

# Puget Sound Energy

Meter and Billing Performance Quarterly Report

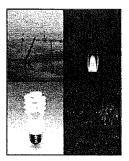
for the Quarter Ending September 30, 2011

Filed October 28, 2011



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# Introduction

# **Executive summary**

As of September 30, 2011, with the exceptions noted and discussed in this report, PSE has resolved 100% of the meter and billing problems within their specific timeframes and met its performance standards set for the following vintages: Phase-in Group One, Phase-in Interim, natural gas problems identified between January 2009 and May 2011, and electric problems identified between January 2009 and July 2011. PSE has rounded the results in this report to the nearest whole percentage and realizes that some results rounded to 100% do not reflect resolution of all meter and billing problems. These differences are discussed in the *Unresolved Exception Issues* section of this report.

# **Background**

This report is prepared in compliance with the terms of the Partial Settlement Stipulation of Service Quality, Meter and Billing Performance, and Low-Income Bill Assistance ("Settlement Stipulation") approved by the Commission in consolidated Docket Nos. UE-072300 and UG-072301 Order 12 ("Order"). The report details the following:

- Puget Sound Energy, Inc.'s ("PSE") ability to plan, track, and report monthly vintages of potential meter and billing problems (per paragraph 34.i of the Settlement Stipulation); and
- PSE's meter and billing performance under the phase-in period standards for meter and billing problems identified in 2008 and under the ongoing standards for problems identified in 2009 and after (per paragraph 36 of the Settlement Stipulation). These standards are applicable to all PSE's meters regardless how they are read, automatically or manually, and the class of the meters; residential, commercial, or industrial.





# **Definitions and Standards**

#### **Definitions**

#### Definitions of "Identified"

The following definitions from the Settlement Stipulation are used throughout this document and define when a specific category of meter issues is considered "identified".

- a. <u>Stopped Meter</u>: Date the meter is validated to be a probable stopped meter from manual analysis of the zero consumption report or other similar report.
- b. <u>Unassigned Energy Usage ("UEU"):</u> Date that 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. <u>Lost Meter:</u> 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. <u>Meter Mix/Other Field Identified</u>: 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. <u>Other</u>: 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

<u>Group One</u>: 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.

<u>Interim:</u> 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

<u>Natural Gas:</u> 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.)

<u>Electric</u>: 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 Summary**

# Phase-in Vintages as of September 30, 2011

(Performance results are rounded to the nearest whole percentage. Some vintages with 100% results do not reflect resolution of all meter and billing problems. These exceptions are discussed on the following pages of this report.)

#### Electric meter information:

Phase-in Vintage	# Electric Resolved Meter and Within Billing Issues Standards		% Resolved Within Standards
Group One 5,538		5,537	100%
Interim	19,735	19,734	100%

#### Natural gas meter information:

Phase-in Vintage	# Gas Meter and Billing Issues	Resolved Within Standards	% Resolved Within Standards
Group One 11,738		11,734	100%
Interim	64,403	64,400	100%

#### Combined electric and natural gas meter information:

Phase-in Vintage	Total # Meter and Billing Issues	Resolved Within Standards	% Resolved Within Standards
Group One	17,276	17,271	100%
Interim	84,138	84,134	100%



Steady State (Ongoing Vintages) as September 30, 2011 (Performance results are rounded to the nearest whole percentage. Some vintages with 100% results do not reflect resolution of all meter and billing problems. These exceptions are discussed on the following pages of this report.)

