Manual 05

NYISO Day-Ahead Demand Response Program Manual

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Revision History

Version	Date	Revisions
1.0	07~~MM~~/01~~DD~~/2003~~YYYY~~	Initial Release
2.0		

~~1. Definitions and Acronyms~~

1. Definitions and Acronyms

1.1. Tariff Definitions

The following defined terms used in this manual can be found in the NYISO Market Administration and Control Area Services Tariff (Services Tariff) Section 2, available from the NYISO Web site at

http://www.nyiso.com/public/markets_operations/documents/tariffs/index.jsp

Defined terms used in this Manual are as follows:

Definitions – B

Bid

Bid Price

Bid Production Cost

Bidder

Definitions – C

Curtailment Initiation Cost

Customer

Definitions – D

Day-Ahead

Day-Ahead LBMP

Demand Reduction

Demand Reduction Incentive Payment

Demand Reduction Provider

Demand Side Resources (“DSR”)

Definitions – E

Emergency Demand Response Program (“EDRP”)

Definitions – I

Installed Capacity (“ICAP”)

Definitions – L

Load Serving Entity ("LSE")

Load Zone

Local Generator

Locational Based Marginal Pricing ("LBMP")

Definitions – M

Monthly Net Benefit Offer Floor

Definitions – N

New York Control Area ("NYCA")

Definitions – R

Real-Time LBMP

Definitions – S

Special Case Resource ("SCR")

Supplier

1.2. Additional Terms Relevant to the Day-Ahead Demand Response Program

Economic Customer Baseline Load ("ECBL") – Average hourly energy consumption as calculated in accordance with Section 24.2 of the NYISO's Open Access Transmission Tariff (OATT) used to determine the level of load curtailment provided.

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

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

~~**Monthly Net Benefit Offer Floor** – Offer floor price determined by the NYISO on a monthly basis and posted by the 15th of the previous month, as a part of its compliance to FERC Order 745. All valid Demand Reduction Bids should be at or above this price.~~

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

~~**Bid** - Offer to purchase and/or sell Energy, Demand Reductions, Transmission Congestion Contracts and/or Ancillary Services at a specified price that is duly submitted to the ISO~~

~~pursuant to ISO Procedures.~~

~~**Bid Price** - The price at which the Supplier offering the Bid is prepared to provide the product or service, or the buyer offering the Bid is willing to pay to receive such product or service.~~

~~**Bid Production Cost** - Total cost of the Generators required to meet Load and reliability Constraints based upon Bids corresponding to the usual measures of Generator production cost (e.g., running cost and Minimum Generation and Start-Up Bid).~~

~~**Bidder** - An entity that bids a Demand Reduction into the Day-Ahead market.~~

~~**Curtailment Initiation Cost** - The fixed payment, separate from a variable Demand Reduction Bid, required by a qualified Demand Reduction Provider in order to cover the cost of reducing demand.~~

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

~~**Customer Base Load (CBL)** – Average hourly energy consumption as calculated in Section 5, used to determine the level of load curtailment provided.~~

~~**Day-Ahead** - Nominally, the twenty-four (24) hour period directly preceding the Dispatch Day, except when this period may be extended by the ISO to accommodate weekends and holidays.~~

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

~~**Demand Reduction** - A quantity of reduced electricity demand from a Demand Side Resource that is bid, produced, purchased and sold over a period of time and measured or calculated in Megawatt hours.~~

~~**Demand Reduction Incentive Payment** - A payment to Demand Reduction Providers that are scheduled to make Day-Ahead Demand Reductions. The payment shall be equal to the product of: (a) the Day-Ahead hourly LBMP at the applicable Demand Reduction bus; and~~

~~(b) the lesser of the actual hourly Demand Reduction or the Day-Ahead scheduled hourly Demand Reduction in MW.~~

~~**Demand Reduction Provider** - An entity, qualified pursuant to ISO Procedures, that bids Demand Side Resources of at least 1 MW.~~

~~**Demand Side Resources (DSR) -** Resources located in the NYCA that are capable of reducing demand in a responsive, measurable and verifiable manner within time limits, and that are qualified to participate in competitive Energy markets pursuant to this Tariff and the ISO Procedures. Demand Side Resources may reduce demand only by curtailing NYCA Load.~~

~~**EDRP** – Emergency Demand Response Program.~~

~~**Installed Capacity (ICAP)** - A Generator or Load facility that complies with the requirements in the Reliability Rules and is capable of supplying and/or reducing the demand for energy in the New York Control Area for the purpose of ensuring that sufficient energy and capacity are available to meet reliability rules. The Installed Capacity requirements, established by the New York State Reliability Council, include a margin of reserve in accordance with the Reliability Rules.~~

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

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

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

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

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

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

~~**Special Case Resource** - Loads capable of being interrupted upon demand, and distributed generators, rated 100 kW or higher, that are subject to special rules set forth in the NYISO Services Tariff, in order to facilitate their participation in the Installed Capacity market as Installed Capacity Suppliers.~~

~~**Supplier** - A Party that is supplying the Capacity, Demand Reduction, Energy and/or associated Ancillary Services to be made available under the ISO OATT or the ISO Services Tariff, including Generators and Demand Side Resources that satisfy all applicable ISO requirements.~~

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

2. Day-Ahead Demand Re~~duction~~sponse Program - Introduction~~Overview~~

The NYISO's Day-Ahead Demand Response Program ("DADRP") allows NYCA ~~l~~Loads to offer their demand reduction in the Day-Ahead Market to supply ~~e~~Energy. This enables flexible ~~l~~Loads to effectively increase the amount of supply in the market and moderate ~~e~~Energy prices. This~~is~~ DADRP ~~m~~Manual focuses on describing the mechanisms that enable the participation, measurement, payments and cost allocation in this program.

The NYISO Day-Ahead Demand Response Manual consists of 7 Sections:

- Section 1: Definitions and Acronyms
- Section 2: Day-Ahead Demand Response Program - Introduction
- Section 3: DADRP Registration Procedures
- Section 4: DADRP Bidding
- Section 5: Reporting and Verifying Economic Customer Baseline Load and Meter Data
- Section 6: Payments
- Section 7: DADRP Cost Allocation

2.1. References

The references to other documents that provide background or additional detail directly related to the NYISO Day-Ahead Demand Response Program Manual are:

- New York ISO Tariffs
- NYISO Accounting & Billing Manual
- NYISO Market Participant User's Guide

~~2.~~

~~Administration~~

~~Beginning July 1, 2003, DADRP will be open to both host Load Serving Entities (LSEs) and Demand Reduction Providers (DRPs) including non-host LSEs.~~

~~Bidding~~

~~The NYISO will accept Demand Reduction Bids wherein an LSE/DRP can bid on behalf of a Demand Side Resource for a specific MW curtailment (in minimum increments of 1 MW by Bus) in contiguous "strips" of one or more hours. A single~~

~~bid will be limited to a strip of no more than eight hours. The Demand Reduction Bid would include the Day-Ahead LBMP above which the Load would not reduce its consumptione, and could also include a Curtailment Initiation Cost.~~

~~Bidders are required to submit an average energy bid of at MNet Benefit OFleast $50/MWh to be eligible for scheduling in the Day-Ahead market. Bids submitted below the floor Monthly Net Benefit Offer Floor price will be rejected from the MIS.~~

~~SCUC Objective Function~~

~~The objective function for SCUC will be to eliminate Demand Reduction Bids from Day-Ahead Bid Load when the total Bid Production Cost over the 24 hour Dispatch Day will be reduced compared to serving that Load, including consideration of paying the Demand Reduction Bid and any bid Curtailment Initiation Costs. Thus, curtailments will not be scheduled unless they reduced total Day-Ahead production costs.~~

~~Setting LBMP~~

~~Day-Ahead Market's will consider whether accepting B will reduce the total bid production cost in accordance with section 4.2.3 of the *Services Tariff*Demand Reduction Bids can accepted by the SCUC can set Day-Ahead LBMP just as a comparably bid Generator in accordance with section 17.1.3 of the *Services Tariff*. If no Supply Bids remain and a Demand Reduction Bid is the last resource chosen, NYISO's Market Monitoring and Performance Unit will reserve the day-ahead price for those hours and subsequently determine if the LBMP as set by the Demand Side Resource is appropriate or if a supply-side resource should set LBMP.~~

~~Customer Baseline Load~~

~~A Demand Side Resource's Customer Baseline Load (CBL) will provide a reference to verify its compliance with a scheduled curtailment. The CCBL for DSRs bidding curtailable load is based upon the five highest energy consumption levels in comparable time periods over the past ten days, beginning two days prior to the day for which the load reduction is bid. More information can be found in Section 5, Calculating Customer Baseline Load for DADRP.~~

~~Determining the Amount of Load Reduction~~

~~For DSRs bidding curtailable load, the amount of actual Real-Time curtailment~~

~~determined will be equal to its CBL less its actual Real-Time consumption during the specified curtailment.~~

~~Payments~~

~~An LSE/DRP with a Demand Side Resource that curtails Load (as scheduled Day-Ahead by the NYISO) will be charged for its full Demand Reduction Bid at Day-Ahead LBMP.~~

~~An LSE/DRP with a Demand Side Resource that curtails Load (as scheduled Day-Ahead by the NYISO) will be paid by the NYISO the Day-Ahead LBMP. If needed, a supplemental payment will be made to allow full recovery of the Curtailment Initiation Cost.~~

~~In addition, an LSE/DRP with a Demand Side Resource that curtails Load (as scheduled Day-Ahead by the NYISO) will receive a rebate from the NYISO as an Incentive for the curtailed amount of Load priced at Day-Ahead LBMP.~~

~~Payment Sharing~~

~~The payments under the Day-Ahead Demand Reduction Program will be made by the NYISO to the LSE/DRP. The portion that will be transferred from the LSE/DRP to the Demand Side Resource is outside the scope of the NYISO, and must be arranged between the LSP/DRP and the Demand Side Resource. Each Investor Owned Utility (IOU) Transmission Owner (excluding LIPA and NYPA) shall designate in its retail tariff the portion of the total payments that it will share with Demand Side Resources that curtail use under this program, and it will apply such portion in a non-discriminatory manner. LIPA and NYPA agree to implement the intent of the preceding sentence in a consistent manner.~~

~~Cost Allocation of Incentives and Uplift~~

~~The ISO shall recover supplemental payments to Demand Reduction Providers pursuant to Rate Schedule I of its Open Access Transmission Services Tariff. Cost recovery will be allocated to all Loads excluding exports and Wheels Through on a zonal basis in proportion to the benefits received after accounting for, pursuant to ISO Procedures, Demand Reduction imbalance charges paid by Demand Reduction Providers. Section 9, DADRP Cost Allocation, defines the cost allocation method to be used. Briefly, the approach:~~

~~charges loads in all Zones when DADRP curtailment occurs and no NYCA constraints exist,~~

~~charges loads in all Zones upstream of a constraint when DADRP curtailment occurs upstream of that constraint, and~~

~~charges loads in all Zones downstream of a constraint when DADRP curtailment occurs downstream of that constraint.~~

~~Constraints at the three significant limiting NYCA Interfaces (Central East, Sprainbrook-Dunwoodie, and Con Ed – Long Island) will be modeled as static percentages; together with the unconstrained portion of time, these will sum to 100%.~~

~~End-User Requirements~~

~~Demand Side Resources will be required to have interval billing metering, and will be responsible for any incremental metering and billing system implementation and administration costs in accordance with applicable retail tariffs.~~

~~Small Generator Eligibility~~

~~Beginning in 2003, the program will be open only to resources that provide load reduction through interruptible load; load reduction through on-site generation will not be permitted.~~

~~Non-Performance Penalties~~

~~If an LSE/DRP has a Demand Side Resource scheduled for a curtailment that would have been eligible for the Incentive payment, but that subsequently fails to curtail, the LSE/DRP will be charged the higher of Day-Ahead or Real-Time LBMP for non-curtailed Load. The premium paid over Real-Time LBMP will be applied to reduce costs allocated to Loads for Incentive and supplemental payments (on the same Zonal basis).~~

~~ICAP Eligibility~~

~~Demand Side Resources that qualify as Special Case Resources will be treated identically as other Special Case Resources for purposes of ICAP payments.~~

~~Sunset Clause~~

~~The Incentive portion of the Day-Ahead Demand Reduction Program will expire on October 31, 2005 unless the NYISO Management Committee affirmatively extends the program. The program will be re-evaluated every year for potential modifications and improvements.~~

~~Conversion to Economic Day-Ahead Program~~

~~If the Incentive portion of the Program is not continued past October 31, 2005, it will convert at that time to an Economic Day-Ahead Load Curtailment Program retaining the same rules and features as the Incentivized Program with the exceptions that:~~

~~The Incentive payment will no longer be made by the NYISO.~~

~~The non-performance penalty will no longer apply (i.e., Loads that fail to curtail will be charged Real-Time LBMP).~~

~~Thus, if the Incentive portion of the Program is discontinued, an Economic Day-Ahead Load Curtailment Program will continue such that an LSE/DRP with a Demand Side Resource that curtails Load (as scheduled Day-Ahead by the NYISO) will continue to be paid by the NYISO the higher of the Demand Reduction Load Bid or Day-Ahead LBMP.~~

~~Small Customer Aggregation~~

~~Aggregations must be at least 2.0 MW for DADRP. The NYISO will establish an up-front means of certifying that the aggregation has an expectation of meeting this requirement. This will be established as part of the approval of the verification methodology; the sampling plan or other measurement methodology will assign an initial (a priori deemed) estimate of the response per site in order to drive the sample size. The aggregation can be comprised of two or more different sampling methods, provided that such a super aggregation was allowed by the NYISO. The MW limit can also be met by combining participants enrolled by different brokers (DRP or LSE) provided that the brokers agree to submit all participants under a single program entity.~~

~~Aggregators must accept full responsibility for payments to and penalties levied against the members of the aggregation. The NYISO will require that each member of the aggregation execute an agreement to participate indicating that it accepts the provisions of the ISO program and authorizes the LSE/DRP to act as its broker for the purposes of participation~~

~~Proposals for measuring aggregation performance can involve one of several methods:~~

~~The deployment of approved whole-premise kW metering devices on a sample of participants~~

~~. The deployment of approved end-use device or process kW metering devices on a sample of participants that elect to limit PRL program participation to specified end-use devices or processes.~~

~~Provision for supplying verifiable behavioral actions, equipment operating logs, or other data that is deemed to be sufficiently indicate the load level the customer otherwise would have consumed, but for the PRL program event participation~~

~~Other measurement systems that indicate the load level the customer otherwise would have consumed, but for the PRL program event participation~~

~~Promulgate provisions that govern applications. A process and procedures will be drawn to govern how applications are made, processed and ruled upon, and to set limits to aggregation projects by zone, provider, program, or any other category. The number of aggregations allowed needs to accommodate all of the utilities plus a reasonable number of DRPs and LSEs. Each proposal for small customer aggregation will be reviewed by the NYISO staff and the Price Responsive Load Working Group, and must be approved by a majority of the Chairs and Vice-Chairs of the Management Committee and Business Issues Committee and the Chairman of the Price Responsive Load Working Group.~~

~~Aggregations may be declared as ICAP or UCAP, subject to the rules established in the applicable NYISO Procedures for ICAP/UCAP suppliers.~~

~~The Aggregation broker is responsible for all costs associated with developing and administering the alternative performance methodology. Applications for approval of alternative methodologies must include an explicit description of the methodology and how it would be tracked and administered, accompanied by the specific administration processes required. The NYISO in approving an application will specify the costs associated with administration that the applicant must bear. The aggregation applicant must agree to be responsible for all such costs, including costs incurred by the ISO for developing and administrating the alternative methodology. The ISO may, at its discretion, require that some or all of such cost be reimbursed by the applicant upon approval of the methodology, or deduct all costs from payments for curtailments by participants, or a combination of the two methods of cost recovery.~~

~~One method per end-use premise. End-use electricity customers may subscribe load at a given premise to PRL programs only under a singe performance methodology, either the standard method or an approved alternative methodology.~~

~~Failure to comply with aggregation procedures. The NYISO may, at any time, terminate its agreement with an aggregation broker if it determines that the broker is not fulfilling it obligation under the aggregation agreement. Customers belonging to such aggregation may henceforth participate by signing up under any approved means of participation.~~

3. DADRP Registration Procedures

A Demand Reduction Provider ("DRP") is a NYISO customer that has completed the DADRP Provider Registration Packet and ~~has been approved by~~ has been approved by NYISO Member Relations to particiapte in the NYISO-administered markets. The DRP enrolls and registers the DADRP resources and is the NYISO point-of-contact for these resouces. Additionally, the DRP is responsible for the performance of, and all market obligations related to that DADRP Resource. This includes scheduling the resources in the Day-Ahead -Energy ~~m~~Market, coordinating with the resources to ensure that they perform the scheduled amount of demand reduction and settling with NYISO any financial transactions related to these demand reductions.

