

December 15, 2005

The Honorable Magalie R. Salas, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, DC 20426

> New York Independent System Operator, Inc. Ninth Biannual Compliance Report on Demand Response Programs and the Addition of New Generation in Docket No. ER01-3001-00\_

#### Dear Ms. Salas:

Pursuant to Ordering Paragraph "(B)" of the October 25, 2001 Order in this proceeding (the "Initial Order"),<sup>1</sup> Ordering Paragraph "(C)" of the July 19, 2002 Order in this proceeding (the "July 19, 2002 Order"),<sup>2</sup> paragraph 5 of the September 3, 2002 letter order in this proceeding (the "September 3, 2002 Order"),<sup>3</sup> and paragraph 7 of the October 24, 2003 Order in this Proceeding (the "October 24, 2003 Order),<sup>4</sup> the New York Independent System Operator, Inc. ("NYISO") hereby submits this report.

The report addresses, as of December 1, 2005: (i) the NYISO's existing demand response programs, the status of real-time demand response mechanisms, and the effects of demand response programs on wholesale prices; and (ii) the status of new generation resources in the New York Control Area ("NYCA").<sup>5</sup> This submittal represents the NYISO's ninth biannual report in compliance with the Initial Order and the subsequent orders listed above.

The report on new generation is included in the body of this filing letter while the report on demand response is included as an Attachment.

## I. List of Documents Submitted

The NYISO submits the following documents:

- 1. This filing letter;
- 2. A report entitled "NYISO 2005 Demand Response Programs" ("Attachment I"); and

<sup>&</sup>lt;sup>1</sup> *New York Independent System Operator, Inc.,* 97 FERC ¶ 61, 095 (2001).

<sup>&</sup>lt;sup>2</sup> New York Independent System Operator, Inc., 100 FERC ¶ 61, 081 (2002).

<sup>&</sup>lt;sup>3</sup> New York Independent System Operator, Inc., 100 FERC ¶ 61,243 (2002).

<sup>&</sup>lt;sup>4</sup> *New York Independent System Operator, Inc.*, 105 FERC ¶ 61,115 (2003).

<sup>&</sup>lt;sup>5</sup> Capitalized terms not otherwise defined herein shall have the meaning set forth in Article 2 of the NYISO's Market Administration and Control Area Services Tariff.

3. A form of *Federal Register* Notice ("Attachment II").

#### II. Copies of Correspondence

Copies of correspondence concerning this filing should be served on:

Robert E. Fernandez, General Counsel and Secretary Mollie Lampi, Assistant General Counsel Elaine Robinson, Director of Regulatory Affairs New York Independent System Operator, Inc. 3890 Carman Road, Schenectady, NY 12303 Tel: (518) 356-7530 Fax: (518) 356-4702 rfernandez@nyiso.com mlampi@nyiso.com erobinson@nyiso.com

#### III. Service List

Copies of this filing are being served on all parties designated on the official service list for this proceeding maintained by the Secretary of the Commission. The NYISO has also mailed a copy of this filing to all parties who have executed Service Agreements under the NYISO's Open-Access Transmission Tariff or its Market Administration and Control Area Services Tariff, and to the electric utility regulatory agencies in New York, New Jersey, and Pennsylvania.

#### IV. <u>Compliance Report</u>

#### A. Status of NYISO Demand Response Programs for 2005

The NYISO continues to offer three demand response programs: the Emergency Demand Response Program ("EDRP"), Installed Capacity Special Case Resources (ICAP/SCR) and the Day-Ahead Demand Response Program ("DADRP").

All three demand response programs are administered under the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"). The EDRP provides for payments to Curtailment Service Providers that voluntarily reduce their Loads at the NYISO's request to reduce peak demands in the NYCA during an Emergency condition.<sup>6</sup> The DADRP allows Demand Side Resources that are qualified to participate in the competitive Energy markets to bid Load reductions into the Day-Ahead Energy Markets as if such reductions are a

<sup>&</sup>lt;sup>6</sup> Under the EDRP, qualified demand resources are paid for reducing their energy consumption when the NYISO declares that an operating reserves deficiency or major emergency exists. There is no obligation to respond to the NYISO's declaration. Participation in the program occurs through "Curtailment Services Providers," which are paid the higher of \$500/MWh or the real-time LBMP for verified load reductions.

competing supply resource.<sup>7</sup> Special Case Resources include interruptible loads and qualifying distributed "behind the meter" generators through which some Demand Reduction Providers achieve the Load reductions that are made available to the NYISO.<sup>8</sup> Special Case Resources may also qualify to provide Installed Capacity ("ICAP") in the NYISO's Unforced Capacity markets pursuant to the ICAP provisions of the Services Tariff.

The semi-annual reporting information regarding these demand response programs is provided in Attachment I to this filing. Attachment I includes, for the EDRP/SCR program, a discussion of (i) participation; (ii) the impact of strike prices now used in the ICAP/SCR program; (iii) program and performance; and (iv) estimated reliability benefits. Attachment I also includes a similar discussion of the DADRP program including a participation and bidding summary and an estimation of market benefits. Finally, Attachment I contains a summary table of market benefits from the demand response programs and a discussion of the potential need to increase the floor price in the DADRP program.

## B. Status of Addition of New Generation Resources

Similar to prior report formats, the NYISO's report on the status and progress of developing new generation resources in New York in this filing includes two tables of data discussed in more detail below.<sup>9</sup> The NYISO attached to its previous report a presentation version of "*ISO Power Trends*," which was released by the NYISO in May of this year and is the fifth in a series of its annual assessments of energy issues facing New York. The full text of this report is also posted on homepage of the NYISO's web site – www.nyiso.com.

## 1. Forecasted Load and Capacity Data

Table I, below, presents the most recent forecasted load and capacity data for New York State as a whole, and for the New York City and Long Island Load Zones, for the 2006 Summer Capability Period.<sup>10</sup> Information indicating the new generating resources that are expected to be on line and available for the NYCA and the two localities, New York City and Long Island for the 2006 Summer Capability Period is also provided.

<sup>&</sup>lt;sup>7</sup> The DADRP permits demand resources to submit demand reduction bids in the DAM. These bids are treated the same as suppliers' bids and can set the market clearing price.

<sup>&</sup>lt;sup>8</sup> Under the ICAP/SCR, retail electricity customers are paid for making their load reduction capability available over a specified contract period. Thus, ICAP/SCR participants are paid in advance for agreeing in advance to curtail usage during times when the grid could be jeopardized. Unlike EDRP participants, ICAP/SCR participants are subject to penalties if they fail to curtail on the NYISO's request.