#### Electric meter information:

	# Electric	Resolved	% Resolved	Resolved	% Resolved	# of	
Ongoing	Meter	Within 1	Within 1	Within 2	Within 2	Issues Identified	Reason
Vintage	and	Month of	Month of	Months of	Months of	As	for
Timage	Billing	Identification	Identification	Identification	Identification	Reported	Change
	Issues					in Q2	
JAN_10	3,322	3,101	93%	3,321	100%		
FEB_10	2,513	2,408	96%	2,513	100%		
MAR_10	4,997	4,836	97%	4,997	100%		
APR_10	3,128	3,071	98%	3,128	100%		
MAY_10	7,427	7,170	97%	7,427	100%		
JUN_10	17,008	14,063	83%	17,006	100%		
JUL_10	15,109	13,669	90%	15,108	100%		
AUG_10	11,080	11,016	99%	11,078	100%		
SEP_10	6,386	6,090	95%	6,384	100%		
OCT_10	5,015	4,887	97%	5,013	100%		
NOV_10	3,731	3,567	96%	3,731	100%		
DEC_10	3,708	3,218	87%	3,708	100%		
JAN_11	3,546	3,307	93%	3,545	100%		
FEB_11	2,858	2,672	93%	2,857	100%		
MAR_11	2,176	2,089	96%	2,175	100%		
APR_11	3,554	3,456	97%	3,554	100%		
MAY_11	2,788	2,723	98%	2,787	100%	2,787	Note1
JUN_11	2,236	1,711	77%	2,231	100%	2,225	Note 4
JUL_11	3,286	2,992	91%	3,286	100%		
AUG_11	2,670	2,329	87%	Open			
SEP_11	3,564	2,787	78%	Open			



## Natural gas meter information:

Ongoing Vintage	# Gas Meter and Billing Issues	Resolved Within 2 Month of Identification	% Resolved Within 2 Month of Identification	Resolved Within 4 Months of Identification	% Resolved Within 4 Months of Identification	# of Issues Identified As Reported in Q2	Reason for Change
JAN_10	7,716	7,588	98%	7,716	100%		
FEB_10	4,828	4,774	99%	4,828	100%		
MAR_10	6,435	6,331	98%	6,435	100%		
APR_10	4,949	4,891	99%	4,947	100%		
MAY_10	5,737	5,519	96%	5,737	100%		
JUN_10	3,799	3,282	86%	3,799	100%		
JUL_10	6,969	6,908	99%	6,969	100%		
AUG_10	1,648	1,644	100%	1,648	100%		
SEP_10	24,131	24,051	100%	24,130	100%		
OCT_10	7,080	7,030	99%	7,077	100%		
NOV_10	3,672	3,497	95%	3,672	100%		
DEC_10	4,112	3,748	91%	4,112	100%		
JAN_11	5,720	4,726	83%	5,719	100%		
FEB_11	4,654	3,792	81%	4,654	100%		
MAR_11	4,375	3,709	85%	4,374	100%	4,374	Note 2
APR_11	3,877	3,182	82%	3,876	100%	3,876	Note 2
MAY_11	3,735	3,473	93%	3,735	100%	3,733	Note 3
JUN_11	4,778	4,615	97%	Open		4,769	Note 4
JUL_11	11,143	10,917	98%	Open			
AUG_11	22,172	21,448	97%	Open			
SEP_11	11,967	10,750	90%	Open			

Note 1: Additional meter identified during the investigation of a meter mix issue was added to the vintage to resolve the issue.

Note 2: A stopped meter case was created in error.

Note 3: Two stopped meter cases were created in error.

Note 4: Additional meters identified during the investigation of a meter mix issue were added to the vintage to resolve the issue.



#### Issues Resolution

#### **Phase-in Group One**

As of June 30, 2008, PSE identified and resolved 17,276 meter problems.

- 17,271 items (100 percent) were resolved within Phase-in Standards.
- One meter problem, associated with electric meter ID 9694 has been located and resolved on August 11, 2009.
- The four remaining items (which constitute less than 0.02 percent) are lost meters and will be discussed in the *Exceptional Unresolved Issues* section of this report.

#### **Phase-in Interim Group**

From July 1, 2008, to December 31, 2008, PSE had identified potential problems with 84,138 meters.

- 84,134 items (100 percent) were resolved within Phase-in Standards.
- Three items, electric meter ID 8923 and natural gas meter IDs 4974 and 9711, were resolved outside of the Standards in July 2009.
- The remaining one item is a Lost Meter and will be discussed in the Exceptional Unresolved Issues section.

# Steady State (Ongoing Standards)

This section describes the progress of 2011 monthly vintages and the 2009 and 2010 monthly vintages with residual unresolved meter or billing problems, although PSE has met its benchmark of 100 percent for each of the vintages. The meter and billing problems in 2009 and 2010 vintages not listed below have been resolved completely and detailed results can be found in PSE's 2009 4<sup>th</sup> quarter report, 2010 4<sup>th</sup> quarter report, and 2011 1<sup>st</sup> quarter report.

