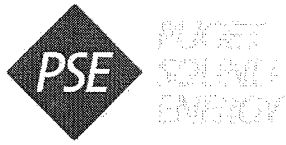


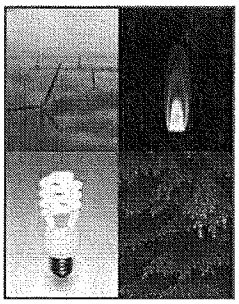
Puget Sound Energy

Meter and Billing Performance Quarterly Report

for the Quarter Ending December 31, 2011

Filed January 30, 2012

Contents



Introduction

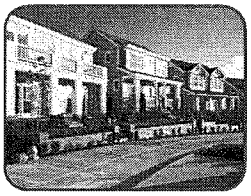
Executive summary

As of December 31, 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 August 2011, and electric problems identified between January 2009 and October 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. Stopped Meter: Date the meter is validated to be a probable stopped meter from manual analysis of the zero consumption report or other similar report.

b. Unassigned Energy Usage ("UEU"): 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. 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 5th of the month or the 20th 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 5th of the month or the 20th of the month will have the same monthly vintage.)

Summary Progress to Date

Meter and Billing Performance Summary

Phase-in Vintages as of December 31, 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 Meter and Billing Issues	Resolved Within 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 December 31, 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:

Ongoing Vintage	# Electric Meter and Billing Issues	Resolved Within 1 Month of Identification	% Resolved Within 1 Month of Identification	Resolved Within 2 Months of Identification	% Resolved Within 2 Months of Identification	# of Issues Identified As Reported in Q3	Reason for Change
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%		
JUN_11	2,236	2,197 Note 1	98%	2,231	100%		
JUL_11	3,286	2,992	91%	3,286	100%		
AUG_11	2,672	2,329	87%	2,672	100%	2,670	Note 2
SEP_11	3,566	3,328	93%	3,566	100%	3,564	Note 2
OCT_11	3,294	3,020	92%	3,293	100%		
NOV_11	4,144	3,922	95%	Open			
DEC_11	3,452	2,442	71%	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 Q3	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%		
APR_11	3,877	3,182	82%	3,876	100%		
MAY_11	3,735	3,473	93%	3,735	100%		
JUN_11	4,778	4,615	97%	4,778	100%		
JUL_11	11,143	10,917	98%	11,143	100%		
AUG_11	22,171	21,958	99%	22,170	100%	22,172	Note 3
SEP_11	11,968	11,882	99%	Open		11,967	Note 3
OCT_11	4,113	4,029	98%	Open			
NOV_11	4.124	3,852	93%	Open			
DEC_11	4.623	2,877	62%	Open			

Note 1: The 1,711 number in the last quarterly report was actually the number of issues resolved at the end of the calendar month of June 2011 instead of the number of issues resolved within one month of identification i.e., by July 31, 2011.

Note 2: Two Stopped Meter cases were added in error in 2011 second quarter.

Note 3: Another meter pertaining to a Meter Mix issue was 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 probable 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 4th quarter report, 2010 4th quarter report, and 2011 3rd 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 difference for each of affected vintages is noted at the end of the *Summary Progress to Date* section above. The following discussion is based upon the updated monthly results as December 31, 2011.

Electric Meter Issue Resolution

- January 2010: PSE identified probable 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 probable 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) was resolved on April 26, 2011 after the hazardous weather conditions improved and PSE was able to gain access the meter.

- February 2011: PSE identified probable 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) was resolved on August 29, 2011.

- March 2011: PSE identified probable 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 probable 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 probable 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 probable problems with 2,236 electric meters. 2,197 (98 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 probable 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 probable problems with 2,672 electric meters. 2,329 (87 percent) were resolved within one month of identification. All 2,672 meters (100 percent) were resolved within two months of identification.

