

Puget Sound Energy

Meter and Billing Performance Quarterly Report  
for the Quarter Ending September 30, 2008

Filed October 31, 2008



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In accordance with the Settlement Stipulation of Service Quality, Meter and Billing Performance, and Low-Income bill Assistance (“Settlement Stipulation”) adopted by the Washington Utilities and Transportation Commission on October 8, 2008, in Docket Nos. UE-072300 and UG-072301 Order 12: Final Order Approving and Adopting Settlement Stipulations; Authorizing and Requiring Compliance Filing, Puget Sound Energy (“PSE” or the “Company”) submits this report for the quarter ending September 30, 2008.

## Definitions and Standards per the Settlement Stipulation

### Definitions of “Identified”

The following definitions are used throughout this document and define when a specific category of meter issues is considered “identified.”

a. Stopped Meter: Date the meter is validated to be a probable stopped meter from manual analysis of the zero consumption or other similar report.

b. Unassigned Energy Usage (“UEU”): Date that the energy usage reaches the following established thresholds:

Customer group	Gas	Electric
Residential	100 therms	1,000 kWh
Commercial and Industrial	100 therms	7,150 kWh

c. Lost Meter: Date that the meter has been correctly transmitting energy usage for more than sixty days; yet no associated account exists in the ConsumerLinX (“CLX”) system.

d. Meter Mix/Other Field Identified: Date of notification of a potential meter mix (meter correctly recording and transmitting energy, but is assigned to an incorrect account in CLX) or other field identified problem as reported either from a customer or a PSE field representative.

e. Other: For meter and billing problems that do not fall into one of the above categories, that problem will be considered “identified” when it is first brought to the attention of a PSE representative by any party, or when through the course of normal work, a representative identifies a meter and billing error or problem.

### Definition of “Resolved”

An identified meter and billing problem will be considered resolved when a correct bill is issued to the customer and any associated equipment problems are corrected.

## Performance Standards

### Phase-in Standards

Group One: As of June 30, 2008, PSE had identified potential problems with 17,276 meters. PSE commits to resolving 100 percent of this legacy population by June 30, 2009. The Company will also resolve 75 percent of the population by December 31, 2008.

Interim: PSE will resolve potential gas and electric meter and billing problems identified between July 1, 2008, and December 31, 2008, by June 30, 2009.

### Ongoing Standards, Applicable Starting January 1, 2009

Natural Gas: PSE will resolve identified potential natural gas meter and billing problems for each monthly vintage within four months of identification; 75 percent will be resolved within two months of identification. Potential metering and billing problems identified within the same month will be of the same vintage. (For example, potential problems identified on the 5<sup>th</sup> of the month or the 20<sup>th</sup> of the month will have the same monthly vintage.)

Electric: PSE will resolve identified potential electric meter and billing problems for each monthly vintage within two months of identification; 50 percent will be resolved within one month of identification. Potential metering and billing problems identified within the same month will be of the same vintage. (For example, potential problems identified on the 5<sup>th</sup> of the month or the 20<sup>th</sup> of the month will have the same monthly vintage.)

Summary Progress to Date

**Meter and Billing Performance as of September 30, 2008**

**Electric meter information:**

Phase-in Vintage	# Electric Meter and Billing Issues	Resolved Up-to-date	% Resolved Up-to-date
Group One	5,538	3,428	62%
Interim	10,554	7,678	73%

**Natural gas meter information:**

Phase-in Vintage	# Gas Meter and Billing Issues	Resolved Up-to-date	% Resolved Up-to-date
Group One	11,738	6,573	56%
Interim	53,962	28,229	52%