For some of the monthly vintages, the total number of meter and billing problems varies from what PSE presented in its prior quarterly reports. The reason for the change for each of affected vintages is noted at the end of the *Summary Progress to Date* section above for the Steady State vintages. The following discussion is based upon the revised monthly results as September 30, 2011.

#### Electric Meter Issue Resolution

- January 2010: PSE identified potential problems with 3,322 electric meters. 3,101 (93 percent) were resolved within one month of identification and 3,321 (100 percent) were resolved within 2 months. The only exception (which constitutes about 0.03 percent), listed as meter ID 0203 in the in the Issues Discussion section.
- January 2011: PSE identified potential problems with 3,546 electric meters. 3,307 (93 percent) were resolved within one month of identification and 3,545 (100 percent) were resolved within 2 months. The only exception (which constitutes less than 0.03 percent), identified as meter ID 2755 was resolved on April 26, 2011 when the hazardous weather conditions improved and PSE was able to gain access the meter.
- February 2011: PSE identified potential problems with 2,858 electric meters. 2,672 (93 percent) were resolved within one month of identification and 2,857 (100 percent) were resolved within 2 months. The only exception (which constitutes less than 0.03 percent) identified as meter ID 8967



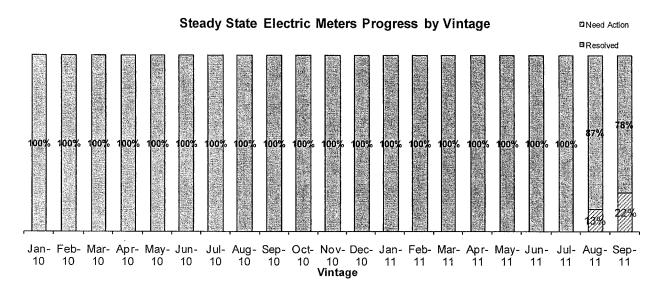
that had been discussed in the *Issues Discussion* section of the prior quarterly reports was resolved on August 29, 2011, when the meter became accessible for repair.

- March 2011: PSE identified potential problems with 2,176 electric meters. 2,089 (96 percent) were
  resolved within one month of identification and 2,175 (100 percent) were resolved within 2 months.
  The only exception (which constitutes less than 0.05 percent) was resolved on June 22, 2011 when
  the hazardous weather conditions improved and PSE was able to gain access to the meter.
- April 2011: PSE identified potential problems with 3,554 electric meters. 3.456 (97 percent) were resolved within one month of identification and all 3,554 (100 percent) were resolved with 2 months of identification.
- May 2011: PSE identified potential problems with 2,788 electric meters. 2,723 (98 percent) were resolved within one month of identification. 2,787 meters were resolved within 2 months. The only exception (which constitutes less than 0.04% percent) was resolved on August 1, 2011.
- June 2011: PSE identified potential problems with 2,236 electric meters. 1,711 (77 percent) were
  resolved within one month of identification. 2,231 meters were resolved within 2 months. The 5
  exceptions (which constitute less than 0.3 percent) were resolved in September 2011. A process
  gap was identified and has since been remediated with the implementation of a new process step.
- July 2011: PSE identified potential problems with 3,286 electric meters. 2,992 (91 percent) were resolved within one month of identification. All 3,286 meters (100 percent) were resolved within 2 months of identification.
- August 2011: PSE identified potential problems with 2,670 electric meters. 2,329 (87 percent) were resolved within one month of identification. PSE is on track to resolve 100 percent of the potential problems by October 31, 2011.
- September 2011: PSE identified potential problems with 3,564 electric meters. PSE is on track to complete 100% resolution of meters by November 30, 2011.



#### **Aging and Composition comparisons**

The following chart shows the aging of the Steady State electric meter vintages as of September 30, 2011.



The following table details the composition of Steady State Electric meters by vintage as of September 30, 2011.