- September 2011: PSE identified probable problems with 3,566 electric meters. 3,328 (93 percent) were resolved within one month of identification. All 3,566 meters (100 percent) were resolved within two months of identification.

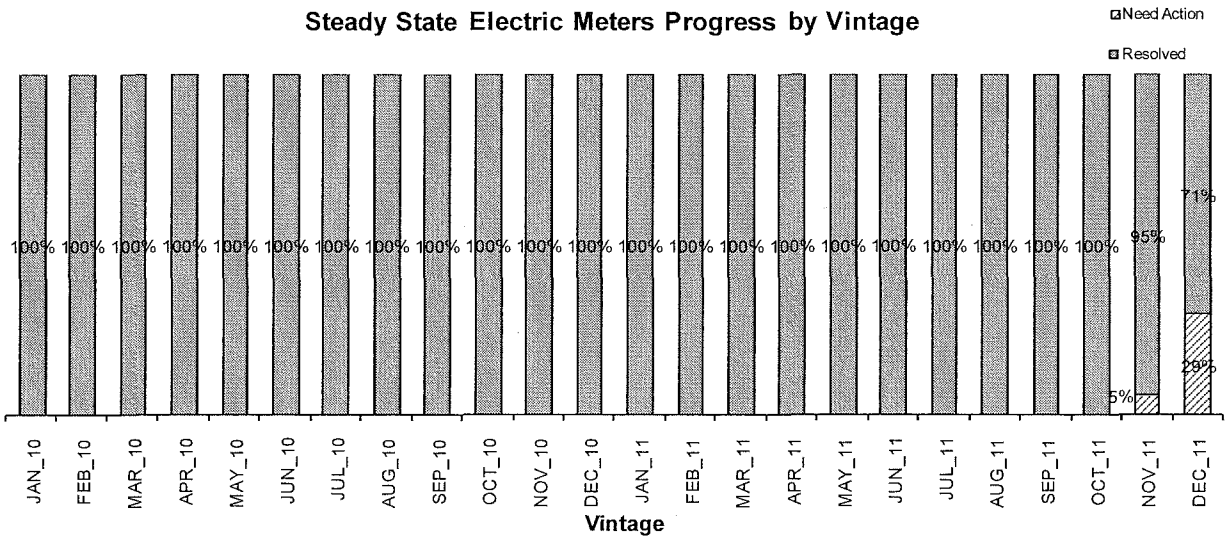
- October 2011: PSE identified probable problems with 3,294 electric meters. 3,020 (92 percent) were resolved within one month of identification. 3,293 meters were resolved within two months. The one exception (which constitutes less than 0.03 percent), a meter with Unassigned Energy Usage, was resolved in January 2012. Unsafe electric facilities prevented PSE personnel from resolving this meter issue without a whole crew. Once the repair work was completed, PSE was able to disconnect the meter to stop the UEU on January 10, 2012.

- November 2011: PSE identified probable problems with 4,144 electric meters. 3,922 (95 percent), were resolved within one month of identification. PSE is on track to resolve 100 percent of the probable problems by January 31, 2012.

- December 2011: PSE identified probable problems with 3,452 electric meters. PSE is on track to resolve 100 percent of the meters by February 28, 2012.

Aging and Composition comparisons

The following chart shows the aging of the Steady State electric meter vintages as of December 31, 2011.



The following table details the composition of Steady State Electric meters by vintage as of December 31, 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	4,213	4	465	315	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	281	2,672
SEP_11	2,554	23	847	142	3,566
OCT_11	2,168	26	911	189	3,294
NOV_11	2,920	9	1,136	79	4,144
DEC_11	2,016	25	1,265	146	3,452

Gas Meter Issue Resolution

- April 2009: PSE identified probable 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 probable 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 probable 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 probable 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 probable 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 probable 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 probable 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 probable problems with 4,778 gas meters. 4,615 (97 percent) were resolved within 2 months of identification. All 4,778 meters were resolved within four months of identification.

