PROCEDURE STM-DR-9-2011-1

REQUIREMENTS FOR STEAM DEMAND RESPONSE PILOT PROGRAM

SERVICE UNDER STEAM TARIFF RIDER F

December 2011

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SECTION I. DEFINITIONS

1.0 “ANN Model” stands for “Artificial Neural Network Model”. The ANN Model is a proprietary forecasting program that utilizes the Artificial Neural Network ("ANN") mathematical non-linear regression model to compute Customer forecasted load given three (3) years of historical load consumption and a reference weather profile.

2.0 “BMS” stands for Building Management System. BMS is a computer-based control system installed in buildings that controls and monitors the building’s mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems, and security systems.

3.0 “CLP” stands for Customer Load Peak in Mlb/hr (rounded to the nearest 0.1 Mlb/hr) for each participant, as determined by the Company for the Load Relief Period (LRP), based on the most recent three years of valid historical hourly peak demand and the weather profile during the LRP using Dry Bulb Temperature, Dew Point Temperature, Cloud Cover, Light Intensity, and Wind Speed, with the result adjusted downward by 5%.

4.0 “CLR” stands for the Contracted Load Reduction in Mlb/hr, which the Customer contracts to provide during all hours of all LRPs. The CLR must be at least 2 Mlb/hr and no more than 10 Mlb/hr.

5.0 “Company” stands for Consolidated Edison Company of New York, Inc.

6.0 “Customer” includes an existing consumer or a new consumer that takes steam under a single service account. It may also refer to a representative of the Customer; for example, a Consulting Engineer or a Registered Architect.

7.0 “Demand Meter” is an electronic device used to measure flow rate and/or pressure differential across the meter to register steam flow. For the purpose of this procedure, the demand meter is either a Vortex or Electronic Differential Pressure (EDP) type.

8.0 “Disqualified Data” refers to data that was retrieved from the Flow Computer but is disqualified because: it occurred during a service Turn On, it contained incorrect registration, it occurred during a low pressure event, there was an issue with a pressure transmitter (PT), or another kind of metering equipment calibration,

9.0 “EMS” stands for Energy Management System, (refer to definition for “BMS”).

10.0 “Flow Computer” computerized device that processes and stores the data from the Demand Meter in the output format that is available for retrieval for further usage either by Company or Customer through software.

11.0 “Holiday” for purposes of this Rider refers to the following days: (a) Martin Luther King Jr.’s Birthday, President’s Day, Memorial Day, Labor Day, Columbus Day, Thanksgiving, and the day after Thanksgiving; and (b) New Year’s Day, Independence Day, Veterans Day, and Christmas, except when the date falls on a Saturday, the “holiday” will be considered to be the preceding Friday, and if the date falls on a Sunday, the holiday will be considered to be the following Monday.

12.0 “Load Reduction” refers to demand (Mlb/hr) ordinarily supplied by the Company to the Customer that is reduced by the Customer. The Load Reduction provided during the LRP will be measured as the Customer’s CLP (Mlb/hr) less the maximum hourly demand (Mlb/hr rounded to the nearest 0.1 Mlb/hr) registered during the LRP, but not less than zero. The Company may estimate interval data if actual meter data is not available for all time intervals or the Company has a good cause to believe a reading obtained for a time interval is likely to be erroneous.

13.0 “Load Relief Period” or “LRP” refers to the five-hour period weekdays, excluding Holidays, for which the Company requests Load Reduction.

14.0 “Missing Data” is data that the Company was unable to retrieve from the Flow Computer. This could happen due to problems with the flow computer installation, a bad communications line, an incorrect computer configuration, manual deactivation of a flow computer (when the data is suspect and further investigation is required) or when the system fails to retrieve data on time.
15.0 “New Customer” is an applicant for steam service at a new premise, or an applicant who was not the previous Customer at the premises, regardless of whether such Customer previously was or is still a Customer of the Company at a different location.

16.0 “Point of Entry” (POE) is used interchangeably with the term “Point of Service Termination”; more specifically, it refers to the point at which the steam service pipe intersects with the Customer’s property line.

17.0 “Point of Service Termination” means the point at which the Company terminates its service line and the Customer’s piping begins.