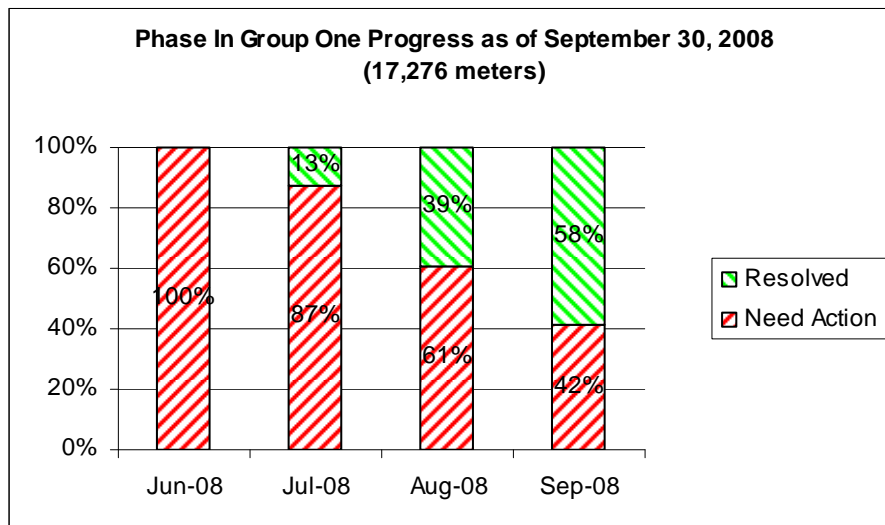
**Combined (electric and natural gas) meter information:**

Phase-in Vintage	Total # Meter and Billing Issues	Total Up-to-date Resolved Within Standards	% Total Up-to-date Resolved Within Standards
Group One	17,276	10,001	58%
Interim	64,516	35,907	56%

Phase-in Group One

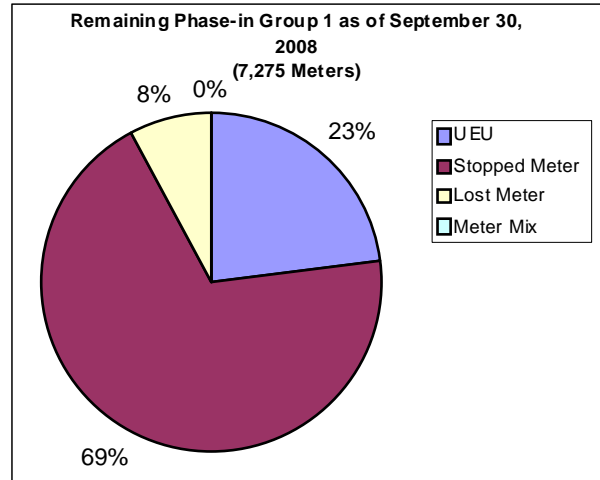
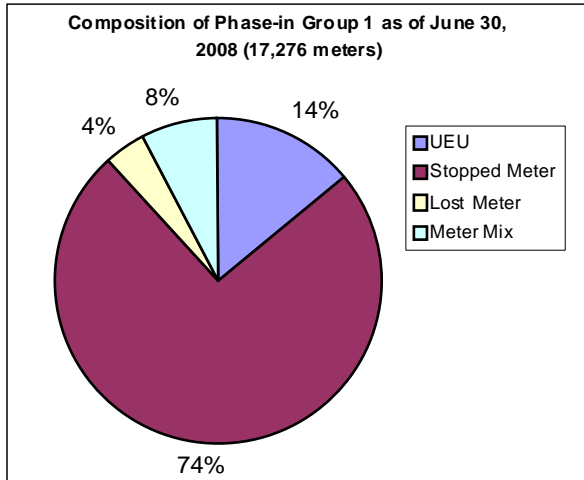
As of June 30, 2008, PSE identified, but had not yet investigated, 17,276 potential meter problems. As of September 30, 2008:

- 10,001 items (58 percent) have been resolved.
- 7,275 items (42 percent) remain. (The following chart depicts PSE's progress.)
- PSE is on track to complete 75 percent by December 31, 2008



