

# **Demand Response Update and Materials**

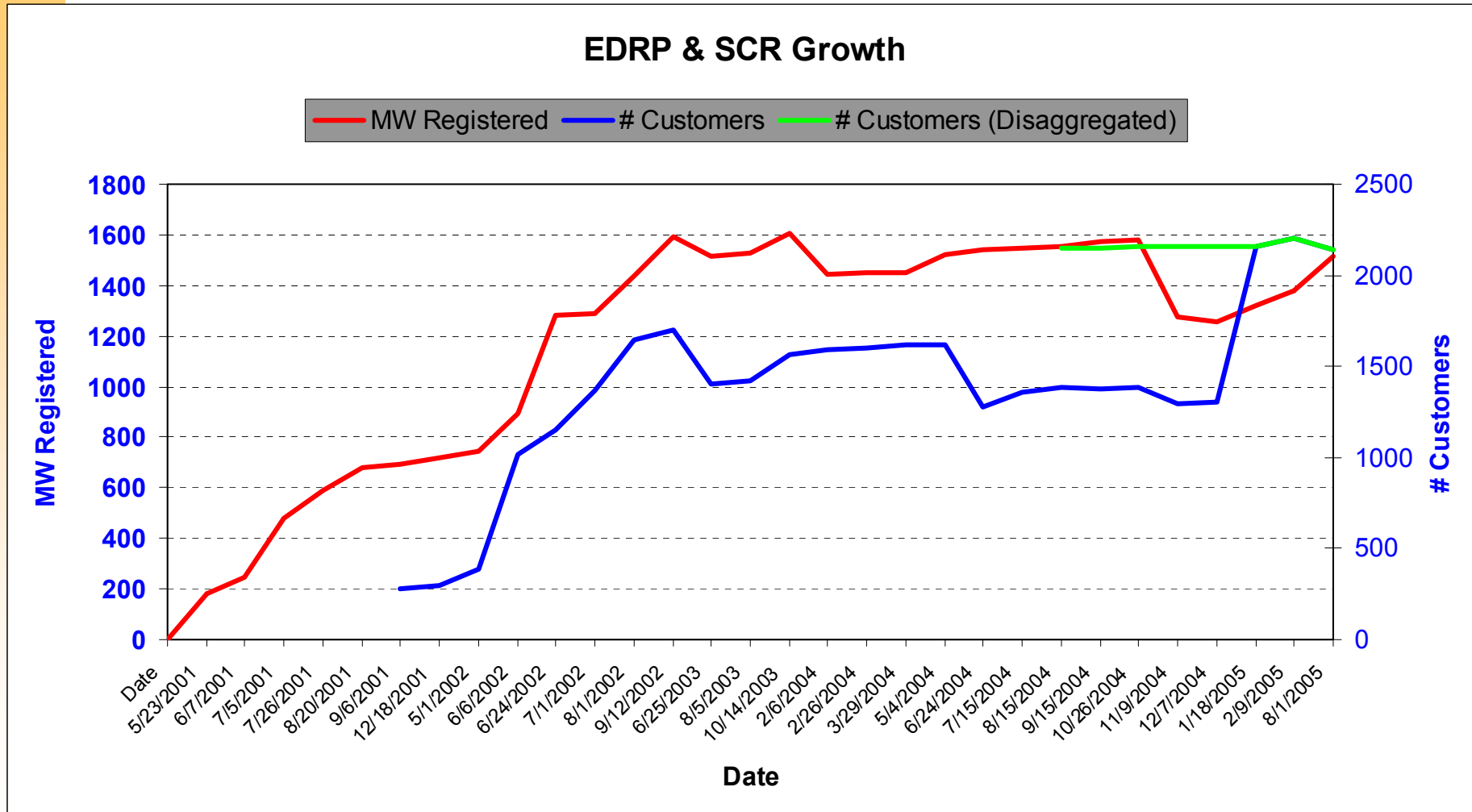
Price Responsive Load Working Group  
Meeting  
August 8, 2005

