



## Load Response Program Agreement Real-Time Demand Response Program – 30 Minute Notice

This Agreement, dated \_\_\_\_\_, 2009 (“Effective Date”), is entered into between The Narragansett Electric Company, d/b/a National Grid (“Company”), with a principal address at 280 Melrose Street, Providence, RI 02907 and \_\_\_\_\_ (“Customer”) (each a “Party”, together the “Parties”) with an electric account(s) with Company at the address(es) and account(s) specified below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Account #: \_\_\_\_\_

Method of Curtailment (Please check one):

- Curtailment Only    Emergency Generation    Both Curtailment and Emergency Generation

Customer’s total “Committed kW Reduction” (kW available for interruption at above account(s)) under this Agreement is:

\_\_\_\_\_ kW

### 1. Program Summary

Through the Company and other Enrolling Participants, the Independent System Operator – New England (“ISO-NE”) is offering a Real-Time Demand Response Program (“Demand Response Program” or “Program”) in order to ensure reliability when capacity is tight on the electric grid, particularly during the summer months.

During the term of this Agreement, Customer commits to mandatory energy use reductions on a 30-minute notice from ISO-NE. Customer receives credits for participating in the Program and receives additional credits for the energy actually saved when requested by ISO-NE to curtail.

All program requirements and the methods for establishing baselines and calculating performance are governed by the ISO-NE Load Response Manual (“Load Response Manual”), which is located online at:

[http://www.iso-ne.com/rules\\_proceeds/isone\\_mnls/m\\_lrp\\_load\\_response\\_program\\_revision\\_12\\_10\\_01\\_07.doc](http://www.iso-ne.com/rules_proceeds/isone_mnls/m_lrp_load_response_program_revision_12_10_01_07.doc)

The Load Response Manual is subject to revision by ISO-NE.

### 2. Customer Eligibility

The Demand Response Program is available only to customers who meet all of the following criteria:

- (1) have a demand of 100 kW or greater;
- (2) are capable of curtailing a minimum of 100 kW between 7 am and 6 pm on all non-holiday weekdays;
- (3) have hourly load metering in place; and
- (4) are not operating under a load curtailment program of a supplier or other entity

By executing this Agreement, Customer warrants that it meets the above eligibility criteria and will continue to meet the criteria throughout the Agreement Term, defined in Section 9 of this Agreement.

### 3. **Metering Requirements**

#### (a) **Installation Requirements**

In order to participate in the Demand Response Program, Customer agrees to become connected to an Internet Based Communication System (“IBCS”). To become connected, the Customer may have 2 options:

##### ***Option 1 – Equipment Owned by the Company:***

This option is available for any installation where wireless digital signal or an equivalent communication path acceptable to Company is present at the meter location.

Company will replace its existing billing meter(s) with similar meter(s) equipped for secure communication. If, at any point during the Agreement Term, in the Company’s judgment, its costs for establishing or maintaining the metering or communication system are not justified by revenues from Customer’s participation in the Program, Company reserves the right to charge Customer for all or part of the costs, or, at Customer’s option, retire Customer from the Program.

##### ***Option 2 – Customer or Third Party Owned Equipment:***

Company will refer a third party to install equipment that will satisfy the Program metering requirements. Third party hardware shall be capable of delivering interval data derived from meter pulses to IBCS every 5 minutes. Option 2 may require an Internet connection supplied by Customer. Customer will be responsible for all costs associated with the third party.

Customer selects Option \_\_\_\_ for participation in the Program.

#### (b) **Access**

Customer shall provide Company and/or its system support contractors with full, safe, and free access to the Customer’s premises and the metering and communications equipment during normal business hours for installation, adjustment, maintenance, or repair of the equipment, at mutually acceptable times subject to acceptable insurance as maintained by the Company, or its subcontractors or agents, for such installation work according to state and local regulations.

#### (c) **Customer Access to Data**

Customers enrolled in the Demand Response Program may subscribe to the Energy Profiler Online (“EPO”) system through the Company’s Optional Interval Data Service. Through the EPO system, Customer will receive access to their electrical load data. If not already enrolled, Customers may enroll by completing and signing the “Energy Profiler Online Enrollment Form.”

