Puget Sound Energy

Meter and Billing Performance Quarterly Report

for the Quarter Ending March 31, 2011

Filed April 29, 2011

PUGET SOUND ENERGY
The Energy To Do Great Things

Contents

In accordance with the multi-party 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 consolidated 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 March 31, 2011.

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 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

As of March 31, 2011, 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 November 2010, and electric problems identified between January 2009 and January 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 on the following pages of this report.

Meter and Billing Performance as of March 31, 2011:

(Percent of completion shown are rounded to the nearest whole percentage)

Phase-in Vintages

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, 2010

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 Q4	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%	3,662	Note 1
Jan-11	3,546	3,307	93%	3,545	100%		
Feb-11	2,858	2,672	93%				
Mar-11	2,176						

Note 1: In the vintage noted, additional meters related to a meter mix issue needed to be added to complete the investigation.

Steady State (Ongoing Vintages) as December 31, 2010

Natural gas meter information:

Ongoing Vintage	# Gas Meter and Billing Issues	Resolved Within 2 Months of Identification	% Resolved Within 2 Months of Identification	Resolved Within 4 Months of Identification	% Resolved Within 4 Months of Identification	# of Issues Identified As Reported in Q4	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%		Note 2
Oct-10	7,080	7,030	99%	7,077	100%		
Nov-10	3,672	3,497	95%	3,672	100%		Note 2
Dec-10	4,112	3,748	91%				
Jan-11	5,720	4,726	83%				
Feb-11	4,652						
Mar-11	4371						

Note 2: Data in % Resolved Within 2 Months of Identification column has been adjusted to correct a data entry error included in the 2010 fourth quarterly report.

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 *Issues Discussion* 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 *Issues Discussion* 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 2010 vintages not listed below have been resolved completely and detailed results can be found in PSE's 2010 4th 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 report. 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 of March 31, 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) will be discussed in the *Issues Discussion* section.

  November 2010: PSE identified potential problems with 3,731 electric meters. 3,567 (96 percent) were resolved within one month of identification and 3,730 (100 percent) were resolved within 2 months of identification.

- December 2010: PSE identified potential problems with 3,708 electric meters. 3,218 (87 per cent) were resolved within one month of identification and all 3,708 (100 percent) were resolved within 2 months of identification.

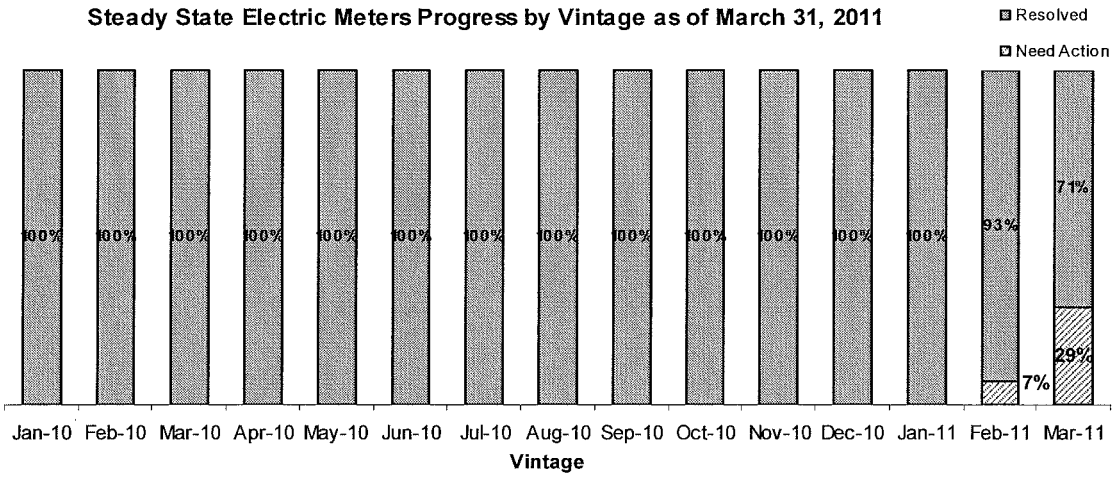
- January 2011: PSE identified potential problems with 3,546 electric meters. 3,307 (93 percent) were resolved within one month of identification and 3,545 (100 percent) were resolved within 2 months. The only exception (which constitutes less than 0.03 percent), identified as meter ID 2755 will be discussed in the *Issues Discussion* section.