## Today's agenda

- ✓ Update on recent EDRP/SCR advisories and activations 10:15-11:30
- ✓ Options for demand response participation in Ancillary Services markets 11:30-12:15
- ✓ Options for demand response (Continued from AM Session) 1:00-1:45
- ✓ Update on SCR issues to be discussed in ICAPWG 1:45-2:30
- ✓ Update on Con Ed demand management initiatives 2:30-2:45
- ✓ Wrap-up / adjourn 3:00

# Demand Response Program Registrations (as of 8/3/2005)

EDRP Participation					ICAP/SCR Participation					DADRP Participation				
Zone	Count	Load	Gen	Total MW	Zone	Count	Load	Gen	Total MW	Zone	Count	Load	Gen	Total MW
A	25	22.2	12.6	34.8	A	116	326.2	1.1	327.3	A	4	138.0	0.0	138.0
B	12	5.2	1.5	6.7	B	28	61.1	6.1	67.2	C	2	37.4	0.0	37.4
C	82	12.8	15.7	28.5	C	40	88.9	4.4	93.3	D	1	100.0	0.0	100.0
D	13	101.6	3.4	105.0	D	6	85.4	0.0	85.4	E	1	10.0	0.0	10.0
E	48	22.9	27.5	50.4	E	14	7.1	0.9	8.0	F	8	92.8	0.0	92.8
F	43	41.9	8.3	50.2	F	21	62.6	0.0	62.6	I	1	2.0	0.0	2.0
G	25	16.4	20.0	36.4	G	3	2.4	0.0	2.4	J	1	2.5	0.0	2.5
H	9	1.8	5.0	6.8	H	1	0.7	0.0	0.7	K	1	12.0	0.0	12.0
I	19	4.0	3.5	7.5	I	6	9.9	0.1	10.0					
J	118	91.1	42.2	133.3	J	902	238.1	23.8	262.0		19.0	394.7	0.0	394.7
K	4	3.6	3.2	6.8	K	39	10.8	86.5	97.3					
	398.0	323.6	142.8	466.4		1176.0	893.2	122.8	1016.0					



Note: Prior to January 2005 the number of customers shown on the chart did not reflect SCR resources enrolled or sold as part of aggregations. Recent database changes allow presentation of aggregation members.

# Update on Recent EDRP/SCR Advisories and Activations

- ✓ 2005 Day-Ahead advisories issued:
  - June: 6/14, 6/27
  - July: 7/19, 7/20, 7/21, 7/22, 7/26, 7/27\*
  - August: 8/3, 8/4, 8/5
- ✓ Program history of advisories
  - 2001: 7/24, 7/25, 8/1, 8/2, 8/6, 8/7\*, 8/8\*, 8/9\*, 8/10\*
  - 2002: 4/16, 4/17\*, 4/18\*, 7/30\*, 8/1, 8/2, 8/14\*, 8/15
  - 2003: 8/15\*, 8/16\*, 8/18
  - 2004: none

*\*indicates program activation*

# Update on Recent EDRP/SCR Advisories and Activations (cont'd)

✓ Program activations:

- July 27, 1400-1800, Zones G-K
  - ✧ Notice sent at 1250 – mandatory SCR performance from 1500-1800
  - ✧ Estimated response (from RETX notification system):