Ongoing Vintage	Stopped Meter	Lost Meter	UEU	Meter Mix	Total
JAN 10	2,315	16	715	276	3,322
FEB_10	1,794	20	443	256	2,513
MAR 10			465	315	<del></del>
	4,213	4			4,997
APR_10	2,184	3	332	609	3,128
MAY_10	6,906	16	272	233	7,427
JUN_10	16,507	12	268	221	17,008
JUL_10	14,325	4	201	579	15,109
AUG_10	10,605	13	286	176	11,080
SEP_10	5,624	19	560	183	6,386
OCT_10	3,933	8	908	166	5,015
NOV_10	2,753	20	852	106	3,731
DEC_10	2,349	9	1,186	164	3,708
JAN_11	2,277	13	1,068	188	3,546
FEB_11	1,241	15	1,326	276	2,858
MAR_11	1,321	11	707	137	2,176
APR_11	2,585	10	719	240	3,554
MAY_11	1,995	12	674	107	2,788
JUN_11	1,512	21	582	121	2,236
JUL_11	2,300	28	747	211	3,286
AUG_11	1,694	27	670	279	2,670
SEP_11	2,554	23	847	140	3,564



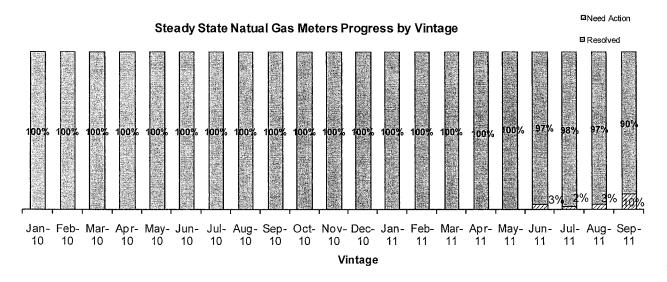
#### Gas Meter Issue Resolution

- April 2009: PSE identified potential problems with 2,489 gas meters. 2,488 (100 percent) were resolved within 4 months of identification. The exception (which constitutes about 0.04 percent) will be discussed in the *Issues Discussion* section.
- June 2009: PSE identified potential problems with 8,720 gas meters. Within two months of identification, 8,615 (99 percent) were resolved. 8,719 of the issues were resolved by October 31, 2009. The one exception (which constitutes about 0.01 percent) will be discussed in the *Issues Discussion* section.
- January 2011: PSE identified potential problems with 5,720 gas meters. 4,726 (83 percent) were resolved within 2 months of identification. And 5,719 (100 percent) were resolved within 4 months of identification. The only exception (which constitutes less than 0.02 percent) was resolved on June 17, 2011.
- February 2011: PSE identified potential problems with 4,654 gas meters. 3,792 (82 percent) were resolved within 2 months of identification and all 4,654 were resolved within 4 months of identification.
- March 2011: PSE identified potential problems with 4,375 gas meters. 3,709 (85 percent) were resolved within 2 months of identification. 4,374 (100 percent) were resolved within 4 months of identification. The only exception (which constitutes less than 0.02 percent) was resolved on August 29, 2011.
- April 2011: PSE identified potential problems with 3,877 gas meters. 3,182 (82 percent) were resolved within 2 month of identification. 3,876 (100 percent) were resolved within 4 months of identification. The only exception (which constitutes less than 0.03 percent) was resolved on September 1, 2011.
- May 2011: PSE identified potential problems with 3,735 gas meters. 3,473 (93 percent) were resolved within 2 months of identification. All 3,735 were resolved within 4 months of identification.
- June 2011: PSE identified potential problems with 4,778 gas meters. 4,615 (97 percent) were resolved within 2 months of identification. PSE is on track to resolve 100 percent of the potential problems by October 31, 2011.
- July 2011: PSE identified potential problems with 11,143 gas meters. 10,917 (98 percent) were resolved within 2 months of identification. PSE is on track to resolve 100 percent of the potential problems by November 30, 2011.
- August 2011: PSE identified potential problems with 22,172 gas meters. PSE already met the interim threshold of 75 percent and is on track to resolve 100 percent of the potential problems by December 31, 2011.
- September 2011: PSE identified potential problems with 11,967 gas meters. 90 percent of the problems were resolved in the same month they were identified, exceeding the interim threshold of 75 percent resolved by November 30, 2011. PSE is on track to resolve 100 percent of the potential problems by January 1, 2012.



### **Aging and Composition comparisons**

The following chart shows the aging of the Steady State natural gas meter vintages as of September 30, 2011.