Registration for the ~~Day-Ahead Demand Response Program~~ DADRP is completed in two separate steps. Applicants must initially register to qualify as a DADRP ~~p~~Provider for which they need to complete and submit the signed, single-sided original DADRP Provider Registration Packet along with the Communication and Data Management Plan. Once approved as a DADRP ~~p~~Provider, the Applicant must register the Demand Side Resource(s) for the DADRP ~~program~~ by completing and submitting the signed, single-sided original DADRP Resource Registration Packet.

Both of these documents can be obtained on the NYISO website under http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp

3.1. Local Generators

For each Demand Side Resource with a Local Generator, the DRP is required to provide the following Local Generator information for participation in the DADRP via the DADRP Resource Registration Packet.

- **Generator Type**
  - Internal Combustion Engine
  - Combustion Turbines
  - Steam Engines and Cogeneration units (including Combined Heat and Power units)
  - Others – must specify supply source if not provided in the list above

- **Generator Fuel Type (Primary Fuel used)**
  - Coal
  - Diesel
  - Natural Gas
  - Oil
  - Gasoline
  - Kerosene
  - Propane
  - Wood
  - Landfill Gases and Waste Products
  - Other, must specify fuel type
- **Generator Specifications**
  - Manufacturer name
  - Model number
  - Generator Nameplate Capacity, kW nominal name plate
  - Generator Engine Horsepower, if applicable
  - Year generator was built, as stated on nameplate
    - If generator was retrofitted for emission control equipment, specify year of retrofit
  - Generator Location (the physical address of the Local Generator)
- **Local Generator Regulatory Compliance Requirements**

Local Generators operated by Demand Side Resources to facilitate Demand Reduction in the DADRP must possess a valid permit from the New York State Department of Environmental Conservation ("NYSDEC") authorizing the Local Generator to operate during non-emergency conditions.[1]

The DRP must submit NYSDEC permits to the NYISO upon request. By enrolling a Demand Side Resource in the DADRP (and continuing the Resource's enrollment in subsequent months), the Market Participant represents that the Local Generator complies with all applicable permits, including any emissions, run-time limits, or other constraints on the plant operation that be imposed by federal, state, or local laws and regulatory requirements, required to reduce Load from the New York State Transmission System and/or distribution system at the direction of the NYISO.

~~Registration material and a copy of this manual can be found on the NYISO website at:~~

~~http://www.nyiso.com/services/documents/groups/bic_price_responsive_wg/demand_response_prog.html~~

[1] The Local Generator must have a valid NYSDEC Title V Federal Air Permit or NYSDEC Air State Facility Permit or NYSDEC Minor Facility Registration.

~~You can also access this information from the NYISO website front page by following the link to: The Markets > Demand Response Programs.~~

~~If you are an LSE or DRP currently registered as a Customer with the NYISO, please complete Attachment A, the LSE/DRP Registration Form. In addition, fill in one Demand Side Resource Registration Form (Attachment B) for each Demand Side Resource you will be sponsoring in the program.~~

~~The NYISO also needs to know specific information for modeling the Demand Side Resource bid. LSEs/DRPs must fill out Attachment C for each single or composite Demand Side Resource being modeled.~~

~~If you are not currently an LSE, or you are interested in acting as a DRP, you need to register as a Customer with the NYISO using the Market Relations Registration Packet found on the NYISO website at:~~

~~http://www.nyiso.com/services/registration.html~~

~~Specific instructions for registration are contained in the following sections.~~

~~3.9. Load Serving Entities~~

~~For LSEs who are enrolling a retail end user whose load is served by the LSE:~~

~~3. Complete Attachment A of this manual.~~

~~3. Register each Demand Side Resource with the NYISO after signing a contract with that resource, using the appropriate DADRP Certification form provided in Attachment B or C of this manual. Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, and will not be disclosed to third parties without the express permission of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality.~~

~~3. By submitting the DADRP Certification Form, the LSE confirms that the load to be reduced is not under any specific contractual obligation that would prevent participation in the DADRP.~~

~~3. The DADRP participant registration is deemed approved for bidding after the Demand Side Resource has been assigned a generator bus and the billing relationship between the LSE and the Demand Side Resource has been set up. The NYISO will confirm approval via phone or e-mail to the LSE.~~

~~For LSEs who are enrolling a Demand Side Resource whose load is served by a different LSE (Commodity Provider):~~

~~3. Complete Attachment A of this manual.~~

~~3. Register each Demand Side Resource with the NYISO after signing a contract using the appropriate DADRP Certification form provided in Attachment B or C of this manual. Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, and will not be disclosed to third parties without the express permission of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality.~~

~~3. Within two days after receipt of the DADRP Certification Form, the NYISO will forward the registration to the appropriate Commodity Provider to confirm that the load to be reduced is not under any specific contractual obligation that would prevent participation in the DADRP.~~

~~3. Unless otherwise prohibited by the Commodity Provider, the DADRP participant registration is deemed approved for bidding after the Demand Side Resource has been assigned a generator bus and the billing relationship between the LSE and the Demand Side Resource has been set up. The NYISO will confirm approval via phone or e-mail to the LSE.~~

~~3.20. Demand Response Providers~~

~~To register as a Demand Response Provider you must become a NYISO Customer. If you are applying for NYISO Customer status:~~

~~3. Complete Attachment A of this manual.~~

~~3. Complete Sections A, B, G, H, I, J, L, N and O of the NYISO Registration Packet, available at the NYISO Website.~~

~~3. Sign the Market Services Tariff.~~

~~3. Register each Demand Side Resource with the NYISO after signing a contract using the appropriate DADRP Certification form provided in Attachment B or C of this manual. Any information on the identity of a Demand Side Resource that is provided to the NYISO will be treated as confidential, and will not be disclosed to third parties without the express permission of the end-use customer, unless aggregated or otherwise presented in such a way as to preserve confidentiality.~~

~~3. Within 2 days after receipt of the DADRP Certification Form, the NYISO will forward the registration to the appropriate Commodity Provider to confirm that the load to be reduced is not under any specific contractual obligation that would prevent participation in the DADRP.~~

~~3. Unless otherwise prohibited by the Commodity Provider, the DADRP participant registration is deemed approved for bidding after the Demand Side Resource has been assigned a generator bus and the billing relationship between the LSE and the Demand Side Resource has been set up. The NYISO will confirm approval via phone or e-mail to the LSE.~~

~~3.28.~~3.2. Historical Operating Data

~~LSEs/DRPs~~DRP shall be required to provide historical operating data for each Demand Side Resource upon acceptance for participation in the DADRP. These requirements may be met by:

For loads with existing interval meters:

1) Provide the most recent complete billing period of hourly interval data.

For totalized loads with existing interval meters:

2) For totalized loads, provide hourly interval data for one complete billing period of hourly interval data for all participating loads at the premise; or

For newly installed load interval meters:

3) For newly installed interval meters, provide the prior three month's summary of monthly MWh consumption and demand values, if available.

~~3.29.~~3.3. Credit Requirements for DADRP

For participation in the DADRP ~~program~~, the DRP will need to adhere to the credit requirements specified in Section 26.4.2.7 of the Attachment K of the ~~NYISO's~~ Services Tariff.

3.4. Small Customer Aggregation

Demand Side Resources that do not meet the metering requirements specified in Section 5.1 of this Manual but meet the requirements specified below can participate in the DADRP in~~using~~ Small Customer Aggregations. Small Customer Aggregations can participate in the DADRP ~~program~~ subject to the following requirements:

1. DADRP Small Customer Aggregations must be at least 2.0 MW, and each Aggregation's capability will be certified during the NYISO's approval of the Aggregation's measurement and verification methodology. The NYISO will assign an initial (a priori deemed) estimate of the response per site in order to derive the sample size via the DRP's sampling plan or other measurement methodology~~u~~. The aggregation can be comprised of two or more different sampling methods, provided that the aggregation is approved by the NYISO. Small Customer Aggregations can propose to meet the 2 MW minimum size combining DADRP Resources enrolled by different Market Participants (DRPs or LSEs) provided that the Market Participants agree to combine all participants in a single Small Customer Aggregation.
2. Market Participants (the aggregator) are responsible for payments to and penalties levied against the members of the aggregation. The NYISO will require that each member of the aggregation execute an agreement to participate in the aggregation and indicating that it accepts the NYISO DADRP program rules and authorizes the LSE/DRP to act as its representative for the purposes of participation
3. Proposals for measuring aggregation performance can involve one of several methods:
    a. The deployment of approved whole-premise kW metering devices on a sample of participants.
    b. The deployment of approved end-use device or process kW metering devices on a sample of participants that elect to limit DADRP program

participation to specified end-use devices or processes.

c. Provision for supplying verifiable behavioral actions, equipment operating logs, or other data that is deemed to be sufficiently indicative of the load level the customer otherwise would have consumed, but for the DADRP program event participation

d. Other measurement systems that indicate the load level the customer otherwise would have consumed, but for the DADRP program event participation

4. Promulgate provisions that govern applications. A process and procedures will be developed to govern how Small Customer Aggregation applications are made, processed and approved, and to set limits to aggregation projects by Load zone, provider, program, or any other category. The number of aggregations allowed needs to accommodate all of the utilities plus a reasonable number of DRPs and LSEs. Each proposal for Small Customer Aggregation will be reviewed by the NYISO staff and the Price Responsive Load Working Group, and must be approved by a majority of the Chairs and Vice-Chairs of the Management Committee and Business Issues Committee and the Chairman of the Price Responsive Load Working Group.

~~Aggregations may be declared as ICAP or UCAP, subject to the rules established in the applicable NYISO Procedures for ICAP/UCAP suppliers.~~

5. The Market Participant is responsible for all costs associated with developing and administering the alternative performance methodology. Applications for approval of alternative methodologies must include an explicit description of the methodology and how it would be tracked and administered, accompanied by the specific administration processes required. The NYISO, in approving an application, will specify the costs associated with administration that the applicant must bear. The aggregation applicant must agree to be responsible for all such costs, including costs incurred by the NYISO for developing and administrating the alternative methodology. The NYISO may, at its discretion, require that some or all of such cost be reimbursed by the applicant upon approval of the methodology, or deduct all costs from payments for curtailments by participants, or a combination of the two methods of cost recovery.

6. One method per end-use premise. End-use electricity customers may subscribe load at a given premise to the DADRP only under a single performance methodology, either the standard method or an approved alternative methodology.

Failure to comply with aggregation procedures. The NYISO may, at any time, terminate its agreement with a Market Participant if it determines that the Market Participant is not fulfilling its obligation under the aggregation agreement. Customers belonging to such aggregation may henceforth participate by signing up under any approved means of participation.

3.5. Participation in other NYISO Demand Response ~~p~~Programs

Demand Side Resources in the NYISO market may participate in one reliability-based program and one economic-based program simultaneously. A DADRP resource may therefore additionally chose to participate in one out of the two reliability-based programs that the NYISO offers – the SCR program ~~program and~~or the EDRP~~ program~~.

~~Demand Response Providers will need to adhere to the following credit requirements if they intend to participate in the NYISO enhanced DADRP program. Collateral will need to be obtained by the DRP and presented to the NYISO before the DRP can participate in the DADRP program. Once participation is granted the NYISO credit department will monitor the activity of the DRP and will reserve the right to request additional collateral if conditions warrant. The collateral will stay in place for the duration of the DRP's participation in the DADRP program.~~

~~For those Market Participants who are required to post collateral, the collateral requirement will be calculated by the following formula:~~

~~**Collateral Requirement: = (Average accepted MWh per month) * (Average Day-Ahead LBMP Price during the prior years summer capability period) * (20% Percentage Factor) * (4)**~~

~~Where~~

~~**Average accepted MWh per month =**~~

- ~~*For DRPs who are currently active in the DADRP program = The* average will be determined by the historical number of accepted MWh made per month by the DRP, for the months associated with previous years summer capability period.~~

- ~~*For DRPs who are currently registered in the DADRP program, but have never been active or for new DRPs who are not currently registered in the DADRP program =* Estimate of the average number of projected accepted MWh per month, for the months associated with the summer capability period.~~

~~The estimated value will be determined during the registration process with input from both the DRP and NYISO staff. For estimates that are significantly higher than actual accepted MWh the NYISO will review the collateral requirement after four months of activity and may reduce the collateral requirement. If the estimated value is significantly lower than actual accepted MWh the NYISO, as stated above, does reserve the right to request additional collateral at any time during the program.~~

~~**Average Day-Ahead LBMP Price during the prior years summer capability period =** The average Day-Ahead LBMP at the NYISO reference bus for the previous summers~~

~~capability period for hours in which the Day-Ahead price is greater than $50.~~

~~**20% Percentage Factor =** The 20% percentage factor is based on a 3.7% penalty rate compared to total program payment plus a 5.5% historical difference between scheduled and actual curtailment.~~

~~The following example is based on the historical summer 2002 scheduled curtailment data for XYZ Company.~~

~~*Inputs*:~~

- ~~Average accepted MWh per month = 200~~
- ~~Average Day-Ahead LBMP price during the summer 2002 capability period = 64.91~~
- ~~20% percentage Factor~~

~~**Collateral Requirement for 2003** = (200) * (64.91)* (.2)* (4) = $10, 385.60~~

~~Based on the average accepted MWh per month and the average Day-Ahead LBMP the DRP's sales should be approximately $12, 982 per month or $51, 928 for a four-month time frame with a run rate of $432.73 per day.~~

~~ICAP Eligibility~~

~~Demand Side Resources that qualify as Special Case Resources will be treated identically as other Special Case Resources for purposes of ICAP payments.~~

~~22.~~4. ~~D~~DADRP Bidding ~~Instructions~~

4.1. LSE Bids

~~LSE Offers~~

When bidding as a ~~Demand Reduction Provider~~DRP the LSE must place two separate bids into the MIS System. The first bid is its normal load bid that it would submit regardless of whether or not the LSE is a ~~Demand Reduction Provider~~DRP. In addition to its normal load bid the same LSE must also submit a ~~generator bid~~Demand Reduction Bid for the amount that the LSE is willing to curtail. Detailed instructions on submitting LSE load bids can be found in Section 7 of the NYISO's Market Participant User's Guide.

~~22.1.~~4.2. DRP Bids~~DRP Offers~~

A DRP is not required to submit a load bid into the MIS – this is the responsibility of the LSE who serves the Demand Side Resource. The DRP must submit a ~~generator bid~~Demand Reduction Bid for the amount of load curtailment desired to be scheduled in the DAM. The Demand Reduction Bid must be at least 1 MW from Demand Side Resources that are represented by a point identified (PTID) and is assigned to a Load Zone and one LSE.

