BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of: PUGET SOUND ENERGY For Mitigation of Service Quality Index Penalty for Period Ending December 31, 2009	DOCKET NO. UE-10____ ORDER (PROPOSED)

I. BACKGROUND

1. On February 16, 2010, Puget Sound Energy, Inc. ("PSE" or the "Company"), filed its 2009 annual report on the compliance with its Service Quality Index ("SQI") Program. In this report, PSE indicated that the Company met or exceeded nine of the ten SQIs but did not meet the 136 minutes benchmark for SQI No. 3 SAIDI (System Average Interruption Duration Index). PSE's 2009 SAIDI performance was 192 minutes with a penalty assessed at $1,389,706.
2. As part of the 2009 SQI annual filing, the Company filed a Petition for Mitigation ("Petition") of part of this penalty amount and for exclusion of nine SAIDI minutes from performance calculation, on the basis that the penalty and SAIDI minutes directly stem from access issues and hazardous conditions caused by unusual and exceptional weather and subsequent events that occurred in early January 2009.

3. In the Petition, PSE outlined its pre-storm season preparation. In additional to its internal review and effort, PSE stated that it also met with each emergency management department at the county level annually, presenting information on its preparations for the season's winter storms. PSE stated that PSE, the Washington State Department of Transportation, and regional roads jurisdictions have established a special agreement to share 24/7 contact information for local response and to coordinate restoration activity.

4. The Company identified twenty-five outages in four counties that were caused and prolonged by the unusual and exceptional weather and subsequent hazardous events that occurred in early January 2009. Electric service restoration was delayed and postponed due to various combinations of weather conditions, hazardous events, and state authorized road closures. Crews were not able to safely access PSE's facilities and customer sites during these events. For each of the counties, PSE described the type of unusual and exceptional events, their impact, the Company's response, and the restoration of the twenty-five affected outages. PSE indicated that nine SAIDI minutes can be directly attributed to the impact of the events. The penalty amount difference due to the exclusion of the nine SAIDI minutes is $223,346.

5. The Commission has reviewed the Petition and recognizes that there were unusual and exceptional weather and flooding events that occurred in early January 2009

and their impact to PSE's SAIDI performance. The Commission has determined that PSE's level of preparedness and response was reasonable.

6. The Commission grants the Company's request for mitigation of the reduction of the SQI penalty by $223,346 and the exclusion of the nine SAIDI minutes from PSE overall 2009 SAIDI results.

II. FINDINGS AND CONCLUSIONS

7. Having discussed above all matters material to our decision, and having stated general findings and conclusions, the Commission now makes the following summary findings of fact. Those portions of the preceding discussion that include findings pertaining to the ultimate decision of the Commission are incorporated by this reference.

8. (1) After careful examination of Puget Sound Energy's February 16, 2010, Petition for Mitigation in which Puget Sound Energy requests a reduction in penalty incurred for failing to achieve the benchmark performance for Service Quality Index No. 3, and an exclusion of nine SAIDI minutes for PSE's overall 2009 SAIDI results, and giving consideration to all relevant matters and for good cause shown, the Commission finds that mitigating circumstances existed justifying the reduction of penalty and the exclusion of the SAIDI minutes.

III. CONCLUSIONS OF LAW

9. Having discussed above all matters material to our decision, and having stated general findings and conclusions, the Commission now makes the following summary conclusions of law. Those portions of the preceding discussion that state conclusions pertaining to the ultimate decisions of the Commission are incorporated by this reference.

10. (1) The Washington Utilities and Transportation Commission has jurisdiction over the subject matter and the parties.

11. (2) The Commission retains jurisdiction to effectuate the provisions of this Order.

12. (3) The penalty for Puget's failure to achieve Service Quality Index No. 3 should be reduced by $223,346

13. (4) PSE's request to recalculate the index to exclude nine SAIDI minutes should be granted.

IV. ORDER

14. This matter was brought before the Commission at its regularly scheduled open meeting on _____. The Commissioners, having been fully advised in the matter, enter the following Order.

15. THE COMMISSION GRANTS Puget Sound Energy's Petition for Mitigation of the penalty reduction of $223,346 and the exclusion of nine SAIDI minutes for SQI No. 3 from the reporting period results

Puget Sound Energy

2009 Service Quality Program Filing - PSE SQI Performance

Attachment C: 2009 Supplemental PSE SQI Performance Report

Puget Sound Energy

2009 Service Quality Program Filing—PSE SQI Performance

Attachment C:
2009 Supplemental PSE SQI Performance Report

Contents

Executive summary

Puget Sound Energy (PSE) serves more than 1 million electric customers and nearly 750,000 natural gas customers primarily in the growing Puget Sound region of Western Washington.