### 4. **Procedure for Requests to Reduce Load**

As a participant in the Demand Response Program, Customer will be notified of a mandatory interruption when a specific action of NEPOOL Operating Procedure No. 4 - Action During A Capacity Deficiency (“OP4”) is called for either their load zone or system-wide. Customers that will be utilizing backup or emergency generation will be activated at Action 12. Customers that will be reducing load, and not utilizing backup or emergency generation will be activated at Action 9. In either case, Customer is required to reduce its electric load within 30-minutes of being notified.

Customer shall provide a primary and secondary contact person’s name and information for notification of a mandatory load reduction on Appendix B. Company will forward ISO-NE event notifications electronically to an e-mail address and/or an e-mail addressable device (i.e., text pager or cell phone), notifying Customer when a Curtailment Event, as defined in the Program, is called. Appendix A describes the format of notifications to curtail and restore loads.

**5. Planned Maintenance or Facility Shutdown that Impacts Customer's Ability to Respond**

As provided for in the Load Response Manual, to the extent possible, scheduled maintenance that reduces Customer's ability to interrupt should be conducted from September 1 through June 30 of any calendar year if possible. In the event that the Customer will be unable to interrupt any or all of their contracted kW under this Agreement due to a planned facility shutdown, Customer must provide the following to Company at least 60 days in advance:

- (1) An explanation for why Customer will not be able to respond;
- (2) The start date and end date of Customer's inability to fully respond;
- (3) The kW impact of any reduction in the ability to interrupt.

**6. Customer Baseline and Performance Measurement**

ISO-NE shall calculate Customer's performance from demand interval data submitted to the IBCS. In the event that valid data cannot be submitted due to a metering failure or any other cause, interval data may be estimated by Company and submitted to ISO-NE subject to its acceptance by ISO-NE.

The details of baseline and performance calculations are contained in the Load Response Manual. As provided for in the Load Response Manual, ISO-NE calculates a baseline from previous non curtailment event day interval data submitted for the Customer. On a curtailment event day, the baseline may be adjusted for Customer's actual load for the two hours prior to event notification. Customer performance is calculated by ISO-NE from the difference between the adjusted baseline and actual loads during the curtailment event. Both capacity performance, measured in kW and energy performance, measured in kWh curtailed during events, are used in the credit calculations. All baseline and performance calculations by ISO-NE are final pending the submission of any revised or estimated data by Company prior to the ISO-NE resettlement deadlines.

**7. Credits to Customer**

Customer will receive monthly capacity and/or energy credits on its electric bill from Company within 120 days of Company receiving compensation from ISO-NE. Company reserves the right to make credits on a monthly or quarterly basis.

If there is any disagreement regarding Customer's performance, ISO-NE's final determination shall control, even if Customer or Company disagrees with such determination. In no case will Company credit Customer with more than what Company receives from ISO-NE on behalf of Customer.

**(a) Capacity Credits**

Company will credit Customer 85% of the total revenues it receives from ISO-NE for the calculated capacity value of the Customer's resource. This credit initially will be based upon the Committed kW Reduction amount provided by the Customer in this Agreement and submitted to ISO-NE. The initial capacity credit will remain in effect until the ISO-NE calls for a curtailment of the load. Following the curtailment, the Capacity credit will be adjusted to reflect the amount of load actually curtailed based on the ISO-NE performance calculation, which is detailed in the Load Response Manual.

The total amount of Committed kW Reduction will be provided by Customer and may be changed by Company at Customer's request in accordance with the ISO-NE program rules.

An example of a Capacity credit calculation is contained in Appendix C.

**(b) Energy Credits**

Customer will also receive credit for energy curtailed when requested by ISO-NE. ISO-NE will determine the kWh to be used in the credit calculation by comparing the adjusted baseline to the Customer's actual load consumption during the curtailment period. Credits made to Customer for actual curtailments will be for \$0.425/kWh or 85% of the actual hourly zonal price, whichever is greater.