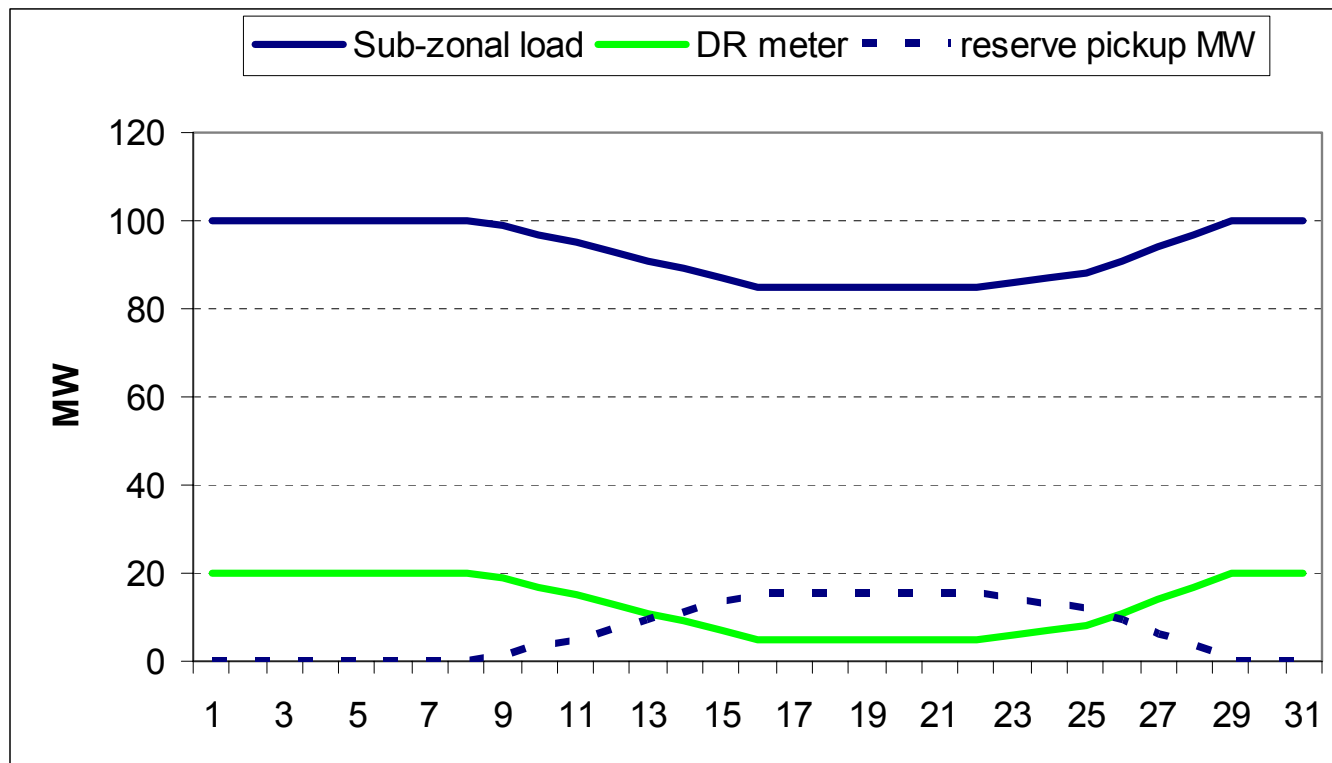
Zone	EDRP	SCR	Total
A	0.0	0.0	0.0
B	0.0	0.0	0.0
C	0.0	0.0	0.0
D	0.0	0.0	0.0
E	0.0	0.0	0.0
F	0.0	0.0	0.0
G	25.8	4.3	30.1
H	3.4	0.0	3.4
I	2.6	1.5	4.1
J	119.1	249.8	368.9
K	2.7	67.8	70.5
<b>TOTAL</b>	<b>153.6</b>	<b>323.4</b>	<b>477.0</b>

# Options for demand response participation in ancillary services markets

- ✓ Can a demand response provider capable of providing a “correctly-processed” signal and willing to structure offers to avoid being scheduled for energy participate now in the real-time non-spin reserves markets?
- ✓ RTS is not designed to handle such a situation:
  - *Double-counting of MW (directly metered DR load reduction and sub-zonal load metering)*
  - *Creates problems with RTC and RTD “look-ahead” scheduling/commitment due to inconsistent short-term load forecasts*

# Illustrating DR metering concerns

15 MW DR responding to reserve pickup as seen by RTS





## Options for demand response participation in ancillary services markets (cont'd)

- ✓ Option #1: determine functional requirements to modify RTS (and SCUC) to handle DR in reserves markets
  - *Need to properly handle metering and impacts on load forecasts*
  - *Energy market exposure – mitigate via bid strategy or permit “reserves only” participation?*
  - *Need qualification, testing, performance validation criteria*