<sup>&</sup>lt;sup>9</sup> The NYISO's December 1, 2004 compliance filing in this docket included a description of transmission projects related to generation interconnections. This information is not updated as it provides no information on new generation additions that is incremental to the information provided in Table 2 concerning new generation additions themselves.

<sup>&</sup>lt;sup>10</sup> Summer Capability Periods are the six-month period from May 1 through October 31 of each year. The highest peak demands in the New York Control Area typically occur at some point during a Summer Capability Period.

The expected resource availabilities listed in Table 1 are provided by participants in the Installed Capacity ("ICAP") Subcommittee of the New York State Reliability Council ("NYSRC"). The information is included in the NYSRC's development of the Installed Reserve Margin ("IRM") for the 2005/2006 Capability Year. The IRM represents the amount of ICAP that the NYSRC will require the NYCA to have in place in the upcoming capability year in excess of forecasted peak demands. The IRM is currently set at 18%, which results in a Minimum ICAP Requirement of 118% of forecasted peak demand. The NYSRC sets the IRM on an annual basis pursuant to its responsibilities for establishing and enforcing Reliability Rules for the NYCA.

# Table 1NYCA & Localities Load and Capacity OutlookFor Summer 2006 (as of December 1, 2005)

Statewide	<u>MW</u>	<u>MW</u>
Capacity Required (Load + Reserve)	38,232	
NYCA Available Generation	38,605	
Special Case Resources (SCRs) Total Resources	<u>656</u> 39,261	
Projected Surplus Above Summer 2006 Needs		656
New York City		
Capacity Required (Load + Reserve)	13,576	
Locational Requirements (82% of 11,505 MW Peak)	9,434	
Available Generation & SCRs	9,500	
Projected Surplus Above Summer 2006 Needs		66
Long Island		
Capacity Required (Load + Reserve)	6,278	
Locational Requirements (99.5% of 5,320 MW Peak)	5,293	
Available Generation & SCRs	5,432	
Projected Surplus Above Summer 2006 Needs		139

The 66 MW current capacity surplus for New York City will be augmented by the expected installations of the NYPA Polletti Expansion and the SCS Astoria project. Each will add 500 MW to New York City generation, resulting in a projected surplus of 1066 MW for Summer 2006.

As Table 1 indicates, the NYISO currently anticipates that available internal NYCA supplies of 39,261 MW, which includes generation plus anticipated SCRs, will be 656 MW in excess of the NYCA Minimum ICAP Requirement for the Summer 2006 Capability Period. Retirements (61 MW for Huntley 63 and 64 and 55 MW for NRG's Ilion unit) are expected to reduce NYCA available generation by 117 MW for Summer 2006, reducing the projected surplus to 539 MW.

The Reliability Rules also mandate minimum Locational ICAP requirements, under which a minimum level of ICAP must be electrically located within the New York City and Long Island load zones. For this report, the NYISO is forecasting that New York City's available capacity supplies plus SCRs will exceed the In-city Locational ICAP requirement of 9,434 MW (82% of a total New York City peak of 11,505 MW) by 66 MW. Table 1 also indicates that Long Island is currently forecasted to have 139 MW of resources in excess of its Summer 2005 Locational ICAP Requirement.

#### 2. Table of NYPSC Article X Proceedings

For the Commission's information, Table 2, below, indicates the status of facilities with siting certificates issued by the New York Board on Electric Generation Siting and the Environment ("Siting Board") and the status of applications not yet certified. This table is an update of Table 2 from the previous (June 2005) filing. Since the previous filing, Table 2 shows that two previously authorized projects totaling 1,038 MW of capacity are now in-service, and two other projects totaling 1,000 MW of capacity are under construction. Also, the 540 MW Brookhaven Energy project has been cancelled, and therefore was removed from this updated table. The table shows the most recent estimates of in-service years for the NYPA Poletti and SCS Astoria Energy Phase I projects. These projections of in-service dates are provided by the project developers. Based on all other publicly available information, the NYISO has no reason at this time to anticipate that the listed projects will not achieve their forecasted in-service years.

Generation Projects Subject to Article X Top of the Queue									
Project Name	Owner/ Developer	Size (MW)	Connecting Utility	Date of NYISO Application	Status of Article X	Proposed In-Service			
Bethlehem Energy Center	PSEG Power NY	750	NM-NG	04/27/98	Certified 2/28/02	In-Service			
East River Repowering	East River Repowering Consolidated Edison of NY		CONED	08/10/99	Certified 8/30/01	In-Service			
In-Service TOTAL	•	1,038							
Poletti	NYPA	500	CONED	04/30/99	Certified 10/2/02	2006			
SCS Astoria Energy Phase I			CONED	11/16/99	Certified 11/21/01	2007			
Under Construction TOTAL									
Bowline Point Unit 3	Mirant	750	CONED	10/13/99	Certified 3/25/02				

Table 2

Generation Projects Top of the Queue	Generation Projects Subject to Article X Top of the Queue									
Spagnoli Road CC Unit	CC Unit Keyspan Energy, Inc.		LIPA	05/17/99	Certified 05/08/03					
Wawayanda Energy Center	Calpine Eastern Corporation	540	NYPA	06/10/99	Certified 10/22/02					
Astoria Repowering Phase I	powering Reliant Energy		CONED	07/13/99	Certified 06/25/03					
Astoria Repowering Phase II	Reliant Energy		CONED	08/18/00	Certified 06/25/03					
SCS Astoria Energy Phase II	SCS Energy LLC	500	CONED	11/16/99	Certified 11/22/01					
Empire State Newsprint	Besicorp / Empire State	505	NM - NG	07/14/00	Certified 09/24/04					
Approved - TOTAL		3,085								
TransGas Energy	TransGas Energy, LLC	1,100	CONED	10/05/01	Appl accepted 6/05/03					
Projects with Applications	Pending - TOTAL	1,100								
GRAND TOTAL MW Pro	posed Projects	6,223								
in service under const			uction approved applicatio							

## 3. Status of Development of New Generation Resources

On April 20, 2005, the NYISO released *ISO Power Trends 2005* ("*Power Trends 2005*"), which is the fifth in a series of annual "state-of-the-grid" reports. Full texts of *Power Trends 2005* and a presentation version are available on the NYISO website.<sup>11</sup>

*Power Trends 2005* provides the NYISO's conclusions and recommendations for enhancing system reliability and continuing the development of cost competitive wholesale electric markets in the future. The report recommended that the NYISO staff and New York stakeholders should use the recently adopted Comprehensive Reliability Planning Process and other market mechanisms to ensure the development of needed generation, transmission, and demand side resources when and, importantly, where appropriate. For example, while upstate New York's near-term supply of capacity appears to be sufficient, the NYISO continues to foresee the need for additional generation on an ongoing basis in response to a projected annual load growth rate of 1.39 % for New York City and Long Island.

