number of resources and enrolled MW in EDRP.

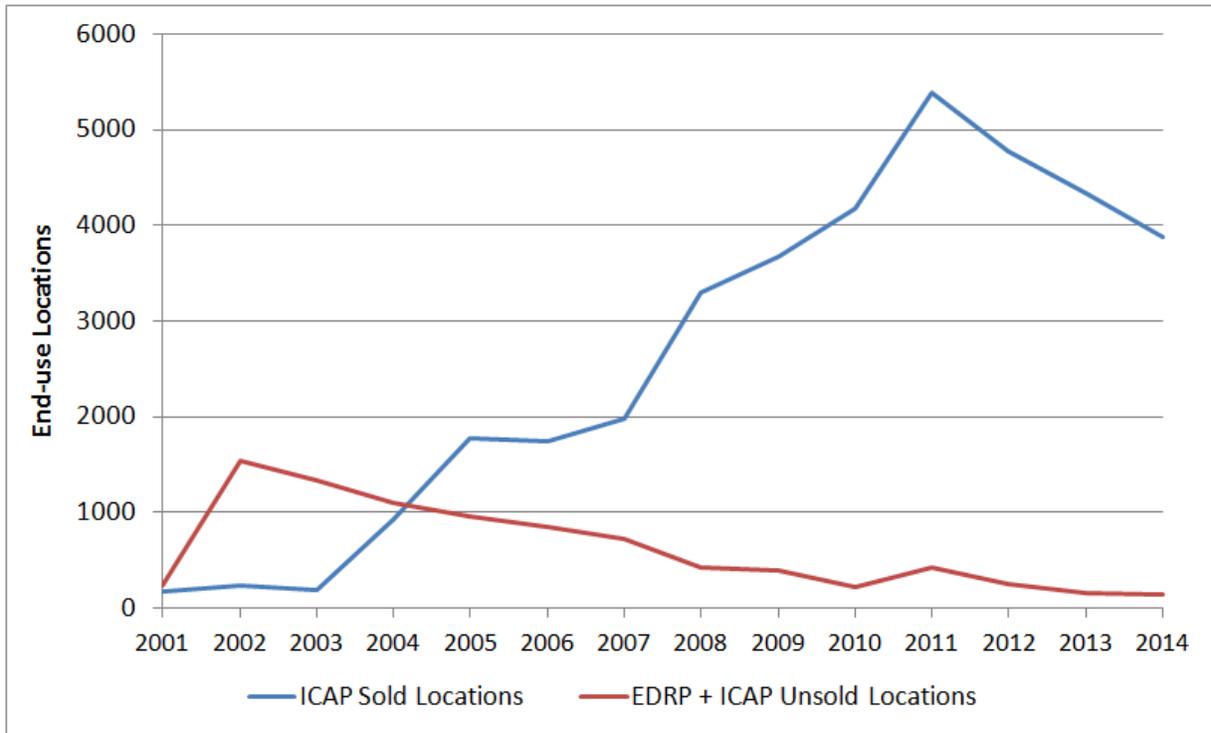
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<sup>3</sup> ICAP/SCR enrollment of individual end-use locations began in 2004. In 2001 and 2002 end-use locations could enroll in both the EDRP and ICAP/SCR program, but beginning in 2003, a resource was prohibited from enrolling in both programs.

**Figure 2: Enrollments in the NYISO's EDRP and ICAP/SCR Program by MW, 2001- 2014**



**Figure 3: Enrollments in the NYISO’s EDRP and ICAP/SCR Program by End-Use Location, 2001-2014**



2013-2014 EDRP and ICAP/SCR Program Enrollment

At the end of July 2014, 4,022 end-use locations, with a total of 1210.7 MW of demand response capability, were enrolled in the NYISO’s EDRP and ICAP/SCR program. This represents a 4.6% decrease in the MW from the 2013 reporting period. Of the 4,022 end-use locations, 134 enrolled in the EDRP and 3,888 enrolled in the ICAP/SCR program. ICAP/SCR resources represent 96.7% of the total reliability program end-use locations and 92.9% of the total reliability program MW. ICAP/SCR program MW have increased marginally as a percentage of total reliability program MW since July 2013. Table 2, below, provides summary data for the EDRP and ICAP/SCR program.