In the case of a curtailment event lasting less than two hours, energy credits will be calculated for a minimum of a two hour period from the curtailment event start time.

An example of an Energy credit calculation is contained in Appendix C.

**8. Non-Performance**

If Customer does not fully comply when an interruption request is made, Customer’s future credits will be affected as provided for in the Load Response Manual.

If Customer fails to reduce demand during a Load Response event, it will lose its capacity rating going forward. In addition, Customer’s capacity rating will remain at zero and Customer will no longer receive a monthly capacity credit. However, if Customer is able to comply with a subsequent event called by ISO-NE for demand reduction, the capacity rating will be reinstated to the level of actual event performance.

A Customer that partially reduces demand during a Load Response event, but is unable to reduce by the full amount agreed upon, will receive a reduced capacity credit going forward. Those credits will be based on the actual amount of kW load reduction performed in that interruption. The Customer can return its capability rating to its Committed Reduction by performing that total reduction when the next curtailment is requested.

Customer shall not be penalized for exceeding its Committed Reduction amount when requested to interrupt by the ISO-NE.

**9. Agreement Term**

- (a) This Agreement shall remain in effect from the Effective Date through May 31, 2010 (“Agreement Term”).
- (b) Any obligation by Company to provide credits to Customer for past performance in compliance with the terms of this Agreement as of the termination date shall survive termination of the Agreement.
- (c) Customer must remain in the Program or another ISO-NE Demand Response Program with Company as the Enrolling Participant for the period of one year or until May 31, 2010, whichever is earlier.
- (d) After the initial one-year period, either Customer or Company shall have the right to terminate this Agreement. Such request to terminate this Agreement by either Party shall require at least ten (10) business days’ prior written notice.

**10. Notices**

All notices and other communications required hereunder shall be made in writing and shall be deemed given as of the time of delivery or, in the case of a telecopied or electronic communication as of the time of confirmation.

If to the Company, to: Lisa M. Morgera  
National Grid  
201 Jones Road  
Waltham, MA 02451-1600  
Phone: 781-907-1535  
Fax: 781-917-1729  
E-mail: distributed.resources@us.ngrid.com

If to Customer, to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**11. Limitation of Liability**

IN NO EVENT SHALL COMPANY, ITS AFFILIATES, OR ITS (OR ITS AFFILIATES') OFFICERS, DIRECTORS, EMPLOYEES, AGENTS AND SERVANTS, AND SHAREHOLDERS, BE LIABLE TO CUSTOMER OR TO ANY OTHER PARTY FOR ANY DIRECT, INDIRECT, RELIANCE, MULTIPLE, INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS OR REVENUES, DAMAGES OR COSTS INCURRED AS A RESULT OF LOSS OF TIME, LOSS OF SAVINGS, LOSS OF DATA, OR LOSS OF GOODWILL), CONNECTED WITH OR ARISING FROM THIS AGREEMENT, WHETHER OR NOT COMPANY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES OR COSTS RESULTING FROM THE USE OF OR INABILITY TO USE THE METERING AND COMMUNICATIONS EQUIPMENT, REGARDLESS OF WHETHER SUCH DAMAGES ARE BASED IN CONTRACT, TORT, WARRANTY, NEGLIGENCE, STRICT LIABILITY, PRODUCT LIABILITY OR OTHERWISE; PROVIDED HOWEVER, NOTHING SHALL LIMIT COMPANY'S OBLIGATION TO PROVIDE CREDIT FOR DEMAND REDUCTION IN ACCORDANCE WITH SECTION 7 HEREIN. WITHOUT LIMITING THE FOREGOING, IN NO EVENT SHALL COMPANY BE LIABLE TO CUSTOMER OR ANY THIRD PARTY IN CONNECTION WITH THIS AGREEMENT FOR DAMAGES RELATING TO PHYSICAL INJURY OR PROPERTY DAMAGE.

**12. Force Majeure**

Any delay or failure of either Party in the performance of its required obligations hereunder shall be excused if and to the extent caused by fire, flood, unusually severe weather, explosion, riot, war, sabotage, or other similar causes beyond the Party's reasonable efforts to prevent, avoid or mitigate.