The need to continue to develop markets that provide efficient and appropriate price signals to potential project developers was highlighted by a 2004 State of the Market Report – New York Electricity Markets presented by the NYISO's independent Market Advisor, Dr. David

<sup>&</sup>lt;sup>11</sup> See full text and presentation versions of *Power Trends 2005* on the NYISO website at: http://www.nyiso.com/public/newsroom/current\_issues/index.jsp

B. Patton at the May 25, 2005, meeting of the NYISO Management Committee.<sup>12</sup> Dr. Patton concluded that the markets in 2004 did not produce sufficient net revenues to support investments in new simple- or combined-cycle combustion turbines in either the New York City or the Capitol load zones.

The NYISO's second *Power Trends* recommendation was to commence immediately to site a significant level of new generation additions to meet New York capacity requirements in the 2008 to 2011 time frame and ensure that sufficient amounts of in-state generation resources remained available to meet New York State needs.

The third recommendation in *Power Trends 2005* repeated admonitions from the NYISO's prior annual reports that the New York State Legislature should promptly reenact the lapsed Article X siting law. As reported in previous filings with the Commission, the expiration of Article X has been a principal impediment to efficiently and more quickly developing new resources. Without this law, New York lacks a clear and timely mechanism for securing the necessary permits and approvals that are required to build generating stations in New York.

The NYISO noted in its fourth recommendation that new generating plants are being fueled primarily by natural gas, largely for environmental reasons and the advantages of lower initial capital costs. The NYISO recommended that the Northeast in particular, and the nation as a whole, must fashion an effective fuel diversification strategy to address this increased usage of natural gas and the inevitable strain that dwindling domestic reserves will place on price and availability.

http://www.nyiso.com/public/committees/documents.jsp?com=mc&directory=2005-05-25

<sup>&</sup>lt;sup>12</sup> See full text of Dr. Patton's report in the Management Committee meeting materials on the NYISO website at:

The NYISO is pleased that *Power Trends 2005's* fifth and final recommendation, advocating passage of electric reliability legislation including mandatory reliability standards, has been realized with the recent passage of the Energy Policy Act of 2005.<sup>13</sup>

Respectfully submitted,

Mollie Lampi Assistant General Counsel NYISO

New York Independent System Operator, Inc. 3890 Carman Rd. Schenectady, New York 12303

cc: Shelton Cannon Anna Cochrane Michael Bardee Cheri Ganeles Kathleen Nieman

<sup>&</sup>lt;sup>13</sup> Public Law 109-58, 119 Stat. 595 (August 8, 2005).

#### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person that has executed a Service Agreement under the NYISO's Open Access Transmission Tariff or Market Administration and Control Area Services Tariff, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (20001). Dated at Albany, N.Y., this 15th day of December, 2005.

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John C. Cutting Senior Analyst New York Independent System Operator. Inc. 3890 Carman Road Schenectady, NY 12303 ATTACHMENT I

## **NYISO 2005 Demand Response Programs**

## I. Introduction

The NYISO offers two demand response programs to support reliability: the Emergency Demand Response Program (EDRP) and the Installed Capacity-Special Case Resource Program (ICAP/SCR). In addition, the NYISO offers the Day-Ahead Demand Response Program (DADRP), an economic program that permits interruptible load resources to schedule load reductions in the day-ahead energy market.

EDRP provides resources an opportunity to earn the greater of \$500/MWh or the prevailing LBMP for curtailments provided when the NYISO calls on them. There are no consequences for enrolled participants that fail to curtail. Resources participate in EDRP through Curtailment Service Providers (CSPs), who serve as the interface between the NYISO and participants.

The ICAP/SCR program allows customers that can meet certification requirements to offer unforced capacity (UCAP) to Load Serving Entities (LSEs). Special Case Resources can participate in the ICAP Market just like any other ICAP Resource. Resources are obligated to curtail when called upon to do so with two or more hour's notice, provided that they were notified the day ahead of the possibility of such a call. In addition, ICAP/SCR resources may be subject to testing to verify that they can fulfill their curtailment requirement. Failure to curtail could result in penalties administered under the ICAP program. Curtailments are called when reserve shortages are anticipated. Participants register either for EDRP or ICAP/SCR but not both. Resources participate in ICAP/SCR through Responsible Interface Parties (RIPs), who serve as the interface between the NYISO and participants.

DADRP provides retail customers with an opportunity to bid their load curtailment capability into the day-ahead spot market as energy resources. Customers submit bids by 5:00 a.m. specifying the hours and amount of load curtailment they are offering for the next day, and the price at which they are willing to curtail. Prior to November 1, 2004, the bid price had to be \$50/MWh or higher. Currently the bid floor price is \$75/MWh. Bids are structured like those of generation resources. DADRP program participants may specify minimum and maximum run times and effectively submit a block of hours on an all or nothing basis. They are eligible for production cost guarantee payments to make up for any difference between the market price received and their block bid price across the day. Load scheduled in the Day-Ahead Market (DAM) is obligated to curtail the next day. Failure to curtail results in the imposition of a penalty for each such hour defined by the MW curtailment shortfall times the greater of the corresponding day-ahead or real-time market price.

## II. Reliability Supporting Demand Management Programs

## A. Participation

Retail customers enroll in NYISO reliability-supporting demand response programs through one of five entities:

• <u>Aggregators</u> recruit customers to participate as part of an aggregation of several customers.

- <u>Curtailment Program End-Use Customers</u> enroll directly with the NYISO to participate only in the EDRP program.
- <u>Direct Customers</u> register with the NYISO to participate in any of its markets including its demand response programs.
- <u>LSEs</u> are competitive providers of commodity service to retail customers.
- <u>TOs</u> are the state's investor-owned utilities and state authorities.

All entities participating in the EDRP program are considered Curtailment Service Providers (CSPs); those participating in the ICAP/SCR program are considered Responsible Interface Parties (RIPs). As of August 31, 2005 (the date customarily used for reporting participation statistics) a total of 35 CSPs and RIPs offer programs that deliver the NYISO's EDRP and ICAP/SCR programs to retail customers. Participating CSPs and RIPs include:

- 8 transmission owners
- 7 load serving entities unaffiliated with transmission owners
- 16 aggregators
- 4 EDRP/SCR direct customers

Non-Transmission Owner providers currently sponsor 57.2 percent of the total EDRP/SCR registered megawatts, up slightly from the 55.3% registered in 2004.

