

Chapter 3 – End User Survey

Survey Goals and Design

A two-part survey was administered to NYISO program participants and informed non-participants (INP) to identify and quantify the impact of key drivers to price-responsive load (PRL) participation, and to assess technology installed to facilitate demand response. Informed non-participants are end users who attended demand response informational seminars conducted by the New York State Department of Public Service (NYDPS) and NYSERDA around New York State in the spring of 2002, but who did not register to participate in any NYISO demand response program.

The focus of this year's end user survey was to identify barriers to DADRP participation and to test response to proposed program changes. Part 1, Customer Acceptance Survey, contained targeted questions based on the end users' NYISO PRL program registration type. The Customer Acceptance Survey included a series of questions on end user characteristics (firmographics), possible response strategies, the value of information from various workshops and program marketing materials, factors influencing their decision to not participate in other NYISO PRL programs, barriers to customer participation in the DADRP, and the impact of various proposed changes in NYISO program rules on their future program participation. In addition, select questions from the 2001 NYISO PRL survey were repeated in order to facilitate analysis of time trends among program participants. Part 2, a conjoint survey, tested end users' attitudes toward various sets of program features to establish which features customers prefer. Complete versions of Part 1, the Customer Acceptance Survey and Part 2, the Conjoint Survey, are included in Appendices 3A and 3B, respectively.

As part of its research for the U.S. Department of Energy, the CERTS team participated in the design and administration of the 2002 NYISO Customer Acceptance survey, which included developing an in-depth version of the survey called the PRL Audit. This extended and more detailed version of Part 1 was administered to a subset of end users by a CERTS staff engineer who attempted to illicit more open-ended responses.

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Sampling Frame

NYISO Program Participation

The Emergency Demand Response Program (EDRP) and Installed Capacity-Special Case Resource Program (ICAP/SCR) had significant increases in registered participants in 2002 compared to 2001 program registrations (543% and 20%, respectively). Overall retention in 2002 NYISO programs was high among 2001 program participants: 77% for DADRP, 58% for EDRP and 69% for ICAP/SCR (Fig. 3-1).

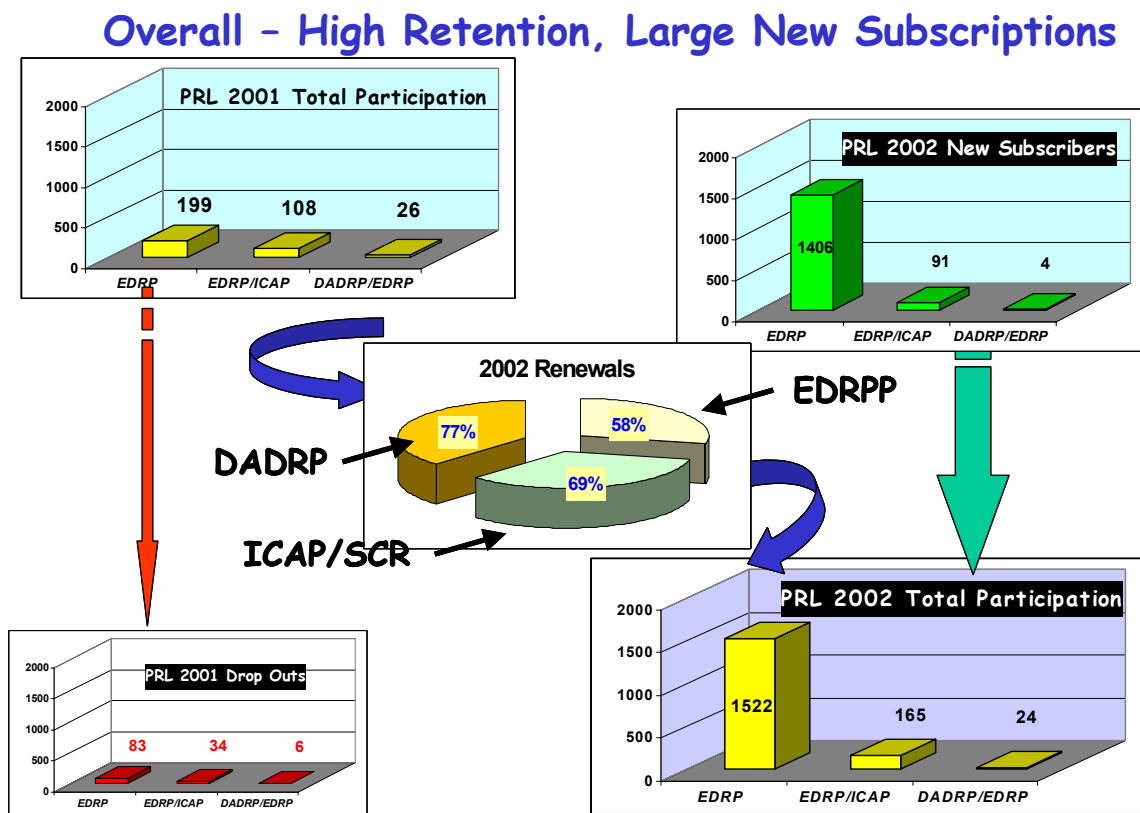


Fig. 3-1: Subscription Rates for NYISO’s PRL Programs

Table 3-1 illustrates the number of individual participants, by provider type, in each of the three NYISO PRL programs: EDRP, DADRP, and ICAP/SCR, as well as the informed non-participant population available for the survey. In Table 3-1, TOs, Transmission Owners, include six regulated utilities and two power authorities, New York Power Authority and Long Island Power Authority. CSPs, Curtailment Service Providers, include competitive load-serving entities

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(LSEs) and load aggregators, while the “Other” category includes customers directly served by NYISO and Limited Customers, customers who have registered directly with NYISO for participation in the price-responsive load programs.

Table 3-1: NYISO PRL Program Population

	TOs	CSPs	Other	Total	Totals			
					Single Site Participants	Multi-Site Participants~	Informed Non-Participants	Total
Available Population by Program								
EDRP	1238	456	17	1711	1279	432		1711
DADRP	15	3	6	24	19	5		24
ICAP	14	234	3	251	162	89		251
Informed Non-Participants			324	324			324	324
Subtotal	1267	693	350	2310	1460	526	324	2310

The program participants were further classified by whether they were a single site participant or multi-site participant. Multi-site participants are individually registered locations of an entity with a single point of contact for energy management decisions, such as a school district, franchise, supermarket chain or big-box retailer. Multi-site entities have as few as two participants to as many as 50 sites registered. In 2002, 89 multi-site entities represent approximately 25% of EDRP participants, compared to less than 10% of participants in 2001. In addition, about half of the ICAP/SCR participants were multi-site registrations.

In 2002, a pilot for small load aggregations was introduced to permit end-users without interval meters, primarily residential, to participate in EDRP through a load aggregator. The baseline for determining performance was computed using a sampling methodology approved by NYISO in advance of participation in any event. Two small load aggregation pilots of less than 25MW each account for 19,226 additional participants in EDRP this year.

Survey Groups

The available population was segmented into four survey groups:

- 1) Informed non-participants;
- 2) DADRP – participants who were registered in DADRP and any other NYISO program;
- 3) EDRP and ICAP/SCR – participants who were registered in EDRP and ICAP/SCR, but not DADRP; and
- 4) EDRP only.

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For ease of survey administration, each NYISO program group was further sub-divided into single site and multi-site lists to ensure that only one survey was issued to the appropriate multi-site contact.

Two groups of individually registered participants, totaling 1002, were omitted from the survey samples: NYPA participants and LIPA participants. In addition, the small load aggregation pilot participants were not surveyed. These participants were not included in the surveys conducted by Neenan Associates on behalf of NYISO and NYSERDA because their program sponsors conducted independent evaluations.

Survey lists for the PRL Audit were generated first because the interview process was expected to take longer than the base telephone survey. The PRL Audit focused primarily on barriers to participation in DADRP among currently registered NYISO program participants, so no informed non-participants were included in the extensive survey. The lists drawn for the PRL Audit included all DADRP participants, and randomly selected lists of EDRP/ICAP and EDRP only participants. Multi-site participants accounted for about one-third to one-half of each of the randomly generated survey lists.

For the base survey, the survey vendor was provided with all remaining names in the EDRP/ICAP and EDRP only groups, plus the entire list of informed non-participants.