~~This is done in the same manner as a generator bids into the NYISOs energy markets. First, the DRP must enter data into the Generator Commitment Parameters screen. Second, the DRP must enter the specific DADRP resources bid data into the MIS system using the Generator Bid Screen. Some of the parameters on these screens and their DADRP counterparts have been presented in the Table below.~~The following Table lists the Bid parameters that would be available to a DADRP resource.

DADRP Bid Parameters

Minimum Shutdown Time (hrs)
Shutdown Cost ($)
Maximum Demand Reduction ($MW)
Minimum Demand Reduction (MW)
Minimum Demand Reduction Cost ($)

Detailed instructions ~~on~~ for submitting DADRP Bids ~~bidding as a generator~~ into the NYISO's ~~e~~Energy ~~m~~Market ~~can be found in~~ are in Section 7 of the NYISO's Market Participant User's Guide.

4.3. Monthly Net Benefit Offer Floor

The NYISO shall perform the Net Benefits Test for each month in accordance with Section 4.2 of the Services Tariff and post the Monthly Net Benefit Offer Floor by the 15th of the preceding month on its web site ~~in accordance with Section 4.2 of the Services Tariff~~under

http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp

The Net Benefits Test shall establish the threshold price below which the dispatch of Energy from Demand Side Resources is not cost-effective. The Net Benefits Test shall consist of the following steps: (1) the ISO shall compile hourly supply curves for the Reference Month; (2) the ISO shall develop the average supply curve for the Study Month by updating the Reference Month supply curves for retirements and new entrants, and adjusting offers for changes in fuel prices; (3) the ISO shall apply an appropriate mathematical formula to smooth the average supply curve; and (4) the ISO shall evaluate the smoothed average supply curve to determine the Monthly Net Benefit Floor for the Study Month. The ISO shall apply the Monthly Net Benefit Offer Floor, as so calculated, to Bids submitted by Demand Response Providers for all hours in the Study Month. A detailed stepwise description of the Net Benefits Test can be found on the NYISO ~~the NYISO~~website under

http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp

~~The curtailable load will be modeled as a generator in the ISO's unit commitment software, and uses a generator bid to make the curtailable MWs available to the ISO. The bidding instructions on the following pages track the payment examples in Section 8, and will demonstrate different ways to input bidding information into the MIS system.~~

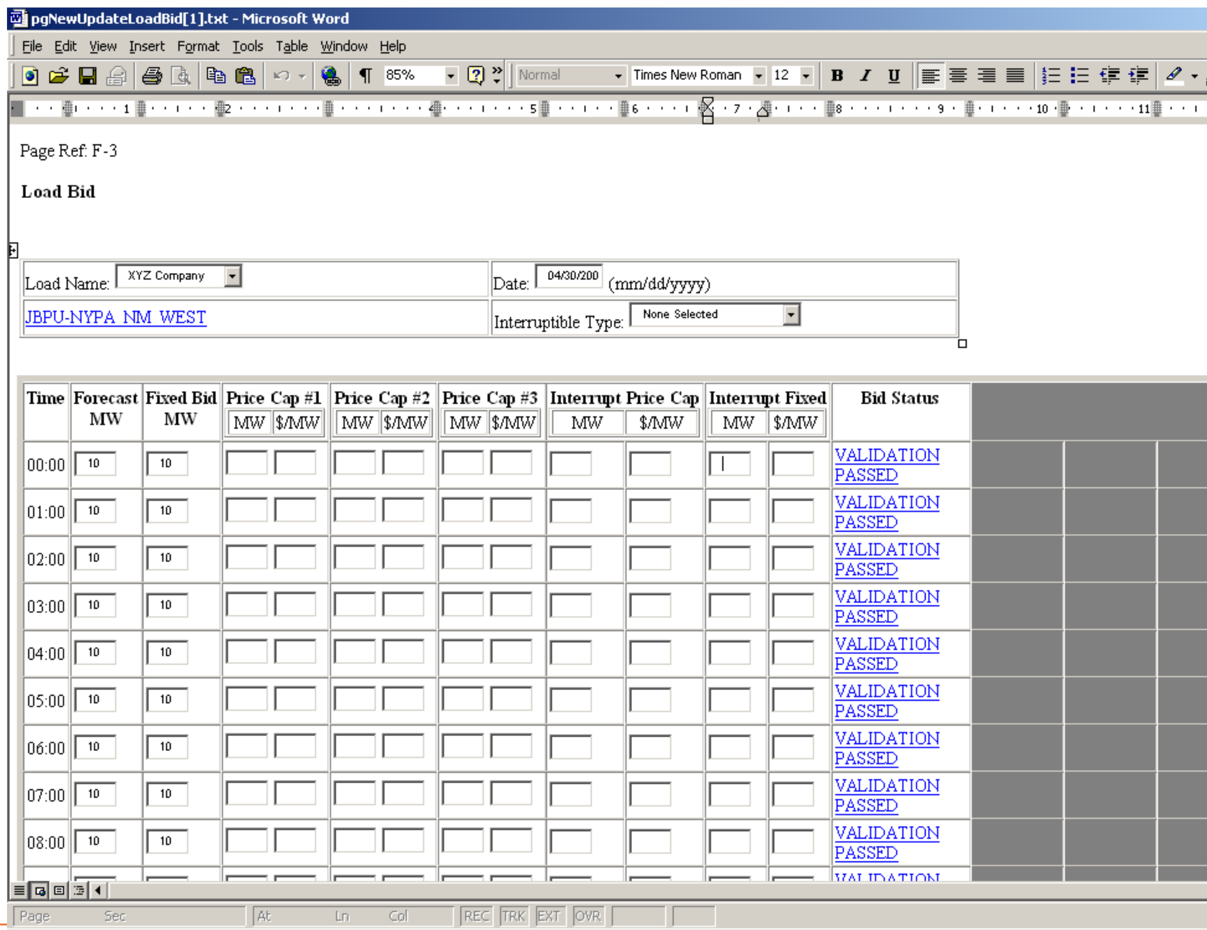
~~To prevent situations where load bids an outage that would occur regardless of whether or not the bid was accepted during periods when load reduction is not needed, a floor bid price has been established for DADRP.~~ A ~~curtailmen~~Demand Reduction ~~t~~ B~~b~~id for an individual hour must have a bid price that is at or above the NYISO determined Monthly Net Benefit Offer ~~$50/MWh for~~Floor for every block of load ~~offered~~ bid for curtailment in accordance with Section 4.2.1 of the Services Tariff. The load- weighted average bid price for bids that include curtailment production cost guarantees or minimum run times must be equal to or greater than the Monthly Net Benefit Offer Floor ~~$50/MWh~~. Bids submitted below the Monthly Net Benefit Offer Floor ~~floor price~~ will be rejected from the MIS.

~~For further details on how the Monthly Net Benefit Offer Floor is applied refer to Section 4.2.1 of the NYISO's Services Tariff.~~

~~22.2. Load Bidding Portion~~

~~Using the scenario from Example #1 in Section 8, this bidding example demonstrates how an LSE would bid in their Load into the MIS system. In the example, a 10 MW load is capable of curtailing 3 MW of load at a price cap of $100/Mwh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. When the LSE goes into the MIS system to input its load bid it would do so as if the Curtailment portion does not exist. In this example the LSE would put in a fixed load bid of 10 MW.~~

~~22.4. By bidding in 10 MW as fixed load the LSE purchase 10 MW of load from the Day-Ahead market at the Day-Ahead zonal LBMP price.~~



pgNewUpdateLoadBid[1].txt - Microsoft Word

Page Ref: F-3

Load Bid

Load Name: XYZ Company	Date: 04/30/200 (mm/dd/yyyy)
JBPU-NYPA NM WEST	Interruptible Type: None Selected

Time	Forecast MW	Fixed Bid MW	Price Cap #1 MW	Price Cap #1 $/MW	Price Cap #2 MW	Price Cap #2 $/MW	Price Cap #3 MW	Price Cap #3 $/MW	Interrupt Price Cap MW	Interrupt Price Cap $/MW	Interrupt Fixed MW	Interrupt Fixed $/MW	Bid Status
00:00	10	10											VALIDATION PASSED
01:00	10	10											VALIDATION PASSED
02:00	10	10											VALIDATION PASSED
03:00	10	10											VALIDATION PASSED
04:00	10	10											VALIDATION PASSED
05:00	10	10											VALIDATION PASSED
06:00	10	10											VALIDATION PASSED
07:00	10	10											VALIDATION PASSED
08:00	10	10											VALIDATION PASSED

~~22.5.~~

4.4. SCUC & Setting LBMP

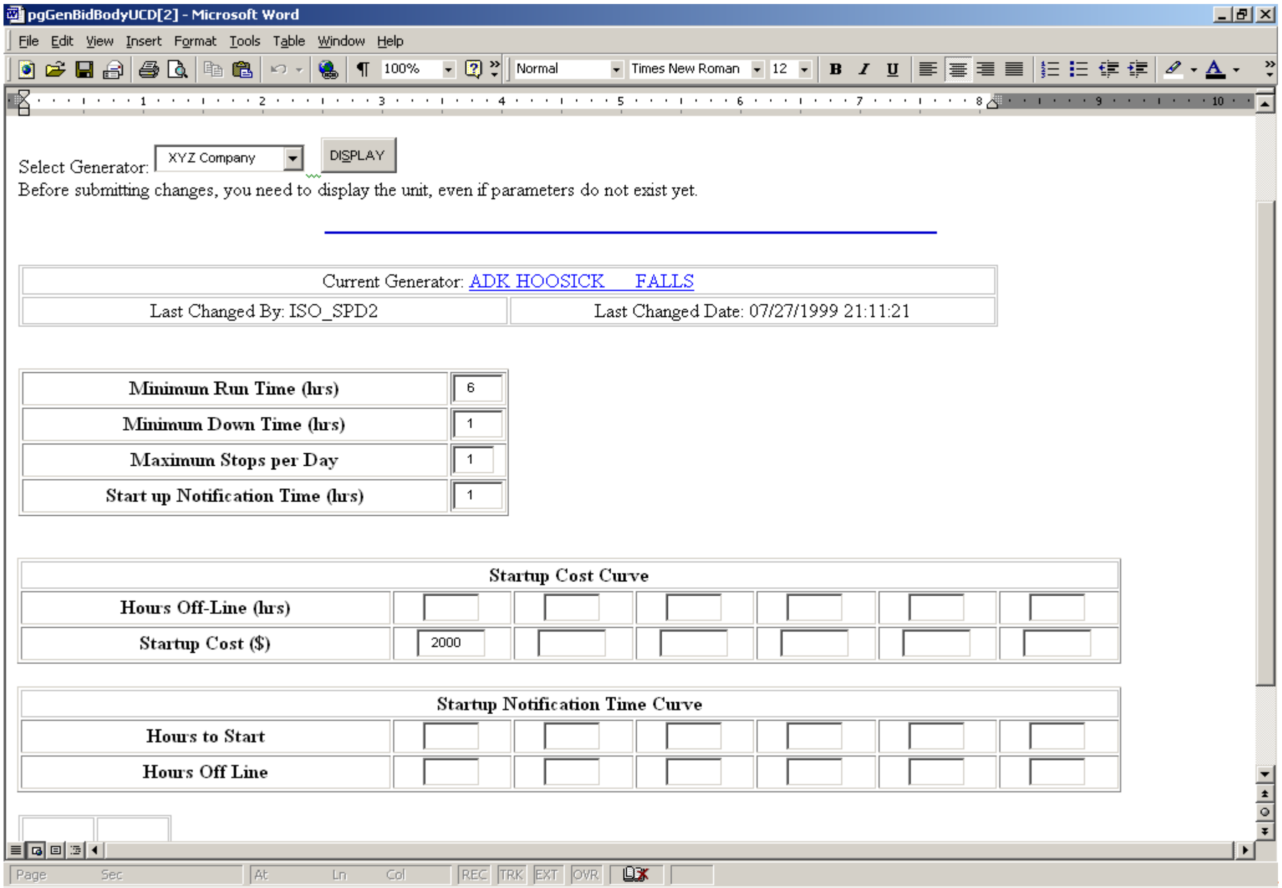
Day-Ahead Market's SCUC will consider whether accepting Demand Reduction Bids will reduce the total bid production cost in accordance with section 4.2.3 of the Services Tariff. Demand Reduction Bids accepted by the SCUC can set Day-Ahead LBMP just as a comparably bid Generator in accordance with section 17.1.3 of the Services Tariff.

~~23.0. Generator Bid Portion~~

~~Once the LSE has bid its load into the MIS system the LSE must also enter a generator bid for the amount of curtailable load being offered. A DRP would enter its curtailable load bid as a generator bid in the same way. First the LSE/DRP must enter data into the Generator Commitment Parameters screen.~~

~~25.0.0. Generator Commitment Parameter Screen~~

~~The LSE/DRP will enter the generator's Minimum Run Time and startup costs. These values correspond to the Demand Side Resource's minimum shutdown time and curtailment initiation costs, respectively. In this example the DSR's minimum shutdown time is 6 hrs. We will assume for this example that the units Minimum Down Time, Maximum Stops per day, and Startup Notification Time are all equal to 1. Please refer to the NYISO Market Participant User's Guide if you have questions regarding the use of these parameters. The only other piece of data that is needed in this screen is the generator startup cost. In this example the startup cost or "curtailment initiation cost" is $2,000. This amount is entered into the startup cost curve as the first and only point on the curve. The user must leave the "hours off line" box empty as well as the Startup Notification Time Curve.~~