As part of PSE's effort to track how well PSE is performing in providing utility services to customers and to identify areas for improvement, Puget Sound Energy measures 10 key service quality indexes (SQIs). PSE collects data from customer satisfaction surveys and PSE's work management and customer information systems. This data includes appointments kept, frequency and duration of power outages, the amount of time it takes to respond to a natural gas or electric emergency and the amount of time it takes to answer customer calls, among other measurements. PSE then compares its performance against annual benchmarks set by the Washington Utilities and Transportation Commission (UTC).

2009 Puget Sound Energy performance

Table ES-1 provides PSE's performance in each of the key service quality areas for 2009.

In 2009, PSE met or exceeded nine out of the ten service quality indexes for the reporting period. The area where PSE fell short in meeting the target was in the amount of time it took the company to restore power outages (SAIDI). The year of extreme weather not only triggered more outages than 2008 but also hindered PSE's power restoration efforts. Insights into the Company's performance and the steps it is taking to improve its performance are covered in this report.

Table ES– 1: PSE's performance for 2009

Key measurement	Benchmark	2009 Results	Achieved
Customer satisfaction			
Customer Access Center transactions customer satisfaction (SQI # 6)	At least 90% satisfied (rating of 5 or higher on a 7-point scale)	93%	☑
Field Service Operations transactions customer satisfaction (SQI # 8)	At least 90% satisfied (rating of 5 or higher on a 7-point scale)	95%	☑
UTC complaint ratio (SQI # 2)	No more than 0.40 complaints per 1,000 customers, including all complaints filed with the UTC	0.34	☑
Customer services			
Customer Access Center answering performance (SQI # 5)	At least 75% of calls answered by a live representative within 30 seconds of request to speak with live operator	78%	☑
Disconnection ratio (SQI # 9)	No more than 0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.029	☑
Operations services			
Gas safety response time (SQI # 7)	Average 55 minutes or less from customer call to arrival of field technician	33 minutes	☑
Electric safety response time (SQI # 11)	Average 55 minutes or less from customer call to arrival of field technician	51 minutes	☑
SAIFI (SQI # 4)	No more than 1.30 interruptions per year per customer	1.09 interruptions	☑
SAIDI (SQI # 3)	No more than 136 minutes per customer per year	190 minutes	☐
Appointments kept (SQI # 10)	At least 92% of appointments kept	99%	☑

2009 UTC penalties

For the 2009 performance results, the potential penalty is $ 1,340,074 for missing the benchmark for the average length of time customers were without power. However, PSE is requesting the exclusion of nine SAIDI minutes from the penalty calculation. These minutes were due to "non-access" issues that occurred in January 2009. If the UTC approves the request for mitigation of the nine SAIDI minutes, the penalty will be reduced to $1,116,728.

Additionally, in backing up its Service Guarantee, PSE credited customers a total of $7,300 for missing 146 of more than 127,000 scheduled appointments.

Changes in 2009

Effective for 2009, the UTC and PSE have made several changes to the service quality indexes and background information that will be reported to the UTC:

- The general satisfaction rating and its benchmark (formerly SQI # 1) was discontinued.
- The benchmark for the SQI related to the number of customer complaints registered with the UTC (SQI # 2) became more stringent with the ratio revised downward from 0.50 to 0.40 complaints per 1,000 customers.
- The annual *Service Quality Report* will now include both the monthly and annual performance of calls answered within 30 seconds by PSE's Customer Access Center (CAC) (SQI # 5). The report will also include information regarding call abandonment and busy calls.
- PSE will report annually the percentage of responses to natural gas emergencies that are met within 60 minutes (SQI # 7).
- PSE has added a new customer service guarantee in which PSE will provide a credit of $50 when a customer experiences a qualifying 120 consecutive-hour power outage, subject to certain conditions and limitations.

Improvement efforts in 2009

PSE is continuously working to improve its service quality. During 2009, the following initiatives took place in the three areas of service quality: customer satisfaction, customer services and operations services.

Customer satisfaction

Based on customer feedback, PSE now:

- Provides Customer Access Center customer service representatives (CSRs) with on-going training and coaching to continuously improve their performance to handle each customer inquiry with courtesy and adequately address the customer's needs.
- Has expanded customer contact choices including the handling of electronic inquiries, online payment, MyPSE.com and multi-lingual calls.
- Provides PSE's operations management team with specific information about a service order and customer concerns.
- Where possible and practical, uses a new tool that enables field personnel to perform maintenance without shutting off service to the customer.
- Uses the *Mobile Workforce Dispatch System* to further enhance performance measurement and reporting.
- Implemented a complaint tracking and management tool to track complaints and conduct root cause analysis by complaint type.
- Provides customers with free energy advice to assist in energy efficiency and cost reduction in their homes and businesses.
- Provides customers with information on a variety of programs that can assist customers with paying their bills.