**Table 2: Program Enrollment Summary by CSP and RIP Type**

No. of Unique MPs	Agent Type	EDRP			ICAP Unsold			ICAP Sold		
		No. of CSPs	No. of End-use Locations	MW	No. of RIPs	No. of End-use Locations	MW	No. of RIPs	No. of End-use Locations	MW
14	Aggregator	*	6	0.4	*	*	0.35	14	3468	886.4
4	Direct Customer	0	0	0.0	0	0	0.00	*	8	47.4
9	Competitive Load Serving Entity	*	16	7.3	*	*	0.27	9	371	116.8
4	Transmission Owner/LSE	*	112	77.9	*	*	0.10	*	32	73.8
31	Total	6	134	85.6	5	9	0.72	29	3879	1124.4

\*Entries in this category have been masked for confidentiality in the public version of the table. The unredacted values are presented in the confidential appendix submitted as Attachment II.

Note: MW represents ICAP Sold for July, 2014

2014 EDRP enrollments were predominantly through TOs (85.5%), contrasted with the ICAP/SCR program where non-TOs provided 99.2% of participating end-use locations and 93.4% of the enrolled MW.

Table 3 provides additional program enrollment detail by Load Zone. Although the NYISO does not collect specific resource class data, demand response resources in Load Zones A through E are typically industrial and retail resources, while those in Load Zones J and K include commercial office, retail, and multi-family residential resources.

**Table 3: 2014 Program Enrollment by Load Zone**

Zone	EDRP		ICAP Unsold		ICAP Sold	
	No. of End-use Locations	MW	No. of End-use Locations	MW	No. of End-use Locations	MW
A	12	13.4	0	0.00	375	315.8
B	*	1.3	0	0.00	214	68.7
C	27	12.6	0	0.00	295	102.3
D	8	3.7	*	0.20	17	7.5
E	16	11.8	*	0.10	145	31.9
F	21	26.4	0	0.00	197	92.2
G	0	0.0	0	0.00	137	43.7
H	*	1.6	0	0.00	15	4.9
I	*	0.0	*	0.07	80	18.6
J	39	14.2	*	0.35	1929	369.4
K	6	0.5	0	0.00	475	69.3
Total	134	85.6	9	0.72	3879	1124.4

\*Entries in this category have been masked for confidentiality in the public version of the table. The unredacted values are presented in the confidential appendix submitted as Attachment II.

ICAP/SCR Resource Aggregations

ICAP/SCR resource enrollments are identified by the NYISO by end-use location, and may represent either individually enrolled end-use locations or aggregations of end-use locations that are enrolled as a single demand response resource. Table 4 below provides data on ICAP/SCR participation. As of July 31, 2014, 3,824 end-use locations are represented by RIPs. These aggregations provide 899.1 MW of the NYISO’s 1125.1 MW in the ICAP/SCR program. The remaining 226.1 MW of demand response capacity in the ICAP/SCR program comes from 64 individually enrolled resources.

**Table 4: Detail of 2014 ICAP/SCR Program Participation Level by Resource Type**

Resource Type	ICAP Sold		ICAP Unsold	
	No. of End-use Locations	MW	No. of End-use Locations	MW
Individual Resources	61	225.8	*	0.27
Aggregated Resources	3818	898.6	6	0.45
Total	3879	1124.4	9	0.72

\*Entries in this category have been masked for confidentiality in the public version of the table. The unredacted values are presented in the confidential appendix submitted as Attachment II.

Table 4 also provides information for ICAP/SCR resources that did not sell any capacity in the July 2014 capacity market auctions. This information is included because when an ICAP/SCR resource offers its load reduction in a NYISO auction, and that load reduction is not sold (or when a resource’s derated MW value is zero), the resource’s enrolled capacity is automatically included in the EDRP.<sup>4</sup>

#### TDRP Enrollment

Load Zone J is currently the only Load Zone with resources participating in the TDRP. This Load Zone has been divided into subzones designated by Consolidated Edison Company of New York, Inc. Resources enrolled in the EDRP and ICAP/SCR program are assigned to one of the various subzones based on their location.<sup>5</sup> Resources that are not assigned to a particular subzone remain in the general Zone J category. Tables 5 and 6 provide EDRP and ICAP/SCR end-use locations and MW enrolled in the TDRP by subzone.

<sup>4</sup> The resource will remain in the EDRP until it clears in a subsequent auction, or the resource confirms a bilateral transaction with an LSE. The EDRP enrollment totals and event response data included in this report include the offered, but unsold, MW of enrolled ICAP/SCR resources.