18.0 “Rate Schedule” also sometimes referred to as the “Tariff”, means the Company’s Schedule for Steam Service as filed with the New York State Public Service Commission.

19.0 “Rules”, “Regulations”, “Rules and Regulations of the Public Service Commission”, or any combination thereof, refer to the rules and regulations duly adopted by the Public Service Commission (“PSC”) for publication in Title 16 of the State of New York Official Compilation of Codes, Rules and Regulations (NYCRR), and to any lawful orders of the Public Service Commission.

20.0 “Service Line” refers to the pipe(s) and equipment for delivering steam from the Company's distribution system to the piping system of the Customer’s building or premises.

21.0 “Service” or “Steam Service” refers to the supply of steam provided by the Company.
SECTION II. GENERAL REQUIREMENTS

1.0 GENERAL

1.1 This section describes the general requirements applicable to Customers participating in the Demand Response Pilot ("DR Program"). The rules and regulations for the DR Program are described in Rider F of the Company's Rate Schedule for steam service, which can be found on the Company's Web site at: http://www.coned.com/documents/steam/Tariff_Leaves.pdf

1.2 The Winter Pilot is in effect from January 1, 2012 through March 31, 2012 ("first winter period"), and from November 1, 2012 through March 31, 2013 ("second winter period"). The Summer Pilot is in effect from April 1, 2012 through October 31, 2012. This Rider terminates on midnight March 31, 2013, except for purposes of billing, payment, and other administrative matters related to a Customer’s participation during the pilot periods.

1.3 Customers who participate in the DR Program must provide the Company with their CLR of at least 2 Mlb/hour and no more than 10 Mlb/hour for each period in which they participate. Service under Rider F is limited to a maximum of twelve (12) Customers in the Winter Pilot Programs and twelve (12) Customers in the Summer Pilot Program for an aggregate maximum Load Reduction of 120 Mlb/hr in each respective pilot program. The Customer may prospectively adjust its CLR: (1) once during the term of each winter period in the Winter Pilot Program and (2) once during the term of the Summer Pilot Program.

1.4 The Company will designate, with a minimum of 24 hours notification, no more than five (5) Load Relief Period ("LRP") events for each of the Winter and Summer Pilot Programs.

1.4.1 Under the Winter Pilot Program, during each winter period, the five-hour LRP is 6 a.m. to 11 a.m.

1.4.2 Under the Summer Pilot Program, the five-hour LRP will be as designated by the Company.

1.5 Demand Response Event Trigger:

1.5.1 An LRP may be called during either the Winter Pilot Program or during the Summer Pilot Program based on the projected weather conditions, planned maintenance, of steam generating unit or unexpected outage of steam generating unit or if the Company identifies opportunities to test the performance of the DR Pilot Program.

1.5.2 At minimum an LRP will be called during the Winter Pilot Program if the Company expects that the steam peak load the following day will be at least 96% of the forecasted steam system winter peak demand.

1.6. Customers taking service under this Rider are responsible for ensuring that their participation under this Rider will not violate any governmental regulation, such as NYC Department of Building Codes.

1.7. This procedure can be amended as the DR Program progresses. The Company will notify the Customers participating in the DR Program of any changes.

2.0 PROGRAM ELIGIBILITY

Customers will be eligible for participation in the DR Program if they meet the following criteria:
a) Customer must be a demand rate billed customer with an annual consumption of greater than 14,000 Mlb as defined in the Company’s Steam Tariff and they must have a service agreement with the Company under SC 2 Rate II, SC 3 Rate II, SC4 Rate III, or SC 4 Rate IV;
b) Customers must agree to provide Load Reduction when LRPs are called by the Company;
c) Customers must provide their CLR of at least 2 Mlb/hour and no more than 10 Mlb/hour during all hours of the LRP;
d) Customers cannot aggregate load on multiple accounts to meet eligibility requirements under this Rider. Applications will be accepted based on an individual account;
e) Customers cannot incorporate, as part of their Load Reduction measures: (1) switching to electric chillers during an electric demand response period called either by the New York Independent System Operator or by Con Edison under the terms of the Company’s Schedule for Electricity Service; or (2) switching to gas boilers during a natural gas interruption or curtailment period as prescribed under the Company’s Schedule for Gas Service;
f) Customers taking service under Special, Provision D or Special Provision E of SC 2 or SC 3, who install or replace a new air conditioning chiller, or supplement existing air conditioning chillers are not eligible to participate in the Summer Pilot Program;
g) Customers taking service under Rider G, Customer Sited Supply Program, are not eligible to participate in either the Winter or Summer Pilot Program.