- February 2011: PSE identified potential problems with 2,858 electric meters. 2,672 (93 percent) were resolved within one month of identification. PSE is on track to resolve 100 percent of the potential problems by April 30, 2011.

- March 2011: PSE identified potential problems with 2,176 electric meters. PSE is on track to meet the final threshold of 100 percent resolved by May 31, 2011.

Aging and Composition comparisons

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



The following table details the composition of Steady State Electric meters by vintage as of March 31, 2011.

	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

	Stopped Meter	Lost Meter	UEU	Meter Mix	Total
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

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.

- September 2010: PSE identified potential problems with 24,131 gas meters. 24,051 (100 percent) were resolved within 2 months of identification and 27,130 (100 percent) were resolved within 4 months of identification. The one exception (which constitutes less than 0.004 percent) was resolved on February 1, 2011.

- October 2010: PSE identified potential problems with 7,080 gas meters. 7,030 (99 percent) were resolved within 2 months and 7,077 gas meters (100 per cent) were resolved within 4 months of identification. The 3 exceptions (which constitute 0.04 percent) were resolved by March 3, 2011.

- November 2010: PSE identified potential problems with 3,672 gas meters. 3,497 (95 percent) were resolved within 2 months of identification 3,672 (100 percent) were resolved within 4 months of identification.

- December 2010: PSE identified potential problems with 4,112 gas meters. 3,748 (91 percent) were resolved within 2 months of identification. PSE is on track to resolve 100 percent of the potential problems by April 30, 2011.

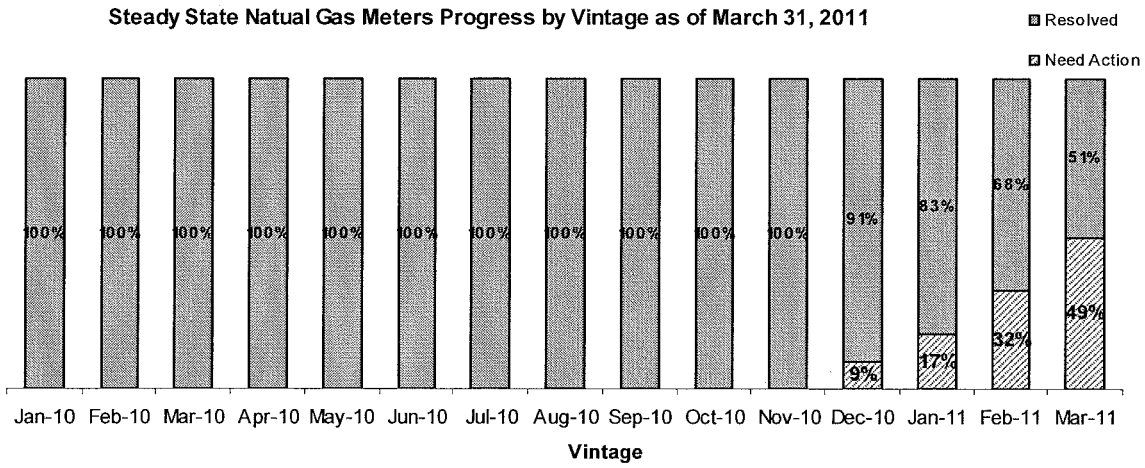
- January 2011: PSE identified potential problems with 5,720 gas meters. 4,726 (83 percent) were resolved within 2 months of identification. PSE is on track to resolved 100 percent of the potential problems by May 31, 2011.

- February 2011: PSE identified potential problems with 4,652 gas meters. PSE is on track to meet the interim threshold of 75 per cent resolved by April 30, 2011, and resolve 100 per cent of the potential problems by June 30, 2011.