Customer services

In 2009, PSE has several initiatives to maintain and improve performance by

- Providing customers and Customer Access Center staff with technological tools that make their tasks more efficient to perform and increase accuracy.
- Improving recruiting, coaching, staffing and work load management, including hiring seasonal agents, proactively scheduling agents based on upcoming weather events and creating a remote agent program.
- Improving the Customer Access Center operations to enable agents, team leads, and supervisors to resolve a customer's concern on their first call.
- Enhancing technology, including
  - Updating the IVR self-serve options to provide customers a more efficient call routing system, reduce call transfers and minimize wait times.
  - Improving PSE.com to enable the customer to view account information, print bills, examine and graph energy usage and receive and pay bills online.
- Reconfiguring PSE's phone system so that no customer calling 1-888-Call-PSE will receive a busy signal.

To avoid disconnection, PSE provided its customers with the following options:

- A variety of information to help customers manage their energy usage, including home energy audits, energy-efficient appliance rebate programs, fluorescent lighting coupons and weatherization rebates.
- A budget payment plan to help families balance their utility expenses over the year.
- Pay online and automatic funds transfer options, to make bill paying more convenient.

Operations services

During 2009, PSE used many programs to improve gas safety response time. PSE

- Used the *Mobile Workforce Dispatch System* with computer-aided dispatching, which enabled PSE to better assign the available service technicians required in a gas safety situation and to determine the closest possible responder.
- Reviewed events with response times of two hours or more to determine why they were longer and how response times could be shortened.
- Continued its employee training efforts.
- Reported annually on the monthly percentage of responses to gas emergencies that are met within 60 minutes.

In 2009, PSE strengthened procedures and processes aimed at reducing electric safety response time. These efforts include:

- Increased non-core work schedules where needed to better support responses to outages or emergencies occurring outside of normal business hours.
- Continued communications and performance updates with field personnel regarding response times, worker safety and goal performance.

- Performed on-going systematic, vegetation management to mitigate trees and limbs falling into electric power lines.
  - Performed vegetation maintenance on 1,930 miles of overhead distribution, 577 miles of high-voltage distribution, and 327 miles of transmission corridors.
  - Removed fast growing, undesirable trees from 300 miles of overhead distribution, high voltage distribution and transmission corridors.
  - As part of the TreeWatch program, removed or pruned nearly 15,000 trees from approximately 200 miles of transmission and high voltage distribution lines and 60 miles of distribution lines.
- Commissioned Ecological Solutions, Inc. to conduct a study of PSE's high voltage distribution and transmission vegetation management practices. The results validated that Puget Sound Energy's pruning maintenance cycles are appropriate for the local tree growth rates.
- Installed approximately 38 circuit miles of tree wire.
- Completed 56 projects on the 50 worst circuits, specifically targeted at improving the SAIDI SQI.
- Completed over 100 projects to install sectionalizing devices on the distribution system.
- Upgraded eight distribution substations with SCADA.
- Improved access to over 70 miles of inaccessible high voltage distribution and transmission rights-of-way and corridors.

Going forward

PSE has several initiatives starting in 2010 to improve the three areas of service quality: customer satisfaction, customer services and operations services.

Customer satisfaction

In 2010, PSE plans to

- Continue PSE's internal focus on CSR "first call" resolution goals through coaching and training to build skills that enable CSRs to handle customer issues effectively.
- Evaluate ways to provide information to customers sooner and keep them updated during outage events.
- Initiate an enhanced complaint management system that will help to resolve issues with customers before a complaint is made to the UTC.
- Provide more information on PSE.com, including storm information and outage alerts, to enable customers to obtain information without needing to call in.
- Continue to increase web billing.
- Continue to provide feedback to field service technicians.

Customer services

In 2010, PSE plans to continue to maintain or improve the CAC's answering performance through the following:

- Continue developing the management of resources and call volume forecasting.
- Ensure that service level fluctuations and CAC staffing are consistently adequate to handle the incoming call volume 24/7/365.
- Expand the Remote Agent program.
- Enhance the Interactive Voice Recording (IVR) menu.
- Expand self-service options available to customers.
- Refine a newly developed risk analysis tool that will enable PSE's workforce to focus collection activity on the higher risk customers.

For 2010, the UTC increased the allowable number of disconnections to 3.8 percent. Therefore, in 2010 PSE will be shifting resources to ensure that enough field personnel who perform disconnects and reconnects and support staff are available to meet the anticipated increased workload.