3.0 APPLICATION

3.1 Applications for service under this Rider must be made electronically or in writing.

3.2 The Company will accept applications for the Winter Pilot Program through December 23, 2011 and applications for the Summer Pilot Program through March 1, 2012. The Company, in its sole discretion, may accept applications after the deadline for either the Winter or Summer Pilot Program if the program is not fully subscribed.

3.3 The Application required for this Program can be found in the Attachment # 1 section of this procedure.

3.4 Requirements for the Steam Demand Response Program Procedure can be found at the Company’s web site at www.coned.com/steam.

4.0 EVALUATION CRITERIA

4.1 General

Applications that have met the basic eligibility requirements will be evaluated on a first come first serve basis. Customers will be selected based on their potential to provide Load Reduction during the winter and summer pilot periods. An application evaluation process will include pre-screening eligibility requirements.

4.2 Pre-screening eligibility requirements

4.2.1 In order to be pre-screened, Customer(s) must have on record with the Company a minimum of three (3) years of historical load data that is obtained from a demand meter at the premises.
4.2.2 The historical load data must be of sufficient accuracy. As such, the Company’s data acquisition program for the Customer Load data has been developed such, that it identifies "Disqualified" and "Missing" ("D&M") data based on the definitions for business rules (Attachment # 3).

a. The Company will qualify Customer(s) to participate in the DR Program if they have less than 1% of “D&M” data as part of their three (3) years of historical load data.

b. The Company may substitute proxy data for D&M data pursuant to the following rules:

   i. If the amount of D&M data is less than approximately 24 hours, then the Company will substitute data with an average of actual data between the pre and post erroneous data period.

   ii. If the amount of D&M data is more than approximately 24 hours, then the Company will substitute data based on the steam usage pattern similar to the ambient temperature condition.

4.2.3 The ability of a customer to participate in the DR Pilot Program will depend on the specific statistical accuracy of a Customer’s load data. Given that the ANN model used to administer the DR Program uses weather variables to determine next day(s) Customer load forecast, the customer’s load data must have a significant correlation to weather.

a. A minimum ANN Model adjusted R² value of 95% is required to participate in the DR Pilot Program (attachment # 2).

5.0 CUSTOMER LOAD REDUCTION DETERMINATION

5.1 The Customer’s Load Reduction in Mlb/hr will be calculated as the difference between the CLP and the Customer’s maximum hourly demand registered during each LRP provided that the Load Reduction shall not be less than zero nor more than the CLR.

5.2 The CLP will be determined by a proprietary forecasting program that utilizes the ANN Model.

5.3 The ANN Model uses three (3) years of actual hourly peak load data, calendar days (days of the week), and actual weather profile, utilizing inputs from following weather variables:

   - Dry Bulb Temperature
   - Dew Point Temperature
   - Cloud Cover
   - Light Intensity
   - Wind Speed

5.4 The ANN Model will use the weather and individual Customer load data to determine their correlation and to develop a predictive equation. The program will perform five (5) iterations and select the iteration that produces the best statistical fit. The program will then calculate an adjusted R² which will reflect how well the customer’s load data correlates with the weather.

5.5 Before the event is scheduled (within 24 hours), the Company may provide for information purposes only, a reference forecast (Attachment # 2) for the CLP based on the forecasted weather using the ANN model.

5.6 After the Load Relief Period (LRP) is completed, the Company will perform a back cast calculation, using actual weather for LRP to determine a customer’s actual demand response and for determining the payment to the customer (Attachment #2).
5.7 Both the reference Customer Load Peak (CLP) calculated before the event and the CLP calculated after the event will be adjusted 5% downward. The rationale for the 5% downward adjustment in the Company’s determination of CLP is to compensate for the standard deviation associated with ANN Model.