- July 2011: PSE identified probable problems with 11,143 gas meters. 10,917 (98 percent) were resolved within 2 months of identification. All 11,143 meters were resolved within four months of identification.

- August 2011: PSE identified probable problems with 22,171 gas meters. 21,958 meters (99 percent) were resolved within two months of identification and 22,170 meters were resolved within four months of identification. The only exception (which constitutes less than 0.005 percent) was resolved on January 23, 2012 after PSE was able to establish contact with the customer.

- September 2011: PSE identified probable problems with 11,968 gas meters. 11,882 meters (99 percent) were resolved within two months of identification. PSE is on track to resolve 100 percent of the meters by January 31, 2012.

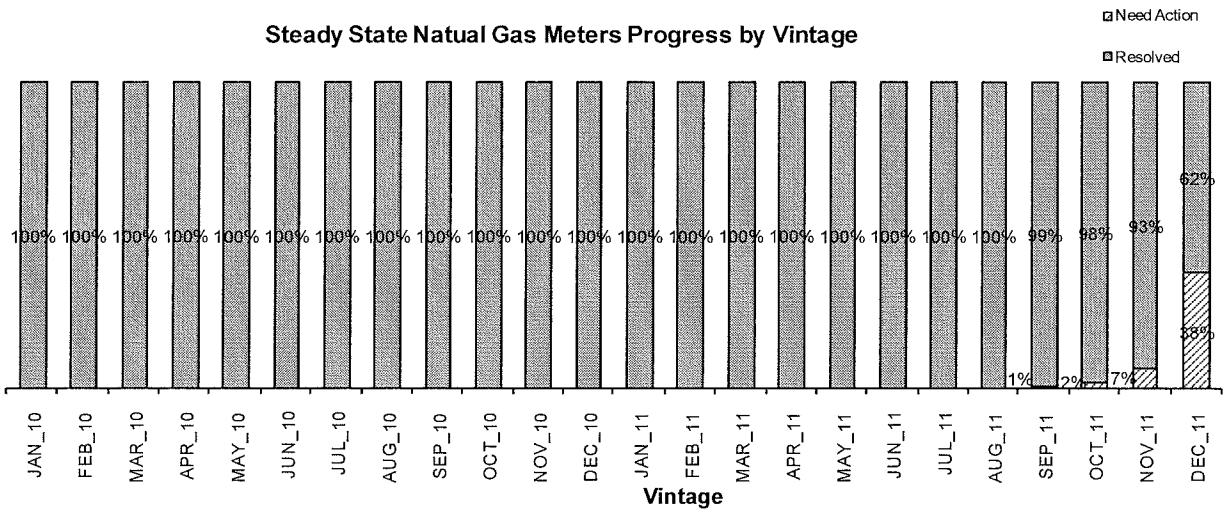
- October 2011: PSE identified probable problems with 4,113 gas meters. 4,029 (98 percent) were resolved within two months of identification. PSE is on track to resolve 100 percent of the meters by February 28, 2012.

- November 2011: PSE identified probable problems with 4,124 gas meters. PSE has already resolved 93 percent of the meters and is on track to resolve 100% of the meters by March 31, 2012.

- December 2011: PSE identified probable problems with 4,623 gas meters. PSE is on track to resolved 100 percent of the meters by April 30, 2012.

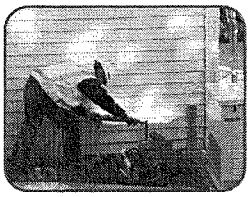
Aging and Composition comparisons

The following chart shows the aging of the Steady State natural gas meter vintages as of December 31, 2011.