Survey Administration

A survey vendor working as a sub-contractor to Neenan Associates was the initial contact point for survey administration. For the base survey, the survey vendor contacted customers drawn from the sampling frame and conducted a telephone interview at that time or set an appointment to call the customer back. In addition, for customers in the sampling frame that were targeted for the PRL Audit, the survey vendor established appointment times for the CERTS engineers to conduct interviews.

For PRL Audit respondents, the survey process involved both completing a written survey form and a telephone interview. A CERTS engineer contacted the potential respondent, sent a survey form via e-mail and confirmed the appointment. The customer completed the form and returned it via e-mail for the CERTS engineer to review. At the scheduled time, the CERTS engineer called the customer to discuss their responses.

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The conjoint survey, Part 2, was faxed by the survey vendor to customers who either set up an appointment for the PRL Audit, or who agreed to respond to the base survey. Customers returned the conjoint portion via fax directly to the survey vendor, who coded the responses.

Daily e-mail reports from the survey vendor provided updates to Neenan Associates on survey response progress. In addition, the survey vendor provided mail fulfillment services to send out reminder postcards to respondents who had completed Part 1.

Table 3-2: 2002 Survey Responses

	TOs	CSPs	Other	Total	Totals			
					Single Site Participants	Multi-Site Participants~	Informed Non-Participants	Total
Available Population by Program								
EDRP	1238	456	17	1711	1279	432		1711
DADRP	15	3	6	24	19	5		24
ICAP	14	234	3	251	162	89		251
Informed Non-Participants			324	324			324	324
Subtotal	1267	693	350	2310	1460	526	324	2310
Survey Lists					458	89	290	837
Survey Responses					62	23	59	144
						<i>(represents 106 participants)</i>		
Response Rate					13.5%	20.2%	20.3%	17.2%

Survey Response Rates

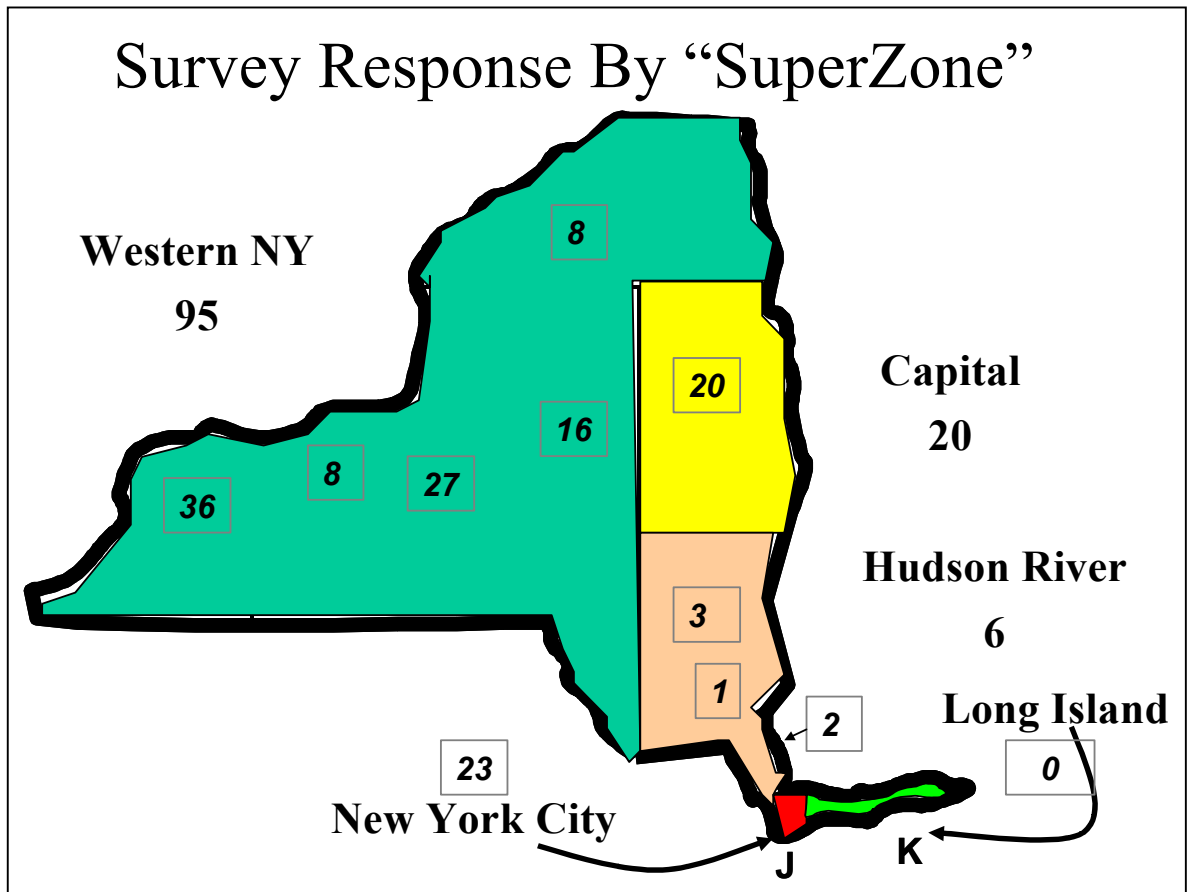
In total, 144 survey responses were received, representing a 17.2% response rate overall: 108 base surveys and 35 PRL Audits (Table 3-2). Of the 35 PRL Audit respondents, 11 were DADRP, 19 were EDRP only and 5 participated in both EDRP and ICAP/SCR. Approximately 20% of the multi-site entities, representing 106 participants, and 20% of the informed non-participants were among the survey respondents.

Table 3-3 shows the distribution of responses by survey group and participants who received NYSERDA funding through either the Enabling Technology or Peak Load Reduction PONs. Distribution of survey response by NYISO price zone and “superzone” is illustrated in the map below (Fig. 3-2).

Table 3-3: Survey Responses by NYSERDA Status

	NYSERDA funded	Non-NYSERDA	Total
Informed Non-Participants	1	58	59
DADRP	4	7	11
EDRP and ICAP/SCR	4	12	16
EDRP only	28	30	58
Total	37	107	144

Fig. 3-2: Survey Response by “Superzone”



Appendix 3A

Survey Part 1: Customer Acceptance Survey

This appendix contains the master list of questions used in the 2002 Customer Acceptance Survey. Sections represent groups of questions that were asked of respondents, based on participation criteria. The format of the Customer Acceptance Survey shown here does not represent the survey format administered to customers; it was administered by telephone.

2002 Electricity Demand Response Programs

Customer Acceptance Survey

Part 1: Customer Information

Section A: General

1. We want to verify some contact information we have for you to ensure that we are talking to the proper individual at your firm responsible for your facility's response to load curtailments and demand reductions.

1.Name: _____ 2.Organization: _____

3.Address: _____

4.Phone: _____ 5.Fax: _____

6.E-mail: _____

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We are going to ask you a series of questions concerning your business and the ways in which you make investment decisions. Since it is possible that your firm has several facilities or locations across the state or possibly across the country, we would like you to answer these questions specifically for the location you have just given us.

2. What is your position/title in the organization?

- 1. FACILITY MANAGER
- 2. ENERGY MANAGER
- 3. GENERAL MANAGER OF YOUR ORGANIZATION
- 4. CEO/CFO
- 5. VP OF _____
- 6. OTHER (PLEASE SPECIFY) _____

3. Are you, or do you have an employee responsible for procuring and managing energy?

- 1. YES

1.1 Proportion of time spent on these tasks: _____%

- 2. NO

4. What is the major business or institutional activity of your organization? (CHECK ONLY ONE)

- 1. HEAVY MANUFACTURING
- 2. LIGHT MANUFACTURING
- 3. WHOLESALE TRADE

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- 4. RETAIL TRADE
- 5. GOVERNMENT
 - 5.1 Military
 - 5.2 Office buildings
 - 5.3 Water utility (water, waste water)
- 6. EDUCATION
 - 6.1 PRIMARY
 - 6.2 SECONDARY
 - 6.3 HIGHER EDUCATION
- 7. HEALTH SERVICES
 - 7.1 HOSPITAL
 - 7.2 CLINIC
 - 7.3 MEDICAL OFFICE
 - 7.4 RETIREMENT/EXTENDED CARE FACILITY
- 8. LODGING
 - 8.1 HOTEL
 - 8.2 MOTEL
 - 8.3 INN/CABINS/B&B
- 9. AGRICULTURE
 - 9.1 DAIRY
 - 9.2 OTHER LIVESTOCK
 - 9.3 CASH CROP
 - 9.4 SPECIALTY CROP
- 10. COMMERCIAL OFFICE BUILDINGS
- 11. RESTAURANT