**13. Miscellaneous Provisions**

- (a) This Agreement constitutes the entire Agreement between the Parties and supersedes all previous understandings, commitments or representations concerning the subject matter. No amendments or modifications to this Agreement may be made except in writing signed by both Parties. If a final decision of a court of competent jurisdiction holds invalid any part or portion of this Agreement, such part or portion shall be modified to the extent strictly necessary (including, if necessary, deletion) to make such part or portion valid and enforceable, and such modified part or portion, together with the balance of the Agreement shall be valid and binding on the parties.
- (b) Company is under no obligation to call upon Customer to reduce its load. The decision to call upon Customer is solely within the discretion of the ISO-NE.
- (c) Customer shall not participate in any other ISO-NE Load Response Program while this Agreement is in effect.
- (d) If any of the provisions of this Agreement are inconsistent with obligations that Customer has under an electric power supply contract, Customer has the obligation to notify Company of such inconsistencies.
- (e) Customer authorizes Company to release Customer's load data or any other Customer information reasonably necessary for the administration of this Program to the ISO-NE, or any other entity involved in the administration of the Program.
- (f) Company reserves the right in its sole discretion to send a check for payments under this Agreement to Customer, rather than issue a credit Customer's electric bill as provided in Section 7.

(g) This Agreement shall be governed by the laws of the State of Rhode Island, without regard to the conflict of laws principles contained therein.

Each Party has had its authorized representative execute this Agreement below.

|                |                                   |
|----------------|-----------------------------------|
| _____          | The Narragansett Electric Company |
| Customer Name  |                                   |
| By: _____      | By: _____                         |
| (please sign)  | (please sign)                     |
| By: _____      | By: _____                         |
| (please print) | (please print)                    |
| Title: _____   | Title: _____                      |
| Date: _____    | Date: _____                       |



## Load Response Customer Agreement

### Appendix A: Event Notification Format and Details

Customer will be notified electronically of the start and end times of curtailment events by email and text message to an addressable cellular telephone and/or text paging device. When possible, Company will try to provide advanced notice that a curtailment event is likely, but Customer must have a plan to implement assuming 30 minutes' notice of a curtailment event via electronic notification. Company is under no obligation to provide voice communication before or during an event, but will attempt to do so if resources and information are available.

Customer is responsible for notifying Company of any changes or additions to the list of devices it desires to be on its notification list. Requests for changes or additions to notification contacts should be emailed to [distributed.resources@us.ngrid.com](mailto:distributed.resources@us.ngrid.com), and should contain the contact name, Customer name, office telephone number, mobile telephone number, email address, and device email address (e.g. 5088689961@messaging.sprint.com).

All notification messages will show up as coming from [ibcs@ibcs-os.com](mailto:ibcs@ibcs-os.com) and will have a comma-delimited subject line with 9 fields. Messages to cellular phones and pager devices may be truncated, but can be deciphered by the comma-delimited subject line. The notification and subject line will look like:

ISO-NE,N,1,0,C,01182006,1300,1500,0

The fields are defined as:

1. Will always be ISO-NE.
2. Message Type: Will either be an N for Notification, R for Restore, or I for Informational Only. If it is N you are asked to reduce loads or switch to generation. If it is R you can return to the grid.
3. Program number: This will be a 1 if you are using any emergency generation to reduce loads and 2 if you are just reducing loads.
4. Load zone number: It will either be a 0 (called for all zones), 4002 (New Hampshire), 4005 (Rhode Island), 4006 (SEMA), 4007 (WCMA), 4008 (NEMA).
5. Block number: This provides ISO-NE the ability to separate assets in the program so they might call an event for only a subset of all resources. This will either be the letter A, B, or C or more likely it will be empty to indicate all blocks. Restore messages will always specify both zone and block, but notifications will be done by one or the other. If you receive a Notification, it is for your block and zone.
6. Date of event
7. Start Time: This is generally, but not always, 30 minutes from the message time. Energy credits may accrue from the time of notice.
8. End time: This is estimated for Notification and actual for Restore messages.
9. Message ID: this is specific to each message that comes from the IBCS and is used for tracking.