The following table details the composition of Steady State natural gas meters by vintage as of December 31, 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	21,712	10	320	129	22,171
SEP_11	11,533	11	286	138	11,968
OCT_11	3,672	12	307	122	4,113
NOV_11	3,399	10	598	117	4,124
DEC_11	3,316	17	1,180	110	4,623



Tracking and Reporting Monthly Vintage of Meter/Billing Issues

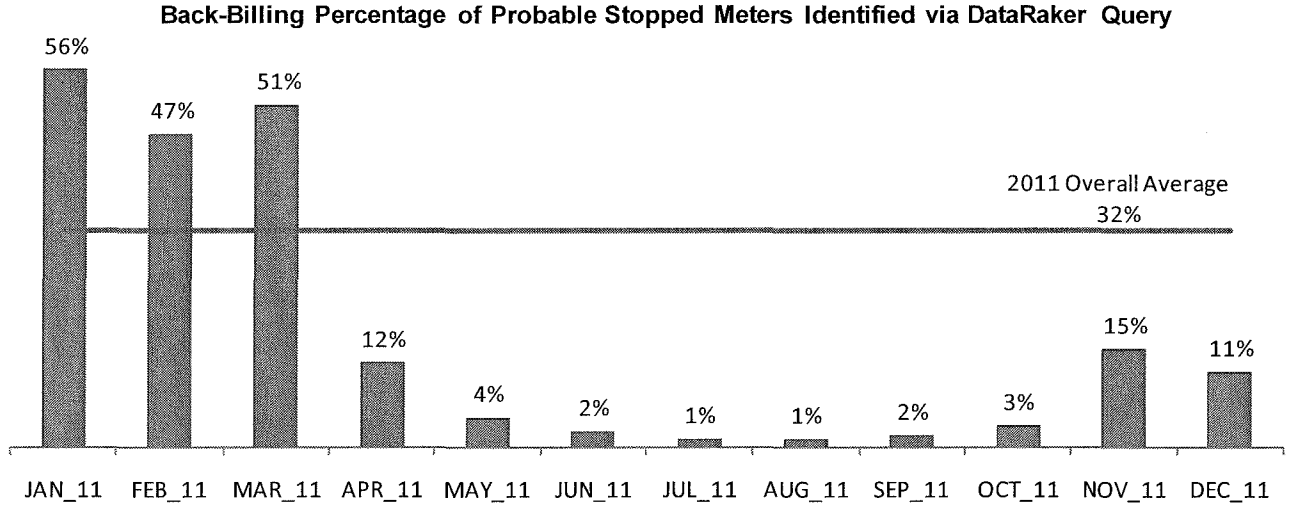
Issues Discussion

In the 4th quarter of 2010, PSE started working with its contractor, DataRaker, to develop an analytic query that is based upon the daily meter reads data in PSE's Meter Data Warehouse to detect irregular usage pattern and facilitate the identification of a probable Stopped Meter. It has been a year since the deployment of the query and the following discussion provides an overview of PSE's experiences with the tool.

Typically, the DataRaker query is able to detect a probable Stopped Meter within 5-10 days after the zero usage or the meter malfunction first occurred. When the temperatures dip to below freezing, the query is able to identify a probable Stopped Meter within 5 days rather than the 5-10 day window. The chart below shows the 2011 success rates of the query i.e., the percentage of the probable Stopped Meter issues that actually required a billing correction. When the query was first deployed in the first quarter of 2011, about half of the probable meter issues identified by the query required billing correction. However, as those "backlog" issues were resolved, the success rates normalized to the range of 1% through 15%. As shown, the success rates during the heating seasons are significant higher than that of during warmer months, for example, 1% in August vs. 15% in November.

In addition, the chart also highlights the cyclical pattern of Stopped Meter resolution that meters with zero usage in the summer months are most likely to be meters without any actual customer usage but meters with zero usage in the winter months would suggest higher probability of an equipment issue.

The percentages for the SEP_11 through DEC_11 vintages are as of December 31, 2011, and do not reflect the final back-billing results as PSE is still working on the 100% resolution of these vintages.