<sup>5</sup> The Load Zone J Subzones are: J1 – Sherman Creek/Parkchester/E 179<sup>th</sup>; J2 – Astoria West/Queensbridge; J3 – Vernon/Greenwood; J4 – Staten Island; J5 – Astoria East/Corona/Jamaica; J6 – W 49<sup>th</sup>; J7 – East 13<sup>th</sup>/East River; J8 – Farragut/Rainey; and J9 – Shared Subzone.

**Table 5: EDRP End-Use Locations Enrolled in TDRP**

Zone/Subzone	J	J1	J2	J3	J4	J5	J6	J7	J8	J9	Total
MW	0.0	0.4	0.2	0.6	0.2	0.2	0.1	0.1	0.6	12.0	14.2
No. of End-use Locations	0	6	*	10	*	7	*	*	9	*	39

\*Entries in this category have been masked for confidentiality in the public version of the table. The unredacted values are presented in the confidential appendix submitted as Attachment II.

**Table 6: ICAP/SCR End-Use Locations Enrolled in TDRP**

Zone/Subzone	J	J1	J2	J3	J4	J5	J6	J7	J8	J9	Total
MW	2.3	21.7	29.5	55.6	26.6	28.9	62.4	59.0	83.6	0.0	369.4
No. of End-use Locations	*	133	169	380	75	192	216	334	426	0	1929

\*Entries in this category have been masked for confidentiality in the public version of the table. The unredacted values are presented in the confidential appendix submitted as Attachment II.

### Analysis of ICAP/SCR Strike Prices

Starting in 2003, resources participating in the ICAP/SCR program were required to provide a curtailment strike price – between \$0 and \$500/MWh – to the NYISO at the time of enrollment. Strike prices can be used by the NYISO to determine which resources it calls in a given event if all resources in a Load Zone or Zones are not needed to restore system security to its equilibrium state. Strike Prices are also used to determine the amount of energy payments.

The NYISO has analyzed strike price curves for all resources enrolled in July 2014 and compared the most recent strike price curves to prior years. Figures 4 and 5 below map the percentage of enrolled ICAP/SCR MW at a given strike price. Figure 4 illustrates the strike price curves for the period 2003 to 2014, the entire period during which resources were required to provide strike prices. The steep slope of the strike price curves indicate that strike prices are clustered close to the offer ceiling of \$500/MWh. The data indicates that, as the program has evolved since 2003, the number of resources providing strike prices at or near \$500/MWh has increased, with more than 98% of enrolled ICAP/SCR MW submitting a strike price at the \$500/MWh limit.

