

## **Electric Standard Offer Program**

### **Procedure No. 360-7**

#### **Monthly Billing Statements with Made Up Data**

#### **1. Purpose:**

To clarify Public Service Electric and Gas's (PSE&G) procedure for processing Standard Offer Monthly Billing Statements for Host Facilities that have "Made Up Data". Any data used to calculate the energy savings that is not collected by the monitoring and verification system is considered "Made Up Data".

#### **2. Description:**

The Seller may submit Monthly Billing Statements for energy savings that are based in part upon Made Up Data. The methodology used by the Seller to develop the Made Up Data for specific Host Facilities energy savings measures must be submitted to PSE&G for review and approval prior to the submission of the billing statement. Once the Seller's methodology is approved, PSE&G will determine the payment amount for the energy savings submitted in the billing statement. PSE&G reserves the right to decline payment in whole or in part for Monthly Billing Statements that report energy savings that are based upon Made Up Data. PSE&G has developed basic guidelines to assist the Seller in developing Made Up Data methodologies (see attached document, "[Guidelines for Development of Made Up Data](#)").

The Seller will be notified in writing in cases where PSE&G objects to energy savings presented on Monthly Billing Statements that include Made Up Data. Processing and approval times may exceed 30 days for these statements. Furthermore, any additional provisions, such as interest as set forth in Article IV of the Agreement are not applicable once written notification has been issued.

#### **3. Seller Responsibilities:**

The Seller is required to report any Made Up Data as part of its Standard Offer Monthly Billing Statement. Monthly Billing Statements that do not report the quantity of Made Up Data are considered to be improperly submitted and will be returned to Seller with written notification of PSE&G's objection to the energy savings.

The Seller must submit the methodology used to develop Made Up Data to PSE&G for review and approval. PSE&G reviews methodologies used to develop Made Up Data on a case-by-case basis. The Seller should check with PSE&G prior to applying an approved methodology for one Host Facility to other Host Facilities.

The Seller is responsible for maintaining the Host Facility's M&V system to prevent the extensive use of Made Up Data for calculating energy savings.

#### **4. PSE&G Responsibilities:**

PSE&G will review Monthly Billing Statements that include Made Up Data. PSE&G will verify the percentage of Made Up Data reported for the Monthly Billing Statement.

The Seller will be issued written notification of PSE&G's objection to energy savings depending on the quantity or nature of Made Up Data reported. The steps noted below outline PSE&G's process for reviewing Monthly Billing Statements that include Made Up Data.

- a) If the percentage of Made Up Data is 25% or less, PSE&G will review the billing statement, verify the energy savings, and determine the payment amount. PSE&G will notify the Seller in writing when deductions to the billing statement payment amounts are required. The percentage of Made Up Data will be entered into the AESOP tracking system.
- b) If the percentage of Made Up Data is greater than 25%, twelve months of recent billing statements for the facility will be reviewed to compare to the reported % of Made Up Data on the current statement. Based on its review of the current and recent billing statements, PSE&G will verify the energy savings, and determine the payment amount. PSE&G will notify the Seller in writing when deductions to the billing statement payment amounts are required. The percentage of Made Up Data will be entered into the AESOP tracking system.
- c) If a Monthly Billing Statement indicates a percentage of Made Up Data that exceeds 25%, a letter will be sent to the Seller indicating that there may be a problem with the M&V system that needs to be corrected.

PSE&G may require for any billing statement that reports Made Up Data that the Seller provide additional information to assist in the review of the energy savings. PSE&G will verify the energy savings and determine the payment amount based on its review of the billing statement and any additional information that the Seller has provided.

**5. Standard Offer Agreement Reference:**

Article IV *Billing And Payment* in the Standard Offer No. 3 Agreement, first paragraph in the section:

“The Energy Savings in kilowatt-hours shall be determined in accordance with a Board-approved Measurement and Verification Protocol”

The last paragraph in the same section states:

“If PSE&G objects to any Monthly Billing Statement, PSE&G shall give written notice of such objection to Seller within such thirty (30) day period.”

**Approved By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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Manager – Demand Side Management

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The following is to be used as a guideline for developing Made Up Data. Any data used to calculate a Host Facility's energy savings that are not actually collected by the Monitoring and Verification System are "Made Up Data".

*In all cases, actual monitored data is to be used to calculate a Host Facility's energy savings where such data are available.* The guidelines below are meant to assist the Seller in developing Made Up Data only for those instance where due to unforeseen and unavoidable events, actual monitored data could not be used.

PSE&G reserves the right to decline payment in whole or in part for Monthly Billing Statements that report energy savings that are based on Made Up Data.

### General Requirements for Lighting and Non Lighting:

For both Lighting and Non Lighting projects the Seller should have the following information available.