Operations services

In 2010, PSE will continue programs that will improve operations services. PSE will continue

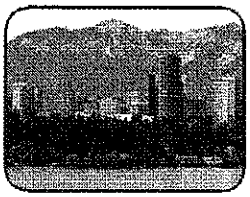
- To analyze long response times to determine and address trends if needed.
- To adjust staffing where beneficial to help with response times and adjust processes to increase the percentage of calls with response times under 60 minutes.
- Its efforts to improve communication and coordination between field service personnel, system operators and dispatchers as well as enhance customer communications.

In 2010, PSE will continue programs that will reduce power outages:

- PSE plans to remove or prune 15,000 off right-of-way trees under the TreeWatch program, again focusing on transmission and high-voltage distribution lines.
- PSE plans to install animal guards around new transformers and add these devices on selected circuits that have a history of animal-related outages.
- PSE will continue to replace aging distribution infrastructure that are starting to fail (which includes the cable remediation program), install covered conductor (tree wire) to prevent tree limb outages and convert overhead lines to underground.
- To focus on SAIDI, PSE's Total Energy System Planning department analyzes system performance and identifies plans and projects to:
  - Reduce the time to diagnose the outage
  - Reduce the duration of the outage
  - Reduce the number of customers affected by the outage
- PSE will upgrade seventeen distribution substations with SCADA.

In addition

- PSE is reviewing the outage response process and identifying additional data to collect in order to further understand the drivers of response time.
- PSE will continue its current efforts and initiate new cost-effective practices to maintain its appointments kept service results at optimum cost levels.



1 Overview

Introduction

As Washington state's oldest and largest energy utility, with a 6,000-square-mile service territory stretching across 11 counties, Puget Sound Energy (PSE) serves more than 1 million electric customers and nearly 750,000 natural gas customers primarily in the growing Puget Sound region of Western Washington. PSE meets the energy needs of its growing customer base through incremental, cost-effective energy efficiency, procurement of sustainable energy resources and far-sighted investment in the energy-delivery infrastructure. PSE employees are dedicated to providing quality customer service to deliver energy that is safe, reliable, reasonably priced and environmentally responsible.

As part of PSE's effort to track how well PSE is performing in providing utility services to customers and to identify areas for improvement, Puget Sound Energy measures 10 key service quality indexes (SQIs). PSE collects data from customer satisfaction surveys and PSE's work management and customer information systems. This data includes appointments kept, frequency and duration of power outages, the amount of time it takes to respond to a natural gas or electric emergency and the amount of time it takes to answer customer calls, among other measurements. PSE then compares its performance against annual benchmarks set by the Washington Utilities and Transportation Commission (UTC). Performance reports are provided to the UTC and customers annually.

PSE has provided a high level of customer service and has met the majority of its service quality indexes since their inception more than 10 years ago. The year 2009 was highlighted by an improvement in several areas, but company investments and efforts to improve the System Average Interruption Duration Index (SAIDI) performance are not reflected in the metric. PSE met or exceeded nine out of ten service quality indexes for 2009.

About supplemental service quality reporting

This supplemental service quality report provides additional transparency on each SQI relative to background information, unique events that may have influenced PSE's achievement level, the environment in which PSE operated and actions PSE has taken or will take to improve performance.

About service quality indexes

The service quality provided by utilities to customers has many dimensions and is complicated to measure.

This issue is discussed in *Service Quality Regulation for Detroit Edison: a Critical Assessment,* published in March 2007 by the Pacific Economics Group. With only a few exceptions, most of these service quality indexes must be collected by the utility. Therefore, measures of service quality, especially reliability indexes, typically differ across utilities. For example, the System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI) are defined and calculated in different ways across utilities, making comparisons inexact.

In addition, uncontrollable business conditions can lead not only to systematic differences in measured quality across companies, but year-to-year variations within a company. This is particularly true for events affected by weather.

Of course, measured service quality is not determined entirely by external conditions. PSE influences its measurements through PSE's efforts to maintain and improve its service quality. These efforts include work practices, worker training and capital investment that impact measured system performance.

2009 Puget Sound Energy performance

The following table provides PSE's performance in each of the key service quality areas for 2009. PSE met or exceeded nine out of the ten service quality indexes for the reporting period. Each of these SQIs is discussed in the separate chapters that follow.