**Figure 4: ICAP/SCR Curtailment Bid Curves, 2003-2014**

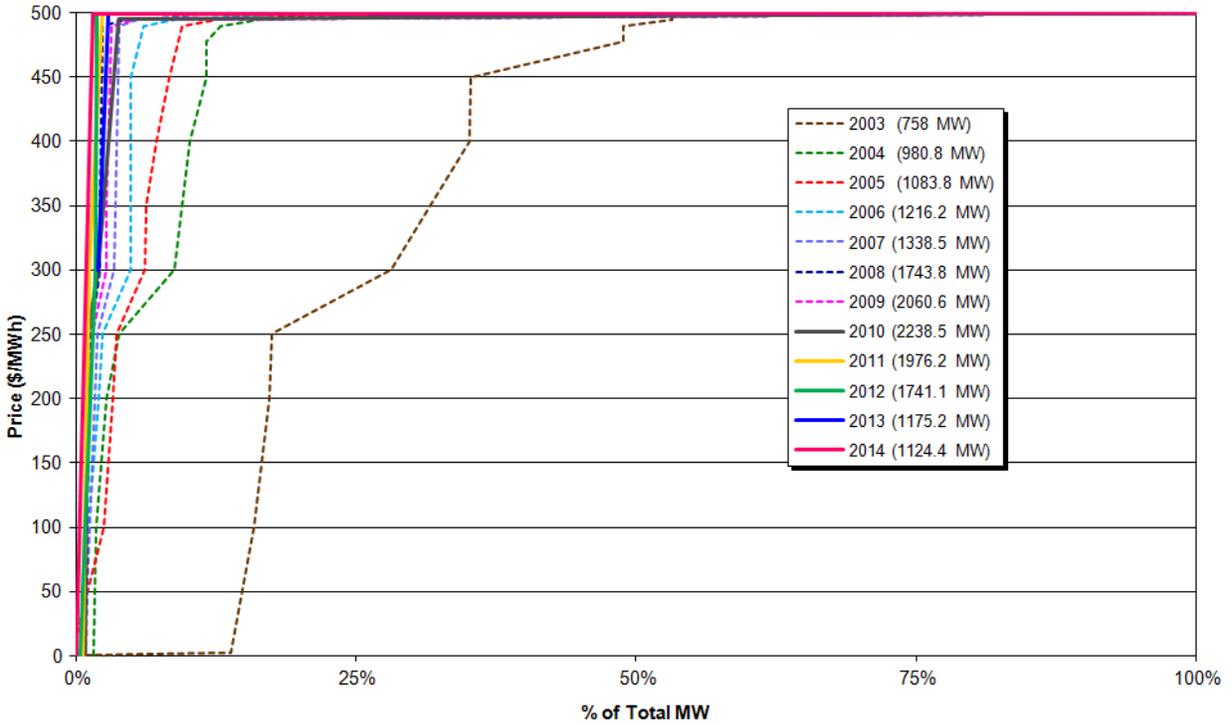
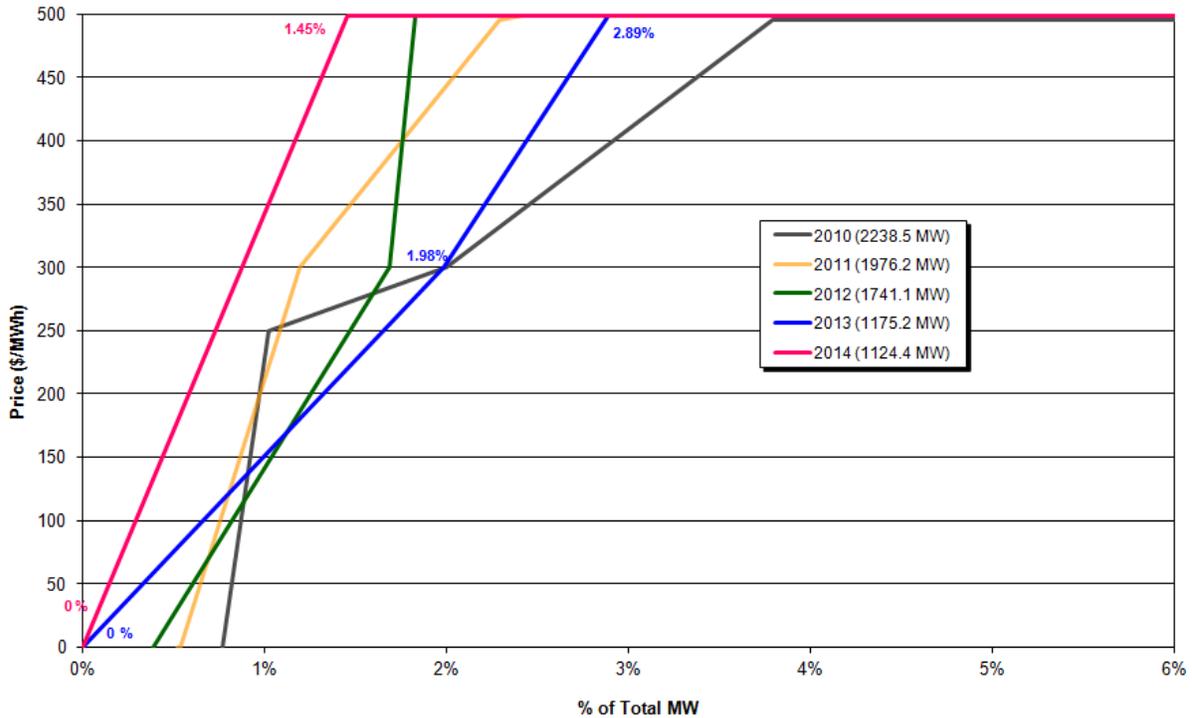


Figure 5 provides a detailed view of the strike price curves for 2010 through July 2014. The Figure displays a limited range where the price curve levels off to the offer ceiling of \$500/MWh. The Figure shows the 2014 percentages in red and, for comparison, the 2013 percentages in blue.

**Figure 5: ICAP/SCR Curtailment Bid Curves, 2010-2014**



**IV. 2014 Event Performance: EDRP and ICAP/SCR Program**

The NYISO did not deploy any Demand Response in its EDRP or ICAP/SCR program during the 2014 Summer Capability Period. The NYISO also did not receive a request to deploy the TDRP during this period.