The following table details the composition of Steady State natural gas meters by vintage as of September 30, 2011.

Ongoing Vintage	Stopped Meter	Lost Meter	UEU	Meter Mix	Total
JAN_10	6,549	11	933	223	7,716
FEB_10	4,029	18	494	287	4,828
MAR_10	5,549	9	546	331	6,435
APR_10	4,224	7	458	260	4,949
MAY_10	5,062	6	373	296	5,737
JUN_10	3,336	7	224	232	3,799
JUL_10	6,675	7	146	141	6,969
AUG_10	1,297	13	158	180	1,648
SEP_10	23661	13	311	146	24,131
OCT_10	6,366	8	530	176	7,080
NOV_10	2,922	7	614	129	3,672
DEC_10	2,955	12	1,022	123	4,112
JAN_11	4,032	11	1,497	180	5,720
FEB_11	3,371	4	1,026	253	4,654
MAR_11	3,265	12	910	188	4,375
APR_11	3,067	7	680	123	3,877
MAY_11	2,949	9	592	185	3,735
JUN_11	4,139	19	439	181	4,778
JUL_11	10,618	10	352	163	11,143
AUG-11	21,713	10	320	129	22,172
SEP_11	11,533	11	286	137	11,967





# Tracking and Reporting Monthly Vintage of Meter/Billing Issues

#### **Issues Discussion**

To improve the field investigation process for resolving electric meter mix issues, in August PSE purchased a new device, Amprobe Line Tracer, for all the meter journeymen who carry out the task. The Amprobe Line Tracer eliminates the need of multiple site visits, avoids the scheduled power outage required during investigation, reduces the number of journeymen needed to work an electric meter mix issue, and is less intrusive to the customers.

Under the legacy process, the investigation time could take from one hour to six hours or days due to the arrangement of acceptable outage time with multiple affected customers. With the Amprobe Line Tracer, the investigation time can be reduced by about an hour or two per meter mix issue without waiting for the extra hours or days needed for an outage arrangement with customers. The following discussion describes the legacy meter mix field investigative process:

- Step 1: A service order is created when PSE realizes that a customer may not have been billed on the meter that actually records the customer's electric usage.
- Step 2: Upon receiving the service order, a meter journeyman calls the customer to discuss the potential meter mix issue.
- Step 3: During the first visit, the meter journeyman would carry out one or all the following actions:
  - Locating the meter base that actually serves the customer
  - Locating the customer's electric distribution panel
  - Determining the hours when a short term outage would be acceptable to the customer and any others attached to the same meter base location
  - Verifying the address information
  - If requested by the customer or others affected customers, scheduling a second appointment when a short term outage would be acceptable to all the customers

On the first visit or a subsequent visit, to determine the correct meter that serves the customer, the steps are the following:

- Step 4: The first journeyman would locate customer's electric panel while a second journeyman would go to the customer's meter base.
- Step 5: The journeymen would notify the customer and the adjoining customers that their power would go out during the investigation process.
- Step 6: The second journeyman would then, by radio or cell phone, notify the first journeyman when to turn off the customer's main breaker.
- Step 7: The first journeyman would then notify the second journeyman that the breaker is off and the second journeyman would look to see which meter or meters are affected by the power outage. If there are multiple meter mixes at the same meter base or the building, this step would be repeated for each meter at this location.

With the Amprobe Line Tracer, Steps 3 through 7 above have been consolidated as there is no need for a service outage during the investigation and only one journeyman is required to perform the work. The



revised meter mix investigation process with Amprobe Line for the last step of the electric meter mix investigation becomes:

The Journeyman will plug the test unit of the Amprobe Line Tracer into any wall outlet in the customer's location. This unit will induce a frequency on the customer's inside wires that will be picked up by the receiving unit of the Amprobe Line Tracer at the meter base servicing the customer so that the journeyman would know which is the correct meter. The Journeyman will be able to easily determine if there is a meter mix issue and which meters are involved without inconveniencing any customers.