Table 1: PSE's performance for 2009

Key measurement	Benchmark	2009 Results	Achieved
Customer satisfaction			
Customer Access Center transactions customer satisfaction (SQI # 6)	At least 90% satisfied (rating of 5 or higher on a 7-point scale)	93%	☑
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SAIFI (SQI # 4)	No more than 1.30 interruptions per year per customer	1.09 interruptions	☑
SAIDI (SQI # 3)	No more than 136 minutes per customer per year	190 minutes	☐
Appointments kept (SQI # 10)	At least 92% of appointments kept	99%	☑

2009 customer service performance summary

In 2009, PSE met or performed better than the SQI benchmarks in nine of ten areas. In addition to meeting nine of the 10 service metrics, PSE made improvements from the prior year in four areas:

- More calls were answered live within 30 seconds or less
- Faster response time to natural gas emergencies
- Greater satisfaction on how we responded and completed your field-service request
- Faster response time to an electric-service emergency

The area where PSE fell short in meeting the target was in the amount of time it took us to restore power outages (SAIDI, SQI # 3). The year of extreme weather not only triggered more outages than 2008 but also hindered PSE's power restoration efforts. Particularly, the January 2009 floods and landslides prevented our crew's immediate access to areas where washouts had knocked down power poles and knocked trees into power lines.

Changes in 2009

Effective for 2009, the UTC approved several changes to PSE's SQI program.

- The general satisfaction rating and its benchmark (formerly SQI # 1) was discontinued. It was determined the SQI did not provide sufficient information about service strengths and weaknesses to be useful. PSE, however, continues to make customer satisfaction a priority and track customer satisfaction on a variety of more specific measures.
- The benchmark for the SQI related to the number of customer complaints registered with the UTC (SQI # 2) became more stringent with the ratio revised downward from 0.50 to 0.40 complaints per 1,000 customers.
- The annual *Service Quality Report* will now include both the monthly and annual performance of calls answered within 30 seconds by PSE's Customer Access Center (CAC) (SQI # 5). The report will also include information regarding call abandonment and busy calls.
- PSE will report annually the percentage of responses to natural gas emergencies that are met within 60 minutes (SQI # 7).
- PSE has added a new customer service guarantee in which PSE will provide a credit of $50 when a customer experiences a qualifying 120 consecutive-hour power outage, subject to certain conditions and limitations.

Organization of this report

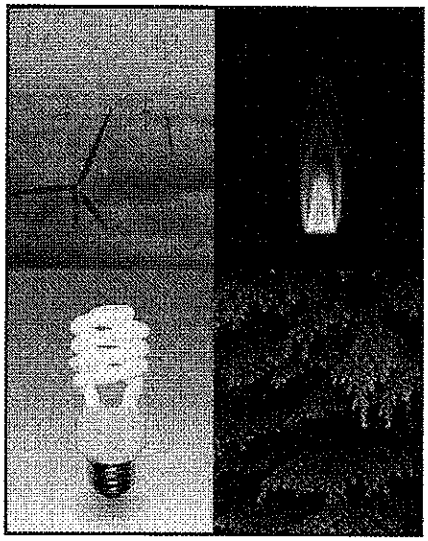
This report details PSE's performance on the current SQI benchmarks. Each chapter of the report discusses a different SQI. The chapters are organized into three Sections that reflect:

- Customer satisfaction
- Customer services
- Operations services

In addition, a fourth Section discusses Service guarantees.

Table 2: Three SQI Sections

Customer satisfaction	Customer services	Operations services
• Customer Access Center transactions customer satisfaction (SQI # 6) • Field Service Operations transactions customer satisfaction (SQI # 8) • UTC complaint ratio (SQI # 2)	• Customer Access Center answering performance (SQI # 5) • Disconnection ratio performance (SQI # 9)	• Gas safety response time (SQI # 7) • Electric safety response time (SQI # 11) • SAIFI (SQI # 4) • SAIDI (SQI # 3) • Appointments kept (SQI # 10)

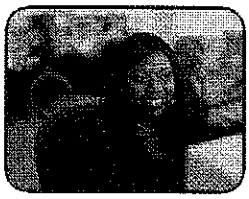


Customer satisfaction

Puget Sound Energy wants to know what customers expect of the utility's performance and services so that resources can be directed to those functions that are most important to customers. To listen to customers, PSE conducts customer surveys. Customers are surveyed for a variety of reasons, including their opinions about PSE overall and about specific attributes including Customer Access Center transactions and Field Service operations. Complaints directed to PSE or the UTC and their resolution also are considered in measuring customer satisfaction performance.

This Section discusses the three customer satisfaction service quality indexes (SQIs).

- Customer Access Center transactions customer satisfaction (SQI # 6)
- Field Service Operations transactions customer satisfaction (SQI # 8)
- UTC complaint ratio (SQI # 2)



2
Customer Access Center transactions customer satisfaction (SQI # 6)

Overview

Telephone calls to PSE go to the Customer Access Center. The CAC interfaces with the greatest number of customers and strives to establish and improve upon long-term customer satisfaction.