- March 2011: PSE identified potential problems with 4,371 gas meters. PSE is on track to meet the interim threshold of 75 percent resolved by May 31, 2011, and resolve 100 percent of the potential problems by July 31, 2011.

Aging and Composition comparisons

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



The following table details the composition of Steady State natural gas meters by vintage as of March 31, 2011.

	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	23,661	13	311	146	24,131
Oct-10	6366	8	530	176	7,080
Nov-10	2922	7	614	129	3,672
Dec-10	2955	12	1022	123	4,112
Jan-11	4,032	11	1,497	180	5,720
Feb-11	3,369	4	1,026	253	4,652
Mar-11	3,264	12	910	185	4,371

Tracking and Reporting Monthly Vintage of Meter/Billing Issues

During the last few months, PSE has used the DataRaker analytic platform to proactively address the following meter issues:

- Stopped Meters: During the winter months as the temperatures reached the freezing level and below, an AMR (Automatic Meter Reading) module can "freeze" or stop working. As the weather improves, the module may start working again or remain stopped which will be identified later as a stopped meter on the zero consumption report. Because of this weather related issue, PSE began working with DataRaker to develop a query that would identify the AMR meters that stopped functioning correctly when the temperatures dipped to the freezing level. Once the meters are identified as stopped meters via the DataRaker query, they are entered into PSE's Meter Exception Management System, assigned a vintage, and resolved through the stopped meter process. The DataRaker query is able to identify potential stopped meter problems within 10-15 days after meter module malfunction first occurred; therefore the length of the billing adjustment that might be required can be reduced to days instead of months. This is particularly beneficial to customers during the winter high usage months. PSE continues to run the stopped meter query on a daily basis.

- AMR Module Replacement: In late 2009, PSE's AMR vendor, Landis-Gyr, notified PSE that a particular AMR gas module had a high failure rate. From December 2009 through July 2010, about 110,000 modules were replaced by Landis-Gyr as a precaution. As the module replacement progressed, PSE was notified of the results as either no problem found or a problem had been found with the module. PSE then reviewed all of the problem modules and completed billing corrections if needed.

  In the first quarter of the 2011, DataRaker was contracted to develop a query that would identify and determine the volume of meters that met all three of the following conditions that had been associated with the just replaced modules:
  1. No usage showing prior to change out
  2. Spike in usage at change out
  3. Normal usage resumed

  The query identified 3,002 meters meeting all three conditions. PSE performed a review of those meters which included some of the newly replaced modules. In the first quarter of 2011, PSE completed the billing corrections needed for those meters that had not been indentified initially as having a problematic module in 2010. The query is now run routinely to identify these specific situations.

- Irregular Use VEE Code: PSE has also begun a review of the assignment of VEE (automated Validation, Editing, and Estimation of meter data) coding for irregular meter usage i.e., seasonal usage such as a swimming pool. The irregular Use VEE code indicates why a meter would not show regular daily/monthly usage with a timer to track when consumption is expected. When these timers expire, meters are reviewed and assigned another VEE code or a service order for field visit is created. Currently, PSE is working with DataRaker to refine the population of meters with Irregular Use VEE Code. Further information on this project will be provided in the 2nd quarter 2011 report.

Issues Discussion

The following table summarizes the exceptional unresolved meter problems mentioned in the issues resolution sections above as of March 31, 2011:

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
Jan-11 Electric	2755	Stopped Meter	Not Completed

Not Located Issue

PSE has not been able to locate the above eight Lost Meters since the end of last quarter. PSE will continue 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.

Not Completed Issue

PSE is unable to gain access to Meter ID 2755 due to the hazardous road conditions as a result of the winter weather. Resolution of the meter exception will be resumed as soon as the road conditions are safe and travelable.