## Aggregation of ICAP/SCR Resources

As noted in the December 1, 2004 filing, registration for ICAP/SCR resources can be tracked by both individual participant end-use customer and by RIP-created aggregations of multiple end-use customers. Table 1 indicates that there are a total of 59 RIP-created aggregations containing a total of 1638 end-use customers and accounting for 588.3 MW of the total 1095.1 MW of registered ICAP/SCR. A total of 149 (144+5) individual resources account for 506.8 MW.

		ICAP		ICAP UnSold			
Resource Type	# SCRs	# Participants	Sold MW	# SCRs	# Participants	Subscribed MW	
Individual Resources	144	144	495	5	5	11.8	
Aggregated Resources	59	1638	588.3	0	0	0.0	
Total	203	1782	1083.3	5	5	11.8	

The right-hand section of Table 1 provides information for unsold ICAP/SCR resources. In cases where an ICAP/SCR participant offers load reduction to an auction but it is not taken, that load is automatically enrolled in the EDRP program until the next auction or until the participant completes a bilateral transaction with an LSE.

#### EDRP and ICAP/SCR Program Participation

At the end of August 2005, the reliability programs had a total of 2,744 participants enrolled providing a total of 1673 MW of curtailable load, an increase of 7.1% over 2004's MW registration.<sup>14</sup> There were 957 resources in EDRP<sup>15</sup> and 1787 participants in ICAP/SCR. ICAP/SCR represents 65% of both the total reliability program enrollments and registered MW. The average registered curtailable load for ICAP/SCR participants was 613 kW, almost identical to that for EDRP (604 kW).

Table 2: Program Participation Summary by Curtailment Service Provider Type

		EDRP <sup>(1)</sup>			ICAP UnSold (2)			ICAP <sup>(3)</sup>			DADRP (4)		
Agent Type	# CSP	# Part.	MW	# RIP	# Part.	MW	# RIP	# Part.	MW	# DRP	# Part.	MW	
Aggregator	3	5	19.5	2	2	2.6	11	1591	523.8	0	0	0.0	
Curtailment Program End-Use Customer	0	0	0.0	0	0	0.0	2	3	144.0	0	0	0.0	
Direct Customer	0	0	0.0	0	0	0.0	1	2	2.6	0	0	0.0	
LSE	1	1	0.3	2	2	8.7	6	146	255.9	4	4	32.5	
Transmission Owner	7	951	557.9	1	1	0.5	3	40	157.5	4	14	353.4	
Total	11	957	577.6	5	5	11.8	23	1782	1083.8	8	18	385.9	

Note 1: The sum of EDRP and ICAP UnSold = Total EDRP.

Note 2: Participants in the ICAP program with UnSold capacity are considered as EDRP resources in the month(s) that capacity is unsold. MW represent reductions registered in the ICAP program, but not sold.

Note 3: MW represent reduction MW sold in the ICAP program.

Note 4: Total NYISO participation is not necessarily the sum of all programs due to the rules that state that participants are allowed to participate in a reliability program (EDRP or ICAP) and economic (DADRP).

• Table 2 shows program participation by CSP / RIP type.

Aggregators provide only about 0.5% of participants and 3.4% of load reduction to EDRP, which is dominated in both categories (over 97%) by enrollments through TOs. Conversely, ICAP/SCR enrollments are dominated by Aggregators, which provide 89% of participating customers and 48% of the load. LSEs are virtually inactive in the EDRP market but provide 8% of participants and 24% of load to ICAP/SCR.

<sup>&</sup>lt;sup>14</sup> A participant is defined as a single customer enrolled in a program individually or as part of an aggregated resource.

<sup>&</sup>lt;sup>15</sup> Resources in the ICAP program with unsold capacity are considered as EDRP resources in the month(s) that capacity is not sold.

	EDRP <sup>(1)</sup>		EDRP <sup>(1)</sup> ICAP UnSold <sup>(2)</sup>				DADRP <sup>(4)</sup>		
Zone	#	MW	#	MW	#	MW	#	MW	
А	25	34.8	0	0.0	133	333.1	4	138.0	
В	11	6.4	1	0.3	31	67.0	0	0.0	
С	85	29.3	0	0.0	46	86.7	2	37.4	
D	13	105.0	0	0.0	5	85.1	1	100.0	
E	49	50.8	0	0.0	21	16.9	1	10.0	
F	43	43.8	1	8.4	21	61.9	7	84.0	
G	24	34.4	1	2.0	3	2.4	0	0.0	
Н	9	6.8	0	0.0	1	0.7	0	0.0	
	19	7.5	0	0.0	18	12.2	1	2.0	
J	116	132.1	2	1.1	1358	300.4	1	2.5	
K	563	126.8	0	0.0	145	117.4	1	12.0	
Total	957	577.6	5	11.8	1782	1083.8	18	385.9	

#### Table 3: 2005 Program Participation by Zone

Note 1: The sum of EDRP and ICAP UnSold = Total EDRP.

Note 2: Participants in the ICAP program with UnSold capacity are considered as EDRP resources in the month(s) that capacity is unsold. MW represent reductions registered in the ICAP program, but not sold.

Note 3: MW represent reduction MW sold in the ICAP program.

Note 4: Total NYISO participation is not necessarily the sum of all programs due to the rules that state that participants are allowed to participate in a reliability program (EDRP or ICAP) and economic (DADRP).

Table 3 shows program participation detail by NYISO zone. Zones J and K, New York City and Long Island, respectively, have the majority (71%) of participants in the EDRP program, representing 45% of the total MW enrolled. For the ICAP/SCR program, Zones J and K constitute an even greater percentage (84%) of statewide participation, but account for only 38% of the total enrolled MW. Zones A through E as a group are characterized by greater load per participant, providing 19% of participants in EDRP and 39% of total enrolled MW and 13% of the participants in ICAP/SCR which provide 54% of the total program MW. Although statistics on customer class are not recorded, participants in Zones J and K are primarily commercial.

## **Migration Summary**

Table 4 provides a summary of how enrollment changed from 2004 to 2005 and the average subscribed MW per participant for each year. Overall, participation and the number of MWs enrolled decreased in the EDRP program. However, 2005 ICAP/SCR program participation increased by 86% over 2004, proportionally greater than the 11% increase in subscribed MW. All but EDRP were characterized by a decline in the average subscribed MW per participant.