Unresolved Exception Issues

The following table summarizes, as of December 31, 2011, the status of those exceptional unresolved meter problems mentioned in the Issues Resolution sections above:

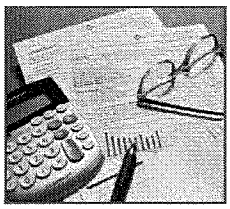
Vintage	Redacted Meter ID	Category	Issue Type
Group One Gas	0432	Lost Meter	Not Located
Group One Gas	0947	Lost Meter	Not Located
Group One Gas	1426	Lost Meter	Not Located
Group One Gas	9421	Lost Meter	Not Located
Interim Gas	1760	Lost Meter	Not Located
APR_09 Gas	3028	Lost Meter	Not Located
JUN_09 Gas	5722	Lost Meter	Not Located
JAN_10 Electric	0203	Lost Meter	Not Located
AUG_11 Gas	2003	Stopped Meter	Process Gap

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.

Process Gap Issue

The cause of the AUG_11 Stopped Meter exception, ID 2003, had been identified and the meter issue was resolved on January 23, 2012. The gap in the reviewing process that contributed to the meter exception issue has been addressed and additional training has been established to eliminate future errors of this type.



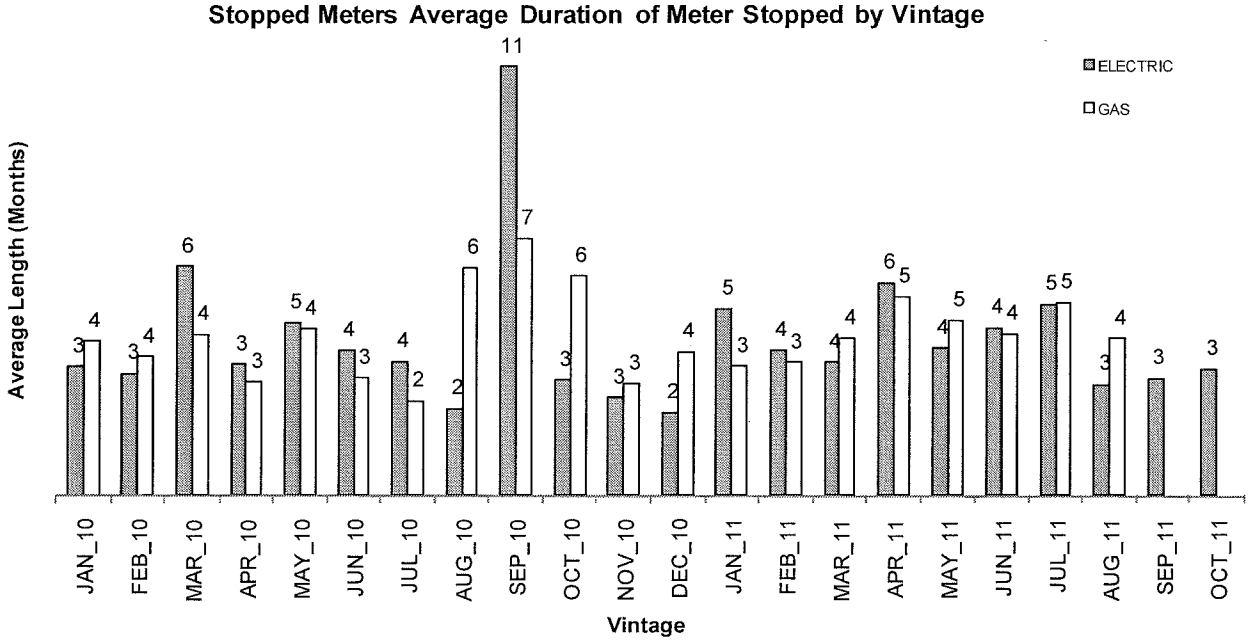
Addendum Reporting

Back-billing Results of Stopped Meters

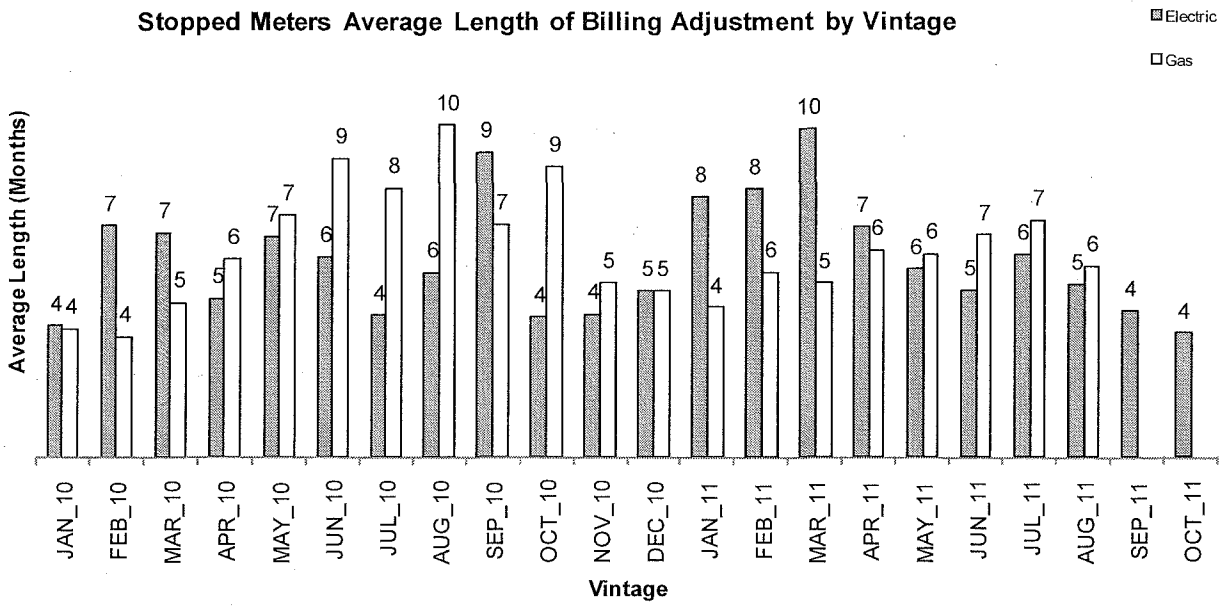
This additional data regarding the back-billing results of Stopped Meters, including both residential and non-residential meters, have been informally added in the quarterly filing since September 2009 per an informal WUTC staff request. Specifically, the following information details the average duration of the Stopped Meter issue, the average length of back-billing, and the average back-billed amount by vintage as of December 31, 2011. The average back-billed information is not available for vintages that have not been completed including electric NOV_11 and DEC_11 vintages and natural gas vintages identified from SEP_11 through DEC_11.

Among the 72,800 Stopped Meters in the vintages that have been completed as of December 31, 2011, 6% of these meters required back-billing because of an equipment problem. The other 94% are meters with seasonal usage and the probable meter and billing issues dissolved when customers start to use natural gas or electricity again in the coming season.

The chart below shows the average duration, in months, that the meter stayed stop for Stopped Meters that are read either automaticly or manually by vintage. The number reported represents vintages that have been closed on December 31, 2011. The average duration of the meter stopped is the average of the actual duration that a meter remains stop, 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 as of December 31, 2011. The average length of back-billing is the average of the actual back-billing period, which is the difference from the last day of the last accurate billing prior to being identifed as 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 December 31, 2011. The average billed amount is associated with the actual total number of months of the billing adjustment occurred. The actual back-billing period for a Stopped Meter problem does not change even though the billing adjustment amount may be increased or decreased due to subsequent adjustments. Some of the results shown in the chart below for the prior vintages vary from the prior quarterly reports to reflect the correction in the determination of the final back-billing amount when there are multiple billing adjustment amounts in the PSE's Meter Exception Management System for a single Stopped Meter issue.