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- 12. RECREATIONAL, CASINO
- 13. APARTMENT/CO-OP/CONDOMINIUM BUILDING
- 14. OTHER _____

5. Could you please list your firm’s most important products or services produced at your facility.

- 1 _____
- 2 _____
- 3 _____

6. If you know your firm’s 4-Digit SIC or NAIC code, could tell me what it is? (If they don’t know 4-Digit, ask for 2- or 3-Digit SIC or NAIC)

- 1. _____ (SIC)
- 2. _____ (NAIC)

7. On an average weekday, how many hours is your organization open for conducting business at this facility?

_____ HOURS

8. Over a 24-hour period, approximately how many production shifts do you operate?

_____ # OF SHIFTS

9. Approximately how many full-time employees or full-time equivalents does your organization have at this facility?

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_____ # OF FULL-TIME EMPLOYEES OR FULL-TIME EQUIVALENTS

Section B: EDRP/ICAP SCR/DADRP Participants

10. Approximately how large are the facilities you have registered for the programs?

- 1. UNDER 15,000 SQ. FEET.
- 2. 15,000 TO 44,999 SQ. FEET
- 3. 50,000 TO 99,999 SQ. FEET
- 4. 100,000 TO 249,999 SQ. FEET
- 5. 250,000 TO 499,000 SQ. FEET
- 6. 500,000 TO 1 MILL. SQ. FEET.
- 7. 1 MILL. SQ. FEET OR MORE

11. How many buildings are included in the load reduction your firm registered in the programs?

Specify number : _____

Section C: EDRP/ICAP SCR/DADRP Non-Participants

12. Approximately how large are your facilities here in New York State?

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- 1. UNDER 15,000 SQ. FEET.
- 2. 15,000 TO 44,999 SQ. FEET
- 3. 50,000 TO 99,999 SQ. FEET
- 4. 100,000 TO 249,999 SQ. FEET
- 5. 250,000 TO 499,000 SQ. FEET
- 6. 500,000 TO 1 MILL. SQ. FEET.
- 7. 1 MILL. SQ. FEET OR MORE

13. How many buildings are included in that estimate:

SPECIFY NUMBER : _____

Section D: General

14. How many stories high is the main building at your facility?

_____ # OF STORIES

15. Rank the following types of fuel used in your primary production processes from the most consumed to least consumed? (1 = MOST CONSUMED, 4=LEAST CONSUMED)

RANK

- _____ 1. GAS
- _____ 2. ELECTRICITY
- _____ 3. OIL

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_____ 4. OTHER (PLEASE SPECIFY) _____

16. Do you have any dual fuel equipment in your facilities?

- 1. YES (Specify equipment _____)
- 2. NO

17. Does your facility's electricity usage fluctuate by more than 5% due to changes in temperature during the summer?

- 1. YES

Which of the following end-uses are responsible for these fluctuations:

- 1.1 AIR-CONDITIONING
- 1.2 PROCESS COOLING
- 1.3 OTHERS _____
- 2. NO

18. Are building-wide HVAC or energy management and process control technologies used in your facilities?

- 1. YES
- 2. NO

19. Which of the following electricity data do you have access to in real-time (with a lag time of 30 minutes or less)? (PLEASE CHECK ALL THAT APPLY)

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- 1. INTERVAL ELECTRICITY USAGE
- 2. CUSTOMER BASELINE LOAD (CBL)
- 3. CURTAILMENT EVENT PERFORMANCE
- 4. WHOLESALE ELECTRICITY MARKET PRICES

20. Please rank the following list of real-time information access opportunities in the order of importance that may help your firm to become more demand responsive: (1=MOST IMPORTANT, 5=LEAST IMPORTANT)

RANK

- _____ 1. ACCESS TO INTERVAL ELECTRICITY USAGE DATA
- _____ 2. ACCESS TO CUSTOMER BASELINE LOAD (CBL)
- _____ 3. ACCESS TO CURTAILMENT EVENT PERFORMANCE
- _____ 4. WHOLESALE ELECTRICITY MARKET PRICES
- _____ 5. USER DEFINABLE EMAIL/PAGER NOTIFICATION SYSTEM

21. For the month of July 2002, approximately what was your: (Estimate if necessary)

- 1. Billing kWh _____
- 2. Billing kW _____

22. What was your maximum demand: (Estimate if necessary)

- 1. So far this summer: _____ kW
- 2. This past winter: _____ kW

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23. On average during the summer months, what percent of your organization’s total monthly operating cost is due to electricity cost?

- 1. LESS THAN 1%
- 2. BETWEEN 1% AND 3%
- 3. BETWEEN 4% AND 5%
- 4. BETWEEN 6% AND 10%
- 4. GREATER THAN 10%

24. Please rank the following periods according to your facility’s usage of electricity from highest to lowest use (1=HIGHEST USE PERIOD, 4=LEAST USE PERIOD):

RANK

- _____ 1. 8:00 A.M. – 11:59 A.M.
- _____ 2. 12 NOON – 4:59 P.M.
- _____ 3. 5:00 P.M. – 9:59 P.M.
- _____ 4. 10:00 P.M. – 7:59 A.M.

25. Of the following list of actions, which would you plan to take if you were asked to curtail electricity consumption? (CHECK ALL THAT APPLY)

- 1. NONE
- 2. START “ON-SITE” GENERATION (PLEASE SPECIFY CAPACITY BY FUEL TYPE)
 - 2.1 Diesel fuel _____ kW
 - 2.2 Natural gas _____ kW

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2.3 Biogas _____ kW

2.4 Dual fuel _____ kW

3. COMMUNICATE TO EMPLOYEE/OCCUPANTS TO CONSERVE

Industrial process/manufacturing related measures

4. SHUT DOWN PLANT

5. COMPLETELY HALT MAJOR PRODUCTION PROCESSES

6. ALTER MAJOR PRODUCTION PROCESSES

Buildings related measures

7. TURN OFF OR DIM LIGHTS

8. INCREASE INDOOR TEMPERATURE (E.G., RESET THERMOSTAT, TURN OFF COOLING EQUIPMENT)

9. REDUCE PLUG (OFFICE EQUIPMENT) LOADS

10. TURN OFF OR LIMIT USE OF ELEVATORS, ESCALATORS

11. OTHERS (PLEASE EXPLAIN)

**PRL
Audit
question**

26. If you have curtailed electricity consumption within the past two years, please rank the effectiveness of load curtailment measures implemented? (Use a scale from 1 through 5, with 5 being very effective and 1 not effective)

_____ Measure _____ Rank

General measures:

1. START “ON-SITE” GENERATION....._____

2. ASK EMPLOYEE/OCCUPANTS TO CONSERVE_____

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Industrial process/manufacturing related measures:

- 3. SHUT DOWN PLANT....._____
- 4. COMPLETELY HALT MAJOR PRODUCTION PROCESSES....._____
- 5. ALTER MAJOR PRODUCTION PROCESSES....._____

Buildings related measures:

- 6. TURN OF OR DIM LIGHTS....._____
- 7. INCREASE INDOOR TEMPERATURE (E.G. RESET THERMOSTAT,TURN OFF COOLING EQUIPMENT)_____
- 8. REDUCE PLUG (OFFICE EQUIPMENT) LOADS....._____
- 9. TURN OFF ELEVATORS, ESCALATORS....._____
- 10. OTHERS (PLEASE SPECIFY) _____

**PRL
Audit
question**

27. Did you meet your load reduction target?

- 1. YES
- 2. NO
- 3. DON'T KNOW

28. How would you plan to implement these load curtailment actions?

- 1. MANUALLY (E.G. OPERATOR/OCCUPANTS TURN OFF LIGHTS, RESET THERMOSTATS, ETC.)

Are your load curtailment actions documented in a procedures or operations manual?