	20	004	20	2005		nange From to 2005	Subscribe	d MW per	Participant
	Count	MW	Count	MW	Participant Count	Subscribed MW	2004	2005	Percent Change
EDRP	1097	570.7	957	577.6	-13%	1%	0.52	0.60	16%
ICAP UnSold	29	5.3	5	11.8	-83%	123%	0.18	2.36	1191%
ICAP	933	980.8	1782	1083.3	91%	10%	1.05	0.61	-42%
DADRP	17	376.9	18	385.9	6%	2%	22.17	21.44	-3%

Table 4: Program Enrollment Changes 2004 to 2005

Figures 1 and 2 track registration and MW in EDRP and SCR over the period 2001-2005. As noted previously, ICAP/SCR registration of individual participants was initiated in 2004; prior to that period, the registered participants shown in Figure 1 for ICAP/SCR are based on aggregations of individual participants. In addition, for 2001 and 2002, program registration was non-exclusive, i.e., a participant could register for both EDRP and ICAP/SCR. Beginning in 2003 the programs were made exclusive.

Figure 2 shows that, since making EDRP and ICAP/SCR exclusive, the general trend has been for EDRP registration and MW to decrease and ICAP/SCR registration and MW to increase, as would be expected given the more lucrative nature of the ICAP/SCR program.



Figure 1: Demand Response Program Resource Registration History



Demand Response Programs 2001 - 2005 Subscribed MW

2005 saw a dramatic increase in the number of smaller SCR customers registering with Aggregators. This has most likely been one factor in explaining demand response performance during the July 27 EDRP/SCR event as analyzed below.

## B. Analysis of ICAP/SCR Strike Prices

Beginning in 2003, participants in the ICAP/SCR program were required upon enrollment to indicate a curtailment strike price, between 0-\$500/MWh, which would be used by the NYISO to determine which resources to call on for curtailments in the case where all resources in a given Zone or Zones were not needed to restore system security to its equilibrium state.

To characterize how participants responded to this requirement, strike price curves were developed for all resources for 2005. The curves map out the percentage of MW at a given strike price. Figure 3 illustrates the strike price curves for 2003 to 2005, covering the period of time that the provision has been in place. The steeper slope for the strike price curve overall indicates that strike prices are clustered close to the bid ceiling of \$500/MWh. It is evident that participants have, over time, increased the number of higher strike prices, presumably due to the lack of events where partial Zonal load reduction calls have been initiated.





## C. Emergency Demand Response Program/ICAP Special Case Resources 2005 Event Performance

The EDRP and ICAP/SCR programs were activated once in 2005, on July 27 between 2 pm and 6 pm. On the previous day, the NYISO recorded its peak demand to date of 32,075 MW between 4 and 5 pm. On July 27, high temperatures receded upstate but were still extreme in the lower Hudson Valley. Con Edison's demand hit a record peak of 13,059 MW at 5 pm on July 27<sup>16</sup>. During the afternoon of July 27 it was apparent that the record downstate demand was resulting in low voltages in the lower Hudson Valley, reducing transfers over the Sprain Brook – Dunwoodie South interface. NYISO Operations activated both the ICAP/SCR and EDRP programs for NYISO Zones G thru K. Table 5 shows the registered MW load reduction available from these Zones during that period.

<sup>&</sup>lt;sup>16</sup> Per Consolidated Edison Co. news release at http://www.coned.com/newsroom/news/pr20050727\_2.asp

Registere	d EDRP/SCR MW	by Zone, July 2	005
Zone	Total	EDRP	SCR
G	38.8	34.4	4.4
Н	7.5	6.8	0.7
I	17.5	7.5	10.0
J	395.3	131.8	263.4
K	244.3	138.9	105.5
	703.4	319.4	384.0

#### Table 5: Registered EDRP / SCR MW by Zone, July 2005

Subsequent to the July 27 event, RIPs and CSPs processed meter data for participants and submitted actual performance data to the NYISO for settlement purposes. Tables 6 thru 8 present performance on a Zonal basis using both the ICAP/SCR and EDRP methods of determining load reduction performance.

Table 6 contains performance figures based on the ICAP/SCR reporting rules contained in Appendix J of the NYISO ICAP Manual. Performance is determined by comparing the actual hourly interval metered energy with the Average Peak Monthly Demand:

$$RED_MWgn = APMDgm - METER_MWgn$$

where:

- RED\_MWgn is the Installed Capacity Equivalent performance that Resource g supplies during hour n of an SCR event;
- APMDgm is the Average of Peak Monthly Demands for Resource g applicable to month m, using data submitted in its Special Case Resource Certification, and
- METER\_MWgn is the metered hourly integrated energy for Resource g in hour n of an SCR event.

SCR Per	formance	(MW) B	ased on	APMD 8	CMD - 、	July 27, 2005
Zone	HB14	HB15	HB16	HB17	average	% of registered
G	2.6	3.3	4.1	4.2	3.6	80.8%
Н	1.5	1.5	1.5	1.7	1.6	223.1%
I	11.5	11.1	11.5	11.1	11.3	112.7%
J	104.9	149.2	156.7	161.1	143.0	54.3%
K	15.1	92.9	92.5	94.9	73.8	70.0%
	135.7	258.1	266.3	272.9	233.2	60.7%

#### Table 6: SCR MW Performance Based on ICAP Measures

Performance using this measure compares actual reduction with the reduction capability sold as ICAP by the SCR.

In general, performance measured in this way during the July 27 event was lower on a percentage basis when compared with events in previous years. This appears to be due to:

• some RIPs not reporting enough resources to cover their ICAP obligation, and

• more generally, metered loads reported above the Contracted Minimum Demand for that resource.

The NYISO continues to analyze performance and its potential implications for future programmatic improvements.

In addition to being compensated for reduction capacity (ICAP), SCR resources are also paid for the actual energy reduction during a called event. Performance for purposes of determining energy payment is based upon the EDRP method of performance measurement, which calculates a Customer Baseline Load (CBL) from recent historical data to determine what energy consumption would have been if the participant had not reduced load. The CBL is determined as follows:

• Beginning with the weekday two days prior to the demand response event, look back ten weekdays and determine the five highest energy consumption days corresponding to the time period of the event. For example, if the demand response event occurs between noon and 4 pm, the baseline consumption is determined by the five days with the highest energy consumption between noon and 4 p.m.

• Take the average of the five readings for each hour to determine the baseline for that hour. The difference between the hourly CBL and hourly interval meter readings serves as the measure of load reduction.