5.8 Hourly interval peak load will be calculated from the 15-minute interval pulse data, as retrieved from the Demand Meter’s flow computer. The calculation method is consistent with the existing steam tariff definition of determination of demand found at: http://www.coned.com/documents/steam/Tariff_LeavesSCs.pdf

5.8.1 The maximum demand, when determined by a Demand Meter, shall be the two highest contiguous 15-minute integrated demands occurring during each applicable time period, expressed in Mlb of steam per hour. The integrated demand is the average of the pounds of steam use occurring in a 15-minute period, the average of which, if used continuously for 15 minutes, would produce the pounds of steam actually consumed during such a time period.

6.0 NOTIFICATION PROCESS

6.1 The Company will provide the Customer with a minimum of 24-hours advance notice prior to the scheduled LRP.

6.2 If a scheduled Steam Demand Response Load Relief Period (LRP) is expected to coincide with either an electric Demand Response or Gas curtailment period(s), the Company will notify the participating Customers of such event and emphasize the restriction described in section 2, subsection (e) in this procedure. If the Company becomes aware of this coincidence after scheduling an event, the Company will notify Customers. Section 2 subsection (e) still applies.

6.3 If the Company is able to estimate on Friday, that the following Monday is anticipated to be an LRP, the Company will notify the participant by close of business hours on that Friday, but no later than 6 p.m.

6.4 The Company will use an integrated telecommunications protocol, which will notify the Customer using at minimum one of the following three (3) methods, based on the Customer preference, such as:

   a. Electronic notification via e-mail
   b. Facsimile (Fax)
   c. Automated pre-recorded phone call

6.5 Each customer shall have access to a direct telephone line that will be answered on a 24 hours a day 7 days a week basis. The Company will utilize this line for direct confirmation of the formal receipt of the event notification as well as for any other information required for successful results of the DR Program.

6.6 The Customer shall confirm receipt of such notification no later than 12-hours prior to the start of the LRP using one of the following acceptable communication methods. The preferable order for the confirmation is as follows:

   1. Electronic confirmation at steamsales@coned.com
   2. Fax confirmation at 212-473-2538
   3. Phone confirmation at 212-460-2011

7.0 DATA REVIEW

7.1 The Company reserves the right to review Customer’s records and/or operation information collected during LRP and related to the Customer’s participation in the DR Program(s).
7.2 To properly quantify the demand reduction achieved, establish repeatability of results, determine applicability across the broader customer base, and verify net cost benefits and impacts of the action taken, participating Customers must agree to provide operating information after each LRP as to:

(1) the condition that existed at the Customers' premises prior to, during, and after such event;

(2) the specific action undertaking by the Customer to control its demand; and

(3) the measured effect of change in the performance of the premises and comfort level of its occupants.

7.3 Each Customer is responsible for maintaining detailed operating information and/or facility logs for the minimum length of the Pilot DR Program for Company review, upon request.

7.4 Detailed operating information and/or facility logs shall be kept during each LRP and shall include the conditions existing within the building prior to, during, and after such event.

7.5 The Company will review specific actions undertaken by the Customer to control steam demand. Using either a BMS, an EMS or manual entry, the Customer shall maintain a maintenance log including at minimum the following information, as applicable, from before, during, and after each load reduction event:

a. The measured effect of change in the performance at the premises and comfort level of its occupants
b. Building ambient temperature
c. Hot water set-point change
d. The setting change of the fresh air dampers
e. Morning warm-up time
f. Circulating water temperature
g. Reduce space heated or cooled
h. Staggered equipment start-up information
i. Change in any variable or its set point, used to regulate building heating/cooling.

7.6 Reporting Requirements must be also in compliance with Steam Tariff, Rider F.

8.0 PAYMENT

8.1 One-Time Payment

8.1.1 A Customer will receive a one-time payment of $2,000 for each winter period in which they enroll under the Winter Pilot Program.