On January 7, 2014, during the 2013 – 2014 Winter Capability Period, the NYISO deployed SCR and EDRP resources in all zones from HB 16 through HB 21 for NYCA-wide capacity needs and to maintain operating reserve margins. Response from SCRs in this event was voluntary.

Table 7 below compares the event response to the Obligated MW (for the ICAP/SCR program) or Available MW (for the EDRP) for the zones deployed during the January 7 event. Obligated MW is defined as the ICAP equivalent of the UCAP sold by SCRs in a Load Zone during the calendar month in which the event occurred. When the amount of Obligated MW differs from enrolled MW, it indicates that a portion of a Load Zone’s enrolled SCR UCAP went unsold for the month of the event. As explained in Section III, SCRs enrolled during a particular month in a Capability Period that did not sell UCAP are treated as EDRP resources for that particular month. Available EDRP MW is defined as the amount of demand response reduction nominated by the EDRP resources in a Load Zone.

**Table 7: Summary of Demand Response Program Event Response**

Program	Zones	Average Hourly Response	Obligated SCR MW and Available EDRP	Response as % of Obligated or Available MW	Event Energy Payments (based on CBL)
SCR (ICAP)	A,B,C,D,E,F,G,H,I,J,K	234.1	849.8	27.5%	\$ 339,394.79
EDRP and SCRs treated as EDRP (CBL)	A,B,C,D,E,F,G,H,I,J,K	2.1	49.9	4.3%	\$ 6,961.30

January 7, 2014 Event: Event Response

Measurement of event response is based on the ICAP/SCR reporting rules contained in the NYISO’s ICAP Manual. ICAP/SCR response is determined by comparing the actual hourly interval metered energy with the Average Coincident Load (“ACL”):

$$RED\_MW_{gn} = ACL_{gm} - METER\_MW_{gn}$$

where:

- $RED\_MW_{gn}$  is the Installed Capacity Equivalent response that Resource  $g$  supplies during hour  $n$  of an SCR event;
- $ACL_{gm}$  is the ACL for Resource  $g$  applicable to month  $m$ , using data submitted in its Special Case Resource certification; and
- $METER\_MW_{gn}$  is the metered hourly-integrated energy for Resource  $g$  in hour  $n$  of an SCR event.

This measure of event response compares a resource’s actual demand reduction with the Installed Capacity Equivalent of the resource’s reduction capability sold. The NYISO calculates individual resource performance factors based on the four highest contiguous hours of demand response during each event as well as the resource’s response during mandatory tests. Beginning in the 2012 Summer Capability Period, aggregation performance factors were used to determine the reduction capability that can be sold in the next like Capability Period (*i.e.*, Summer or Winter). The NYISO has a mandatory reporting requirement for all meter data during a mandatory event in which the SCR was obligated to perform.

Table 8 provides a summary of SCR response by hour and Load Zone based on ICAP equivalent for the January 7, 2014 voluntary demand response event.

**Table 8: SCR MW Response Based on ICAP Equivalent**

Zone	HB 16	HB 17	HB 18	HB 19	HB 20	HB 21	Average Hourly Response MW	Obligated ICAP MW	% Response of Obligated ICAP MW
A	87.2	89.2	89.8	93.5	95.0	95.6	91.7	271.4	33.8%
B	13.0	13.8	15.1	15.4	16.0	16.5	15.0	46.6	32.1%
C	9.9	11.8	14.3	12.5	13.0	17.8	13.2	84.6	15.6%
D	2.1	2.2	2.2	2.2	2.2	2.3	2.2	8.3	26.4%
E	7.9	7.8	7.1	7.8	8.7	8.9	8.0	24.6	32.7%
F	12.8	13.7	14.5	15.2	15.7	16.9	14.8	65.6	22.5%
G	6.4	5.9	6.1	5.9	6.1	6.7	6.2	32.2	19.2%
H	1.1	1.6	1.7	1.7	1.7	1.8	1.6	3.4	48.2%
I	0.1	0.1	0.1	0.1	0.2	0.3	0.2	12.6	1.4%
J	48.5	54.2	72.3	84.8	93.6	100.8	75.7	253.2	29.9%
K	5.5	5.6	5.9	6.0	5.0	5.0	5.5	47.4	11.6%
Total	194.8	205.9	229.1	245.0	257.2	272.6	234.1	849.8	27.5%

January 7, 2014 Event: Energy Payments

In addition to receiving a capacity payment for committing to reduce energy consumption, RIPS with resources enrolled in the ICAP/SCR program are eligible to receive energy payments for their reductions during a demand response event, provided that they submit the required performance data. The amount of an energy payment is computed using a Customer Baseline Load (“CBL”). The CBL uses recent historical data to establish what a resource’s energy consumption during an event would have been if the resource had not reduced its load in response to the NYISO’s deployment directive. The computation is the same method used to calculate payments for the performance of EDRP resources. The amount of an energy payment is the difference between the hourly CBL and the corresponding interval meter readings during event hours, multiplied by the applicable LBMP.