Energy	Reduction	(MWh/h	) via CB	L metho	d - SCR	only
Zone	HB14	HB15	HB16	HB17	average	% of registered
G	0.7	0.9	1.8	1.8	1.3	29.5%
Н	0.7	0.7	0.7	0.9	0.8	109.7%
I	11.2	10.8	11.0	10.5	10.9	108.8%
J	66.2	75.3	74.5	68.3	71.1	27.0%
K	10.9	12.0	12.0	11.6	11.6	11.0%
	89.8	99.8	100.0	93.1	95.7	24.9%

## Table 7: SCR Energy Reduction

Table 7 presents the energy reduction data for SCR resources only. Since the ICAP APMD values are determined for the prior like capability period and the CBL is determined from load data two weeks prior to the event, differences in performance can be expected. It is apparent that, using the CBL method, load reduction for SCR resources is considerably smaller than the corresponding figures using the ICAP/SCR method. There are several reasons for this difference:

- Some RIPs did not submit energy reduction data for a significant number of participants, and those submitted were only a subset of the data submitted for payment under ICAP rules and reported in Table 6.
- Since the CBL is a dynamic proxy for consumption, it is possible that individual participant load during the CBL period underestimates what would have been the energy consumption on an event day. This may indeed have been the case for some participants. A review of Zonal load for Zones J and K over the period most typically used for the CBL calculation indicates that, for Zone J, July 27 load exceeded the next highest day by roughly 4% (Figure 4), and in Zone K, July 27 was the 2<sup>nd</sup> highest load day when compared with CBL days (Figure 5).

• Individual participant consumption during the event may have been greater than anticipated.

The CBL method permits an optional weather-sensitive adjustment, wherein the CBL is adjusted either upward or downward to match the actual load consumption two hours prior to the actual event. The degree of adjustment is capped at between 80% and 120% of the original CBL value. Most participants did not select the weather-sensitive option and thus were not able to correct for increased weather-sensitive consumption on the day of the event.



Figure 4: Zone J Loads During CBL Period

Figure 5: Zone K Loads During CBL Period

Table 8 reports the energy reduction for EDRP participants calculated using the CBL method. Since participation is mutually exclusive between EDRP and ICAP/SCR, the corresponding values of Tables 7 and 8 can be added to determine the total reported energy reduction during the event.

Energy Reduction (MWh/h) via CBL method - EDRP only									
Zone	HB14	HB15	HB16	HB17	average	% of registered			
G	8.4	11.3	14.2	15.5	12.3	35.9%			
Н	1.1	1.1	1.0	1.1	1.1	15.7%			
I	1.7	2.3	1.9	1.7	1.9	25.5%			
J	52.6	56.6	57.8	68.6	58.9	44.7%			
K	35.7	38.8	41.2	34.2	37.5	27.0%			
	99.5	110.2	116.2	121.0	111.7	35.0%			

## **Table 8: EDRP Energy Reduction**

## D. EDRP and ICAP/SCR Estimated Reliability Benefits

Quantifying the reliability benefits of Demand Response starts with a determination of the extent to which EDRP and ICAP/SCR curtailments improved the Loss of Load Probability (LOLP) for the Control Area as a whole. Improvement in LOLP, converted into a dollar value, quantifies the reliability benefit of these load reduction programs to customers. One approach for converting improvement in LOLP into a dollar value, which has also been used in previous years' analysis, uses the value of unserved energy, calculated as:

#### $VUE = VOLL * \Delta LOLP * EUE$

Where

VUE = value of unserved energy (reliability benefits)

VOLL = value of lost load in \$/MWh based on economic impact of load loss

 $\Delta LOLP$  = change in LOLP due to the addition of EDRP and ICAP/SCR resources

EUE = expected unserved energy, i.e., expected load loss without EDRP and ICAP/SCR

The NYISO does not yet have values for the elements of this equation. However, the extent to which the three primary variables (value of lost load, expected unserved energy, and change in LOLP) interact can be seen if the VUE is assumed to be the energy reduction payouts to participants (for the July 27 event, roughly \$815,000). The approach yields a three-dimensional surface for a given payout level – any point above the surface represents a positive reliability benefit.



#### Figure 6: Surface Diagram Illustrating the Interaction of Primary Factors Affecting Reliability Benefits

The NYISO continues to explore opportunities to quantify these variables. One option may be to look at the August 2003 blackout (Table 9). This event provided valuable economic estimates of societal impact which, coupled with the estimated load not served during the blackout period, could provide a rough estimate of the value of lost load (VOLL).

Source	Lost Income (\$M)	Spoilage (\$M)	Emergency Service (\$M)	Grid Repair (\$M)	Total (\$M)	NY Cost/Mwhr <sup>4</sup> (\$/MWh)
Anderson Economic Group <sup>1</sup>	1980	375	33	429	2817	9390
ICF Consulting <sup>2</sup>					2220 - 3360	7400 - 11200
NYC Comptroller's Office <sup>3</sup>	800	250			1050	7000 <sup>3</sup>

#### Table 9: Independent Assessment of NY Blackout Costs, August 2003

1. "Northeast Blackout Likely to Reduce US Earnings by \$6.4 Billion", Anderson Economic Group, August 19, 2003. Total regional economic impact estimated at \$6.4B.

2. "The Economic Cost of the Blackout", ICF Consulting. Estimated \$6.8-10.3B cost for entire affected area using 918,800 MWh lost energy consumption.

3. CBSNews.com report, August 20, 2003. Cost/MWh assumes half of lost energy consumption occurred in NYC.

4. Based on approximately 300,000 MWh in lost energy consumption in New York State on August 14-15, 2003.

#### III. Day-Ahead Demand Response Program

The DADRP program provides retail customers with an opportunity to bid their load curtailment capability into the day-ahead spot market as supply resources. Customers submit bids by 5:00 a.m. specifying the hours and amount of load curtailment they are offering for the next day, and the price at which they are willing to curtail. Prior to November 1, 2004, the bid price had to be \$50/MWh or higher. As of November 1, 2004, the minimum floor price for DADRP has been set to \$75/MWh to address concerns regarding free-ridership, as well as to reduce Net Social Welfare losses. Bids are structured like those of generation resources, so DADRP program participants may specify minimum and maximum run times and effectively submit a block of hours on an all or nothing basis, which makes them eligible for production cost guarantee payments that make up for any difference between the market price during that block of hours and their block bid price. Load scheduled in the DAM is obligated to curtail the next day. Failure to curtail results in the imposition of a penalty defined by the MW curtailment shortfall times the greater of the corresponding day-ahead or real-time market price.

#### A. DADRP Participation and Bidding Summary

Registration in DADRP remained virtually unchanged; 18 customers were registered in 2005, up from 17 at the close of 2004. Figures 7 and 8 show a comparison of scheduled DADRP bids by season since the program's inception. DADRP offers were scheduled a total of 464 hours during this reporting period, September 1, 2004 and August 31, 2005, roughly one-third the number of hours scheduled (1275) for the comparable period in 2003 and 2004. Scheduled offers resulted in 2,070 MWh of load reductions (Figure 7), and average hourly reduction of approximately 5 MW (Figure 8). The imposition of the \$50/MWH price floor in 2002 and increased to \$75 in November 2004 reduced overall the number of bids that were scheduled.