8.1.2 Customers enrolled in the Summer Pilot Program will receive a one-time payment of $1,000.

8.2 Performance Payment

8.2.1 Participants will receive payment for performance during each LRP, provided that the Company can verify that the participants provided no less than 2 Mlb/hour of Load Reduction during the hour of the maximum registered demand during the LRP.
8.2.2 For performance during an LRP Event, the payment amount is equal to $40 per Mlb/hr of the actual Load Reduction provided (rounded to the nearest 0.1 Mlb/hr) during the hour of the maximum registered demand, multiplied by five hours.

The customer shall be paid for actual Load Reductions that fall within 80 percent and 120 percent of the CLR; provided, however, that the Customer shall not be paid for providing less than 2 Mlb/hour nor more than 10 Mlb/hour.

8.2.3 Payments will be posted as credits to the Participant's steam account during their normal billing cycle.

8.3 Refund

8.3.1 If twice during the second period of the Winter Pilot Program or twice during the Summer Pilot Program, a participant provides less than 2 Mlb/hour of Load Reduction during the hour of the participant's maximum registered demand during the LRP, such participant will be required to make prompt repayment to the Company of any one-time payment that was made to such participant.

8.3.2 If based on the Company's review of the participant's detailed operating information and/or logs, the Company believes that the participant had a legitimate reason for such nonperformance, the Company may, at its sole discretion, waive the application of this refund provision.
SECTION III. ATTACHMENTS
ATTACHMENT # 1 APPLICATION FOR DEMAND RESPONSE PILOT PROGRAM

Welcome! This is your application to Consolidated Edison Company of New York, Inc., for service under Rider F pursuant to the Company’s Schedule for Steam Service. As a Con Edison demand response program participant, you must agree to provide contracted Load Reduction of at least 2Mlb/hr and no more than 10Mlb/hr during all hours of all load relief periods which refers to the five-hour period weekdays, excluding Holidays, for which the Company request Load Reduction. Under the Winter Pilot Program, during each winter period, the five-hour period is 6 a.m. to 11 a.m. Under the Summer Pilot Program, the five-hour period for each load relief period will be as designated by the company.

Read all questions carefully and answer them to the best of your knowledge. If you have any questions call us at 1-212-460-2011. Please print your answers and sign the application in Part 4.

Part 1   Account Information

Today’s date _____/_____/_______

1. Existing account number: ____________________________

   a. Type of business (check all that apply)

   □ Commercial  □ Residential  □ City of New York

   □ Schools/Colleges/Universities  □ Cultural   □ Hospital  □ Hotel  □ Multi-Use Bldg

   □ Museum   □ Religious  □ Restaurant  □ US Government  □ Retail

   □ Other____________

   b. Service address: ________________________________________________________________

   c. As of what data are you responsible for this account? _____/_____/_______

   d. Which area(s) are supplied with service? [e.g., entire building, tenant area (indicate location), etc.]

   ________________________________________________________________

2. Authorize representative contact: What are the primary and secondary telephone numbers that the Company can use for notification of the LRP. The Customer shall have a direct telephone line answerable 24/7.

   Primary contact name ____________________________ Secondary contact name__________________________

   Primary contact phone # ____________________________ Secondary contact phone # ____________________________
3. Have you authorized someone to act as your agent in making decisions about your steam service and payments on your account? □ Yes □ No
If yes, please provide a copy of your authorization. □ Copy enclosed

Name and title of authorized agent _____________________________________________________________
Address ____________________________________________
City ___________ State ___________ ZIP ___________

Part 2 Steam Information
1. Check all intended uses of steam: □ Steam heating □ Steam air conditioning
□ Steam water heating □ Steam process
□ Humidification □ Sterilization
□ Other _______________________________

a. Was this the same equipment used by the previous occupant? □ Yes □ No
b. Do you plan to change any of the steam equipment in the building? □ Yes □ No
c. Do you plan to make any steam piping changes at this location? □ Yes □ No

2. Please provide an overview of your steam heating system? (Use additional sheet as required)

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

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Part 3 Demand Response Pilot Program(s) Information

1. Request for participation:

- Winter Pilot “first winter period” (January 1, 2012 – March 31, 2012)

- Winter Pilot “second winter period” (November 1, 2012 – March 31, 2013)

- Summer Pilot (April 1, 2012 – October 31, 2012)

The Company will accept applications for the Winter Pilot Program through December 23, 2011, and applications for the Summer Pilot Program through March 1, 2012. The Company, in its sole discretion, may accept applications after the deadline for either the winter or Summer Pilot Program if the program is not fully subscribed.