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1.1 YES

1.2 NO

2. SEMI-AUTOMATED (E.G. OPERATOR IMPLEMENTS CHANGES THAT ARE PROGRAMMED INTO A BUILDING MANAGEMENT SYSTEM)

3. FULLY-AUTOMATED (E.G. ACTIONS/ACTIVITIES ARE IMPLEMENTED VIA DIRECT CONTROL FROM AN OUTSIDE ENTITY or ACTIONS THAT ARE PRE-PROGRAMMED INTO EMCS AND INVOKED WITHOUT FACILITY OPERATOR INTERVENTION)

29. What is the largest impediment to shifting electricity usage at your facility from the hours of 12 Noon through 6 P.M. to other hours of the day?

1. COMFORT OF BUILDING OCCUPANTS

2. LABOR CONTRACTS

3. PRODUCTION SCHEDULES

4. EMPLOYEE SAFETY

5. ELECTRICITY PROVIDER RATE DESIGN

6. OTHER (PLEASE SPECIFY) _____

30. To what extent would you say that your organization evaluates energy efficient options when undertaking major capital improvement projects? (1=NOT AT ALL EVALUATED, 5=EXTENSIVELY EVALUATED)

NOT AT ALL 1 2 3 4 5 EXTENSIVELY

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31. Which of the following items of equipment has your organization purchased or upgraded within the past 5 years with the key purpose to reduce electricity costs? (Interviewer checks all that apply)

- 1. NONE
- 2. DISTRIBUTED ENERGY RESOURCES (e.g., Micro-turbines)
- 3. MORE EFFICIENT ELECTRIC MOTORS
- 4. MORE EFFICIENT REFRIGERATION UNITS
- 5. HIGH EFFICIENCY LIGHTING AND/OR OCCUPANCY SENSORS
- 6. HIGH EFFICIENCY PUMPS (PROCESS or HVAC)
- 7. HIGH EFFICIENCY CHILLER OR PACKAGED HVAC UNITS
- 8. VARIABLE SPEED DRIVES OR VFDs
- 9. ENERGY MANAGEMENT AND CONTROL SYSTEMS
- 10. ELECTRICAL METERS FOR SUBMETERING
- 11. OTHER (PLEASE SPECIFY) _____

32. Which of the following items of equipment has your firm installed or upgraded in 2001 or 2002 specifically to assist in electricity load management? (CHECK ALL THAT APPLY)

- 1. NONE **GO TO Q. 35**
- 2. NEW INTERVAL METERS AT SERVICE ENTRANCE
- 3. NEW INTERVAL SUB-METERS AT MAJOR LOADS
- 4. ENERGY INFORMATION AND MANAGEMENT SYSTEMS TO MONITOR USAGE REDUCTIONS (e.g. EPO)
- 5. AUTOMATION ENHANCEMENTS FOR IMPROVED LOAD MANAGEMENT

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- 6. AUTOMATION/CONNECTIVITY ENHANCEMENTS FOR LOAD AGGREGATION
- 7. NOTIFICATION TECHNOLOGY (e.g. PAGERS)
- 8. DIRECT LOAD CONTROL DEVICES FOR LIGHTING SYSTEM
- 9. DIRECT LOAD CONTROL DEVICES FOR CYCLING OFF EQUIPMENT
- 10. INSTALL “ON-SITE” GENERATORS
- 11. TECHNOLOGY IMPROVEMENTS/UPGRADES THAT ALLOW EXISTING ON-SITE GENERATORS TO PARTICIPATE IN PRL PROGRAMS (e.g., parallel switchgear, controls)
- 12. OTHER (PLEASE SPECIFY)_____

33. Which of the following outside entities assisted your firm in purchasing this equipment?
(CHECK ALL THAT APPLY)

- 1. NO OUTSIDE ASSISTANCE WAS RECEIVED **GO TO Q. 35**
- 2. NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA)
- 3. ELECTRICITY PROVIDER
- 4. CURTAILMENT SERVICE PROVIDER
- 5. OTHER (PLEASE SPECIFY)_____

34. How important was this financial assistance to your decision to participate in either the Emergency Demand Response Program (EDRP), the Day-Ahead Demand Response Program (DADRP), or the Installed Capacity Special Case Resource (SCR) program in 2002? (1=NOT IMPORTANT, 5=VERY IMPORTANT)

NOT IMPORTANT 1 2 3 4 5 VERY IMPORTANT

Part 2: Value of information

Section A: General

35. During the late winter and spring of 2002, did you attend any informational presentations where demand reduction programs that provide payment for a reduction in electricity use during specified times were discussed?

- 1. YES
- 2. NO **GO TO Q. 38**

36. Who sponsored these informational presentations (CHECK ALL THAT APPLY)?

- 1. NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA)
- 2. NEW YORK STATE DEPARTMENT OF PUBLIC SERVICE
- 3. ELECTRICITY PROVIDER: (PLEASE SPECIFY)

- 4. OTHER (PLEASE SPECIFY) _____

37. In general, how useful was the information you received at these informational presentations in helping you to understand these demand reduction programs?

- 1. VERY USEFUL
- 2. SOMEWHAT USEFUL
- 3. SLIGHTLY USEFUL
- 4. NOT AT ALL USEFUL

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38. Did you receive NYSERDA’s 2002 brochure describing the NYISO’s Demand Reduction programs?

1. YES

1.1. HOW WELL WAS THE INFORMATION PRESENTED? (1=TOO SIMPLISTIC, 5=TOO COMPLICATED)

TOO SIMPLISITIC 1 2 3 4 5 TOO COMPLICATED

1.2. HOW USEFUL WAS IT? (1=NOT AT ALL USEFUL, 5=VERY USEFUL)

NOT AT ALL USEFUL 1 2 3 4 5 VERY USEFUL

2. NO

3. DON’T KNOW

39. Did you receive NYSERDA’s 2002 Smart Metering brochure?

1. YES

1.1. HOW WELL WAS THE INFORMATIVE PRESENTED? (1=TOO SIMPLISTIC, 5=TOO COMPLICATED)

TOO SIMPLISITIC 1 2 3 4 5 TOO COMPLICATED

1.2. HOW USEFUL WAS IT? (1=NOT AT ALL USEFUL, 5=VERY USEFUL)

NOT AT ALL USEFUL 1 2 3 4 5 VERY USEFUL

2. NO

3. DON’T KNOW

40. Did you receive NYSERDA’s 2002 Low-cost /No-cost Demand Reduction Strategies brochure? (CHECK ALL THAT APPLY)?

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1. YES

1.1. HOW WELL WAS THE INFORMATION PRESENTED? (1=TOO SIMPLISTIC,
5=TOO COMPLICATED)

TOO SIMPLISITIC 1 2 3 4 5 TOO COMPLICATED

1.2. HOW USEFUL WAS IT? (1=NOT AT ALL USEFUL, 5=VERY USEFUL)

NOT AT ALL USEFUL 1 2 3 4 5 VERY USEFUL

2. NO

3. DON'T KNOW

41. Did your firm ever participate in any of the following electric utility sponsored load management programs prior to **2001** (CHECK ALL THAT APPLY):

1. REAL-TIME PRICING PROGRAM

2. INTERRUPTIBLE OR CURTAILABLE LOAD PROGRAM

3. TIME OF USE RATE PROGRAM

4. OTHER (PLEASE SPECIFY)

Part 3: Factors influencing decision to participate

Section A: General

42. In the future, if you were only allowed to participate in either the ICAP Special Case Resource program or the Emergency Demand Response Program (EDRP), **but not both**, what would you do?

1. PARTICIPATE IN EDRP ONLY

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- 2. PARTICIPATE IN ICAP SCR ONLY
- 3. PARTICIPATE IN NEITHER PROGRAM
- 4. DON'T KNOW/NOT APPLICABLE

Section B: EDRP Participant

If more EDRP resources are available than are needed during a curtailment event, the NYISO may adopt a protocol to determine which participants to call for each event.

43. Which of the following protocols would you prefer the NYISO use:

- 1. EVERY EDRP PARTICIPANT IS ASKED TO CURTAIL THE SAME PORTION OF THEIR SUBSCRIBED LOAD AND IS ONLY PAID ON THAT AMOUNT
- 2. EDRP PARTICIPANTS SUBMIT A MINIMUM NOTICE PERIOD UPON REGISTRATION AND LOAD REDUCTIONS OF THE AMOUNT NEEDED ARE CALLED IN RANK ORDER BEGINNING WITH THOSE INDICATING THE SHORTEST MINIMUM NOTICE PERIOD.
- 3. EDRP PARTICIPANTS SUBMIT A MINIMUM PRICE GUARANTEE FOR CURTAILMENT UPON REGISTRATION AND LOAD REDUCTIONS OF THE AMOUNT NEEDED ARE CALLED IN RANK ORDER BEGINNING WITH THOSE INDICATING THE LOWEST MINIMUM PRICE GUARANTEE

44. If the protocol you just chose were adopted by the NYISO, would you continue to participate in the EDRP?

- 1. YES
- 2. NO
- 3. DON'T KNOW

Part 4: Factors influencing decision to not participate

Section A: ICAP SCR Non-Participant

45. Are you aware of the NYISO’s ICAP Special Case Resource (SCR) program?

1. YES

2. NO **GO TO PART 4 SECTION B**

46. Which one of the following best describes your firm’s main reason for not participating in the ICAP SCR program this year?