~~28.0.0. Generator Bid Screen~~

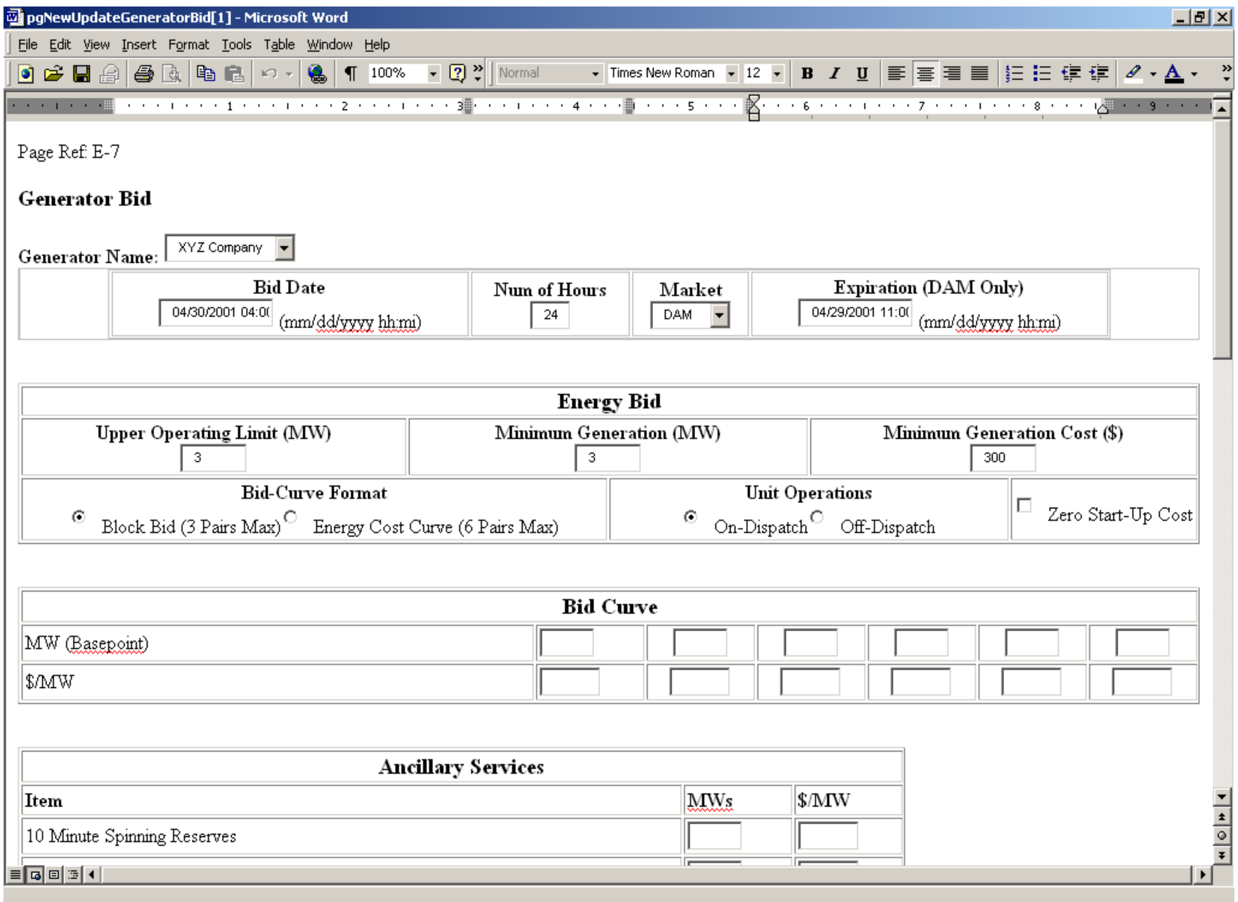
~~29. Second the LSE/DRP must enter the specific generator bid data into the MIS system. For illustration purposes, two examples of how to bid the 3 MW curtailable load will be shown. For a more complete understanding of how to bid a generator into the NYISO, an LSE/DRP should attend the NYMOC training or contact their Customer Relations Representative.~~

~~*30. Example 1:*~~

~~31. The first way a user can structure his or her bid is as follows:~~

~~32. The first piece of data that is needed is the Upper Operating Limit (UOL) of the generator. In this example, the UOL is 3 MW, which is the maximum amount of curtailable load being offered. Next the User must enter the units Minimum Generation (MW) and Minimum Generation Cost ($). In this case the Minimum Generation is 3 MW and the Minimum Generation Cost is $300. The last piece of data that is needed is the unit's bid curve. For this example the unit's bid curve is left blank, because if the unit's~~

~~minimum limit and upper limit are the same value the unit is considered a fixed unit and cannot submit a bid curve. DADRP providers are not allowed to bid in the Ancillary Service Market. Also, remember that we entered the units startup cost in the previous screen so make sure the box for zero start up cost is not checked. A generator's Min Gen MW level is the only level that is guaranteed commitment for the unit's specified Min Run time.~~



pgNewUpdateGeneratorBid[1] - Microsoft Word

Page Ref: E-7

Generator Bid

Generator Name: XYZ Company

	Bid Date	Num of Hours	Market	Expiration (DAM Only)
	04/30/2001 04:0((mm/dd/yyyy hh:mi)	24	DAM	04/29/2001 11:0((mm/dd/yyyy hh:mi)

Energy Bid		
Upper Operating Limit (MW)	Minimum Generation (MW)	Minimum Generation Cost ($)
3	3	300
Bid-Curve Format: Block Bid (3 Pairs Max) / Energy Cost Curve (6 Pairs Max)	Unit Operations: On-Dispatch / Off-Dispatch	Zero Start-Up Cost

Bid Curve						
MW (Basepoint)						
$/MW						

Ancillary Services		
Item	MWs	$/MW
10 Minute Spinning Reserves		

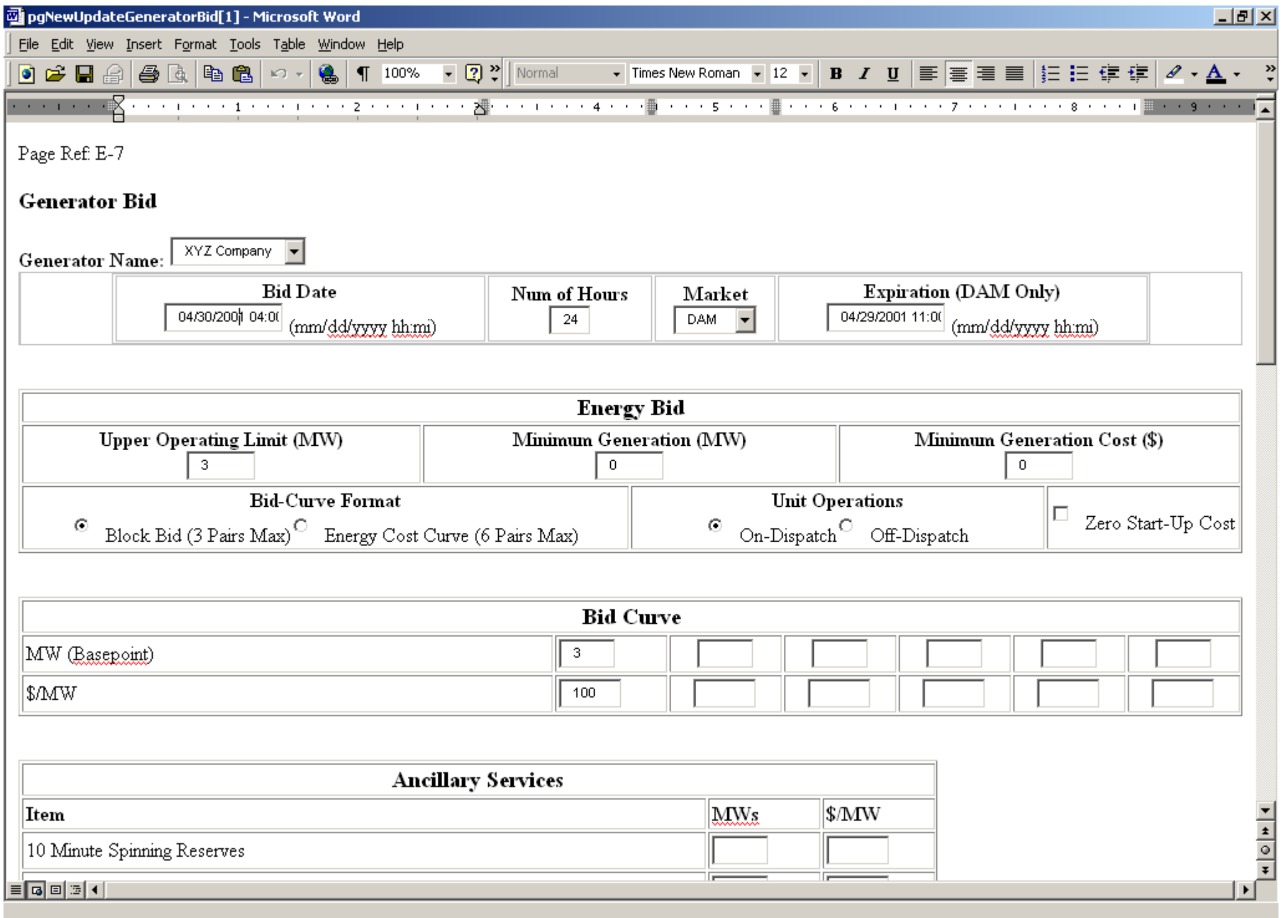
~~33.~~

~~34. Under this example, if the bid is accepted it will be scheduled for the six hours of minimum run time. It is important to note that the bid curve cannot be used to submit bid blocks above the first point on the bid curve and assure acceptance of these bids for the entire minimum run time. The higher bid blocks will instead be scheduled by SCUC on hourly basis. For example, if a demand reduction provider wished to enter a bid of an additional 3 MWs at $200/MW for the same six hour period it should not be entered as the second bid point in the above bid curve. In doing so the bid may not be accepted for the entire six hour but only scheduled in the hours where SCUC found the curtailment at this bid price economic.~~

~~35. *Example 2:*~~

~~36. Another way a user can structure his or her bid is as follows:~~

~~37. The Upper Operating Limit can remain the same as the previous example (3 MW). The Minimum Generation (MW) in this example would be $0 and the Minimum generation Cost ($) would be $0 as well. In the Bid Curve section the LSE will enter as a one-point block 3 MW for *MW (Basepoint)* and $100 for *$/MW*. Again no DADRP provider can bid into the Ancillary Service Market, and remember that the zero startup cost box should not be checked.~~


pgNewUpdateGeneratorBid[1] - Microsoft Word

File Edit View Insert Format Tools Table Window Help

Page Ref: E-7

Generator Bid

Generator Name: XYZ Company

	Bid Date	Num of Hours	Market	Expiration (DAM Only)
	04/30/2001 04:0((mm/dd/yyyy hh:mi)	24	DAM	04/29/2001 11:0((mm/dd/yyyy hh:mi)

Energy Bid		
Upper Operating Limit (MW)	Minimum Generation (MW)	Minimum Generation Cost ($)
3	0	0
Bid-Curve Format: Block Bid (3 Pairs Max) / Energy Cost Curve (6 Pairs Max)	Unit Operations: On-Dispatch / Off-Dispatch	Zero Start-Up Cost

Bid Curve						
MW (Basepoint)	3					
$/MW	100					

Ancillary Services		
Item	MWs	$/MW
10 Minute Spinning Reserves		

~~38.~~

~~39. Within this bid structure SCUC could schedule the generator anywhere between its 0 MW Min Gen and 3 MWs (the last point on the bid curve) to satisfy minimum run time.~~

~~40. In all instances, a generator is only guaranteed to be scheduled at its Min Gen MWs for its entire Min Run time.~~

~~41.0. Generator Unit Commitment Parameters for Curtailable Load and Self-Supply Generator Types.~~

~~42. Generator commitment table constraints for new generator types:~~

~~43. Generator Unit Commitment Data~~		
~~45. COLUMN_NAME~~	~~46. Required Field~~	~~47. Input Range~~
~~49. MIN_DOWN_TIME~~	~~50. Y~~	~~51. 1-24~~
~~53. MIN_RUN_TIME~~	~~54. Y~~	~~55. Maximum of 8 hrs~~
~~57. MAX_STOPS_DAY~~	~~58. Y~~	~~59. 1-13~~
~~61. START_UP_NOTIFICATION_TIME~~	~~62. Y~~	~~63. 1-37~~
~~65. STRT_UP_COST_CRV1~~	~~66. Y~~	~~67. $0 - $99,999~~
~~69. STRT_UP_COST_CRV2~~	~~70. N~~	~~71. Must be null~~
~~73. STRT_UP_COST_CRV3~~	~~74. N~~	~~75. Must be null~~
~~77. STRT_UP_COST_CRV4~~	~~78. N~~	~~79. Must be null~~
~~81. STRT_UP_COST_CRV5~~	~~82. N~~	~~83. Must be null~~
~~85. STRT_UP_COST_CRV6~~	~~86. N~~	~~87. Must be null~~
~~89. STRT_UP_TIME_CRV1~~	~~90. N~~	~~91. Must be null~~
~~93. STRT_UP_TIME_CRV2~~	~~94. N~~	~~95. Must be null~~
~~97. STRT_UP_TIME_CRV3~~	~~98. N~~	~~99. Must be null~~
~~101. STRT_UP_TIME_CRV4~~	~~102. N~~	~~103. Must be null~~
~~105. STRT_UP_TIME_CRV5~~	~~106. N~~	~~107. Must be null~~
~~109. STRT_UP_TIME_CRV6~~	~~110. N~~	~~111. Must be null~~
~~113. STRT_UP_HOURS_OFF_LINE_CRV1~~	~~114. N~~	~~115. Must be null~~
~~117. STRT_UP_HOURS_OFF_LINE_CRV2~~	~~118. N~~	~~119. Must be null~~

~~43. Generator Unit Commitment Data~~		
~~45. COLUMN_NAME~~	~~46. Required Field~~	~~47. Input Range~~
~~121. STRT_UP_HOURS_OFF_LINE_CRV3~~	~~122. N~~	~~123. Must be null~~
~~125. STRT_UP_HOURS_OFF_LINE_CRV4~~	~~126. N~~	~~127. Must be null~~
~~129. STRT_UP_HOURS_OFF_LINE_CRV5~~	~~130. N~~	~~131. Must be null~~
~~133. STRT_UP_HOURS_OFF_LINE_CRV6~~	~~134. N~~	~~135. Must be null~~
~~137. STRT_UP_HOURS_TO_STRT_CRV1~~	~~138. N~~	~~139. Must be null~~
~~141. STRT_UP_HOURS_TO_STRT_CRV2~~	~~142. N~~	~~143. Must be null~~
~~145. STRT_UP_HOURS_TO_STRT_CRV3~~	~~146. N~~	~~147. Must be null~~
~~149. STRT_UP_HOURS_TO_STRT_CRV4~~	~~150. N~~	~~151. Must be null~~
~~153. STRT_UP_HOURS_TO_STRT_CRV5~~	~~154. N~~	~~155. Must be null~~
~~157. STRT_UP_HOURS_TO_STRT_CRV6~~	~~158. N~~	~~159. Must be null~~

~~161.~~

~~162. Generator bid data table constraints for new generator types:~~

~~163. Generator Bid Data~~		
~~165. COLUMN_NAME~~	~~166. Required Field~~	~~167. Input Range~~
~~169. DATE_HR~~	~~170. Y~~	~~171. MM/DD/YYYY~~
~~173. DURATION_HR~~	~~174. Y~~	~~175. 1-360~~
~~177. MARKET~~	~~178. Y~~	~~179. DAM~~
~~181. UP_OPER_LIM~~	~~182. Y~~	~~183. 0 – Proven maximum production capacity~~
~~185. ON_DISPATCH~~	~~186. Y~~	~~187. Y/N~~
~~189. ZERO_START_UP_COST~~	~~190. Y~~	~~191. Y/N~~
~~193. FIXED_MINIMUM_BLOCK_MW~~	~~194. Y~~	~~195. 0 – Upper Operating Limit~~
~~197. FIXED_MINIMUM_BLOCK_DOLLARS~~	~~198. Y~~	~~199. 0 - $999 * Fixed Min_Block_MW~~
~~201. MIN10_SPIN_RESERVES_MW~~	~~202. N~~	~~203. Must be null~~
~~205. MIN10_SPIN_RESERVES_DOLLAR~~	~~206. N~~	~~207. Must be null~~
~~209. MIN10_NONSYNCH_RESERVES_MW~~	~~210. N~~	~~211. Must be null~~
~~213. MIN10_NONSYNCH_RESERVES_DOLLAR~~	~~214. N~~	~~215. Must be null~~
~~217. MIN30_SPIN_RESERVES_MW~~	~~218. N~~	~~219. Must be null~~
~~221. MIN30_SPIN_RESERVES_DOLLAR~~	~~222. N~~	~~223. Must be null~~
~~225. MIN30_NONSYNCH_RESERVES_MW~~	~~226. N~~	~~227. Must be null~~
~~229. MIN30_NONSYNCH_RESERVES_DOLLAR~~	~~230. N~~	~~231. Must be null~~
~~233. REGULATION_AVAILABILITY_MW~~	~~234. N~~	~~235. Must be null~~
~~237. REGULATION_AVAILABILITY_DOL~~	~~238. N~~	~~239. Must be null~~