If not available to participate in one program, please explain why:

________________________________________________________________________

a. Proposed Contracted Load Reduction (CLR) during the Load Relief Period (LRP):

CLR for Winter Pilot__________Mlb/hr

CLR for Summer Pilot__________Mlb/hr

2. Proposed action to be taken during or before the Load Relief Period for load reduction

- Pre-heating
- Start-up equipment earlier
- Stagger equipment start-up

- Lower circulating water temperature
- Reduce space heating or cooling

- Other, please specify

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
3. Service to the premises is measured by a Steam Demand Meter  
   Yes  No  Don’t know

4. Possession of a Building Management System (BMS) or (EMS)  
   Yes  No

   If yes, please specify the manufacturer and the installation date  
   ______________________  __/__/_______

5. Availability/ willingness to share operating information during the LRP  
   Yes  No

   Please specify your process for the maintenance record keeping

   __________________________________________________________________________
   __________________________________________________________________________

6. Availability of fuel switching  
   Yes  No

   If yes, specify ______________________________  ____________________________________

a. Do you agree not to incorporate, as part of your Load Reduction following measures?

   i. During the Summer Pilot: Switching to electric chillers during an electric demand response 
      period called either by the New York Independent System Operator or by Con Edison under 
      the terms of the Company’s Schedule for Electric Service.  
      Yes  No  N/A

   ii. During the Winter Pilot: Switching to gas boilers during a natural gas interruption or 
        curtailment period as prescribed under the Company’s Schedule for Gas Service 
        Yes  No  N/A

7. Participation in other electric Demand Response program(s)  
   Yes  No

   If yes, specify ______________________________

8. What type of Natural Gas service do you have with Company  
   Interruptible  Firm  N/A

9. Have you recently made energy efficiency improvement in your building?  
   Yes  No

   If yes, please elaborate and indicate approximate timeframe of such changes;

   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
10. Please fill in this question after the LRP event(s) only if you are adjusting your initial Contracted Load Reduction (CLR) specified in question 4 part 3 during your initial application. You may adjust your CLR once during the term of each winter period in the winter pilot program and once during the term of the summer pilot program.

Winter Pilot “first winter period”: initial CLR ______ Mlb/hr, adjusted CLR ______ Mlb/hr

Winter Pilot “second winter period”: initial CLR ______ Mlb/hr, adjusted CLR ______ Mlb/hr

Summer Pilot: initial CLR ______ Mlb/hr, adjusted CLR ______ Mlb/hr

Part 4 Signature

To the best of my knowledge the information provided here is accurate and no attempt has been made to misrepresent the facts. Please have a manager of your property sign the application.

Application submitted by:

Print name________________________________________

Relationship to person responsible for account (e.g., proprietor, partner, corporate officer, agent, etc) __________________________________________________________

Signature __________________________________________

Title________________________________________________

Date the application was completed /filed? ________________________________

To expedite the process, you can fax the completed forms to us at 1-212-473-2538. However, because we must have an original signature on file, we ask that each form be signed and mailed to the Steam Business Development group at Con Edison, 4 Irving Place, Room 1328, New York, NY 10003.

www.conEd.com/steam December, 2011

End of the Application
ATTACHMENT # 2 PROCESS OF CUSTOMER LOAD REDUCTION DETERMINATION

STEP 1. PRE-SCREENING PROCESS

Performed after applicants fulfill the program eligibility requirements:

A. Customer’s possession of Demand Meter

B. Company access to the Demand Meter

C. Customer availability of three (3) years of load data

D. Customer data accuracy requirements
   Disqualified and Missing data
   D < or = than 0.99*C

E. Customer data predictability with the weather expressed as Model Accuracy (Adjusted R^2)
   E > or = than 95% as calculated by ANN model

STEP 2. CALCULATION PROCESS

Performed after applicants fulfill the pre-screening eligibility requirements:
Data are displayed in Mlb/hr.