## Options for demand response participation in ancillary services markets (cont'd)

- ✓ Option #2: consider developing a “30-minute” SCR-like program
  - *Subset of SCR resources can be activated within 30 minutes*
  - *Would be called prior to SCR and EDRP*
  - *Need to discuss:*
    - ✧ **Qualification criteria**
    - ✧ **Metering requirements**
    - ✧ **Performance validation**
    - ✧ **Payment – tied to reserve prices or administrative?**
    - ✧ **Etc.**

## Options for demand response participation in ancillary services markets (cont'd)

- ✓ Option #3: look at pilot projects outside of RTS that would demonstrate DR capability via aggregation programs (NYC load is a possible candidate)
  - *Will provide feedback on capabilities of aggregated metering systems, aggregate response for commercial, residential customer participation*

# Update on SCR issues to be discussed in ICAPWG

## ICAP Baseline Timing

### ✓ Issue:

- *SCR resources which peak outside the likely hour in which an EDRP/SCR event would be called can enroll and receive significant ICAP payments with the expectation that they will have to do little, if anything, in return.*

### ✓ Recommendation:

- *Require that the ICAP baseline, the Average Peak Monthly Demand (APMD) be measured during likely hours of the NYISO system peak, 2:00 p.m. – 6:00 p.m.*

# Update on SCR issues to be discussed in ICAPWG (cont'd)

## DG/CHP Direct Meter Option

### ✓ Issue:

- *Demand response resources which utilize on-site generators presently have the option of metering the net facility load or metering the generator output directly. The ICAP baseline for those which net meter is based on the previous year's peak load, while those which meter the generator output directly receive credit using a DMNC-type approach.*
- *The result for facilities which operate their generator frequently (i.e. CHP/cogen) is that net metered facilities receive SCR ICAP payments for only one year (as the baseline will capture the generator effects the next year). Direct metered generators get credit year after year. In addition, the customer's LSE also receives the benefit of reduced peak demand and lowered ICAP requirement.*

### ✓ Recommendation:

- *Eliminate the direct generator metering option.*
- *This will have the effect of eliminating the double counting inherent in paying the SCR for ICAP while the LSE also has a reduced ICAP requirement. It will also have the effect of treating "baseload" DG and energy efficiency in a comparable fashion.*

# Update on SCR issues to be discussed in ICAPWG (cont'd)

## Meter Aggregation

✓ Issue:

- *Customers with multiple facilities/meters are presently required to enroll and measure the performance of those facilities separately (they can aggregate them only for purposes of meeting the 100 kW ICAP sales increment). To the extent that these customers have EMS systems that can totalize the coincident load at these meters, they would like to be able to register and measure the performance of the aggregate of these meters.*

✓ Recommendation:

- *Allow customers with EMS systems capable of totalizing the coincident load of otherwise acceptable interval meters to enroll, and measure the performance of the aggregate of those meters as a single SCR resource.*
- *Each meter would still have to be registered separately so that Market Monitoring would be able to audit and ensure that the totalized numbers correspond with the sum of the individual meters.*
- *Meters could only be aggregated within a single NYISO zone.*

## Update on SCR issues to be discussed in ICAPWG (cont'd)

- ✓ Metering Requirements
  - *Tariff requires “interval billing meters” for SCRs*
  - *EDRP Manual specifies explicit meter requirements and there are PSC requirements for billing meters.*
  - *The NYISO proposes to explicitly include the EDRP metering requirements by reference in the ICAP Manual*

## Update on SCR issues to be discussed in ICAPWG (cont'd)

- ✓ SCR Notifications by RIPs
  - *The NYISO from time to time issues day ahead notifications and in day activation notices to RIPs with registered SCRs*
  - *To avoid any possible miscommunication, the NYISO proposes to require all RIPs to provide copies of, and require NYISO approval, all notifications being sent to registered SCRs.*