Figure 7: Total MWh Scheduled in DADRP, 2001-2005, by Season and Year



Figure 8: Average Scheduled Hourly DADRP Offer (MW) by Season and Year

Figure 9 shows the distribution of scheduled DADRP offers by hour over the past four years. A declining trend is evident in these accepted offers. The decline from 2003 to 2004 was attributed to the introduction of the \$50/MWh floor price; a similar argument can be made for the 2004-2005 decline, given the floor price was raised to \$75/MWh on November 1, 2004. As is

discussed in the next section, the decline in accepted DADRP offers is not by itself an indication of lack of participant interest or inherent program defect, but likely the proper response given the interaction of the increased floor price and the clearing point on the supply curve.





## B. DADRP Estimated Market Benefits Summary

Scheduled DADRP curtailments impact the NYISO market in three distinct ways. First, when DADRP curtailments displace higher priced generation resources, the corresponding DAM clearing price drops, thereby reducing the cost of purchases made by LSEs through fixed price and price cap load bids. The amount of those bill savings depends on how steep the supply curve was at that time. The steeper the supply curve, the larger the reduction in prices when demand is reduced. Such reductions in DAM LBMPs will also cause the expected future market outlook of price volatility to be reduced. The expectation of reduced price volatility may place downward pressure on bilateral transactions between LSEs and suppliers. Hedge cost savings and bill savings are both transfer payments. Money that formerly was paid by LSEs on their retail customers' behalf to generators is now in effect transferred back to LSEs and eventually to their customers as avoided costs.

From a social welfare perspective, as defined by economists, these transfers are not defined as benefits, just neutral transfers among market participants with no specific weight or merit. However, such transfers are important to consumers, since they amount to reduced costs for the electricity purchased by consumers, and all other things equal, they are therefore desirable.

Economists define a third flow of benefits that results when customers respond to actual market costs rather than usage prices based on average costs. Such changes in usage of electricity reduce deadweight social losses, which are defined as the utilization of resources in other than the socially optimal manner. DADRP induces customers paying average prices for electricity to adjust their usage to contemporary, actual supply costs, thereby reducing deadweight losses and improving social welfare. This third flow of benefits from DADRP is the improvement in net social welfare that is realized when DADRP bids from participants on flat-rate tariffs are scheduled.

Figure 10 illustrates the various components of the net social welfare calculation. In the case of DADRP, the estimated LBMP is the day-ahead price without demand response offers considered, the actual LBMP is the day-ahead price as influenced by the accepted demand response offers, and the strike price is the DADRP offer price. Payments to DADRP program participants are given by the area b+c. Deadweight losses are given by the area a+b. Net social welfare is determined by calculating the difference between the deadweight losses and payments to suppliers, or (a+b) - (b+c) = a-c. Net social welfare will be positive when area a is greater than area c.



Figure 10: Illustrating Components of Net Social Welfare Calculation

Market price impacts for the summer months (June, July and August) of 2005 were estimated using the methods and protocols developed previously.<sup>17</sup> Supply flexibilities were developed for two aggregate regions: Western NY and Hudson River/Capital Region, and two NYISO zones: New York City and Long Island.<sup>18</sup> Supply flexibilities, defined as the percentage change in

<sup>&</sup>lt;sup>17</sup> This analysis is confined to the summer months to accommodate a comparison of 2005 results with prior year's analyses that included only these months.

<sup>&</sup>lt;sup>18</sup> Western NY superzone consists of NYISO zones A – E, while the Hudson River/Capital Region superzone is comprised of NYISO zones F - I.

LBMP resulting from a one percent change in the load served, characterize the nature (slope) of the resource supply curve. The greater the price flexibility, the greater the reduction in the calculated DAM LBMP due to the scheduling of a DADRP curtailment offer. High supply flexibilities over a narrow range of load levels are indicative of a pronounced "hockey-stick" shaped supply curve. In the market impact analyses, the supply flexibilities are used to construct a statistical representation of the bid curve during hours that DADRP bids are scheduled, so that the level of price that would have been achieved in the DAM and RTM, had these curtailments not been scheduled and delivered, can be estimated, as well as the corresponding bill savings. In addition, the supply flexibility is used in the derivation of the net social welfare results.

	2001	2002	2003	2004	2005*
West	9.4	4.2	1.4	1.8	0.8
Hudson/Capital	5.1 / 11.8	3.9 / 5.0	1.9	1.6	2.8
New York City	9.4	3.6	3.5	0.7	4.0
Long Island	5.1	6.5	1.2	0.6	5.5

#### Table 10: DAM Price Flexibilities (Summer)

\* 2005 represents estimates with a continuous functional form, whereas previous years a discrete spline function was used. Such a change in functional form makes comparisons to previous years challenging, Between 2001 and 2004, the table contains the average supply flexibility in the uppermost piece of the spline. In 2005, the average value represents the supply flexibility over the entire estimated supply curve, not a specific segement of it. Thus, the 2005 estimates reported herein represent the maximum.

#### Table 11: RTM Price Flexibilities (Summer)

	2001	2002	2003	2004	2005*
West	6.4	6.7	3.4	2.3	7.8
Hudson/Capital	8.6 / 8.4	4.7 / 6.0	2.5	1.2	11.5
New York City	14.5	12.8	5.9	1.8	16.7
Long Island	10.4	5.2	6.0	2.1	37.9

\* 2005 represents estimates with a continuous functional form, whereas previous years a discrete spline function was used. Such a change in functional form makes comparisons to previous years challenging, Between 2001 and 2004, the table contains the average supply flexibility in the uppermost piece of the spline. In 2005, the average value represents the supply flexibility over the entire estimated supply curve, not a specific segement of it. Thus, the 2005 estimates reported herein represent the maximum.

## Table 12: Transfers and Net Social Welfare Components for DADRP, Jan 1 – Oct 1, 2005 Transfer Page for Data Social Welfare Reputitor

				Transfer Benefits			Social Welfare Benefits		
				Average					
			Average	Price		Hedge	Benefits to	Reduction in	Benefits to
	Performance	Program	DAM LBMP	Reduction	Market Bill	Contract	Payment	Deadweight	Payment
Zone	(MWh)	Payments (\$)	(\$/MWh)	(\$/MWh)	Savings (\$)	Savings (\$)	Ratio	Loss (\$)*	Ratio
NYC	0	\$0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LI	0	\$0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Western NY	714	\$62,632	\$86.20	\$0.12	\$17,982	\$33,088	0.82	\$47,193	0.75
Hudson River	1,356	\$109,745	\$83.08	\$0.21	\$91,807	\$122,278	1.95	\$34,883	0.32
Total	2,070	\$172,376	\$83.72	\$0.19	\$109,789	\$155,366	1.54	\$82,076	0.48

\* This represents gross benefits. Net Social Welfare can be calculated by subtracting program payments

As can be seen in Table 12, accepted DADRP offers were located in Western NY and Hudson River/Capital regions. The average LBMPs during scheduled DADRP load reduction periods were less than \$90/MWh. Program payments (corresponding to area b+c in Figure 9) are shown in the third column of Table 12. The reduction in deadweight losses are shown in the second column from the right in Table 12.