~~R~~		
~~241. DISPATCH_CURVE_SEGMENTS~~	~~242. Y~~	~~243. CURVE OR BLOCK~~
~~245. DISPATCH_BLOCK_SEGMENTS~~	~~246. Y~~	~~247. CURVE OR BLOCK~~
~~249. DISPATCH_MW1~~	~~250. N~~	~~251. 0 – Upper Operating Limit~~
~~253. DISPATCH_MW2~~	~~254. N~~	~~255. MW1 – Upper Operating Limit~~
~~257. DISPATCH_MW3~~	~~258. N~~	~~259. MW2 – Upper Operating Limit~~
~~261. DISPATCH_MW4~~	~~262. N~~	~~263. MW3 – Upper Operating Limit~~
~~265. DISPATCH_MW5~~	~~266. N~~	~~267. MW4 – Upper Operating Limit~~
~~269. DISPATCH_MW6~~	~~270. N~~	~~271. MW6 – Upper Operating LImit~~
~~273. DISPATCH_DOLLAR1~~	~~274. N~~	~~275. $ -1,000 - $1,000 values must be monotonically increasing.~~
~~277. DISPATCH_DOLLAR2~~	~~278. N~~	~~279. Value must be monotonically increasing~~
~~281. DISPATCH_DOLLAR3~~	~~282. N~~	~~283. Value must be monotonically increasing~~
~~285. DISPATCH_DOLLAR4~~	~~286. N~~	~~287. Value must be monotonically increasing~~
~~289. DISPATCH_DOLLAR5~~	~~290. N~~	~~291. Value must be monotonically increasing~~
~~293. DISPATCH_DOLLAR6~~	~~294. N~~	~~295. Value must be monotonically increasing~~

~~298. Calculating Customer Baseline Load for DADRP~~

~~299. The calculation of Customer Baseline Load requires the Meter Data Service Provider (MDSP) to have two key pieces of data:~~

~~300. Net metered load for each Demand Side Resource/Aggregate~~

~~301. Demand Side Resource/Aggregate scheduled hours~~

~~302. The MDSP will receive hourly interval net metered load directly from the facilities. The MDSP should use the Day-Ahead Operating Plan information contained in the file named:~~

~~303. DAMGenScheduleCCYYMMDD.csv~~

~~304. posted on bdsftp1.nyiso.com each day to determine the scheduled hours for a Demand Side Resource/Aggregate. This data posting is described in Section 2.2 and Appendix 1 of the NYISO Communication Interface Manual.~~

~~305.0. Baseline Calculation Method (Interruptible Load)~~

~~306. I. The Average Day CBL~~

~~307. A. Average Day CBLs for Weekdays~~

~~308. Step 1. Establish the CBL Window. Establish a set of days that will serve as representative of participant's typical usage.~~

~~309. A.1.a Determine the participant's peak hourly load over the past 30 days or the period covered by the load data file, whichever is smaller. This value becomes the initial seed value for the *average event period usage level*.~~

~~310. A.1.b Beginning with the weekday that is two days prior to the event:~~

~~311. A.1.b.1 Eliminate any holidays as specified by the NYISO.~~

~~312. A.1.b.2 Eliminate any days where the NYISO declared an EDRP event for which the participant was eligible for payment for a curtailment.~~

~~313. A.1.b.3 Eliminate any days in which the participant's DADRP curtailment bid was accepted in the DAM, whether or not the participant actually curtailed.~~

~~314. A.1.b.4 Create the *average daily event period usage* for that day, defined as the simple average of the participant's actual usage over the hours that define the event for which the CBL is being developed.~~

~~315. A.1.b.5 Eliminate low usage days. If the average daily event period usage is less than 25% of the average event period usage level, eliminate that day.~~

~~316. A.1.b.6 If the day has not been eliminated, update the average event period usage level by including the average daily event period usage for this day. If this is the first day added to the CBL Window, replace the average event period usage level (which was the initial seed value) with the average daily event period usage. Add this day to the~~

~~CBL Window.~~

~~317. A.1.c Move back one day and loop to step A.1.b.1~~

~~318. A.1.d Final Weekday CBL Window must contain 10 weekdays days.~~

~~319. Step 2. Establish the CBL Basis. Identify the five days from the 10-day CBL Window to be used to develop CBL values for each hour of the event.~~

~~320. A.2.a Order the 10 days in the CBL Window according to their average daily event period usage level, and eliminate the five days with the lowest average daily event period usage.~~

~~321. A.2.b The remaining five days constitute the CBL Basis.~~

~~322. Step 3. Calculate Average Day CBL values for the event.~~

~~323. A.3.a For each hour of the event, the CBL is the average of the usage in that hour in the five days that comprise the CBL basis.~~

~~324.~~

~~325. B. Average Day CBL for Weekends~~

~~326. Step 1. Establish the CBL Window~~

~~327. B.1.a The CBL Window is comprised of the most recent three like (Saturday or Sunday) weekend days. There are no exclusions for Holidays or event days.~~

~~328. Step 2. Establish the CBL Basis.~~

~~329. B.2.a Calculate the average daily event period usage value for each of the three days in the CBL Window.~~

~~330. B.2.b Order the three days according to their average daily event period usage level.~~

~~331. B.2.c Eliminate the day with the lowest average value~~

~~332. B.2.d The Weekend CBL Basis contains 2 days.~~

~~333. Step 3. Calculate Weekend Average Day CBL values for the event.~~

~~334. B.3.a For each hour of the event, the CBL value is average of usage in that hour in the two days that comprise the CBL basis.~~

~~335.~~

~~336. II. Elective Weather-Sensitive CBL formulation~~

~~337. Step 1. Calculate the Average Day CBL values for each hour of the event period described in (I) above.~~

~~338. Step 2. Calculate the Event Final Adjustment Factor. This factor is applied to each of the individual hourly values of the Average Day CBL.~~

~~339. A. Calculate the Adjustment Basis Average CBL~~

~~340. 2.A.1 Establish the adjustment period, the two-hour period beginning with the start of the hour that is four hours prior to the commencement of the event through the end of the hour three hours prior to the event.~~

~~341. 2.A.2 Calculate the Adjustment Basis Average CBL.~~

~~342. 2.A.2.a Apply the Average Day CBL formula as described in I. Average Day CBL (page 2), to the adjustment period hours as though it were an event period two hours in duration, but using the five days selected for use in the Average CBL Basis (i.e., average the ten hours).~~

~~343. 2.A.2.b Calculate the average of the two usage values derived in 2.A.2.a, which is the Adjustment Basis Average CBL.~~

~~344. B. Calculate the Adjustment Basis Average Usage~~

~~345. 2.B.1 The adjustment basis average usage is the simple average of the participant's usage over the two-hour adjustment period on the event day.~~

~~346. C. Calculate the gross adjustment factor~~

~~347. 2.C.1 The gross adjustment factor is equal to the Adjustment Basis Average Usage divided by the Adjustment Basis Average CBL~~

~~348. D. Determine the Final adjustment factor. The final adjustment factor is as follows:~~

~~349. 2.D.1 If the gross adjustment factor is greater than 1.00, then the final adjustment factor is the smaller of the gross adjustment factor or 1.20~~

~~350. 2.D.2 If the gross adjustment factor is less than 1.00, the final adjustment factors are the greater of the gross adjustment factor or .80.~~

~~351. 2.D.3 If the gross adjustment factor is equal to 1.00, the final adjustment factor is equal to the gross adjustment factor.~~

~~352. Step 3. Calculate the Adjusted CBL values.~~

~~353. A. The Event Adjusted CBL value for each hour of an event is the product of the Final Adjustment Factor and the Average CBL value for that hour.~~

~~354.~~

~~355. III. Selecting a CBL method~~

~~356. A.1 The participant selects the CBL formula when it registers, or is registered by its LSE or DRP, with the NYISO for program participation. The choice of CBL becomes effective when the NYISO accepts the registration.~~

~~357. A.2 At initial DADRP registration, participants may elect either the Average Day CBL or the Adjusted CBL formula.~~

~~358. A.3 At the time that the new Adjustable CBL formulation becomes effective, registered participants in DADRP may apply to change to the adjusted formula CBL method beginning thirty (30) days after such notification.~~

~~359. A.4 Participants may switch CBL methods by making application to the NYISO. For such a change applicable to the summer capability period (May 1 – October 31), the application must be submitted to NYISO by April 1. For a change applicable to the winter capability period (November 1 – April 30), the application must be submitted to NYISO by October 1. The change in the CBL formula becomes effective at the beginning of the next capability period after the NYISO accepts the application.~~

~~360.~~

~~361.0.0. Example Customer Baseline Calculation~~

~~362. As an example, assume a 4-hour bid from 12 noon to 4 pm was accepted. The past 10 days MWh consumption for similar hours, along with the four hours prior to event initiation, was:~~

~~***363. me***~~	~~***364. ayn-2***~~	~~***365. ayn-3***~~	~~***366. ayn-4***~~	~~***367. ayn-5***~~	~~***368. ayn-6***~~	~~***369. ayn-7***~~	~~***370. ayn-8***~~	~~***371. ayn-9***~~	~~***372. ayn-10***~~	~~***373. ayn-11***~~
~~375. ***9***~~	~~376.~~	~~377.~~	~~378.~~	~~379.~~	~~380.~~	~~381.~~	~~382.~~	~~383.~~	~~384.~~	~~385.~~
~~387. ***10***~~	~~388.~~	~~389.~~	~~390.~~	~~391.~~	~~392.~~	~~393.~~	~~394.~~	~~395.~~	~~396.~~	~~397.~~
~~399. ***0-11***~~	~~400.~~	~~401.~~	~~402.~~	~~403.~~	~~404.~~	~~405.~~	~~406.~~	~~407.~~	~~408.~~	~~409.~~
~~411. ***1-12***~~	~~412.~~	~~413.~~	~~414.~~	~~415.~~	~~416.~~	~~417.~~	~~418.~~	~~419.~~	~~420.~~	~~421.~~
~~***423. 2-1***~~	~~424. 0~~	~~425.~~	~~426.~~	~~427.~~	~~428. 0~~	~~429. 2~~	~~430.~~	~~431.~~	~~432.~~	~~433.~~
~~***435. 2***~~	~~436. 1~~	~~437.~~	~~438. 2~~	~~439.~~	~~440. 1~~	~~441.~~	~~442.~~	~~443.~~	~~444.~~	~~445. 0~~
~~***447. 3***~~	~~448.~~	~~449.~~	~~450.~~	~~451.~~	~~452.~~	~~453.~~	~~454.~~	~~455.~~	~~456.~~	~~457.~~
~~***459.***~~	~~460.~~	~~461.~~	~~462.~~	~~463.~~	~~464.~~	~~465.~~	~~466.~~	~~467.~~	~~468.~~	~~469.~~

~~*4*~~										

~~471.~~

~~**472. Steps 1 and 2: sum the MWh for the hours 12-4 each day and select the 5 highest totals:**~~

~~*473.*~~	~~*474. Whn-2*~~	~~*475. Whn-3*~~	~~*476. Whn-4*~~	~~*477. Whn-5*~~	~~*478. Whn-6*~~	~~*479. Whn-7*~~	~~*480. Whn-8*~~	~~*481. Whn-9*~~	~~*482. Whn-10*~~	~~*483. Whn-11*~~
~~485.~~	~~486. 3~~	~~487. 9~~	~~488. 7~~	~~489. 7~~	~~490. 7~~	~~491. 6~~	~~492. 7~~	~~493. 0~~	~~494. 4~~	~~495. 3~~
~~*497. Selected?*~~	~~498.~~	~~499.~~	~~500.~~	~~501.~~	~~502.~~	~~503.~~	~~504.~~	~~505.~~	~~506.~~	~~507.~~

~~509. Step 3: Calculate the CBL for each hour using the five highest days selected:~~

~~*510. Time*~~	~~*511. Dayn 2*~~	~~*512. Dayn 4*~~	~~*513. Dayn 6*~~	~~*514. Dayn 7*~~	~~*515. Dayn 11*~~	~~*516. CBL*~~
~~*518. 12-1*~~	~~519. 10~~	~~520. 9~~	~~521. 10~~	~~522. 12~~	~~523. 8~~	~~524. 9.8~~
~~*526. 1-2*~~	~~527. 11~~	~~528. 12~~	~~529. 11~~	~~530. 8~~	~~531. 10~~	~~532. 10.4~~
~~*534. 2-3*~~	~~535. 7~~	~~536. 9~~	~~537. 9~~	~~538. 9~~	~~539. 9~~	~~540. 8.6~~
~~*542. 3-4*~~	~~543. 5~~	~~544. 7~~	~~545. 7~~	~~546. 7~~	~~547. 6~~	~~548. 6.4~~

~~550.~~

~~551. The CBL in the right-hand column above would be the non-weather –adjusted value. If this customer was signed up with the weather-sensitive calculation option, the CBL would be adjusted upward or downward based on the actual usage in the two hours prior to when the scheduled load reduction was to take place. In this example, the Adjustment Basis Average CBL will be the average of the MWh for hours beginning 8 and 9 over the five days chosen for the CBL:~~

~~552. Time~~	~~553. Dyn 2~~	~~554. Dyn 4~~	~~555. Dyn 6~~	~~556. Dyn 7~~	~~557. Dyn 11~~	~~558.~~
~~560. 8-9~~	~~561. 5~~	~~562. 4~~	~~563. 3~~	~~564. 6~~	~~565. 4~~	~~566.~~
~~568. 9-10~~	~~569. 5~~	~~570. 5~~	~~571. 4~~	~~572. 2~~	~~573. 4~~	~~574.~~
~~576. Avrage~~	~~577.~~	~~578.~~	~~579.~~	~~580.~~	~~581.~~	~~582. 4.2~~

~~584.~~

~~585. On the day of the event (day n), assume the actual metered load consumption is as shown in the following table:~~

~~586. Hour Beginning~~	~~587.~~	~~588.~~	~~589. 10~~	~~590.~~	~~591. 1~~	~~592.~~	~~593. 2~~	~~594. 3~~
~~596. MWh~~	~~597.~~	~~598.~~	~~599. 4~~	~~600.~~	~~601. 2~~	~~602.~~	~~603. 3~~	~~604. 4~~

~~606.~~

~~607. In this case, the Adjustment Basis Average Usage is the average of the MWh in hours 8 and 9, or 4.5 MWh. The Gross Adjustment Factor is the ratio of the Adjustment Basis Average Usage to the Adjustment Basis Average CBL, 4.5/4.2 or 1.07. The CBL will therefore be adjusted upward by 1.07 – the following table shows the resulting new CBL and the computed load reduction for the four-hour event period.~~

~~608. Hour Beginning~~	~~609. 12~~	~~610. 1~~	~~611. 2~~	~~612. 3~~
~~614. Load(MWh)~~	~~615. 2~~	~~616. 3~~	~~617. 3~~	~~618. 4~~
~~620. CBL(MWh)~~	~~621. 10.5~~	~~622. 11.1~~	~~623. 9.2~~	~~624. 6.8~~
~~626. Load Reduction (MWh)~~	~~627. 8.5~~	~~628. 8.1~~	~~629. 6.2~~	~~630. 2.8~~

~~632.~~

~~633. It is important to note that if the actual usage in the two hours prior to notification was *lower* than the Adjustment Basis Average CBL, the CBL curve would have been shifted *downward* and would result in load reduction performance that was lower than would~~

~~have been determined using the Average Day CBL (without weather adjustment).~~

~~634.0. Calculating CBL for Aggregated Load Bids~~

~~635. For aggregated bids involving more than one Demand Side Resource as registered in Attachment C it is necessary to calculate a composite CBL for the bid. The composite CBL will be calculated as the sum of the non-coincident CBLs of the individual DSRs using the procedures defined in Section 5.1 above. The concept of non-coincident CBLs is illustrated with the following example.~~

~~636. Assume that two interruptible load Demand Side Resources have been aggregated into one bid. A one-hour bid is used, but the values in each cell could represent the sum of the MWh consumed over a multi-hour bid. The metered load for each DSR over the ten-day interval used by the CBL calculation is shown in table 5.1. The five days selected for the CBL calculation for each DSR are denoted by the shaded background.~~

~~637. Figure 1: Illustrating Non-Coincident CBL Calculation for Aggregated Resources~~

~~638.~~	~~639. y(n- 2)~~	~~640. y(n- 3)~~	~~641. y(n- 4)~~	~~642. y(n- 5)~~	~~643. y(n- 6)~~	~~644. y(n- 7)~~	~~645. y(n- 8)~~	~~646. y(n- 9)~~	~~647. y(n- 10)~~	~~648. y(n- 11)~~
~~650. R #1~~	~~651.~~	~~652.~~	~~653.~~	~~654.~~	~~655.~~	~~656.~~	~~657.~~	~~658.~~	~~659.~~	~~660.~~
~~662. R #2~~	~~663.~~	~~664.~~	~~665.~~	~~666.~~	~~667.~~	~~668.~~	~~669.~~	~~670.~~	~~671.~~	~~672.~~

~~674.~~

~~675. The CBL for DSR #1 is given as (4.5 + 3.3 + 4.2 + 4.5 + 3.6)/5 = 4.02 MWh.~~

~~676. The CBL for DSR #2 is given as (7.2 + 7.2 + 7.3 + 7.3 + 6.7)/5 = 7.14 MWh.~~

~~677. The composite non-coincident CBL for the aggregated resources would be 4.02 + 7.14 = 11.16 MWh. The CBL is termed non-coincident because different days are used for each individual CBL calculation.~~

~~679.~~5. Reporting and Verifying Economic Customer Baseline Load and Meter Data

~~679.1.~~5.1. Metering Requirements

DRPs are responsible to provide the appropriate metering infrastructure for the Demand Side Resource it has enrolled to participate in the DADRP.