Every month, the Gilmore Research Group, an independent research company, conducts telephone surveys with PSE customers and prepares monthly and semi-annual reports on customer satisfaction regarding PSE's Customer Access Center transactions. In 2009, these independent surveys found that more than 93 percent of customers were satisfied with PSE's CAC transaction performance. The 2009 results are reported in the following table:

Table 3: Customer Access Center transactions customer satisfaction for 2009

Key measurement	Benchmark	2009 Results	Achieved
Customer Access Center transactions customer satisfaction (SQI # 6)	At least 90% satisfied (rating of 5 or higher on a 7-point scale)	93%	☑

About the benchmark

On a monthly basis, the Gilmore Research Group provides phone surveys to customers who have made calls to PSE and asks them the following question:

"Overall, how would you rate your satisfaction with this call to PSE?"

- 7— Completely satisfied
- 1— Not at all satisfied

A customer is considered to be satisfied if they responded 5, 6 or 7. The annual performance is determined by the monthly average percent of satisfied customers.

The formula for the monthly percentage follows:

$$\textit{Monthly percent of satisfied customers} = \frac{\textit{aggregate number of survey responses of 5, 6 or 7}}{\textit{aggregate number of survey responses of 1, 2, 3, 4, 5, 6 or 7}}$$

What influences customer satisfaction with Customer Access Center transactions?

The Gilmore Research Group reported that PSE customer service representatives (CSRs) earned very high satisfaction ratings from customers: "79 percent of callers said they were completely satisfied (rating a 7 on the one to seven scale) with the way the CSR handled the call and an additional 11 percent rated their satisfaction a 6 on the one to seven scale."

There are a variety of influences to be considered when rating customer satisfaction with the Customer Access Center's transaction performance. The following attributes relate to CSRs while talking with the customers:

- Explained things clearly
- Were knowledgeable and helpful
- Were polite
- Provided prompt service
- Followed through on commitments discussed
- Resolved the issue during the initial phone call

Historical trend for customer satisfaction with Customer Access Center transactions

The following table shows customer satisfaction results from 2005 to 2009:

Table 4: Customer Access Center transactions in customer satisfaction from 2005 to 2009

	2005	2006	2007	2008	2009
Customer Access Center transactions customer satisfaction	93%	94%	92%	93%	93%
Benchmark (rating of 5 or higher on a 7-point scale)	90% satisfied	90% satisfied	90% satisfied	90% satisfied	90% satisfied

Working to uphold customer satisfaction with Customer Access Center transactions

Focus on customer service

Customer Access Center CSRs are provided with on-going training and coaching to continuously improve their performance to handle each customer inquiry with courtesy and adequately address the customer's needs:

- CSRs answering customer calls are trained to handle all customer inquiries, including billing, emergencies and outage related questions.
- CSRs are expected to maintain a minimum rating of 90 percent in customer satisfaction surveys as conducted by the Gilmore Research Group. The CSRs receive feedback based on the Gilmore ratings during their performance evaluation.
- Supervisors provide CSRs with a monthly dedicated coaching session to build skills, reinforce strengths and identify future training needs.

CSRs work to enhance customer relationships by making every effort to exceed the customer's needs and expectations. PSE provides CSRs with extensive coaching and training.

Coaching for outstanding performance

To maintain the highest level of quality for customer contacts across all channels (chat, web, email and voice), PSE's Customer Access Center provides coaching to all its employees. PSE measures the quality of PSE customer service not only by customer surveys and monthly reports, but also by monitoring agent and customer interactions. The coaching performance scorecard follows:

CAC Agent Performance Scorecard		
Service Level		**Results**
Productivity		
Compliance:	Available & ready to take calls	98%
Average Handle Time:	Handles calls in a timely manner; Does not waste customer time	0:03:05
Wrap Time:	Completes research & follow-up quickly	0:00:20
Overall Productivity Rating		**Meeting**
Quality		
	Introduction Skills	100%
	Update Records	100%
	Closing Skills	98%
	Phone Pro/Communication	98%
	Procedural Requirements	100%
	Call Management	100%
	Customer Perspective /Experience	98%
Overall Quality Rating		99%
Job Knowledge		
	Techniques/Procedures	100%
	Education	100%
	Bill Inquiry	N/A
Overall Job Knowledge Rating		100%
Gilmore Results		10
	Average Rating	6.76
Overall Gilmore Rating		**Exceeds**
Overall Performance Rating		**Exceeds**

Figure 1: CAC agent scorecard (illustrative data)

PSE uses the performance scorecard to provide feedback to the agent regarding positive behavior patterns, as well as those needing improvement. At the same time, agents provide feedback to the management team on the effectiveness of business processes and customers' concerns. Ultimately, this process enables PSE to make improvements to better serve customers.