1. POTENTIAL BENEFITS DON’T JUSTIFY THE RISKS

2. PENALTY IS TOO SEVERE

3. PAYMENTS ARE TOO LOW

4. UNABLE TO SHIFT USAGE

5. PROGRAM CONFLICTS WITH MY RETAIL ELECTRICITY CONTRACT OR RATE

6. INADEQUATE KNOWLEDGE OF ICAP SCR PROGRAM REQUIREMENTS

47. Would you participate in the ICAP SCR program if load curtailment events were limited to a total of 20 hours for the months of May – October?

1. YES

2. NO

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3. DON'T KNOW

48. Would you participate in the ICAP SCR program if load curtailment events were not called on more than 3 consecutive days?

1. YES

2. NO

3. DON'T KNOW

49. Would you participate in the ICAP SCR program if you also received an energy payment for your load curtailment equal to the prevailing Real-time energy price?

1. YES

2. NO

3. DON'T KNOW

Section B: EDRP Non-Participant

50. Are you aware of the NYISO's Emergency Demand Response Program (EDRP)?

1. YES

2. NO

GO TO PART 4 SECTION C

51. Which one of the following best describes your firm's main reason for not participating in the Emergency Demand Response Program this year?

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- 1. POTENTIAL BENEFITS DON'T JUSTIFY THE RISKS
- 2. PAYMENTS ARE TOO LOW
- 3. UNABLE TO SHIFT USAGE
- 4. PROGRAM CONFLICTS WITH MY RETAIL ELECTRICITY CONTRACT OR RATE
- 5. INADEQUATE KNOWLEDGE OF EDRP REQUIREMENTS
- 6. ENVIRONMENTAL PERMITTING FOR GENERATION

Section C: DADRP Non-Participant

52. Are you aware of the NYISO's Day-Ahead Demand Response Program (DADRP)?

- 1. YES
- 2. NO **GO TO PART 5**

53. Which of one of the following best describes the primary reason for not participating in the Day-Ahead Demand Response program this year?

- 1. POTENTIAL BENEFITS DON'T JUSTIFY THE RISKS
- 2. PENALTY IS TOO SEVERE (PROGRAM DESIGN RELATED)
- 3. PAYMENTS ARE TOO LOW (PROGRAM DESIGN RELATED)
- 4. UNABLE TO SHIFT USAGE (TECHNOLOGICAL BARRIERS)
- 5. PROGRAM CONFLICTS WITH MY RETAIL ELECTRICITY CONTRACT OR RATE (ORGANIZATIONAL BARRIERS)
- 6. INADEQUATE KNOWLEDGE OF DADRP REQUIREMENTS

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**PRL
Audit
question**

DRILL DOWN INTO EACH CATEGORY FOR SPECIFIC REASON

**PRL
Audit
question**

54. Which of the following list of factors contributed directly to your decision not to sign up for the 2002 Day-Ahead Demand Response Program (DADRP)? (INTERVIEWER CHECKS ALL THAT APPLY AND PROBES FOR MOST IMPORTANT)

Program design related:

- 1. UNCERTAINTY ABOUT CBL (CBL calculation method, or actual CBL)
- 2. UNCERTAIN PAYMENT LEVEL FOR REDUCTION
- 3. TIMING OF THE PAYMENT
- 4. UNCERTAINTY ABOUT WHEN BIDS WILL BE ACCEPTED
- 5. PENALTY FOR NON-COMPLIANCE or NON-PERFORMANCE
- 6. REQUIRED MINIMUM 100 KW LOAD REDUCTION
- 7. UNABLE TO MEET PROGRAM PROVIDER’S BIDDING REQUIREMENTS
- 8. DIESEL BUGS NOT ALLOWED

Organizational barriers at facility:

- 9. A LANDLORD/TENANT LEASE PARTICIPATION LIMITATION E.G., SUB-METERING
- 10. NOT ENOUGH STAFF AVAILABLE TO ADMINISTER PROGRAM
- 11. BECAME AWARE OF THE PROGRAM TOO LATE
- 12. DIFFICULTY IN COMMUNICATING PROGRAM DETAILS TO MANAGERS
- 13. INTERNAL ACCOUNTING PRACTICES MADE IT TOO DIFFICULT TO OBTAIN FUNDS FOR ENABLING TECHNOLOGIES

Technology related barriers

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- 14. COST OF METERING AND COMMUNICATIONS EQUIPMENT IS TOO HIGH, GIVEN EXPECTED REVENUE
- 15. LATE INSTALLATION OF METERING AND/OR COMMUNICATIONS EQUIPMENT
- 16. INABILITY TO CONTROL/MONITOR LOAD REDUCTIONS IN NEAR REAL-TIME
- 17. IT SYSTEM CONCERNS (E.G. FIREWALLS, SECURITY)

- 18. COST FOR ADMINISTERING PROGRAM TOO HIGH FOR EXPECTED REVENUE OR PERCEIVED RISKS

- 19. OTHER (PLEASE SPECIFY) _____

55. Would you participate in the Day-Ahead Demand Response Program (DADRP) if your Customer Baseline Load (CBL) were made available to you prior to the time your bid is due?

- 1. YES
- 2. NO
- 3. DON'T KNOW

56. The Day-Ahead Demand Response Program (DADRP) currently requires a participant to submit bids on a daily basis. Which of the following methods for submitting bids would you prefer?

- 1. DAILY
- 2. WEEKLY
- 3. MONTHLY

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57. If the NYISO adopted the bidding methodology you just chose, would you participate in the Day-Ahead Demand Response Program (DADRP)?

- 1. YES
- 2. NO
- 3. DON'T KNOW

58. Would you participate in the Day-Ahead Demand Response Program (DADRP) if instead of being assessed a penalty for non-compliance, you were required to purchase the deficient curtailment amount at the Real-Time market price?

- 1. YES
- 2. NO
- 3. DON'T KNOW

59. Would you participate in the Day-Ahead Demand Response Program (DADRP) if the Emergency Demand Response Program (EDRP) were eliminated?

- 1. YES
- 2. NO
- 3. DON'T KNOW

Part 5: Barriers to Customer Participation

Section A: General

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PRL
Audit
question

60. Please rank the relative importance (using a scale of 1 to 5, with 5 being “decisive”, 3 being “Important” and 1 being” not a factor”) of the following factors in your firm’s decision to participate in a demand reduction program:

	<u>Scale</u>
Savings \$ on my utility bill	_____
Community/public interest in avoiding blackouts	_____
Voluntary nature of performance in the EDRP program	_____
Obtaining energy information management software and/or interval meters	_____
Financial incentives offered by NYISO or LSE/CSP	_____
Other (please specify)	_____

PRL
Audit
question

61. How detailed of an assessment did you undertake to evaluate the technical feasibility of participation in the DADRP Program? (Rate on a scale of 1 to 5)

No Detail 1 2 3 4 5 Very Detailed

(INTERVIEWER PROBES TO FIND OUT SPECIFICS)

PRL
Audit
question

62. How detailed of an assessment did you undertake to evaluate the financial feasibility of participation in the DADRP Program? (Rate on a scale of 1 to 5)

No Detail 1 2 3 4 5 Very Detailed

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(INTERVIEWER PROBES TO FIND OUT SPECIFICS)

**PRL
Audit
question**

63. How comfortable are you with the following activities that may be necessary to participate in the DADRP program (rate from 1 to 5; 1 is not comfortable and 5 is very comfortable):

Measures	Rate
1. Creating a load curtailment plan to meet a specific kW reduction target	
2. Monitoring day-ahead energy prices to determine whether and if to bid	
3. Determining at what price to bid	

[Interviewer probes activity areas in more detail in Q. 63 – 67 for areas with low ratings]

**PRL
Audit
question**

64. Are you confident that if you committed to a load curtailment target you could actually meet that target? PROBE

- 1. YES
- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

**PRL
Audit
question**

65. Would you consider assistance from a utility representative or an aggregator to more accurately quantify your load management capabilities?