Table 9 presents a summary of voluntarily reported CBL data by zone and hour for ICAP/SCR resources for the NYISO’s January 7, 2014 event. Since the ICAP/SCR ACL values described above are based on the prior like Capability Period, and the CBL is determined from data that ranges from 14 to 30 days prior to the event, the NYISO expects different response rate data. Contributing to the difference between the ICAP/SCR ACL response and the CBL response is the fact that not all RIPS submit CBL energy performance data. The NYISO has

observed that some RIPs report CBL data only for their larger resources, and particularly in Load Zone J, where energy prices are typically higher than in the rest of the NYCA.

**Table 9: SCR Event Response Based on CBL Data**

Zone	HB 16	HB 17	HB 18	HB 19	HB 20	HB 21	Average Hourly Response MW	Obligated ICAP MW of SCRs Reporting CBL Data	CBL Response as % of ICAP
A	57.1	60.3	61.0	62.9	62.5	64.1	61.3	162.6	37.7%
B	4.8	3.4	2.9	2.6	2.9	2.5	3.2	10.5	30.3%
C	8.4	6.2	6.0	7.5	7.8	6.6	7.1	52.7	13.5%
D	0.3	0.3	0.3	0.3	0.3	0.2	0.3	4.8	5.8%
E	5.3	5.3	5.2	5.4	6.3	4.5	5.4	7.0	76.8%
F	12.1	12.4	12.8	13.0	13.7	14.2	13.0	27.3	47.7%
G	5.6	5.0	5.0	4.6	4.6	3.8	4.8	8.5	56.4%
H	1.3	1.6	1.5	1.4	1.3	1.4	1.4	1.9	77.6%
I	0.2	0.2	0.2	0.2	0.1	0.1	0.2	1.3	14.4%
J	22.1	21.6	19.8	21.4	22.7	21.7	21.5	92.5	23.3%
K	4.6	4.7	4.6	4.6	3.2	2.0	3.9	7.5	52.5%
Total	121.8	121.0	119.4	123.9	125.5	121.2	122.1	376.3	32.5%

Table 10 presents a summary of the Load reductions of EDRP resources during the January 7, 2014 event using CBL data. It is important to note that the enrolled MW values shown below include unsold SCRs.

**Table 10: EDRP (and SCRs Treated as EDRP) Event Response**

Zone	HB 16	HB 17	HB 18	HB 19	HB 20	HB 21	Average Hourly Response MW	Enrolled MW	% Response of Enrolled MW
A	0.2	0.1	0.1	0.1	0.1	0.0	0.1	4.2	2.7%
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.9%
C	0.6	0.8	1.0	0.9	0.9	0.6	0.8	11.9	6.6%
D	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.9	0.6%
E	0.3	0.5	0.6	0.4	0.4	0.5	0.5	11.4	4.0%
F	0.6	0.6	0.5	0.0	0.1	0.3	0.4	13.1	2.8%
G	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0%
I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0%
J	0.3	0.3	0.4	0.4	0.2	0.2	0.3	2.0	14.9%
K	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	26.5%
Total	2.2	2.4	2.6	1.9	1.9	1.8	2.1	49.9	4.3%

Based upon the data described in Tables 9 and 10, Tables 11 and 12 provide a summary of ICAP/SCR and EDRP energy payments by hour and zone during the NYISO's January 7, 2014 event. The performance data in Table 12 again includes unsold SCRs.