For Demand Side Resources, a Net Load Meter is required for participation in the DADRP. For Demand Side Resources that have a Local Generator, both a Net Load Meter and Local Generator Meter are required for participation in the DADRP.

- Net Load Meter: A New York Public Service Commission ("NYSPSC")-approved revenue-grade hourly interval meter that measures the net Load of the Demand Side Resource. This net Load meter data must be used by the NYSPSC-approved Meter Data Service Provider for the purposes of calculating the Economic Customer Baseline Load ("ECBL") and for submitting data to the NYISO for settlement purposes.
- Local Generator Meter: An hourly interval meter that measures the total output of the Local Generator of the Demand Side Resource within a 2% accuracy threshold. This metering data will be required for all Demand Side Resources that are enrolled in the DADRP and have a Local Generator, regardless of whether the resource plans at the time of enrollment to operate its Local Generator to provide Demand Reduction in the DADRP. The NYISO will use this Local Generator meter data solely for monitoring purposes. The metering accuracy shall be in accordance with requirements of the "as-left meter test criteria," described in the New York Department of Public Service 16 NYCRR Part 92 Operating Manual
- The DRP is required to maintain meter installation documentation and must submit that information to the NYISO upon request. Detailed information on the documentation required may be found in Section 24.4 of the Attachment R of the NYISO OATT; DRPs should be able to provide, at a minimum:
  - Interval Metering installation date
  - Interval Metering installation individual and company
    - Name, license number, and company information
  - Meter Equipment Type
    - Make and Model of Interval Meter
    - Interval Metering accuracy
    - For CTs or PTs: Type Designation and Ratio.

~~LSEs are required to provide hourly interval metering data to validate performance. Demand Side Resources participating in the DADRP must have an integrated hourly metering device, installed to capture the facility's net load, certified by a Meter Service~~

~~Provider that provides integrated hourly kWh values for market settlement purposes. DADRP participants must also contract with a Meter Data Service Provider for collection and reporting of DADRP data to the NYISO. If an LSE contracts with a non-TO MSP or MDSP, the metering and data reporting will be handled by the NYISO on a case-by-case basis.~~

~~679. When a Demand Side Resource registers for participation in the program, whether as a self-supply or interruptible load customer, an hourly interval meter shall be installed to meter the entire facility or for totalized load at each Demand Side Resource. An hourly interval meter is required for each participating load.~~

~~**679.4.** Historical Operating Data~~

~~679. LSEs shall be required to provide historical operating data for each load upon acceptance for participation in the DADRP. These requirements may be met by:~~

~~*679. For loads with existing interval meters:*~~

~~679. Provide a minimum of 1 complete billing period of hourly interval data immediately preceding the first Capability Period the load will participate in.~~

~~*679. For totalized loads with existing interval meters:*~~

~~679. For totalized loads, provide hourly interval data for a minimum of 1 complete billing period of hourly interval data for all participating loads at the premise; or~~

~~*679. For newly installed load interval meters:*~~

~~679. For newly installed interval meters, provide the prior three month's summary of monthly kwh consumption and demand values, if available.~~

5.2. Economic Customer Baseline Load

The ~~Performance~~~~The NYISO employs~~ DRP is required to use the Economic Customer Baseline Load ("ECBL") to establish a Customer Baseline in accordance with Section 24.2 of the OATT against which actual metered usage is compared in order to measure demand reduction. The NYISO shall employ two different calculation methodologies of the ECBL for scheduled Demand Reductions, depending on whether the Demand Reduction is scheduled on a weekday or a weekend.

~~The Weekday ECBL looks at the ECBL Weekday Window as the time period reviewed in determining the ECBL for any hour of scheduled Demand Reduction that~~

~~takes place on a weekday. The ECBL Weekday Window consist of the hours from the previous ten weekdays that correspond to each hourly-interval of the scheduled Demand Reduction period.~~

~~The Weekend ECBL looks at the ECBL Weekend Window as the time period reviewed in determining the ECBL for any hour of scheduled Demand Reduction that takes place on a weekend. It shall consist of the hours from the previous three weekend days of the same type (Saturday or Sunday) that correspond to each hourly-interval of the scheduled Demand Reduction period.~~

~~The following steps summarize the process of ECBL calculation for either of the types:~~

- ~~Collect metered load values for each hour in the corresponding ECBL window during which no scheduled Demand Reduction occurred.~~
- ~~For each hour of the ECBL window where a scheduled Demand Reduction occurred, select the Proxy for that hour and day in place of the actual metered load for that hour.~~
- ~~Rank the above values in descending order the metered load.~~
- ~~Calculate the average of~~
  - ~~Fifth and sixth ranked values for Weekday ECBL~~
  - ~~All the values for Weekend ECBL.~~
- ~~Apply the ECBL In-Day Adjustment Factor to the ECBL to calculate the Adjusted ECBL for the Target Hour.~~

~~Further details on calculating the ECBL can be found in Section 24.2 of the NYISO's Open Access Transmission Tariff.~~

~~679.12.~~5.3. Performance

Performance for interruptible loads is measured as the difference between the ~~Customer Baseline~~ECBL and the actual metered usage by hour during the period when ~~load~~ demand reduction is scheduled. For those DADRP resources that do not have a Local Generator, the ~~Participants~~ DRP ~~are~~ is required to ~~report~~ submit only ~~one baseline -~~-- the ECBL to the NYISO ~~for Energy Payments, for those resources that do not have a local generator.~~

A resource with a Local Generator is required to report an additional CBL for Local Generator through its DRP. A resource with a Local Generator shall therefore report:

- ECBL calculated at the facility's net meter for Energy Payments, as discussed ~~in the previous section~~above.
    - Performance for a Demand Side Resource with a ~~l~~Local ~~g~~Generator is measured as the difference between the ECBL calculated at the facility's net meter and metered usage at the same meter.
- CBL for Local Generator – Incremental Output – used solely for monitoring purposes
    - Not required for Demand Side Resources without Local Generators
    - This is used to determine the baseline for the incremental output of the Local Generator.
    - The incremental output of the Local Generator is the difference between the Local Generator's metered output and the CBL of that Local Generator.
    - The data is used by the NYISO solely for monitoring purposes, not used for billing purposes.
    - The meter data used to determine the Local Generator CBL must come from the Local Generator output meter only.
    - The CBL for the Local Generator is calculated using the following procedure:
        - Sum the Local Generator output (in MWh) for each day over a 10 weekday period, and excluding days where the Demand Side Resource curtailed Load in response to a NYISO direction in the EDRP/SCR Program or DADRP
        - Select the 5 days out of the 10 days selected above with the lowest values of daily Local Generator output
        - Calculate the CBL for each hour as the average of the five hourly MWh's corresponding with the scheduled hours

~~1. The Customer Baseline type used for computing performance shall be the same day-type as the day-type corresponding to the period when load reduction is scheduled, as described in Section 5 of this manual.~~

~~2. Performance for a interruptible load Demand Side Resource/Aggregate for each hour shall be calculated as:~~

~~3. $PRL_{meter\ h}$ = $(CBL\text{-}xx)_h - NML_h$~~

~~4. Where $PRL_{meter\ h}$ = calculated actual performance (Demand Reduction) for the hour~~

~~5. $CBL\text{-}xx_h$ = Customer Baseline day-type (weekday – CB-WD, Saturday-CB-SA, or Sunday-CB-SU)~~

~~6. NML_h = actual net hourly metered load~~

~~7. If the quantity $(CBL\text{-}xx)h\text{-}NML_h$ is negative in any scheduled hour, then $PRL_{meter\ h}$ should be set equal to zero.~~

~~PRL$_{meter\ h}$ should be set equal to zero for all hours in which the Demand Side Resource/Aggregate was not scheduled for a Demand Reduction.~~

~~679.13. Data Submission~~

5.4. Data Submission

The DRP must submit to the ISO the information for each Demand Side Resource that it has enrolled either as an individual DADRP resource or with other Demand Side Resources as part of a single, aggregated DADRP resource in accordance with Section 24.4 of the OATT. The DRP must submit this information for the purpose of enrolling, registering, making settlements, and verifying the participation of each Demand Side Resource in the ISO's Energy market. This includes information regarding each of the Demand Side Resource's interval meters, description of Local Generators and data from the ~~m~~Meter ~~a~~Authority or Meter Data Service Provider of the DRP to verify the scheduled reduction of DADRP resources.

The NYISO may also require the DRP to report additional data for each DADRP resource it enrolls in the DADRP in accordance with Section 24.4 of the ~~NYISO's Open Access Transmission Tariff~~ OATT. ~~lists down the above and some additional Data Reporting Requirements that a Demand Reduction Provider needs to fulfill for each DADRP resource it enrolls in the DADRP program.~~

5.5. Verification, Errors and Frauds

Demand Reduction calculated using the Economic Customer Baseline Load methodology is subject to verification by the NYISO. The DRP shall report the data at the time and in the format required by the NYISO as per Section 24.4 of the ~~NYISO's Open Access Transmission Tariff~~OATT. Failure to report the required data may result in penalties. Further, if the NYISO determines through an audit that it has made an erroneous payment to a DRP, it shall have the right to recover the erroneous payment either by reducing other payments to that DRP or by any other lawful means.

~~A Meter Data Service Provider (MDSP) will provide the Demand Side Resource net metered load to the LSE.~~

~~The MDSP will receive copies of the Demand Side Resource Registration Form, and the Aggregated Bid Reporting Form, as well as corresponding unique Point Identifiers for each accepted Demand Side Resource/Aggregate from the NYISO.~~

~~The MDSP will receive Hourly Interval Meter readings for the net load at each Demand Side Resource. The MDSP will aggregate the meter reads where necessary per the Aggregated Bid Reporting Form, and unique Point Identifier definitions provided by the NYISO.~~

~~The MDSP will use the Hourly Interval meter readings for each Demand Side Resource/Aggregate to calculate a Customer Base Load, per the procedure in Section 5 for each Demand Side Resource/Aggregate.~~

~~The MDSP will calculate Demand Reduction Performance ($PRL_{meter\ h}$), for hours in which the Demand Side Resource was scheduled for reduction per the formula described in Section 6.3 or 6.4 of this manual, whichever is applicable. The Demand Side Resource/Aggregate metered Load Data and the calculated Customer Base Load should be retained by the MDSP for a period of at least two years.~~

~~The MDSP will report the Demand Side Resource/Aggregate to the ISO's basftp1.nyiso.com site in the MWH Data Daily file named MWHmmddyyyy.csv. If the metered data can be obtained, and the CBL calculation performed in time for the initial monthly billing, then the actual data should be used. If the metered data cannot be obtained, and/or if the CBL calculation cannot be performed in time for the initial monthly billing, then Demand Reduction Performance (PRLmeter) should be set equal to Scheduled Demand Reduction. Sometime between the Initial Monthly Billing and the First Settlement Adjustment, an updated MWH Data Daily file should be submitted to the ISO based upon actual metered data.~~

~~679.14. Verification, Errors and Fraud~~

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

~~If the ISO in it's review of the LSE/DRP's account determines the LSE/DRP or one of its customers has committed fraud to extract DADRP payments from the ISO, the ISO will have the right to ban the LSE/DRP or the LSE/DRP's customer from the DADRP as well as pursue all of the ISO's legal rights, at its sole discretion.~~

6. Payments

~~8. Performance and Payment Examples~~

~~679.15.~~ ~~For each Demand Reduction Provider that bids a Demand Reduction into the DAM and is scheduled to provide Energy from the Demand Reduction, the LSE providing Energy service to the Demand Side Resource that accounts for the Demand Reduction is paid the product of: (a) the DAM hourly LBMP at the applicable Demand Reduction Bus; and (b) the hourly demand reduction scheduled Day-Ahead (in MW). This accounts for the surplus payment collected from the LSE in the DAM energy market for the load that's scheduled to reduced. Additionally, the LSE incurs a balancing charge that equals the product of: (a)the Real-Time LBMP calculated for the Load bus; and (b) the actual hourly Demand Reduction. This in effect cancels out the excess in the true-up amount that the LSE would collect on account of its actual Real-Time load being lower than the Day-Ahead load purchased.~~ Each DRP that bids a Demand Reduction into the Day--Ahead Market and is scheduled to provide Energy through Demand Reduction receives a Demand Reduction Incentive Payment in accordance with ~~equal to the product of: (a) the DAM hourly LBMP at the Demand Reduction bus; and (b) the lesser of the actual hourly Demand Reduction or the scheduled hourly Demand Reduction (in MW). For further details on these settlements, please refer~~ Section 4.2 of the ~~NYISO's~~ Services Tariff~~ and Section 4.2 of Accounting and Billing Manual. Note that these payments will be made by the NYISO to the DRP. The portion that will be transferred from the DRP to the Demand Side Resource is outside the scope of the NYISO, and must be arranged between the DRP and the Demand Side Resource. Economic "Incentivized" Curtailment of Load – LSE-Sponsored~~

~~Finally, i~~If the actual curtailment is lower than the scheduled curtailment, DRP and the LSE will be charged for the -difference in the schedule and the actual performance ~~the balance excess load is bought at the Real-Time LBMP~~in accordance with Section 4.5 of the Services Tariff. ~~This cost is distributed to the corresponding LSE and/or the Demand Reduction provider as per Section 4.5 of the NYISO's Services Tariff.~~

For each ~~Demand Reduction Provider~~DRP that bids a Demand Reduction into the Day Ahead

Market and is scheduled to provide Energy from the Demand Reduction, the LSE providing Energy service to the Demand Side Resource that accounts for the Demand Reduction is paid in accordance with Section 4.2~~xxx~~ of the Services Tariff. -Additionally, the LSE incurs a balancing charge in accordance with Section 4.5~~xxx~~ of the Services Tariff. This balancing charge in effect cancels out the excess in the true-up amount that the LSE would collect on account of its actual Real-Time load being lower than the Day-Ahead Load purchased.