- 1. YES

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- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

**PRL
Audit
question**

66. Do you have staff who could monitor the day ahead electricity prices in order to determine when and if to bid? Do you feel that you need to monitor DAM prices in order to participate? [PROBE See Answer to Part 4, Section C, Q 54-1]

- 1. YES
- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

**PRL
Audit
question**

67. Does the prospect of having to decide when and at what level to submit bids simply represent too cumbersome of a task to make participation worthwhile? [PROBE See Answer to Part 4, Section C, Q 54-3]

- 1. YES
- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

**PRL
Audit
question**

68. Would you have sufficient staff to implement a load curtailment strategy capable of reducing load by 5-10% or 100 kW? [PROBE See Answer to Part 4, Section C, Q 54-3]

- 1. YES

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- 2. NO

(INTERVIEWER PROBES WHY – E.G., DISPERSED FACILITIES?)

**PRL
Audit
question**

69. Do you currently have sufficient capability in your process/building automation systems to perform load reductions automatically or semi-automatically? [PROBE See Answer to Part 1, Q 9: See Answer to Part 4, Section C, Q54-4]

- 1. YES **GO TO Q.71**
- 2. NO

**PRL
Audit
question**

70. Please estimate approximate minimum cost to upgrade and automate buildings or process control infrastructure to implement a semi- or fully-automated load reduction strategy?

- 1. LESS THAN \$10,000
- 2. \$10,001 TO \$50,000
- 3. \$50,000 TO \$100,000
- 4. \$100,000 TO \$500,000
- 5. GREATER THAN \$500,000

(INTERVIEWER PROBES WHY – E.G., DISPERSED FACILITIES?)

**PRL
Audit
question**

71. At present, do you have access to interval electricity consumption data for your entire facility

- 1. IN NEAR REAL-TIME **GO TO Q.74**

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- 2. ON A DAY-AFTER BASIS,
- 3. ON A LATER THAN DAY-AFTER BASIS
- 4. NOT AT ALL

**PRL
Audit
question**

72. Since you do not have near real-time load monitoring, would you have sufficient staff to perform any necessary monitoring tasks during load curtailment periods? [PROBE See Answer to Part 4, Section C, Q 54-3, 54-4]

- 1. YES
- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

**PRL
Audit
question**

73. What is the price threshold at which you would bid?

- 1. PLEASE SPECIFY THE PRICE PER KWH: IN \$/KWH
- 2. HOW MUCH LOAD (KW) COULD YOU CURTAIL: IN KW
- 3. OVER WHAT DURATION (HOURS): IN HOURS

**PRL
Audit
question**

74. If your load reduction response were fully automated, would it change your threshold price, or amount and time period that you could curtail?

- 1. YES
 - 1.1 PLEASE SPECIFY THE PRICE PER KWH: IN \$/KWH
 - 1.2 HOW MUCH LOAD (KW) COULD YOU CURTAIL: IN KW
 - 1.3 OVER WHAT DURATION (HOURS): IN HOURS
- 2. NO

Part B: Commercial/Institutional Customers

**PRL
Audit
question**

75. How often would you be willing to bid these load reduction actions without impacting occupants, tenants, or staff in an unacceptable way at your specified bid price threshold?
[SEE ANSWER TO PART 1, Q,29-1, 29-4]

- 1. 1- 5 TIMES PER YEAR
- 2. 6-10 TIMES PER YEAR
- 3. 11 – 20 TIMES PER YEAR
- 4. MORE THAN 20 TIMES PER YEAR

Probe: frequency to affect comfort or productivity of occupants

**PRL
Audit
question**

76. How many consecutive days are you willing to bid load reductions at your specified bid price threshold?

- 1. 2 DAYS
- 2. 3 DAYS
- 3. 4 –5 DAYS
- 4. MORE THAN 5 DAYS

**PRL
Audit
question**

77. On a scale of 1-5 (e.g. 5 is very concerned), how concerned are you about the comfort of occupants, tenants, or staff in your buildings? [SEE ANSWER TO PART 1, Q. 29-1]

_____ Score

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PRL
Audit
question

78. Would you consider raising the indoor temperature levels by 3-4 degrees for ~4 hours during the summer at your facility if you received financial incentive payments from a Demand Response program for the value of the load reduction?

- 1. YES
- 2. NO
- 3. DON'T KNOW
- 4. NOT APPLICABLE

Probe how many degrees increase in temperature would be acceptable?

Part C: Industrial Customers only

PRL
Audit
question

79. How often would you be willing to bid these load reduction actions (e.g., shut down any large processes during peak period and/or shift production altogether from peak to off-peak) at your specified bid price threshold? [SEE ANSWER TO PART 1, Q.29-2, 29-3]

- 1. 1- 5 TIMES PER YEAR
- 2. 6-10 TIMES PER YEAR
- 3. 11 – 20 TIMES PER YEAR
- 4. MORE THAN 20 TIMES PER YEAR

Probe: frequency to affect comfort or productivity of occupants

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**PRL
Audit
question**

80. How many consecutive days are you willing to bid load reductions at your specified bid price threshold?

- 1. 2 DAYS
- 2. 3 DAYS
- 3. 4 –5 DAYS
- 4. MORE THAN 5 DAYS

**PRL
Audit
question**

1. On a scale of 1-5 (e.g. 5 is very concerned), how concerned are you about the comfort of occupants, tenants, or staff in your buildings? [SEE ANSWER TO PART 1, Q. 29-1]

_____ Score

Part D: General

**PRL
Audit
question**

82. Here is a list of technologies that enable load curtailments/reductions. What technologies did you consider for participation in EDRP or DADRP and then ultimately decide not to invest in?

- 1. INTERVAL METERS AT SERVICE ENTRANCE
- 2. INTERVAL SUB-METERS AT MAJOR LOADS
- 3. ENERGY INFORMATION SYSTEMS TO MONITOR COMPLIANCE
- 4. AUTOMATION ENHANCEMENTS FOR IMPROVED LOAD MANAGEMENT
- 5. AUTOMATION/CONNECTIVITY ENHANCEMENTS FOR LOAD AGGREGATION

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- 6 NOTIFICATION TECHNOLOGY (e.g. PAGERS)
- 7. DIRECT LOAD CONTROL DEVICES FOR LIGHTING SYSTEM
- 8. DIRECT LOAD CONTROL DEVICES FOR CYCLING OFF EQUIPMENT
- 9.INSTALL “ON-SITE” GENERATORS
- 10. TECHNOLOGY IMPROVEMENTS/UPGRADES THAT ALLOW EXISTING ON-SITE GENERATORS TO PARTICIPATE IN PRL PROGRAMS (e.g., parallel switchgear, controls)
- 11. OTHER (PLEASE SPECIFY) _____

Probe following issues:

- Results of technical feasibility studies,
 - Availability of capital,
 - Required economic payback time ,
 - Interest in alternative financing and cost-sharing.
-

**PRL
Audit
question**

83. What were the major factors in your decision not to invest in these technologies (listed above)? List Factors

**PRL
Audit
question**

84. Here are ranges of cost for load reduction technologies

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Technology		Capital Cost incl. Installation
HVAC	Elec. chiller replacement (750 ton, COP=5.4)	\$300-\$400/ton
	Nat. Gas absorption chiller (2-stage, 300 ton, COP=1.0)	\$900 – \$1100/ton
	Package HVAC unit (30 ton, EER = 10)	\$650 – \$800/ton
Motors	High efficiency motors (40 HP)	1300 – 1600/unit
	High efficiency motors (100 HP)	19,000-20,000/unit
	VFD (20-100 HP)	\$100-\$130/HP
Switchgear for backup generators	Switchgear for parallel operation of backup gensets (incl. Controls)	\$100 – \$150/kW
Automation	Controls/communication and automation technology	\$300-\$1000/node of the control network

Given the technology cost ranges above, what is an acceptable payback period for your firm to invest in equipment or controls to facilitate automated load curtailments?

Specify: _____ in years

**PRL
Audit
question**

85. What would need to be your break-even point requirements, in terms of \$/kW, for investment in load curtailment automation and monitoring technology?