Addendum Reporting

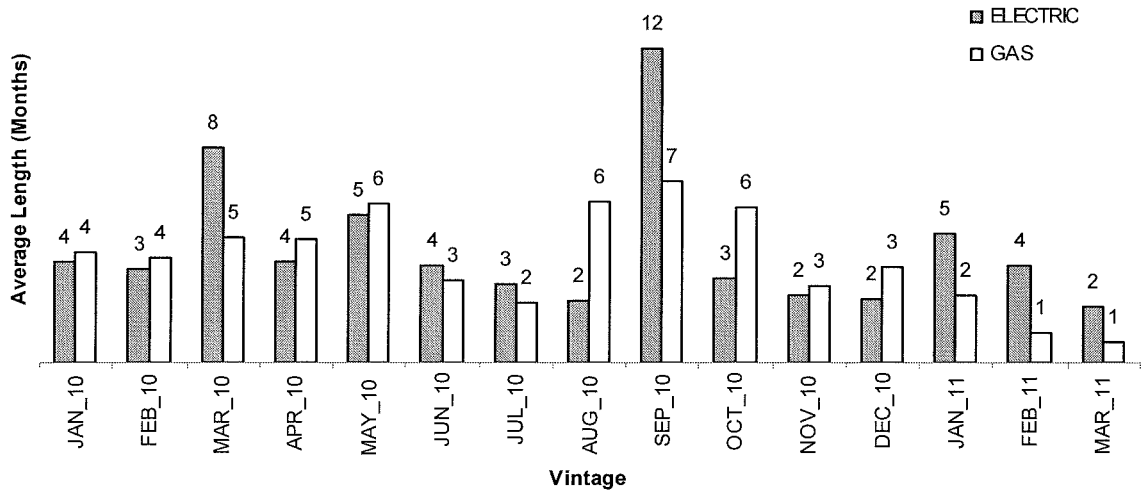
This additional data regarding the backbilling results of Stopped Meters are included in the quarterly filing per an informal WUTC staff request in September 2009. Specifically, the following information details the average duration of the Stopped Meter issue, the average length of backbilling, and the average backbilled amount by vintage.

Among the total 455,033 Stopped Meters, 5% of these meters require backbilling because of equipment problems. The other 95% 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.

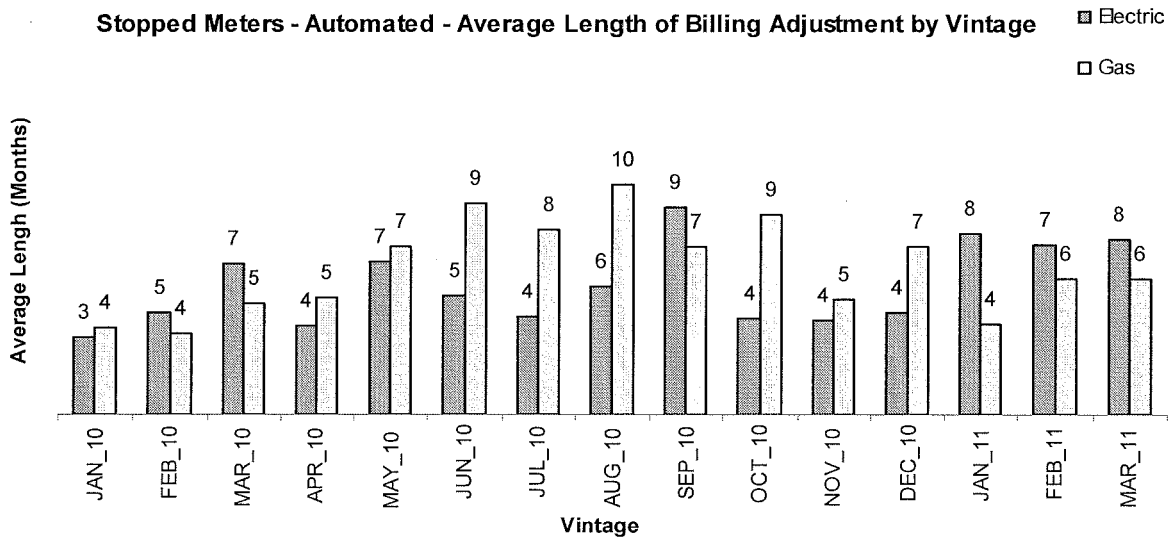
Information presented in this section is based on the billing resolution status as of March 31, 2011.