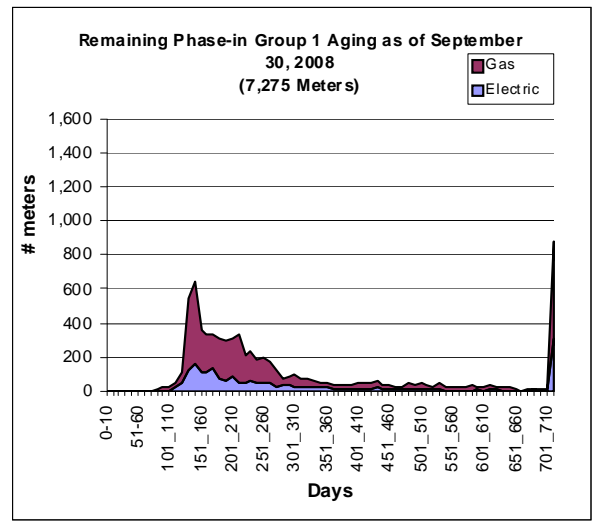
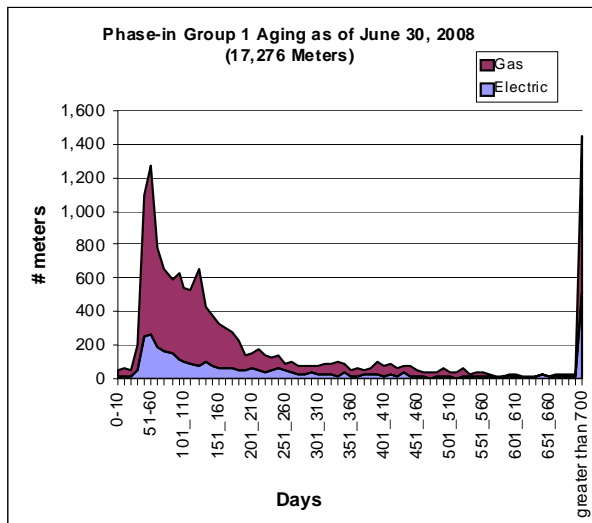
Composition Comparison

The charts below compare the initial composition and aging of the Phase-in Group One meters as of June 30, 2008 and September 30, 2008.



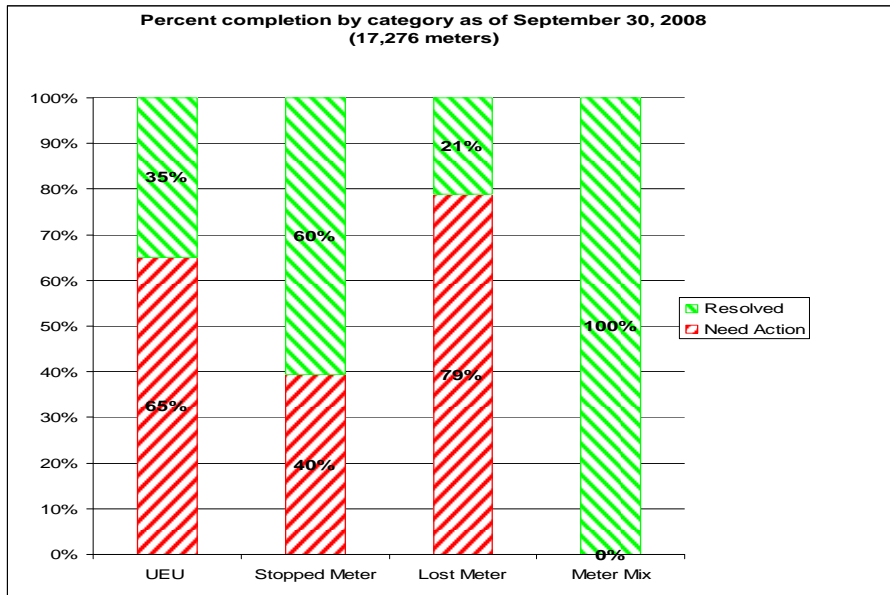
Aging Comparison

PSE has sought to improve capacity by focusing on technology, equipment, process and resources. Consistent progress has been made over the last three months, as depicted in the following graphs.



The rate of resolution has varied due to unique challenges in each issue category. Specific details of each category are provided in later sections of the report.