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**PRL
Audit
question**

86. Some of the technologies used to assist customers in implementing load curtailments potentially have other benefits. How valuable would these additional benefits associated with the following technologies be to you (rate from 1 to 5; 1 is low and 5 is high):

Technology	Benefit	Rate
1. Interval meters with two-way communications	Better manage peak energy and demand charges with access to day-after access to facility interval data	
2. Load Control	Shed load and/or initiate onsite generation, in order to reduce demand charges	
3. Upgrade switchgear for onsite generation	Increase load management flexibility to modify load profile for more desirable energy procurement	
4. Upgrade onsite generation with dual-fuel capability	Fuel flexibility to mitigate fuel price volatility	
5. Enhanced energy management or control system	Ability to schedule and/or automate load management, and reduce labor for facility operations, increase reliability to integration with maintenance procedures	
6. Energy information tools	Ability to view interval electricity data and aggregate data over multiple buildings, increase understanding of loads and enhance ability to modify load profile for lower cost energy procurement	

(PROBE: Are customers more likely to incur the investment in automation if they also believe that they can reduce energy usage through energy efficiency/management?)

**PRL
Audit
question**

87. How confident are you that the DADRP program will continue in the future on a scale of 1-5 (1 is not confident; 5 is very confident)?

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Specify: _____

PRL
Audit
question

88. How confident are you that the EDRP and ICAP programs will continue in the future on a scale of 1-5 (1 is not confident; 5 is very confident)?

Specify: _____

PROBE – for those customers who perceive significant regulatory risk (1 or 2), does it affect their willingness to invest or investment decisions?

Part 6: New programs to be offered

The NYISO is considering several new Demand Reduction programs for the future. Your answers to the following questions will help the NYISO in developing these new programs to ensure they will be attractive to end-use customers.

Section A: General

89. What is the least amount of notice time you would require to reduce **a portion** of your electricity usage during the hours of 12 Noon to 6 P.M. in the summertime?

- 1. 15 MINUTES
- 2. 30 MINUTES
- 3. 1 HOUR
- 4. 2 HOURS
- 5. 4 HOURS

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6. OTHER (PLEASE SPECIFY)
-

90. What is the likelihood that you would participate in a demand reduction program that paid you the prevailing Real-Time market price for voluntarily curtailing load at any time you choose.

- 1. DEFINITELY WOULD PARTICIPATE
- 2. PROBABLY WOULD PARTICIPATE
- 3. PROBABLY WOULD NOT PARTICIPATE
- 4. DEFINITELY WOULD NOT PARTICIPATE

91. What is the likelihood that you would participate in a demand reduction program that had the following two features:

- a) Paid you the prevailing Real-Time electricity market price for reducing a specific amount of your electricity usage when your indicated price threshold is exceeded; **and**
- b) Penalized you at the Real-Time price for the difference between your indicated and actual load curtailment.

- 1. DEFINITELY WOULD PARTICIPATE
- 2. PROBABLY WOULD PARTICIPATE
- 3. PROBABLY WOULD NOT PARTICIPATE
- 4. DEFINITELY WOULD NOT PARTICIPATE

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92. What is the likelihood that you would participate in a demand reduction program that had the following three features:

- a) Provided you an up-front payment to agree to reduce a specific amount of electricity usage when called upon to do so during the hours of Noon to 6 p.m. with only 30 minutes notice; **and**
- b) Paid you the prevailing Real-Time electricity market price for your load curtailment when called upon to reduce load; **and**
- c) Penalized you at the Real-Time price for the difference between your indicated and actual load curtailment.

- 1. DEFINITELY WOULD PARTICIPATE
- 2. PROBABLY WOULD PARTICIPATE
- 3. PROBABLY WOULD NOT PARTICIPATE
- 4. DEFINITELY WOULD NOT PARTICIPATE

93. If you are dissatisfied with any of the NYISO’s Demand Reduction programs: EDRP, DADRP, or ICAP SCR, please explain which program it is and what could be changed to make that program better?

Appendix 3B

Survey Part 2: Conjoint Survey

This appendix contains the conjoint survey used in the 2002 Customer Acceptance Survey. Sections represent groups of questions that were asked of respondents, based on participation criteria. This survey was faxed to respondents who completed Part 1, Customer Acceptance. Respondents returned the completed survey via fax.

2002 Electricity Demand Response Programs

Customer Survey

This summer you participated in one or more of the demand reduction programs offered by NYISO. Load reductions undertaken this summer by program participants are helping to preserve a reliable supply of electricity throughout the state.

NYISO, in cooperation with your electricity provider, has asked Neenan Associates to evaluate the program and recommend improvements for next year. To accomplish these objectives, we need your help by completing a survey. Your opinions regarding how well the current programs meet your needs and expectations are vital to the continuing success of deregulation in New York State. Your responses will be kept confidential and anonymous and will only be reported in combination with those of the many others who will participate in this evaluation.

Drawings and Prizes

There will be two drawings, one from respondents who complete Part I and one from respondents who complete Part II. Complete both parts of the survey and your name will be entered in both drawings.

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Survey - Part I

If you complete Part I of the survey, you will be entered in a drawing. The two winners may choose between _____. You must complete all appropriate questions to be eligible for the drawing.

Survey - Part II

If you have completed Part 1 of the survey and we receive the fully completed Survey - Part II by 5:00 p.m. on October 18, 2002, you will also be entered into a drawing where the winner may choose between _____. You must complete all appropriate questions on both parts of the survey to be eligible for this drawing. Since there will only be about 50 people in the drawing, chances of winning this prizes are about 1 in 50.

Drawings will be held at noon on Tuesday, October 22, 2002 at the offices of Neenan Associates. Winners will be notified by telephone on or before Friday, October 25, 2002 using the contact information supplied by each respondent on the questionnaires.

Returning this form:

When you have completed your responses, please fax this document back to the fax number on the survey pages. Within a few days of completing the surveys, you'll receive a postcard confirming that you have been entered in one or both of the drawings.

Thank you for participation in this survey. Good Luck!

2002 NYISO PRL Evaluation

Instructions for Part II

THE NEW YORK STATE ELECTRICITY MARKET CURRENTLY OFFERS A SUITE OF DEMAND RESPONSE PROGRAMS THAT ARE AVAILABLE TO END-USE CUSTOMERS. TO ENSURE THAT THESE PROGRAMS MEET CUSTOMERS' NEEDS, THESE PROGRAMS MUST BE EVALUATED AND REFINED REGULARLY. YOUR ANSWERS TO THE QUESTIONS IN THIS SECTION ARE VERY IMPORTANT TO THIS EVALUATION PROCESS.

Each of the following 20 questions displays a set of 4 Demand Response Programs, each containing different configurations of program features. Assume that only these features define the programs. Select the one program from each choice set to which you would most likely subscribe. If you would subscribe to none of the 4 programs within the choice set, select the "None" option. Please indicate your choice by checking the appropriate box. It is very important that you provide an answer for each of the 20 questions.

Please return this survey within 24 hours of completing Part 1 by faxing it to the number displayed at the top of the page. ***Please be sure your Survey ID is included on at least one page so that we can enter you into the second drawing.***

Explanation of Terms

Survey ID:

Payment

- The dollars per kWh you will be paid for reducing electricity usage

Penalty

- The dollars per kWh assessed on the difference between pledged and actual reduction in electricity usage

Start Time

- Time at which you must begin reducing electricity usage

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Notice

- Number of hours in advance of the Start Time that you will be notified of your requirement to reduce electricity usage

Duration

- Number of hours after the Start Time that you will be required to maintain the reduction in your electricity usage

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 1

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.25/kWh	\$0.75/kWh	\$0.50/kWh	\$0.10/kWh	
Penalty	0.5 x Payment	0.1 x Payment	None	0.25 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	Noon	11:00 AM	2:00 PM	
Notice	4 Hours	2 Hours	Noon, Day Ahead	30 Minutes	
Duration	2 Hours	1 Hour	30 Minutes	4 Hours	
Check one choice	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 2

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.25/kWh	\$0.75/kWh	\$0.10/kWh	
Penalty	0.25 x Payment	0.5 x Payment	None	0.1 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	2:00 PM	11:00 AM	Noon	1:00 PM	
Notice	2 Hours	Noon, Day Ahead	4 Hours	30 Minutes	
Duration	2 Hours	1 Hour	4 Hours	30 Minutes	
Check one choice	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	↑ <input type="checkbox"/>	