- When was the problem identified?
- How long did the problem persist before it was discovered?
- What was the cause of the problem?
- How and when was the problem corrected?

As part of its review, PSE&G may request this information for any Monthly Billing Statement that is received that reports Made Up Data.

### Lighting Projects:

The following gives several possible methods that the Seller may use to develop Made Up Data for different circumstances.

- 1) Missing data less than or equal to 50% of monthly total:

Estimate missing data from similar time period within the billing cycle. A point-by-point analysis must be conducted.

Example:

For the month of October all of the first seven days of data are missing. The missing data can be substituted with any similar seven-day period within the month of October.

- 2) Missing data greater than 50% of monthly total:

Estimate missing data from similar time period utilizing recorded data from previous billing cycle. Calculate percentage of maximum usage per time period from previous month. Apply the calculated usage percentage to current month's missing time period. A point-by-point analysis must be conducted.

Example:

For the month of October, 1996 three weeks of data are missing. The maximum On Peak hours for October is 308, maximum Off Peak hours are 436. For monitoring point # 1 an analysis of September data indicates it was on 85% of the maximum On Peak hours (Prime + On Peak) and Off Peak usage was found to be 50% of the maximum. The October estimated On Peak Maximum hours is  $308 \times .85 = 262$ . The Off Peak estimate is  $436 \times .50 = 218$ .

A similar calculation is necessary for all remaining points. The total hours per point will be the estimated run hours plus the run hours from the actual data.

3) 100% Missing data and prior month's M&V actual data are not available:

Current month's billing will be estimated on the actual data collected from the next month. It will be estimated utilizing the methodology described in scenario 2 above. If no data is collected in the next month PSE&G will assume all run hours to be zero for both months.

If 100% of data is missing for three or more consecutive months, data estimation will not be allowed.

Example:

For the month of January 100% of M&V data is collected. February's data were estimated utilizing scenario 2 above. In March no data is collected. The run hours per point for March will be determined by the actual data collected April. In April 100% of the data is recorded. The run hours for March will be estimated on a point-by-point analysis as described in scenario 2.

Example:

For the month of January 100% of M&V data is collected. February's data were estimated utilizing scenario 2 above. In March no data is collected. The run hours per point for March will be determined by the actual data collected in April. In April 0% of the data is recorded. The run hours per point for March and April will be zero.

4) M&V data are not available for consecutive billing periods from DOCO:

Data missing for a given number of consecutive months can be estimated utilizing actual data from the same number of months. Missing data will be allowed to be estimated for a maximum period of three months. A minimum of two months of

reliable data needs to be collected before any data estimation can be performed. PSE&G needs to approve the period used to estimate missing data. PSE&G reserves the right to approve or disapprove replacement periods used for data estimation.

Example:

A facility is DOCO - 7/1/96. Data are only available from 10/1/96. Three months of data need to be estimated, July, August and September. Per PSE&G's approval summer months will be estimated utilizing non-summer months. Data estimation will be conducted in January 1997 utilizing November and December 1996 data. For both months, a point-by-point analysis to determine the percentage of maximum off peak usage (similar to the scenario #2) needs to be performed. The result of the analysis will determine the average Off Peak usage during the two months period.

The November and December On Peak data needs to be analyzed as a summer month. This will determine the average Prime and average On Peak usage during the two months period.

- 5) Any other scenario necessary to estimate missing data will be handled on a case-by-case basis. Collectively PSE&G will work with a sponsor to develop specific data estimation methods. PSE&G reserves the right to approve or disapprove any data estimation method.

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## **Non-Lighting Projects:**

Made Up Data is much more difficult to develop for non-lighting projects than for lighting projects. Each project may have several very different variables that are monitored. It is impossible to devise a set means of developing Made Up Data that can be applied for all projects. For this reason, each project that requires Made Up Data must use the method that fits best. PSE&G's guidelines for Non-lighting projects give the basic information that the Seller should incorporate into each site-specific methodology used to develop Made Up Data. This information is in addition to the items listed above under "General Requirements for Lighting and Non Lighting". PSE&G will review Methodologies used for developing Made Up Data on a case-by-case basis.

### **Made Up Data Methodologies should include:**

1. A description of how missing data will be replaced with Made Up Data. This includes how Made Up Data will be incorporated into the billing disk raw data file, invoice sheet, and backup data sheet.
2. A correlation should be shown for energy savings based on Made Up Data versus those based on actual data. Similar billing periods should be compared (summer months, winter months, etc.).
3. Backup documentation used to develop Made Up Data is required.
4. Calculations used to develop Made Up Data are required.

**The Seller may be asked to provide other information in addition to the items listed above in order for PSE&G to complete its review of Made Up Data methodologies.**

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