The chart below shows the average duration in months of meter stopped for Stopped Meters with automatic meter reading ("AMR") device by vintage as of March 31, 2011. The average duration of 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.

Stopped Meters - Automated - Average Duration of Meter Stopped by Vintage

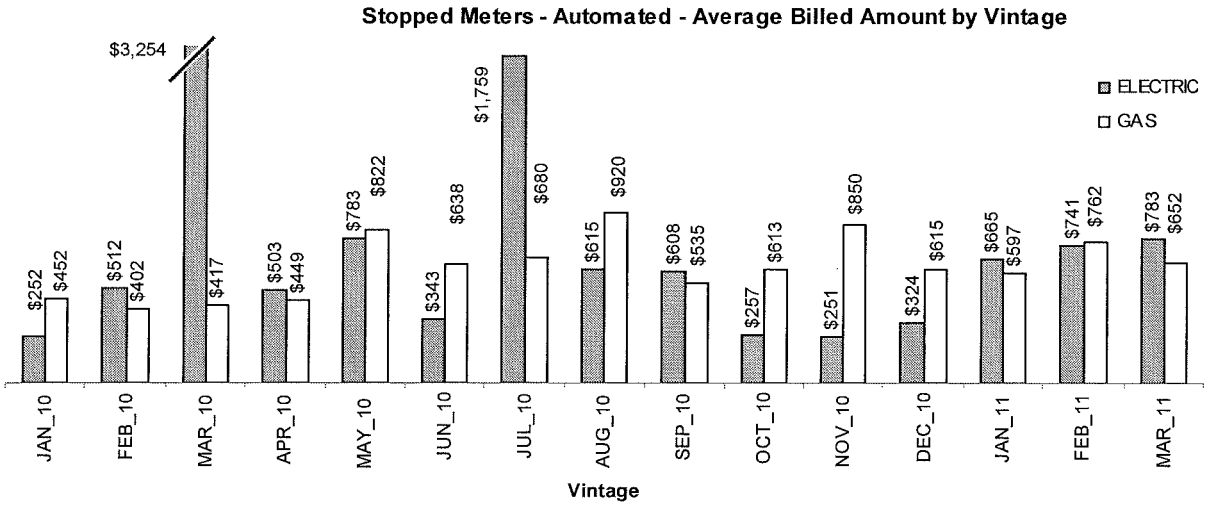


The chart below shows the average length of the billing adjustment for Stopped Meters with AMR device as of March 31, 2011.