Community involvement

Customer Access Center employees and others at PSE donate funds and their hours to support activities and programs that support the utility's customers and their communities. Being part of community efforts fosters connections and higher levels of service.

Figure 2: CAC employees volunteer their time in community projects and programs

Achievements

The Customer Access Center continues to evolve as consumer contact preferences expand. In 2009, the Customer Access Center saw growth and development in the following areas:

- **Electronic inquiries**— The most common electronic inquiries are related to starting service, stopping service and general billing inquiries.

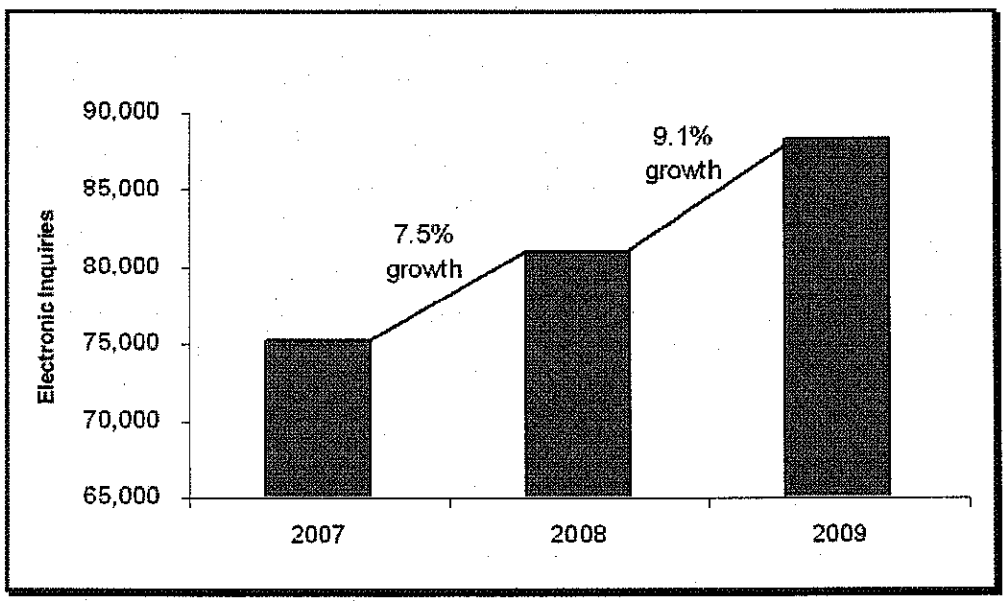


Figure 3: Electronic inquiries

- **Customers using MyPSE.com**— Customers use tools that help them monitor usage, save energy and make informed decisions regarding their energy costs.

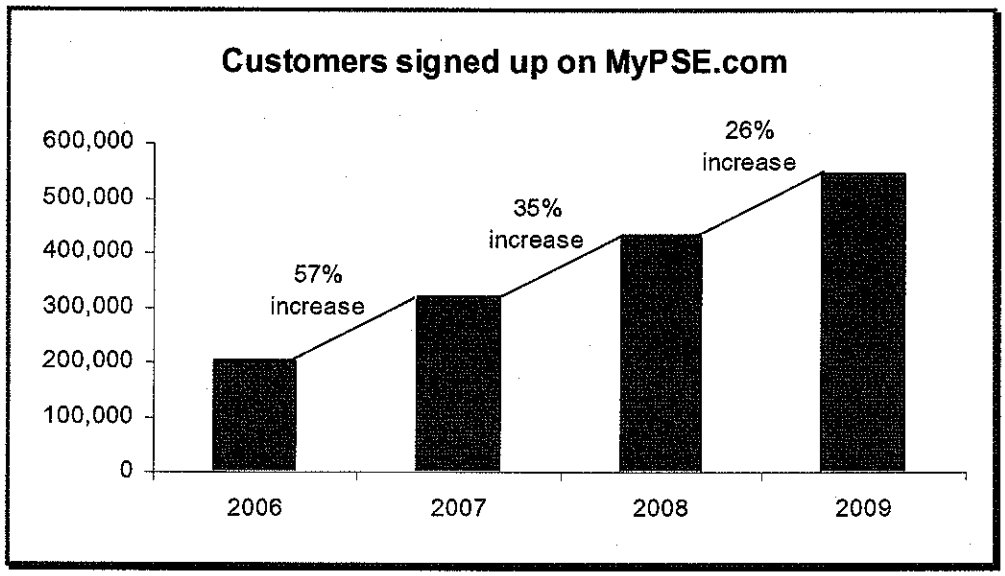


Figure 4: Customers signed up on MyPSE.com

- **Multi-lingual calls**— Predominantly Spanish, with Korean, Russian, Vietnamese, Somali and Mandarin. Language line calls have increased 6 percent in 2009 over 2008 levels.