# **Unresolved Exception Issues**

The following table summarizes, as of September 30, 2011, the status of those exceptional unresolved meter problems mentioned in the Issues Resolution sections above:

Vintage	Redacted Meter ID	Category	Issue Type
Group One Gas	0432	Lost Meter	Not Located
Group One Gas	0947	Lost Meter	Not Located
Group One Gas	1426	Lost Meter	Not Located
Group One Gas	9421	Lost Meter	Not Located
Interim Gas	1760	Lost Meter	Not Located
Apr_09 Gas	3028	Lost Meter	Not Located
Jun_09 Gas	5722	Lost Meter	Not Located
Jan_10 Electric	0203	Lost Meter	Not Located

#### Not Located Issue

PSE has not been able to locate the above eight Lost Meters since the end of last quarter. PSE has continued its efforts to locate these meters whenever any of the meters shows some usage or sends a radio frequency that is strong enough for the locating equipment to pinpoint the meter location. Further status updates on these meter problems will be included in the next quarterly report.





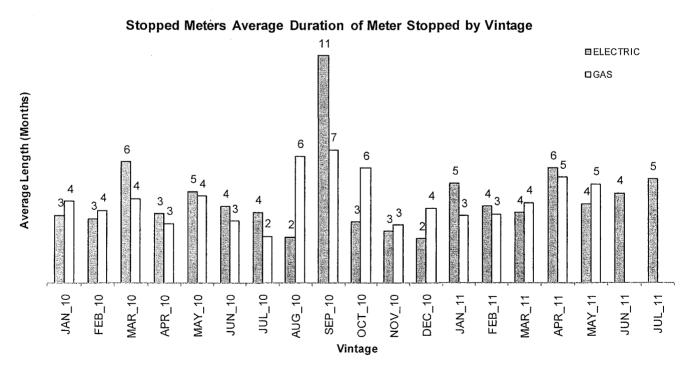
# **Addendum Reporting**

# **Backbilling Results of Stopped Meters**

This additional data regarding the backbilling results of Stopped Meters, including both residential and non-residential meters, have been added in the quarterly filing since September 2009 per an informal WUTC staff request. Specifically, the following information details the average duration of the Stopped Meter issue, the average length of backbilling, and the average backbilled amount by vintage as of September 30, 2011. The average backbilled information is not available for vintages that have not been completed including electric Aug\_11 and Sept\_11 vintages and natural gas vintages identified from June 2011 through September 2011.

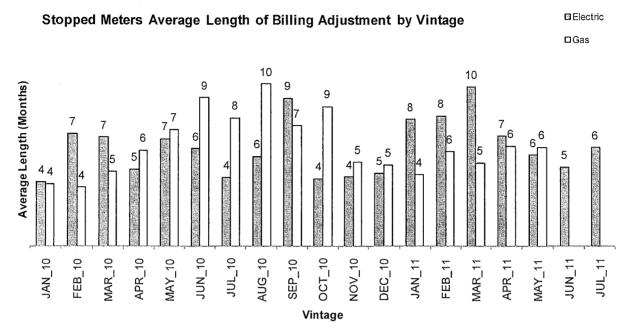
Among the total 448,154 Stopped Meters identified since June 30, 2008, 6% of these meters require backbilling because of equipment problems. The other 94% are meters with seasonal usage and the potential meter and billing problems dissolved when customers start to use natural gas or electricity again in the coming season.

The chart below shows the average duration in month of meter stopped for Stopped Meters that are read either automaticly or manually by vintage as of September 30, 2011. The average duration of the meter stopped is the average of the actual duration that a meter is stopped, i.e., the total number of months from the date the meter failed to the date the meter issue was resolved.





The chart below shows the average length of the billing adjustment for Stopped Meters of September 30, 2011.



The average length of backbilling is the average of the actual backbilling period, which is the difference from the last day of the last accurate billing prior to being identifed asf a Stopped Meter to the meter read date of the first correct billing after the resolution of the Stopped Meter issue. For any Stopped Meter, the duration of the meter stopped (shown above) may or may not be the same length of time as its billing adjustment period or the length of being identified as a Stopped Meter.

The chart below shows the average billed amount by vintage for Stopped Meters as of September 30, 2011. The average billed amount is associated with the actual total number of months of the billing adjustment occurred. The actual backbilling period for a Stopped Meter problem does not change even though the billing adjustment amount may be increased or decreased due to subsequent adjustments.