~~For Load scheduled to economically curtail Day-Ahead, and that actually does curtail in Real-Time, the LSE would be paid Day-Ahead LBMP and would include a supplement, if needed, to allow full recovery of the "Curtailment Initiation Cost". Also, the LSE would be charged for that curtailed Load, but then would receive a rebate for this charge as the "Incentive".~~

~~As an example, assume:~~

~~a) A 10 MW Load bids 10 MW fixed Load and bids to curtail 3 MW of Load at a Price Cap of $100/Mwh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.~~

~~b) That Load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.~~

~~c) Day-Ahead LBMP is $250/MWh for those 6 hours.~~

~~d) Real-Time LBMP is $275/MWh for those 6 hours.~~

~~e) The Load actually consumes 7 MW and curtails 3 MW over those 6 hours.~~

~~The resulting payments and charges would be as follows:~~

~~a) The LSE/DRP would be paid $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailment.~~

~~b) No supplemental "Uplift" payment for a "Bid Curtailment Cost Guarantee" would be needed since the $4,500 LBMP payment would exceed the $3,800 total curtailment bid.~~

~~c) The LSE/DRP would be charged $15,000 = $250/MWh LBMP x 10 MW x 6 hours for the fixed Load.~~

~~d) The LSE/DRP would then also receive a rebate of $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailed Load as an "Incentive".~~

~~e) The LSE/DRP would be charged $4,950 = $275/MWh * 3 MW * 6 hours for the curtailed load as a Load Balance.~~

~~f) The LSE/DRP would receive a rebate of $4,950 = $275/MWh * 3 MW * 6 hours for the balancing of their Day-Ahead energy purchase.~~

	Day Ahead	Real Time	
LBMP bus	**$250**	**$275**	assumed
LBMP zonal	**$250**	**$275**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

	DRP is LSE
Day-Ahead Settlement	**LSE**
LSE DAM Purchase Obligation	($15,000)
LSE DAM Credit (Incentive)	4,500.00
Real-Time Settlement	
Payment for Performance*	4,500.00
Nonperformance Penalty*	0.00
Bid Curtailment Cost Guarantee Payment	$3,800
LSE Load Balance Credit	$4,950
LSE Load Balance Debit	($4,950)
Total Received (Paid) by LSE	($2,200)

~~679.16. Uplift Example – LSE Sponsored~~

~~An LSE will be paid Day-Ahead LBMP for the self-supply and would include a supplement, if needed, for "Bid Curtailment Cost Guarantee" to allow full recovery of the "Curtailment Initiation Cost".~~

~~Assume the same example for a curtailable Load Bid above (with and without the self-supplying small generator) except that the Load bids a Price-Cap of $150/MWh rather than $100/MWh, and continues to bid $2,000 for "Curtailment Initiation Costs". This amounts to a total curtailment bid of $4,700 = (3 MW x $150/MWh x 6 hours) plus $2,000.~~

~~The payments and charges would be as follows:~~

~~a) As in the previous example, the LSE would be paid $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailment.~~

~~b) The LSE would also be paid $200 = $4,700 - $4,500 as a supplemental payment for a "Bid Curtailment Cost Guarantee" since the total $4,700 curtailment bid exceeded the $4,500 LBMP payment (this is based upon the requirement that SCUC determines that the total bid production cost over the 24 hour Dispatch Day will be lower with this Load curtailed).~~

~~c) Also, as in the previous example, the LSE would be charged $15,000 for the fixed Load; and then would also receive a rebate of $4,500 as an "Incentive".~~

~~d) The LSE would be charged $4,950 = $275/MWh * 3 MW * 6 hours for the curtailed load as a Load Balance.~~

~~e) The LSE would receive a rebate of $4,950 = $275/MWh * 3 MW * 6 hours for the balancing of their Day-Ahead energy purchase.~~

~~The same example holds for Load that curtails through self-supply except that the "Incentive" rebate payment is not made.~~

~~This example is simplified somewhat because the bids and LBMPs in each hour were the same, but the principle remains that "Uplift" is paid if, over the course of the 24 hour Dispatch Day, bid costs are not fully recovered through LBMP.~~

	Day Ahead	Real Time	
LBMP bus	**$250**	**$275**	assumed
LBMP zonal	**$250**	**$275**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$150**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$4,700**		

	DRP is LSE
Day-Ahead Settlement	**LSE**
LSE DAM Purchase Obligation	($15,000)
LSE DAM Credit (Incentive)	4,500.00
Real-Time Settlement	
Payment for Performance*	4,500.00
Nonperformance Penalty*	0.00
Bid Curtailment Cost Guarantee Payment	$200
LSE Load Balance Credit	$4,950
LSE Load Balance Debit	($4,950)
Total Received (Paid) by LSE	($5,800)

~~679.17. Economic "Incentivized" Curtailment of Load With Non-Performance Penalty for Failure to Reduce Consumption – LSE-Sponsored~~

~~If an LSE has an End-User scheduled for a Price-Cap curtailment that would have been eligible for the "Incentive" payment, and that subsequently fails to curtail, the LSE will be charged the higher of Day-Ahead or Real-Time LBMP for non-curtailed Load.~~

~~As an example, assume:~~

~~a) A 10 MW Load bids 10 MW fixed Load and bids to curtail 3 MW of Load by reducing consumption at a Price Cap of $100/MWh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.~~

~~b) That Load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.~~

~~c) For those six hours, Day-Ahead LBMP is $250/MWh, and Real-Time LBMP is $300/MWh.~~

~~d) Over those six hours, the Load actually consumes 10 MW; it fails to curtail 3 MW.~~

~~The resulting payments and charges would be as follows:~~

~~a) The LSE would be paid $4,500 = $250/MWh LBMP x 3 MW x 6 hour for the curtailment.~~

~~b) The LSE would be charged $15,000 = $250/MWh Day-Ahead LBMP x 10 MW x 6 hours for the fixed Load.~~

~~c) The LSE would also be charged $5,400 = $300/MWh Real-Time LBMP x 3 MW x 6 hours for the Load that failed to curtail.~~

~~d) The LSE also would not receive a rebate as an "Incentive" because it failed to curtail.~~

	Day Ahead	Real Time	
$LBMP_{bus}$	**$250**	**$300**	assumed
$LBMP_{zonal}$	**$250**	**$300**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**0**	Actual Reduction
Total DAM Load (MW)	**7**	**10**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

	DRP is LSE
Day-Ahead Settlement	**LSE**
LSE DAM Purchase Obligation	($15,000)
LSE DAM Credit (Incentive)	4,500.00
Real-Time Settlement	
Payment for Performance*	0.00
Nonperformance Penalty*	(5,400.00)
Bid Curtailment Cost Guarantee Payment	$0
LSE Load Balance Credit	$0
LSE Load Balance Debit	$0
Total Received (Paid) by LSE/DRP	($15,900)

~~679.18. Economic "Incentivized" Curtailment of Load – DRP-Sponsored~~

~~For Load scheduled to economically curtail Day-Ahead, and that actually does curtail in Real-Time, the DRP would be paid Day-Ahead LBMP and would include a supplement, if needed, to allow full recovery of the "Curtailment Initiation Cost". Also, the LSE would be charged for that curtailed Load, but then would receive a rebate for this charge as the "Incentive".~~

~~As an example, assume:~~

~~a. An LSE bids 10 MW fixed Load and a DRP bids to curtail 3 MW of that Load at a Price Cap of $100/Mwh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.~~

~~b. That Load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.~~

~~c. Day-Ahead LBMP is $250/MWh for those 6 hours.=~~

~~d. Real-Time LBMP is $275/MWh for those 6 hours.~~

~~e. The Load actually consumes 7 MW and curtails 3 MW over those 6 hours.~~

~~The resulting payments and charges would be as follows:~~

~~a) The DRP would be paid $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailment.~~

~~b) No supplemental "Uplift" payment for a "Bid Curtailment Cost Guarantee" would be needed since the $4,500 LBMP payment would exceed the $3,800 total curtailment bid.~~

~~c) The LSE would be charged $15,000 = $250/MWh LBMP x 10 MW x 6 hours for the fixed Load.~~

~~d) The LSE would then also receive a rebate of $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailed Load as an "Incentive".~~

~~e) The LSE would be charged $4,950 = $275/MWh * 3 MW * 6 hours for the curtailed load as a Load Balance.~~

~~f) The LSE would receive a rebate of $4,950 = $275/MWh * 3 MW * 6 hours for the balancing of their Day-Ahead energy purchase.~~

	Day Ahead	Real Time	
LBMP bus	**$250**	**$275**	assumed
LBMP zonal	**$250**	**$275**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

		DRP is not LSE	
Day-Ahead Settlement		**DRP**	**LSE**
LSE DAM Purchase Obligation			(15,000.00)
LSE DAM Credit (Incentive)			4,500.00
Real-Time Settlement			
Payment for Performance*		4,500.00	
Nonperformance Penalty*		0.00	0.00
Bid Curtailment Cost Guarantee Payment		$0	
LSE Load Balance Credit			$4,950
LSE Load Balance Debit			($4,950)
Total Received (Paid) by LSE		$4,500	($10,500)

~~679.19. Uplift Example – DRP-Sponsored~~

~~The DRP will be paid Day-Ahead LBMP for the load curtailment provided and would also be paid a supplemental payment, if needed, for "Bid Curtailment Cost Guarantee" to allow full recovery of the "Curtailment Initiation Cost"~~

~~Assume the same example for a curtailable Load Bid above except that the Load bids a Price-Cap of $150/MWh rather than $100/MWh, and continues to bid $2,000 for "Curtailment Initiation Costs". This amounts to a total curtailment bid of $4,700 = (3 MW x $150/MWh x 6 hours) plus $2,000.~~

~~The payments and charges would be as follows:~~

~~a) As in the previous example, the DRP would be paid $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailment.~~

~~b) The DRP would also be paid $200 = $4,700 - $4,500 as a supplemental payment for a "Bid Curtailment Cost Guarantee" since the total $4,700 curtailment bid exceeded the $4,500 LBMP payment (this is based upon the requirement that SCUC determines that the total bid production cost over the 24 hour Dispatch Day will be lower with this Load curtailed).~~

~~c) As in the previous example, the LSE would be charged $15,000 for the fixed Load~~

~~d) The LSE would receive a rebate of $4,500 = $250/MWh LBMP x 3 MW x 6 hour for the curtailment as an "Incentive".~~

~~e) The LSE would be charged $4,950 = $275/MWh * 3 MW * 6 hours for the curtailed load as a Load Balance.~~

~~f) The LSE would receive a rebate of $4,950 = $275/MWh * 3 MW * 6 hours for the balancing of their Day-Ahead energy purchase.~~

	Day Ahead	Real Time	
LBMP $_{bus}$	**$250**	**$275**	assumed
LBMP $_{zonal}$	**$250**	**$275**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$150**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$4,700**		

			DRP is not LSE
Day-Ahead Settlement		**DRP**	**LSE**
LSE DAM Purchase Obligation			($15,000.00)
LSE DAM Credit (Incentive)			$4,500.00
Real-Time Settlement			
Payment for Performance*		$4,500.00	
Nonperformance Penalty*		$0.00	$0.00
Bid Curtailment Cost Guarantee Payment		$200.00	
LSE Load Balance Credit			$4,950
LSE Load Balance Debit			($4,950)
Total Received (Paid) by LSE		$4,700	($10,500)

~~679.20. Economic "Incentivized" Curtailment of Load With Non-Performance Penalty for Failure to Reduce Consumption – DRP-Sponsored~~

~~If an LSE/DRP has an End-User scheduled for a Price-Cap curtailment that would have been eligible for the "Incentive" payment, and that subsequently fails to curtail, the LSE/DRP will be charged the higher of Day-Ahead or Real-Time LBMP for non-curtailed Load~~

~~As an example, assume:~~

~~a. An LSE bids 10 MW fixed Load and a DRP bids to curtail 3 MW of that Load by reducing consumption at a Price Cap of $100/MWh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.~~

~~b. That Load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.~~

~~c. For those six hours, Day-Ahead LBMP is $250/MWh, and Real-Time LBMP is $300/MWh.~~

~~d. Over those six hours, the Load actually consumes 10 MW; it fails to curtail 3 MW.~~

~~The resulting payments and charges would be as follows:~~

~~a) The DRP would be paid nothing, since the resource did not perform at all in Real Time.~~

~~b) The DRP would not have received its total bid production cost of $3,800 = $2000 + ($100/MWh x 3 MW x 6 hours.) However, since it did not perform at all, it is not eligible for a "Bid Curtailment Cost Guarantee Payment"~~

~~c) The LSE would be charged $15,000 = $250/MWh Day-Ahead LBMP x 10 MW x 6 hours for the fixed Load.~~

~~d) The LSE would receive a rebate of $4,500 = $250/MWh LBMP x 3 MW x 6 hour for the curtailment as an "Incentive".~~

~~e) The LSE and DRP are together responsible for the non-performance penalty of $5,400 = $300/MWh (higher of Day-Aheda or Real-Time Price) x 3 MW x 6 hours for the load that failed to curtail.~~

~~f) The LSE would also be charged $4,500 = $250/MWh Day-Ahead LBMP Bus Price x 3~~

~~MW x 6 hours for the Load that failed to curtail. This is the LSE's portion of the non-performance penalty. But it is exactly offset by the amount of its Day-Ahead payment (see (a), above). Thus the LSE is held harmless from the acts of the DRP.~~

~~g) The DRP would be charged $900 = $5,400-$4,500, the remainder of the penalty~~

~~h) Since Day-Ahead and Real-Time load are the same, the LSE would be neither charged nor credited for Load Balancing.~~

	Day Ahead	Real Time	
LBMP bus	**$250**	**$300**	assumed
LBMP zonal	**$250**	**$300**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**0**	Actual Reduction
Total DAM Load (MW)	**7**	**10**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

			DRP is not LSE
Day-Ahead Settlement		**DRP**	**LSE**
LSE DAM Purchase Obligation			($15,000.00)
LSE DAM Credit (Incentive)			$4,500.00
Real-Time Settlement			
Payment for Performance*		$0.00	
Nonperformance Penalty*		($900.00)	($4,500.00)
Bid Curtailment Cost Guarantee Payment		$0	
LSE Load Balance Credit			$0
LSE Load Balance Debit			$0
8.5 ***Total Received (Paid) by LSE/DRP***		($900)	($15,000)

~~679.21. Additional Examples~~

~~The following three examples mirror the six provided previously, with the exception that the real-time prices have been set below the day-ahead prices.~~

	Day Ahead	Real Time	
LBMP $_{bus}$	**$250**	**$225**	assumed
LBMP $_{zonal}$	**$250**	**$225**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

	DRP is LSE	*DRP is not LSE*	
Day-Ahead Settlement	**LSE**	**DRP**	**LSE**
LSE DAM Purchase Obligation	($15,000)		(15,000.00)
LSE DAM Credit (Incentive)	4,500.00		4,500.00
Real-Time Settlement			
Payment for Performance*	4,500.00	4,500.00	
Nonperformance Penalty*	0.00	0.00	0.00
Bid Curtailment Cost Guarantee Payment	$0	$0	
LSE Load Balance Credit	$4,050		$4,050
LSE Load Balance Debit	($4,050)		($4,050)
Total Received (Paid) by LSE	($6,000)	$4,500	($10,500)

	Day Ahead	Real Time	
LBMP bus	**$250**	**$225**	assumed
LBMP zonal	**$250**	**$225**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**3**	Actual Reduction
Total DAM Load (MW)	**7**	**7**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$150**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$4,700**		