Curtailment events may be called by load zone 0 (all zones) or by a specific load zone. Curtailment and restore notices may be requested by zone or block. All events have a minimum duration of 2 hours.



**Load Response Customer Agreement  
Appendix B  
Customer Facility Survey and Contact Information**

**Company / Facility Name:** \_\_\_\_\_  
**Account Number :** \_\_\_\_\_  
**Facility Address:** \_\_\_\_\_  
**Hours of Operation:** \_\_\_\_\_  
**Hours of Occupation:** \_\_\_\_\_  
**Account Manager:** \_\_\_\_\_  
**ISO-NE Load Zone (found on Company electric bill):** \_\_\_\_\_  
**NX 11-C Number (to be provided by ISO-NE):** \_\_\_\_\_

**Contact Information:**

|                         |  |          |  |
|-------------------------|--|----------|--|
| Facility Contact Name:  |  | Phone #: |  |
| Secondary Contact Name: |  | Phone #: |  |

**Curtailment Contacts for Event Notification:**

|                  |  |                 |  |
|------------------|--|-----------------|--|
| Primary Name:    |  | email address*: |  |
|                  |  | Pager/Device*:  |  |
|                  |  | Phone #:        |  |
| Secondary Name:  |  | email address*: |  |
|                  |  | Pager/Device*:  |  |
|                  |  | Phone #:        |  |
| Additional Name: |  | email address*: |  |
|                  |  | Pager/Device*:  |  |
|                  |  | Phone #:        |  |
| Additional Name: |  | email address*: |  |
|                  |  | Pager/Device*:  |  |
|                  |  | Phone #:        |  |

\* Email addressable pagers and devices are acceptable – please indicate device email address.  
 (Note: System allows for more than 4 contacts if needed)

**Facility Survey (For Installation Option 1, Company-Owned Equipment):**

|  |  |
|--|--|
| Location of existing revenue meter:                |  |
| Verizon Wireless signal strength at revenue meter: |  |



***Interruptible Capacity Questions:***

How is the load reduction going to occur at your facility?

- Reduce/Cut Electric load
- Start Generation
- Reduce Load and Start Generation

**\*\*NOTE: If Customer indicates that it will start generation or use a combination of generation and load reduction for a Load Reduction event, Customer must present to the Company an air permit or written waiver issued by the state environmental regulator for the generating unit.**

If a generator is going to be started, please provide the following information:

- Fuel Type to be used:
- |  |  |
|--|--|
| <input type="checkbox"/> No. 2 Fuel Oil (Diesel)       | <input type="checkbox"/> No. 1 Fuel Oil              |
| <input type="checkbox"/> No. 3 Fuel Oil (Diesel)       | <input type="checkbox"/> No. 4 Fuel Oil              |
| <input type="checkbox"/> No. 5 Fuel Oil                | <input type="checkbox"/> No. 6 Fuel Oil              |
| <input type="checkbox"/> Natural Gas                   | <input type="checkbox"/> Liquefied Propane Gas       |
| <input type="checkbox"/> Multifuel                     | <input type="checkbox"/> Propane                     |
| <input type="checkbox"/> Jet Fuel – Naphtha Type       | <input type="checkbox"/> Motor Gasoline-Conventional |
| <input type="checkbox"/> Motor Gasoline-Reformulated   | <input type="checkbox"/> Motor Gasoline-Fuel Ethanol |
| <input type="checkbox"/> Motor Gasoline-Oxygenated     | <input type="checkbox"/> Gasoline                    |
| <input type="checkbox"/> Other (please provide: _____) |  |

Fuel Characteristics (Sulfur Content percentage): \_\_\_\_\_ %

How will fuel be measured and recorded?