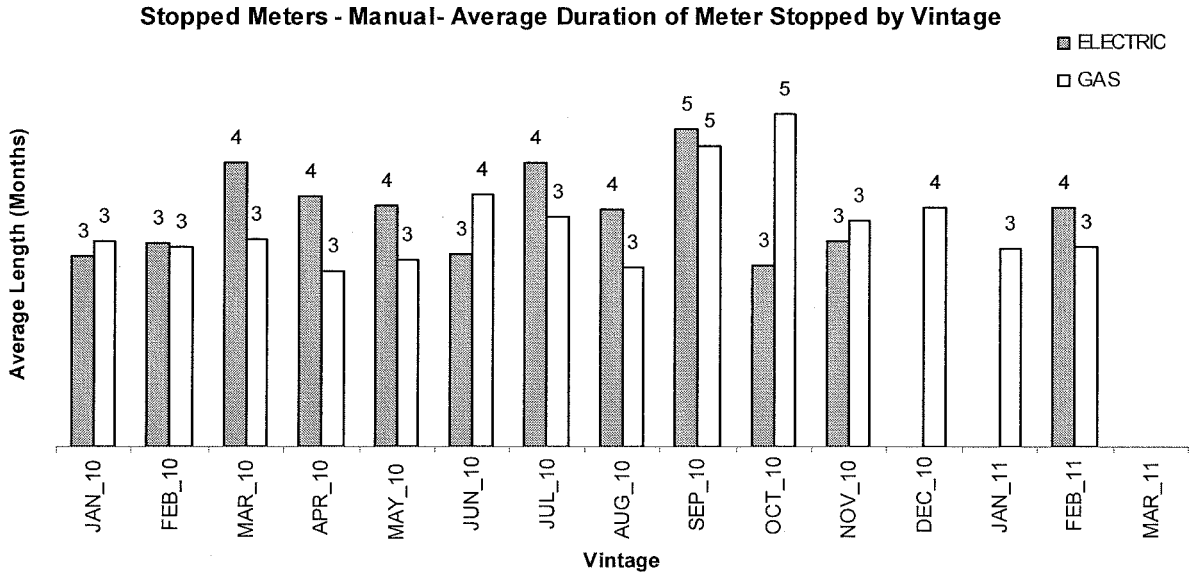


The average length of backbilling is the average of the actual backbilling period, which is the difference from the meter read date of the last accurate billing prior to the occurance of meter stopped to the meter read date of the first CLX billing after the resolution of the Stopped Meter issue. For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

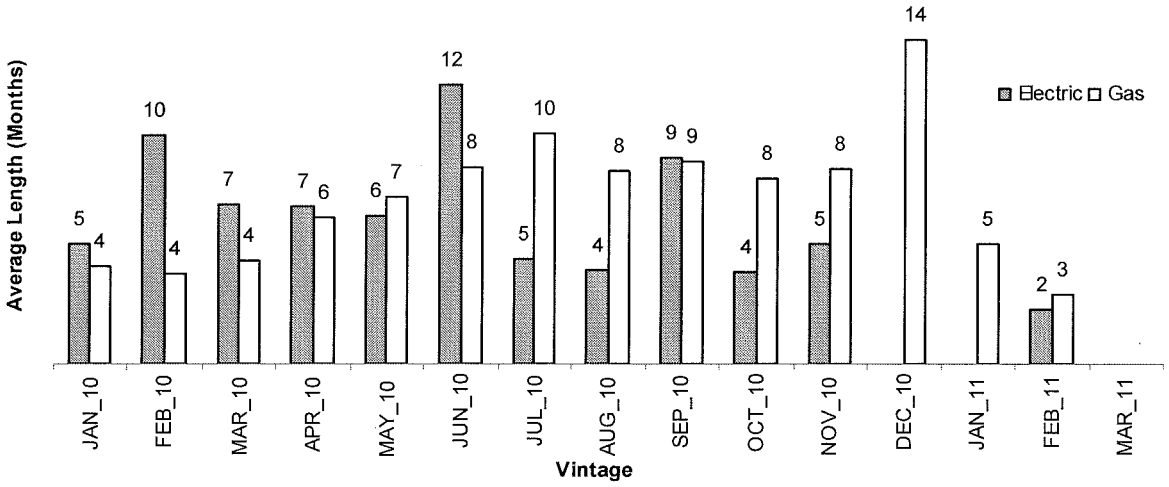
The chart below shows the average billed amount by vintage for AMR Stopped Meters as of March 31, 2011. The average billed amount is associated with the actual total number of months of the billing adjustment occurred. The actual backbilling period for a Stopped Meter problem does not change even though the billing adjustment amount may be increased or decreased due to subsequent adjustments.



The chart below shows the average meter issue cycle time in months for manually-read Stopped Meters by vintage as March 31, 2011. There is no electric manually-read Stopped Meter in the Dec-10, Jan-11, and Mar-11 vintages; and results for the manually-read Stopped Meter natural gas Mar-11 vintage are not available at this time.



The chart below shows the average length of billing adjustment for manually read Stopped Meters as of March 31, 2011.



The chart below shows the average billed amount by vintage for manually read Stopped Meters issues as of March 31, 2011.