	DRP is LSE		*DRP is not LSE*
Day-Ahead Settlement	**LSE**	**DRP**	**LSE**
LSE DAM Purchase Obligation	($15,000)		($15,000.00)
LSE DAM Credit (Incentive)	$4,500.00		$4,500.00
Real-Time Settlement			
Payment for Performance*	$4,500.00	$4,500.00	
Nonperformance Penalty*	$0.00	$0.00	$0.00
Bid Curtailment Cost Guarantee Payment	$200.00	$200.00	
LSE Load Balance Credit	$4,050		$4,050
LSE Load Balance Debit	($4,050)		($4,050)
Total Received (Paid) by LSE	($5,800)	$4,700	($10,500)

	Day Ahead	Real Time	
LBMP bus	**$250**	**$200**	assumed
LBMP zonal	**$250**	**$200**	assumed
Fixed Load (MW)only	**10**	**10**	Net Load + Reduction
Load Reduction (MW)	**3**	**0**	Actual Reduction
Total DAM Load (MW)	**7**	**10**	Real Time Net Load
Shutdown duration (hrs)	**6**	**6**	assumed
Hourly Curtailment Bid	**$100**		
Curtailment Initiation Cost	**$2,000**		
Total Bid Cost	**$3,800**		

	DRP is LSE		*DRP is not LSE*
Day-Ahead Settlement	**LSE**	**DRP**	**LSE**
LSE DAM Purchase Obligation	($15,000)		($15,000.00)
LSE DAM Credit (Incentive)	4,500.00		$4,500.00
Real-Time Settlement			
Payment for Performance*	0.00	$0.00	
Nonperformance Penalty*	(4,500.00)	$0.00	($4,500.00)
Bid Curtailment Cost Guarantee Payment	$0	$0	
LSE Load Balance Credit	$0		$0
LSE Load Balance Debit	$0		$0
Total Received (Paid) by LSE/DRP	($15,000)	$0	($15,000)

7. DADRP Cost Allocation

~~DADRP Cost Allocation~~The costs incurred by the NYISO on account of paying scheduled and verified ~~the Demand Side Resources~~ demand reductions from ~~Demand Reduction Providers~~DRP is recovered from NYCA loads that are deemed to have benefited from the demand ~~load~~ reductions. The cost allocation in accordance with Section 24.1 in Attachment R of the NYISO's Open Access Transmission Tariff involves the use of eight coefficients that are based on the fraction of time the following three most frequently constrained interfaces in New York Control Area face congestion:

1. The "Central-East" interface, which divides western from eastern New York State.
2. The Sprainbrook-Dunwoodie interface, which divides New York City and Long Island from the rest of New York State
3. The Consolidated Edison Company ("ConEd") - Long Island interface (including the Y49/Y50 lines), which divides New York City from Long Island~~in accordance with~~

The description and current values of these eight coefficients is presented below:

Coefficient	**Description**	**Value**
a1	Fraction of time when no constraints exist	0.402
a2	Fraction of time when Central East interface alone is constraining	0.083
a3	Fraction of time when Sprainbrook-Dunwoodie interface alone is constraining	0.184
a4	Fraction of time when Con Ed-Long Island (including the Y49/Y50 lines) interfaces are constraining, but Central East and Sprainbrook-Dunwoodie interfaces are not constraining	0.085
a5	Fraction of time when Central East and Sprainbrook-Dunwoodie interfaces are constraining	0.042
a6	Fraction of time when Central East, Con Ed-Long Island interfaces (including the Y49/Y50 lines) are constraining	0.096
a7	Fraction of time when Sprainbrook-Dunwoodie, Con Ed-Long	0.053

	Island interfaces (including the Y49/Y50 lines) are constraining	
a8	Fraction of time when Central East, Sprainbrook-Dunwoodie, Con Ed-Long Island interfaces (including the Y49/Y50 lines) are constraining	0.055

~~The DADRP will result in an under-collection of revenue by the NYISO. The revenue deficiency will be the combined result of:~~

~~(a) the load reduction bid guarantee, whereby the LBMP revenue will be supplemented to ensure the load reduction recovers their bid costs for the actual real-time MW reduction accomplished, and~~

~~(b) the rebate offered to the end-user's LSE/DRP for the real-time MW reduction accomplished at day-ahead LBMP, and~~

~~(c) penalty charges, which offset the revenue deficiency to the extent the non-performance penalties exceed real-time LBMP.~~

~~A static method will be used to allocate costs associated with the under-collective of revenue according to those who benefit from the DADRP:~~

~~a) Each Zone (or set of Zones) are allocated the cost of the DADRP based upon its load ratio share on a daily basis using real-time metered daily load data and the static probability: (i) that no constraints existed, (ii) that this Zone(s) was upstream of a constraint and curtailment occurred upstream, and (iii) that this Zone(s) was downstream of a constraint and curtailment occurred downstream.~~

~~b) The three most often limiting NYCA interfaces are used, with the total probabilities of them being limiting or having no constraints normalized to100%. Based upon current data, the three most limiting interfaces historically have been Central-East, Sprainbrook-Dunwoodie, and Con Ed - Long Island. For the purposes of DADRP cost allocation, four composite zones are used: West of Central-East (Zones A,B,C,D,E,), East Upstate Excluding NYC and LI (Zones F,G,H,I), New York City (Zone J), and Long Island (Zone K). For the period May-September 2002, the percentages of time when the specific interfaces were constrained are:~~

- ~~No constraints: 24.7%~~
- ~~Central-East: 12.9%~~
- ~~Con Ed – Long Island: 53.3%~~
- ~~Sprainbrook – Dunwoodie: 9.1%~~

~~The equations used to allocate costs to individual LSEs are as follows:~~

~~For LSE m in Zones A-E:~~

~~**a_1 * ($cost_A$+…+$cost_K$) * $load_m$ / ($load_A$+…+$load_K$) +** **'no constraints**~~

~~**a_2 * ($cost_A$+…+$cost_E$) * $load_m$ / ($load_A$+…+$load_E$) +** **'above Central-East const**~~

~~**a_3 * ($cost_A$+…+$cost_I$+$cost_k$) * $load_m$ / ($load_A$+…+$load_I$+$load_k$) +** **'above S-D constraint**~~

~~**a_4 * ($cost_A$+…+$cost_J$) * $load_m$ / ($load_A$+…+$load_J$)** **'above CE-LI constraint**~~

~~For LSE m in Zones F-I:~~

~~**a_1 * ($cost_A$+…+$cost_K$) * $load_m$ / ($load_A$+…+$load_K$) +** **'no constraints**~~

~~**a_2 * ($cost_F$+…+$cost_K$) * $load_m$ / ($load_F$+…+$load_K$) +** **'below Central-East const**~~

~~**a_3 * ($cost_A$+…+$cost_I$+$cost_k$) * $load_m$ / ($load_A$+…+$load_I$+$load_k$) +** **'above S-D constraint**~~

~~**a_4 * ($cost_A$+…+$cost_J$) * $load_m$ / ($load_A$+…+$load_J$)** **'above CE-LI constraint**~~

~~For LSE m in Zone J:~~

~~**a_1 * ($cost_A$+…+$cost_K$) * $load_m$ / ($load_A$+…+$load_K$) +** **'no constraints**~~

~~**a_2 * ($cost_F$+…+$cost_K$) * $load_m$ / ($load_F$+…+$load_K$) +** **'below Central-East const**~~

~~**a_3 * $cost_J$ * $load_m$ / $load_J$ +** **'below S-D constraint**~~

~~**a_4 * ($cost_A$+…+$cost_J$) * $load_m$ / ($load_A$+…+$load_J$)** **'above CE-LI constraint**~~

~~For LSE m in Zone K:~~

~~**a_1 * ($cost_A$+…+$cost_K$) * $load_m$ / ($load_A$+…+$load_K$) +** **'no constraints**~~

~~**a_2 * ($cost_F$+…+$cost_K$) * $load_m$ / ($load_F$+…+$load_K$) +** **'below Central-East const**~~

~~**a_3 * ($cost_A$+…+$cost_I$+$cost_k$) * $load_m$ / ($load_A$+…+$load_I$+$load_k$) +** **'above S-D constraint**~~

~~**a_4 * $cost_K$ * $load_m$ / $load_K$** **'below CE-LI constraint**~~

~~In all cases, the variables are:~~

~~a_1 = fraction of time when no constraints exist (0.314)~~

~~a_2 = fraction of time when Central-East interface is constraining (0.288)~~

~~a_3 = fraction of time when Sprainbrook-Dunwoodie interface is constraining (0.061)~~

~~a_4 = fraction of time when Con Ed-Long Island interface is constraining (0.337)~~

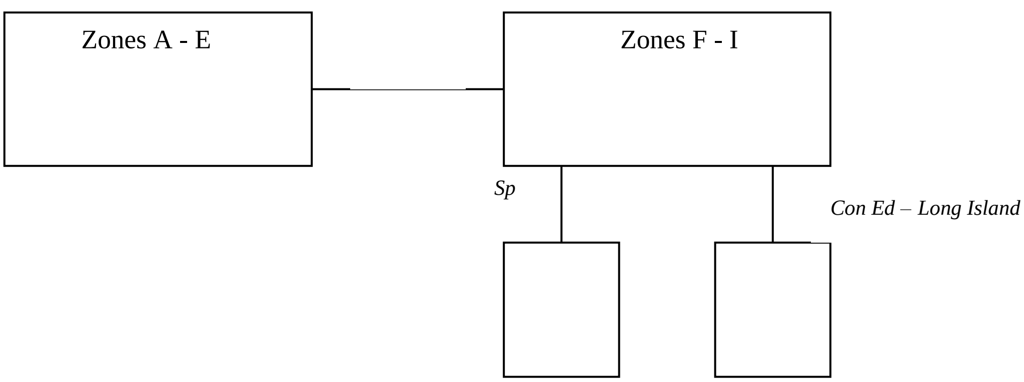
~~$cost_{A...K}$ = revenue deficiencies due to DADRP load reductions in zones A…K, calculated on a daily basis~~

~~$load_m$ = real-time load for LSE m, calculated on a daily basis~~

~~$load_{A...K}$ = real-time loads for all LSEs in each zone A…K, calculated on a daily basis~~

~~The specific values for a_1…a_4 will be used for 2003. The specified values and the overall methodology will be reviewed by the Price-Responsive Load Working Group on an annual basis.~~

~~**Figure 2: Relationship Between Interface Constraints and Zones**~~



~~Attachment A DADRP Demand Response Provider (DRP) Registration~~

~~Upon completion of program registration the ISO will model each accepted Demand Side Resource/Aggregate in the Day-Ahead Commitment software. Each accepted Demand Side Resource/Aggregate will be assigned a unique Point Identifier. As a condition of enrollment, the DRP accepts that the NYISO will provide a copy of the Demand Side Resource Registration Form, and the Aggregated Bid Reporting Form to the relevant Meter Data Service Provider (MDSP). Additionally the DRP accepts that the NYISO will provide the relevant MDSP with the unique Point Identifier used to model the Demand Side Resource/Aggregate.~~

~~This form must be faxed to~~ **~~518-356-6146, attention: Manager DADRP or e-mailed to dlawrence@nyiso.com.~~**

~~All inquiries, notices and communications by the NYISO will be sent to the address provided below.~~

~~Name:~~ ________________________________

~~Organization:~~ ________________________________

~~Address:~~ ________________________________

____

____

~~Phone:~~ ________________________________

~~Cellphone:~~ ________________________________

~~Pager:~~ ________________________________

~~Fax:~~ ________________________________

~~E-mail:~~ ________________________________

~~Is your organization a current NYISO Customer?~~ ~~(check one) Yes π No π~~

~~(If no, you must become a NYISO Customer to participate in this program)~~

~~Please check all the LBMP zone(s) in which you plan to submit DADRP bids:~~

~~West π~~ ~~Genesee π~~ ~~Central π~~

~~North π~~ ~~Mohawk Valley π~~ ~~Capital π~~

~~Hudson Valley π~~ ~~Millwood π~~ ~~Dunwoodie π~~

~~NYC π~~ ~~Long Island π~~

~~The DRP certifies that the information contained in this form and its attachments is complete and correct.~~

~~IN WITNESS WHEREOF, this Demand Reduction Provider's Day-Ahead Demand Reduction Program Registration has been submitted on this, the ______ day of ________________, 20__.~~

~~NAME OF Demand Reduction Provider:________________________________~~

~~Name: ____~~

~~Title: ____~~

~~___________________________________~~

~~Authorized Representative Signature~~

~~Attachment B DADRP Demand Side Resource Registration~~

~~This form must be faxed to **518-356-6146, attention: Manager DADRP or e-mailed to dlawrence@nyiso.com.**~~

~~Use one form for each Demand Side Resource Registered by the Demand Reduction Provider (DRP).~~

~~Organization: ____________________~~

~~Address: ____________________~~

____

____

~~Name of Local Distribution Company (LDC): ____________________~~

~~LDC's Electric Account Number (s) for Demand Side Resource: ____________________~~

~~LBMP Zone of Demand Side Resource: ____________________~~

~~Bus or substation name where DSR will be modeled: ____________________~~

~~Interruptible Load Rating of Demand Side Resource _____.__ MW (rounded to nearest 0.1 MW)~~

~~*(Note: as of 2003, only interruptible load resources will be allowed to participate in DADRP)*~~

~~Type of metering:~~

~~π Existing utility interval meter~~ ~~Meter ID #: ____________~~

~~If new meter, date installed or to be installed _________ Meter ID #: ____________~~

~~*Attach certification if new meter*~~

~~Identify dates of any planned Demand Side Resource shutdown periods in 2003:~~

~~DRP supplying Demand Side Resource: ____________________~~

~~*I HEREBY CERTIFY that the information contained in this form and its attachments is complete and correct.*~~

____________________ ____________________

~~Authorized Representative of Demand Response Provider~~ ~~Date~~

~~Attachment C DADRP Aggregated Bid Reporting Form~~

~~Demand Reduction Providers (DRPs) can aggregate individual Demand Side Resources to allow multiple resources to be combined into one bid. This form allows you to designate which Demand Side Resources will be aggregated. You may have more than one set of aggregated resources, but individual Demand Side Resources can only appear in one aggregated bid.~~

~~Please complete one Aggregated Bid Reporting Form for each set of aggregated bids. Only Demand Side Resources located in the same superzone may be aggregated.~~

~~Part I – Aggregation Information~~

~~Please list all of the Demand Side Resources to be aggregated in this bid (use the Organization and Address information provided on the Demand Side Resource Registration Form).~~

~~Organization~~	~~Meter ID Number~~

~~**Part II –Static Data**~~

~~**Item**~~	~~**Description**~~	~~**Value**~~
~~MAX_WINTER_OPER_LIMIT~~	~~Max reduction feasible~~	
~~MAX_SUMMER_OPER_LIMIT~~	~~Max reduction feasible~~	
~~CONTRACTED_SUMMER_INST_CAP~~	~~Per ICAP auction~~	
~~CONTRACTED_WINTER_INST_CAP~~	~~Per ICAP auction~~	
~~NORMAL_RESP_RATE~~		~~set to large value~~
~~PRI_GEN_CONTACT~~	~~Principle contact~~	
~~GEN_CONTACT_PHONE~~	~~Contact phone number~~	

~~**Part III – Commitment Data**~~

~~**Item**~~	~~**Description**~~	~~**Value**~~
~~MIN_DOWN_TIME~~		
~~MIN_RUN_TIME~~		~~Max of 8~~
~~MAX_STOPS_DAY~~		
~~START_UP_NOTIFICATION_TIME~~		
~~STRT_UP_COST_CRV1~~	~~Curtailment Initiation Cost~~	