**Table 11: SCR Energy Payments**

Zone	HB 16	HB 17	HB 18	HB 19	HB 20	HB 21	Sum of LBMP Payments	Sum of BPCG Payments	Total Payments	Average \$/MWh
A	\$ 10,548.16	\$ 31,150.84	\$ 29,848.38	\$ 24,344.02	\$ 23,961.89	\$ 19,458.36	\$139,311.66	\$ 11,184.48	\$150,496.14	\$ 409.07
B	\$ 1,270.02	\$ 1,914.66	\$ 1,597.16	\$ 1,303.10	\$ 1,403.07	\$ 926.75	\$ 8,414.75	\$ 1,133.62	\$ 9,548.37	\$ 501.82
C	\$ 2,615.92	\$ 3,741.42	\$ 3,403.45	\$ 3,836.62	\$ 3,911.90	\$ 2,556.51	\$ 20,065.81	\$ 1,204.67	\$ 21,270.48	\$ 500.12
D	\$ 54.95	\$ 154.29	\$ 151.02	\$ 146.37	\$ 139.51	\$ 82.70	\$ 728.85	\$ 93.85	\$ 822.70	\$ 500.00
E	\$ 1,724.76	\$ 3,464.63	\$ 3,085.97	\$ 2,916.77	\$ 3,220.80	\$ 1,807.02	\$ 16,219.96	\$ 17.72	\$ 16,237.67	\$ 504.94
F	\$ 3,556.15	\$ 7,702.33	\$ 7,412.47	\$ 6,936.09	\$ 7,054.00	\$ 5,943.02	\$ 38,604.05	\$ 539.08	\$ 39,143.13	\$ 500.08
G	\$ 1,951.87	\$ 3,304.35	\$ 2,983.37	\$ 2,547.87	\$ 2,454.70	\$ 1,627.44	\$ 14,869.60	\$ 59.58	\$ 14,929.18	\$ 522.40
H	\$ 465.75	\$ 1,074.13	\$ 923.10	\$ 792.68	\$ 699.18	\$ 594.74	\$ 4,549.57	\$ -	\$ 4,549.57	\$ 526.14
I	\$ 85.76	\$ 112.39	\$ 120.53	\$ 120.46	\$ 63.77	\$ 53.89	\$ 556.80	\$ 7.11	\$ 563.91	\$ 520.16
J	\$ 8,913.17	\$ 14,155.18	\$ 11,775.49	\$ 11,907.26	\$ 11,987.24	\$ 9,253.57	\$ 67,991.91	\$ 140.88	\$ 68,132.79	\$ 527.12
K	\$ 2,058.17	\$ 3,218.91	\$ 3,074.97	\$ 2,693.30	\$ 1,723.48	\$ 931.48	\$ 13,700.30	\$ 0.54	\$ 13,700.84	\$ 578.19
Total	\$ 33,244.67	\$ 69,993.13	\$ 64,375.89	\$ 57,544.54	\$ 56,619.54	\$ 43,235.49	\$325,013.27	\$ 14,381.52	\$339,394.79	\$ 463.15

**Table 12: EDRP (and SCRs treated as EDRP) Energy Payments**

Zone	HB 16	HB 17	HB 18	HB 19	HB 20	HB 21	Sum of Payments	Average \$/MWh
A	\$ 83.45	\$ 82.95	\$ 67.61	\$ 55.15	\$ 55.00	\$ 17.50	\$ 361.66	\$ 538.50
B	\$ -	\$ 9.25	\$ 19.55	\$ 19.75	\$ 18.15	\$ 10.60	\$ 77.30	\$ 519.15
C	\$ 307.80	\$ 459.02	\$ 557.72	\$ 447.94	\$ 458.65	\$ 292.00	\$ 2,523.12	\$ 532.80
D	\$ 14.15	\$ 3.13	\$ 4.48	\$ 4.70	\$ 16.70	\$ 25.70	\$ 68.86	\$ 502.62
E	\$ 172.65	\$ 308.77	\$ 343.62	\$ 214.98	\$ 201.33	\$ 259.15	\$ 1,500.49	\$ 552.20
F	\$ 319.90	\$ 360.06	\$ 264.37	\$ 21.80	\$ 70.30	\$ 150.65	\$ 1,187.08	\$ 550.47
G	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
H	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
J	\$ 172.00	\$ 198.54	\$ 219.70	\$ 203.42	\$ 110.23	\$ 85.95	\$ 989.84	\$ 561.74
K	\$ 24.90	\$ 63.04	\$ 50.15	\$ 44.99	\$ 35.17	\$ 34.70	\$ 252.95	\$ 589.89
Total	\$ 1,094.85	\$ 1,484.75	\$ 1,527.19	\$ 1,012.74	\$ 965.53	\$ 876.25	\$ 6,961.30	\$ 545.65

**V. Economic Demand Response Programs**

Day-Ahead Demand Response Program

During the analysis period of August 2013 through July 2014, there were no offers from, or schedules for, DADRP resources. There is, therefore, nothing to report for this period.