The following graph demonstrates progress by issue category (UEU, Stopped Meter, Lost Meter and Meter Mix):



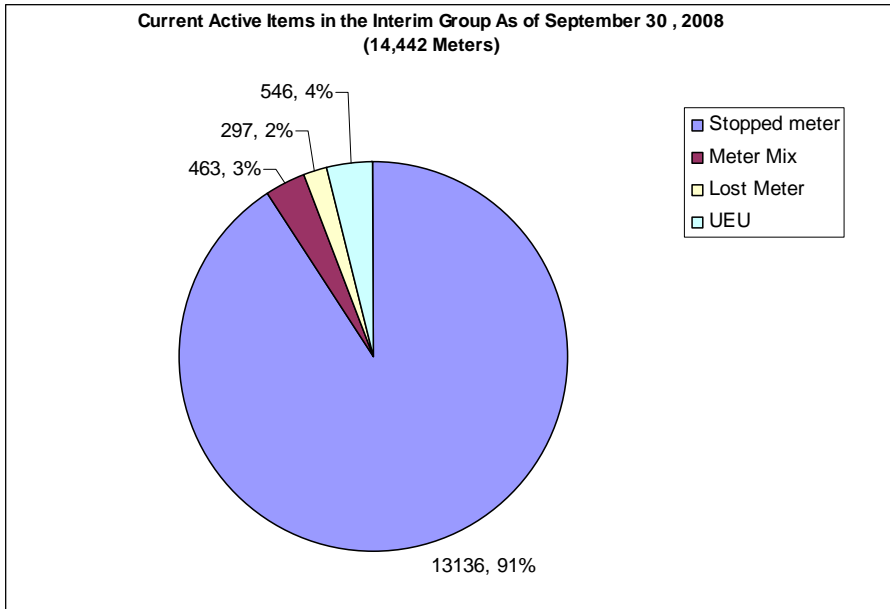
#### Interim Group

From the period of June 30, 2008, to September 30, 2008, PSE had identified potential problems with 64,516 meters.

As of September 30, 2008:

- 35,907 items (56 percent) have been resolved.
- 14,167 items (22 percent) are considered potential seasonal based on the customer's previous usage patterns.
- 14,442 items (22 percent) still require investigation.

The composition of the remaining 14,442 items is depicted in the following graph:



Steady State (ongoing):

Per the Settlement Stipulation, PSE will apply the ongoing meter and billing standards starting January 1, 2009. PSE will validate the reporting and identification of potential new problems and initiate remediation plans (if necessary) within three months of applying the ongoing standards (i.e., by March 31, 2009).



### Tracking and Reporting Monthly Vintage of Meter/Billing Issues

PSE meter and billing data resided in multiple disparate data system with a variety of reports. Current efforts to consolidate data systems and define reporting have taken a more holistic view.

#### Steps Taken:

- 1) Initial efforts have focused on the process of data collection and merging data from the varied tracking systems into a single report.
- 2) The first requirement of this new process was to establish a common key element across all of the data categories and a minimum set of common variables to be tracked for each meter issue. The meter ID was selected as the common key element.

Minimum common variables include:

Variable	Note
Meter ID	Common key element within all data sources
Report Tier	Currently tiers are: Group One (Phase 1) and Interim (Phase 2). Starting January 2009, tier will indicate the vintage month
Fuel Type	Natural gas or electric
Identified Date	Per the Settlement Stipulation definitions
Current Equipment Status	Current status of meter/module, values vary by issue category
Equipment Status Change Date	Date status changes to one of the resolved categories
Billing Status	Category indicating where the item is in the billing process
Bill Issued Date	Date bill is issued or it's determined "no bill needed"
Resolved Date	The later of "Equipment Status Change Date" or "Bill Issued Date"
Validate, Estimate, Edit Code	Completed only if a validation code is assigned

3) Next the data source for each variable/issue category was determined. To ensure consistency the Meter Data Warehouse ("MDW") was chosen as the record for "Report Tier"(vintage) on all issues.

4) A strategy was developed to import other reporting data into the MDW. As of September 30, 2008, all service orders for Stopped Meter and UEU are tracked in MDW. In addition, through an automated process, Stopped Meter billing information can be imported from internal billing databases on a weekly basis. Remaining

information and variables are drawn from additional existing systems and compiled manually.