All three types of market effects estimated for the summer of 2005 are compared to those from 2001 through 2004 in Table 13. As can be seen in Table 13, DADRP scheduled bids resulted in a decrease in net social welfare (NSW) of \$90,300, comparable to that seen in 2003 (\$72,271).

	Scheduled							
	DADRP	Collateral	Reduction in	Total Market	Program	Change in		Impact
	MWHs	Savings	Hedge Cost	Effect	Payments	NSW	% Change	Ratio
2001	2,694	\$892,140	\$682,358	\$1,574,498	\$217,487	N/A	-	7.2
2002	1,468	\$236,745	\$202,349	\$439,094	\$110,216	N/A	72%	4.0
2003	1,752	\$45,773	\$161,558	\$207,331	\$121,144	-\$72,271	53%	1.7
2004	675	\$8,996	\$36,940	\$45,936	\$40,651	-\$27,408	78%	1.1
2005	2,070	\$109,789	\$155,366	\$265,155	\$172,376	-\$90,300	-477%	1.5

## Table 13: DADRP Market Effects (Summer)

Scheduling DADRP bids at relatively low DAM prices, for example at the \$50/MWh or \$75/MWh bid floor price, generally corresponds to very low supply flexibility, a relatively flat supply curve, and a small deviation from the average price the customer pays. The change in NSW is based on that deviation, net of the payment the customer receives for curtailing, i.e., the DAM price. When the supply curve is very flat, the reduced deadweight loss can be less than the payment to the customers, i.e., the DAM price, resulting in a reduction in NSW.

Negative NSW contributions do not necessarily mean that DADRP is counterproductive. DADRP is intended to reduce price volatility. The lower market effects in 2005 reflect the relatively flat nature of the supply curve during the summer months. Low supply flexibilities mean that scheduled curtailments have a lower impact on the DAM LBMP. However, the ratio of market effects (the sum of transfer costs and NSW) to DADRP curtailment payments, referred to as the program impact ratio, in 2005 was 1.5, as can be seen in the rightmost column of Table 13. This measure indicates that, considering all quantifiable market impacts, the net result has been beneficial.

When prices are very high, \$500/MWH or more, as they were at times in 2000-2002, the incentives to shift load for DADRP participants are high. Moreover, these circumstances are coincident with very high supply flexibilities, upwards of 10 at times in 2001-2002, which result in relatively greater reductions in deadweight losses from DADRP induced curtailments, and positive NSW contributions. The challenge is to induce customers to join the program and monitor prices so that when they spike, DADRP bids will be forthcoming, scheduled, and deliver NSW improvements. One means of achieving this outcome is to raise the floor bid price of \$75/MWh, a topic that will be reviewed by the NYISO and stakeholders in the near future.

DADRP continues to provide opportunities for demand response resources to participate in NY's energy market increasing competition and stabilizing energy prices. Net social welfare can be expected to increase as NY's generation supply shrinks. Its future value also depends on a

market perception that this program will remain in effect. FERC recently affirmed its future value by eliminating its sunset date.

## Summary

Table 14 (below) summarizes the overall payouts to and economic benefits obtained from the NYISO's demand response programs in 2005. Energy payments based on reported load reduction is shown in the top block (\$428,079 for EDRP and \$385,359 for SCR). Based on the value of unserved energy estimation approach, for 2% of load at risk with a \$7000 value of lost load and an increase in probability of loss of load of 0.1, program benefits roughly equal payouts to participants, as seen in the bottom section of Table 14.

For NYISO's DADRP, it is apparent that there are transfer benefits in excess of program payments for 2005, but the societal benefits of the program do not outweigh payments to participants. As noted in the earlier section, the NYISO and its stakeholders will in the near future consider increasing the bid floor price to bring societal benefits more in line with program payouts.

		DADRP	EDRP	SCR
stics	Performance (MWh)	2,070	442	377
Event Statistics	Payments (\$)	\$172,376	\$428,079	\$385,359
Even	Average LBMP (\$/MWh)	\$83.72	\$503.36	\$742.59
üts	Average Price Reduction (\$/MWh)*	\$0.19	N/A	N/A
Benef	Market Bill Savings (\$)	\$109,789	\$109,789 N/A	
Transfer Benefits	Hedge Contract Savings (\$)	\$155,366	N/A	N/A
	Benefits to Payment Ratio	1.42	N/A	N/A
ts	Reduction in Deadweight Loss (\$)	\$82,076	N/A	N/A
Societal Benefits	Benefits to Payment Ratio	0.48	N/A	N/A
cietal	Reliability Benefits (\$)	N/A	\$438,274	\$373,284
So	Benefits to Payment Ratio	N/A	1.02	0.97

**Table 14: Summary of NYISO Demand Response Program Benefits** 

Beyond the economic benefits provided by these programs, the NYISO must ensure that reliability program registrations, particularly mandatory response programs like ICAP/SCR, reflect expected performance during a reserve deficiency situation. Beginning with the December 2005 Price-Responsive Load Working Group meeting, the NYISO and its stakeholders will be reviewing registration, testing and reporting rules for the ICAP/SCR program.

ATTACHMENT II

#### UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

#### New York Independent System Operator, Inc.

**Docket No. ER01-3001-00** 

#### **NOTICE OF FILING**

Take notice that on December 15, 2005, the New York Independent System Operator, Inc. ("NYISO") filed compliance tariff sheets in the above-captioned proceeding.

The NYISO has served a copy of this filing to all parties on the official service list in this proceeding, including the New York State Public Service Commission, and to the electric utility regulatory agencies in New Jersey and Pennsylvania.

Any person desiring to be heard or to protest this filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR §§ 385.211 and 385.214). All such motions or protests should be filed on or before the comment date. This filing is available for review at the Commission or may be viewed on the Commission's website at <u>www.ferc.gov</u>, using the eLibrary (FERRIS) link. Enter the docket number excluding the last three digits in the docket number filed to access the document. For assistance, call (202) 502-8222 or TTY, (202) 208-1659. Protests and interventions may be filed electronically via the Internet in lieu of paper. *See*, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site under the "e-filing" link. The Commission strongly encourages electronic filings.

Comment Date:

Magalie R. Salas Secretary