Demand Side Ancillary Services Program

Detailed information on the DSASP is provided in Confidential Attachment II.

## VI. Update on 2014 Demand Response Initiatives

This section provides an update on the status of initiatives that the NYISO has been working on with its stakeholders to improve the administration of its demand response programs and to address regulatory directives to facilitate market participation. In particular, the NYISO has focused on:

- The ACL Baseline Study
- Demand Response Participation in the Real-Time Energy Market
- Continued Development of the Demand Response Information System (DRIS)
- Developing a potential backstop mechanism to recognize the value of demand response in the NYISO's capacity market if demand response is determined to be non-FERC jurisdictional

### ACL Baseline Study

The NYISO posted the final report of the ACL Baseline Study on its website on March 24, 2014,<sup>6</sup> and notified stakeholders of the opportunity to provide written comments on the report through April 18, 2014. NYISO management's response to the study's recommendation was posted at the end of June.<sup>7</sup>

### Demand Response in the Real-Time Energy Market

As a result of the May 23, 2014 United States Court of Appeals for the DC Circuit decision in *EPSA v. FERC*,<sup>8</sup> and at the request of stakeholders, the NYISO has postponed further development of market rules that would allow demand response to participate in the real-time energy market until the *EPSA* matter has been resolved. The NYISO redirected its efforts to define the metering communications infrastructure that would be needed to support real-time communication for demand response and expanded after-the-fact meter data reporting.

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<sup>6</sup> This report is available at:

[http://www.nyiso.com/public/webdocs/markets\\_operations/market\\_data/demand\\_response/Demand\\_Response/Special\\_Case\\_Resource\\_ICAP\\_Program/NYISO%202013%20SCR%20Baseline%20Study%20Report-final.pdf](http://www.nyiso.com/public/webdocs/markets_operations/market_data/demand_response/Demand_Response/Special_Case_Resource_ICAP_Program/NYISO%202013%20SCR%20Baseline%20Study%20Report-final.pdf).

<sup>7</sup> NYISO management's response is available at:

[http://www.nyiso.com/public/webdocs/markets\\_operations/market\\_data/demand\\_response/Demand\\_Response/Special\\_Case\\_Resource\\_ICAP\\_Program/NYISO\\_Management\\_Response\\_SCR\\_Baseline\\_Study\\_Report\\_06272014.pdf](http://www.nyiso.com/public/webdocs/markets_operations/market_data/demand_response/Demand_Response/Special_Case_Resource_ICAP_Program/NYISO_Management_Response_SCR_Baseline_Study_Report_06272014.pdf).

<sup>8</sup> *Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014).

### Continued Development of the Demand Response Information System (DRIS)

The NYISO successfully deployed software improvements to DRIS in 2014. A Q1 2014 deployment incorporated the revisions to the SCR program approved in Docket No. ER14-39-000. And a Q4 2014 deployment included automation of demand-response-related Installed Capacity market auction operations.

### Development of a Backstop Mechanism to Recognize Demand Response in the NYISO's Capacity Market

Given the uncertain future of FERC jurisdictional demand response programs as a result of the *EPISA* decision, the NYISO has engaged its stakeholders in the development of a backstop design to recognize the value of demand response in its capacity market if wholesale demand response programs are determined to be non-FERC jurisdictional. The NYISO introduced concepts for a backstop mechanism to stakeholders at a joint ICAP and Price-Responsive Load Working Group meeting on December 12, 2014.

## **VII. 2015 Demand Response Initiatives**

This section provides an overview of the projects that the NYISO has planned for its demand response programs for 2015.

### Development of a Backstop Measure for Recognition of Demand Response in the NYISO's Capacity Market

The NYISO will continue to work with stakeholders in 2015 to further define and prepare a backstop market design that can be implemented if demand response is determined to be non-FERC jurisdictional.

### Metering Infrastructure Requirements for Demand Response

The NYISO will be developing the requirements for the infrastructure to support communications and the collection and management of demand response data.

### Revise Minimum Performance Obligation of Special Case Resources

A 2015 project will develop market rules and procedures to revise performance obligations from a minimum of four hours to a minimum of six hours for demand side resources in the ICAP/Special Case Resource program.

## Continued Development of the Demand Response Information System

The NYISO has two software deployments planned for DRIS in 2015. A Q1 2015 deployment will incorporate procedural changes to the SCR program that allow for performance in an event to fulfill the mandatory test requirement. In Q4 2015, a deployment will include functional enhancements to support demand response program administration.