<table>
<thead>
<tr>
<th>Commercial Customer Example</th>
<th>Summer Pilot</th>
<th>Winter Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Date</td>
<td>6/29/2011</td>
<td>01/24/2011</td>
</tr>
<tr>
<td></td>
<td>8 p.m. peak</td>
<td>9 a.m. peak</td>
</tr>
</tbody>
</table>

A. “CLR” Contracted Load Reduction

B. Reference forecast before the event obtained from the ANN model

C. Reference forecast given to Customer
   5% downward adjustment
   C= 0.95*B

D. Back-cast
   Obtained from the ANN model

E. Customer Load Peak – “CLP”
   E=0.95*D

F. Target Performance
   F= E – A

<table>
<thead>
<tr>
<th></th>
<th>Summer Pilot</th>
<th>Winter Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.0</td>
<td>5.0</td>
</tr>
<tr>
<td>B</td>
<td>7.8</td>
<td>44.0</td>
</tr>
<tr>
<td>C</td>
<td>7.4</td>
<td>41.8</td>
</tr>
<tr>
<td>D</td>
<td>7.7</td>
<td>43.1</td>
</tr>
<tr>
<td>E</td>
<td>7.3</td>
<td>41.0</td>
</tr>
<tr>
<td>F</td>
<td>5.3</td>
<td>36.0</td>
</tr>
</tbody>
</table>
G. Actual Performance Peak
   Measured from the Customer load data
   5.0  35.0

H. Calculated "Load Reduction"
   \( H = (E - G) \)
   LR = 2.3  6.0

I. Credited "Load Reduction"
   \( I = \begin{cases} \text{Zero} & \text{if } H < 2.0 \\ H & \text{if } 0.8 * A \leq H \leq 1.2 A \text{ and } H < 10.0 \end{cases} \)
   2.3  6.0

J. Customer Payment ($)
   \( J = \$40 * I \text{ (Mlb/hr) } * 5 \text{ hours} \)
   $460  $1,200

---

Winter Pilot Event Graphical Representation

- (E) Customer Load Peak
- (F) Target Performance
- (G) Actual performance
- (G) Highest Hourly Demand

\[
\text{\$40 /Mlb } * \text{ Load Reduction of 6.0 Mlb/hr } * \text{ LRP (5) hours } = \text{ \$1,200 /event}
\]
ATTACHMENT #3 BUSINESS RULES FOR DISQUALIFIED DATA

Data retrieved from the Flow Computer can be disqualified automatically by the nightly processes or manually by the users. The Company’s data acquisition system keeps track of these disqualifications, which can be reversed at a later time if needed. The Billing Department also uses these disqualifications in calculating customer bills accurately. Data Disqualification instances:

**EDP Calibration**
Every year, the PSC requires Electronic Differential Pressure (EDP) calibration to be performed on the Flow Computers. A process used to do this creates calibration data in the Flow Computer which does not appear in the actual meter data. Thus, it cannot be used for billing. The process looks for the locations where this job was performed and disqualifies the data at those locations during the time interval when work was performed.

**MSO (Main Shut Off)**
Main Shut Offs, that cause unusual spikes on the system are reflected on the customer meter readings.

**Over 300%**
There are cases when Flow Computers record its mass flow rate are more than 300% of the meter’s maximum capacity. These records are being disqualified automatically during the nightly download process.

**PT Calibration**
Pressure Transmitter (PT) calibration is also performed on the Flow Computers annually. This data is also disqualified because it is used for calibration testing purposes.

**Low Pressure Event**
A Low Pressure event is determined when the system pressure drops below standard pressure.

**Service Turn On**
An “interval” is determined as the time between service valve turn on until the service is fully restored (building is re-pressurized) plus one hour. When the service is turned back on, steam rushes through the service valve and causes an unexpected peak on the meter. Both the peak and the recorded data are incorrect and therefore need to be disqualified.

**Incorrect Registration**
The data is manually disqualified by Steam Engineers. For example, an external event such as noise introduced by a motorized valve to the meter causes unexpected peak in signals.