\_\_\_\_\_

Type of generation unit:      Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 In Service Years: \_\_\_\_\_

Size of the generation unit (Rating capacity of the unit): \_\_\_\_\_ kWh

Is the generating unit registered or permitted through a State agency?      Yes    or    No

**DISCLAIMER: It is the responsibility of the Customer to comply with all local, State, and Federal air emissions permits and/or regulations. Questions concerning compliance should be forwarded to the respective regulating authority.**

Emission rates of the generating unit - in lbs/kWh: (please use either from emissions testing or manufacturer documents if emissions test data not available)

- Emissions rate lbs/kW of Nitrogen Oxide (NOX): \_\_\_\_\_ lbs/kWh
- Emissions rate lbs/kW of Sulfur Dioxide (SO2): \_\_\_\_\_ lbs/kWh
- Emissions rate lbs/kW of Carbon Dioxide (CO2): \_\_\_\_\_ lbs/kWh
- Emissions rate lbs/kW of Carbon Monoxide (CO): \_\_\_\_\_ lbs/kWh
- If other emissions, please specify: \_\_\_\_\_



## Load Response Customer Agreement

### Appendix C: Capacity and Energy Credit Calculation Examples

#### Capacity Credit Example:

Customer Enrolled kW = 1000  
 Ready To Respond Date = 5/1/2008

| Calendar Month                         | May 2008          | June 2008         |     |     | July 2008                 | Aug. 2008                  | Sept. 2008               | Oct. 2008                |
|--|-------------------|-------------------|-----|-----|---------------------------|----------------------------|--------------------------|--------------------------|
| FCM Transitional Rate per kW per Month | \$3.05            | \$3.75            |     |     | \$3.75                    | \$3.75                     | \$3.75                   | \$3.75                   |
| Event Performance                      | 800               | 600               | 800 | 950 | No Events                 | No Events                  | No Events                | No Events                |
| Adjusted Capability                    | 1000              | 1000              |     |     | 800                       | 600                        | 950                      | 950                      |
| Explanation for Adjusted Capability    | Registered Amount | Registered Amount |     |     | Lowest Performance in May | Lowest Performance in June | Last Performance in June | Last Performance in June |
| Reserve Margin Gross Up Factor*        | 148%              | 114%              |     |     | 114%                      | 114%                       | 114%                     | 148%                     |
| Percentage to Customer                 | 85%               | 85%               |     |     | 85%                       | 85%                        | 85%                      | 85%                      |
| <b>Capacity Credit to Customer</b>     | <b>\$3,836.90</b> | <b>\$3,633.75</b> |     |     | <b>\$2,907.00</b>         | <b>\$2,180.25</b>          | <b>\$3,452.06</b>        | <b>\$4,481.62</b>        |

\*The reserve margin factor varies monthly and is established by ISO-NE. The above are estimates based on ISO-NE reserve margin factors from the period June 2007 through May 2008.

#### Energy Credit Example:

|  | 1 hr prior | Start Time |          | End Time        |
|--|------------|------------|----------|-----------------|
| Hour Ending  | 12:00 PM   | 1:00 PM    | 2:00 PM  | 3:00 PM         |
| Assumed Energy Clearing Prices at ISO-NE (\$/kWh)                        |            |            | \$0.25   | \$0.55          |
| Gross amount paid by ISO-NE (minimum \$0.50/kWh)                         |            |            | \$0.50   | \$0.55          |
| Hourly Load on Similar Previous Day (Baseline)                           | 1000       | 1000       | 1035     | 1045            |
| Adjustment Load  |            |            | 25       | 25              |
| Expected Hourly Load (Adjusted Baseline)                                 |            |            | 1060     | 1070            |
| Actual Hourly Load on Event Day  | 1025       | 1025       | 310      | 270             |
| Actual Hourly Load Reduction (Performance)                               |            |            | 750      | 800             |
| Credit earned for Hour 1   |            |            | \$375.00 |                 |
| Credit earned for Hour 2   |            |            |          | \$440.00        |
| Gross Energy Credit from ISO-NE  |            |            |          | \$815.00        |
| <b>Total Customer Energy Credit for this 2 hour event (85% of Gross)</b> |            |            |          | <b>\$692.75</b> |