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 3

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.75/kWh	\$0.10/kWh	\$0.25/kWh	
Penalty	0.1 x Payment	0.5 x Payment	None	0.25 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	2:00 PM	11:00 AM	1:00 PM	Noon	
Notice	4 Hours	30 Minutes	Noon, Day Ahead	2 Hours	
Duration	1 Hour	2 Hours	4 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 4

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.75/kWh	\$0.50/kWh	\$0.25/kWh	\$0.10/kWh	
Penalty	0.25 x Payment	0.5 x Payment	0.1 x Payment	None	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	Noon	11:00 AM	2:00 PM	
Notice	Noon, Day Ahead	30 Minutes	2 Hours	4 Hours	
Duration	1 Hour	30 Minutes	4 Hours	2 Hours	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 5

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.75/kWh	\$0.50/kWh	\$0.25/kWh	\$0.10/kWh	
Penalty	0.25 x Payment	0.5 x Payment	None	0.1 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	11:00 AM	1:00 PM	2:00 PM	Noon	
Notice	4 Hours	2 Hours	30 Minutes	Noon, Day Ahead	
Duration	30 Minutes	4 Hours	1 Hour	2 Hours	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 6

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.10/kWh	\$0.50/kWh	\$0.25/kWh	\$0.75/kWh	
Penalty	None	0.25 x Payment	0.1 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	11:00 AM	Noon	1:00 PM	2:00 PM	
Notice	2 Hours	30 Minutes	4 Hours	Noon, Day Ahead	
Duration	1 Hour	4 Hours	2 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 7

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.25/kWh	\$0.10/kWh	\$0.75/kWh	
Penalty	0.25 x Payment	0.1 x Payment	0.5 x Payment	None	None: I wouldn't subscribe to any of these programs
Start Time	11:00 AM	2:00 PM	Noon	1:00 PM	
Notice	30 Minutes	Noon, Day Ahead	4 Hours	2 Hours	
Duration	2 Hours	4 Hours	1 Hour	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 8

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.25/kWh	\$0.75/kWh	\$0.10/kWh	
Penalty	0.1 x Payment	None	0.25 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	Noon	11:00 AM	2:00 PM	
Notice	30 Minutes	Noon, Day Ahead	4 Hours	2 Hours	
Duration	1 Hour	2 Hours	4 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2002 NYISO PRL Evaluation

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 9

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.75/kWh	\$0.50/kWh	\$0.10/kWh	\$0.25/kWh	None: I wouldn't subscribe to any of these programs
Penalty	0.5 x Payment	0.25 x Payment	None	0.1 x Payment	
Start Time	11:00 AM	1:00 PM	2:00 PM	Noon	
Notice	4 Hours	2 Hours	30 Minutes	Noon, Day Ahead	
Duration	1 Hour	4 Hours	30 Minutes	2 Hours	
	↑	↑	↑	↑	↑
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 10

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.10/kWh	\$0.50/kWh	\$0.25/kWh	\$0.75/kWh	None: I wouldn't subscribe to any of these programs
Penalty	0.5 x Payment	None	0.25 x Payment	0.1 x Payment	
Start Time	11:00 AM	Noon	1:00 PM	2:00 PM	
Notice	Noon, Day Ahead	2 Hours	4 Hours	30 Minutes	
Duration	4 Hours	1 Hour	30 Minutes	2 Hours	
	↑	↑	↑	↑	↑
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 11

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.75/kWh	\$0.25/kWh	\$0.10/kWh	\$0.50/kWh	
Penalty	None	0.5 x Payment	0.25 x Payment	0.1 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	2:00 PM	Noon	1:00 PM	11:00 AM	
Notice	Noon, Day Ahead	30 Minutes	2 Hours	4 Hours	
Duration	1 Hour	4 Hours	2 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 12

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.10/kWh	\$0.75/kWh	\$0.50/kWh	\$0.25/kWh	
Penalty	0.5 x Payment	0.1 x Payment	0.25 x Payment	None	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	2:00 PM	Noon	11:00 AM	
Notice	4 Hours	2 Hours	Noon, Day Ahead	30 Minutes	
Duration	1 Hour	4 Hours	2 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 13

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.25/kWh	\$0.10/kWh	\$0.75/kWh	\$0.50/kWh	
Penalty	0.5 x Payment	0.25 x Payment	0.1 x Payment	None	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	2:00 PM	Noon	11:00 AM	
Notice	30 Minutes	2 Hours	Noon, Day Ahead	4 Hours	
Duration	1 Hour	2 Hours	4 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 14

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.10/kWh	\$0.25/kWh	\$0.75/kWh	
Penalty	None	0.1 x Payment	0.25 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	2:00 PM	Noon	11:00 AM	1:00 PM	
Notice	4 Hours	Noon, Day Ahead	2 Hours	30 Minutes	
Duration	4 Hours	30 Minutes	1 Hour	2 Hours	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 15

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.75/kWh	\$0.10/kWh	\$0.25/kWh	
Penalty	0.1 x Payment	None	0.25 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	Noon	2:00 PM	11:00 AM	
Notice	Noon, Day Ahead	4 Hours	30 Minutes	2 Hours	
Duration	4 Hours	2 Hours	1 Hour	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 16

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.10/kWh	\$0.50/kWh	\$0.75/kWh	\$0.25/kWh	
Penalty	0.1 x Payment	0.25 x Payment	None	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	Noon	2:00 PM	11:00 AM	1:00 PM	
Notice	30 Minutes	Noon, Day Ahead	2 Hours	4 Hours	
Duration	30 Minutes	2 Hours	1 Hour	4 Hours	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 17

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.25/kWh	\$0.10/kWh	\$0.75/kWh	\$0.50/kWh	
Penalty	None	0.1 x Payment	0.25 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	11:00 AM	Noon	2:00 PM	
Notice	30 Minutes	2 Hours	Noon, Day Ahead	4 Hours	
Duration	4 Hours	2 Hours	1 Hour	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 18

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.25/kWh	\$0.75/kWh	\$0.10/kWh	\$0.50/kWh	
Penalty	0.25 x Payment	0.1 x Payment	0.5 x Payment	None	None: I wouldn't subscribe to any of these programs
Start Time	2:00 PM	11:00 AM	Noon	1:00 PM	
Notice	Noon, Day Ahead	30 Minutes	4 Hours	2 Hours	
Duration	2 Hours	1 Hour	4 Hours	30 Minutes	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 19

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.10/kWh	\$0.75/kWh	\$0.25/kWh	
Penalty	0.5 x Payment	None	0.25 x Payment	0.1 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	11:00 AM	Noon	1:00 PM	2:00 PM	
Notice	Noon, Day Ahead	30 Minutes	2 Hours	4 Hours	
Duration	2 Hours	30 Minutes	4 Hours	1 Hour	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of these 4 Demand Response Programs would you choose, if any?

Choice Set 20

	Program 1	Program 2	Program 3	Program 4	None
Payment	\$0.50/kWh	\$0.10/kWh	\$0.25/kWh	\$0.75/kWh	
Penalty	0.25 x Payment	None	0.1 x Payment	0.5 x Payment	None: I wouldn't subscribe to any of these programs
Start Time	1:00 PM	2:00 PM	Noon	11:00 AM	
Notice	2 Hours	30 Minutes	Noon, Day Ahead	4 Hours	
Duration	4 Hours	30 Minutes	2 Hours	1 Hour	
	↑	↑	↑	↑	
Check one choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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THANK YOU FOR YOUR COOPERATION IN COMPLETING THIS SURVEY!

THE FOLLOWING INFORMATION IS NECESSARY FOR YOU TO BE ENTERED INTO THE DRAWING FOR THIS PART OF THE SURVEY. YOU MUST HAVE COMPLETED ALL RELEVANT QUESTIONS IN THIS QUESTIONNAIRE TO BE ELIGIBLE FOR WINNING.

NAME: _____ (FIRST) _____ (LAST)

STREET ADDRESS: _____

CITY: _____ STATE: _____

WORK TELEPHONE: _____ - _____

WORK EMAIL: _____

YOUR NAME WILL BE DETACHED FROM THE QUESTIONNAIRE PRIOR TO DATA ANALYSIS AND WILL NOT BE CONNECTED TO YOUR ANSWERS THEREAFTER.