### Future Actions

Future actions include developing the ability to track Meter Mixes in MDW and further integrating information stored in other databases into MDW. PSE will provide ongoing updates on data tracking and reporting enhancements in future quarterly reports. Since the current process involves some manual data entry and compilation, there is some exposure to human error. Future improvements will further automate the process and improve data integrity. At this time, PSE is planning to incrementally improve existing data and reporting systems to track meter issues. We are continuing to evaluate alternatives and may leverage additional technology in the future.

### Other Actions Taken by PSE and Assessment of Impact

#### Technology

- 1) PSE has contracted with Detectent, a company with expertise in data mining, to review certain meter data and patterns to identify both valid zero consumption and probable stopped meters. This effort is in parallel with ongoing PSE efforts.
- 2) Future efforts include the creation of a zero consumption table within the MDW to better identify stopped meters within the zero consumption population.

#### Equipment

- 1) PSE has on-going meetings with the AMR (Automated Meter Reading) provider and natural gas meter manufacturers regarding specific series of meter/modules with a higher failure rate. Replacement service orders are now automatically issued when these meter/modules stop showing consumption for 60 days.
- 2) PSE has also identified other factors that might cause meter failures. For example, one possible cause might involve faulty installation of the module to the meter at a meter manufacturer. PSE is working with the equipment manufacturer to investigate concerns with the AMR module/meter interface on certain new meters.
- 3) Ongoing actions include pursuing repair/replacement of known meter/module defects, and continuing to work closely with manufactures to prevent future occurrences.

#### Process

- 1) Stopped Meter
  - i. PSE improved processing in the back office by automating the generation of billing details. An automated tool was created to reduce the time required to provide billing details sent to the customer. This increases individual agent productivity.

ii. Tracking and management of field service orders were improved by creating a system that dispatches priority work based on age and order type. This reduces the risk of over looking aging orders.

iii. PSE increased efficiency (and thus availability) of Gas First Responders who reconnect customer's gas service after a meter exchange. This was accomplished through improved communications with customers regarding access to the premises, thereby reducing the number of second visits required to relight their equipment.

## 2) Meter Mix

i. The Meter Mix database was modified and enhanced to accurately track the process flow and inventory aging.

ii. PSE developed an automatic process to generate a customer letter using the correction information entered into the database. This improvement increases agent productivity. The backlog for this work has been eliminated.

## 3) UEU

i. Additional resources were dedicated to focus on this category of meter issue.

ii. PSE integrated the data tracking for UEU issues with the MDW, reducing the time needed to manually review data.

## 4) Lost Meter

i. A process to locate lost meters by triangulating signal strength was developed. This process requires two to three teams in separate vehicles to coordinate their efforts and slowly reduce the potential area where a single lost meter is transmitting. This is a lengthy process, complicated by frequency of signal transmission, which ranges from 15-30 minutes between transmissions. During initial field trials it took 192 man-hours to find 6 modules.

ii. PSE located meters that had not yet been installed, but were currently transmitting signals. The process for non-installed meters was revised such that batteries remain out of the meter until the meter is physically installed.

iii. PSE reviewed local records maintained at individual operating bases to cross-reference newly installed meters with the list of known lost meters.

## Staffing and Resources

1) Additional field and office staff continue to be hired and trained to address meter and billing processes. Additional staff will be on-board and trained by the end of November.

2) In the future PSE will continually re-assess staffing, and adjust accordingly to levels required to achieve and sustain ongoing standards.

## Issues Discussion

### Lost Meters

As of September 25, 2008, 21 percent (152 meters) of the lost meters in Group One have been located. The majority of this initial success is attributable to administrative review but locating the remaining meters will be more complex. The availability of effective field equipment and systems to locate lost meters is limited. As mentioned above the investment of time and resources required to find a single meter is significant; using what technology is available, initial field efforts have required up to 34 man-hours to locate one lost meter. PSE will continue to investigate alternative technology for locating lost meters and will report our progress.