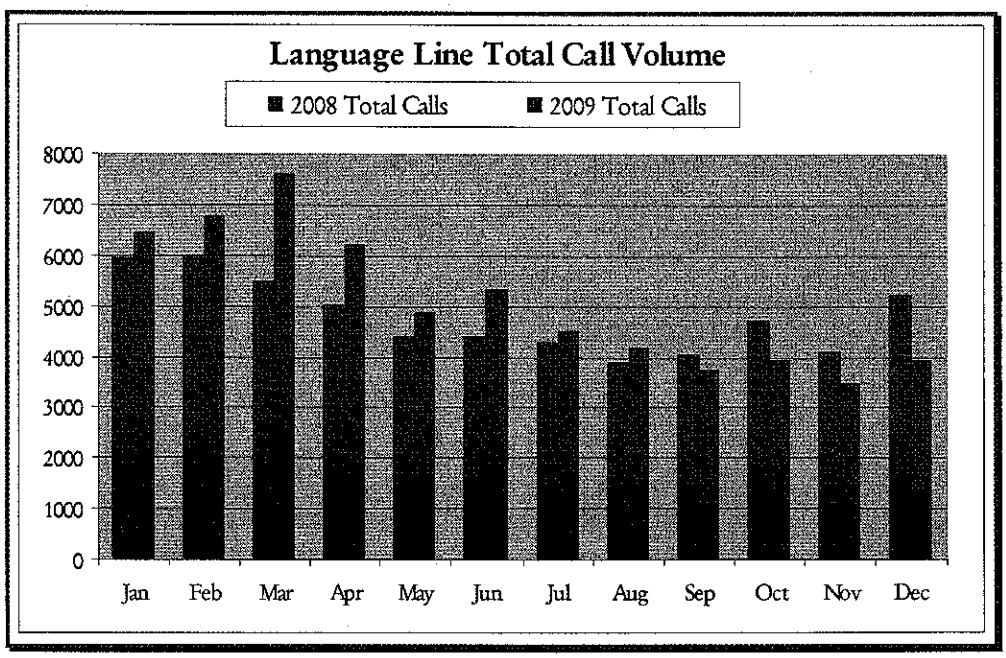


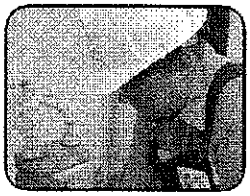
Figure 5: Language line total call volume

Going forward

PSE recognizes that continued improvements are required to simply maintain customers' satisfaction with their PSE contact experience. To continue to maintain a high customer satisfaction level, the following steps are being taken:

- Continue PSE's internal focus on CSR "first call" resolution goals through coaching and training to build skills that enable CSRs to handle customer issues effectively.
- Evaluate ways to provide information to customers sooner and keep them updated during outage events.
- Provide more information on PSE.com, including storm information and outage alerts, to enable customers to obtain information without needing to call in.
- Continue to increase paperless and web billing.

PSE is committed to delivering outstanding customer service. As indicated in most of the 2009 surveys, the results reinforce positive feedback regarding PSE customers' experience.



3
Field Service Operations transactions customer satisfaction (SQI # 8)

Overview

An independent survey firm surveys Puget Sound Energy customers weekly and prepares quarterly reports. In 2009, these surveys found that more than 95 percent of customers were satisfied with PSE's Field Service Operations transaction performance. The 2009 results are reported in the following table.

Table 5: Field Service Operations transactions customer satisfaction for 2009

Key measurement	Benchmark	2009 Results	Achieved
Field Service Operations transactions customer satisfaction (SQI # 8)	At least 90% satisfied (rating of 5 or higher on a 7-point scale)	95%	☑

PSE met this goal in 2009 and in every previous year.

About the benchmark

The independent survey firm randomly phones customers who have called PSE that month and requested and received natural gas field service. Customers are asked a number of questions including "Thinking about the entire service, from the time you first made the call until the work was completed, how would you rate your satisfaction with Puget Sound Energy? Would you say 7- completely satisfied, 1- not at all satisfied or some number in between?" A customer is considered to be "satisfied" if they responded 5, 6 or 7.

The annual performance is determined by the monthly average of percent of satisfied customers. The formula for the monthly percentage follows:

$$\textit{Monthly percent of satisfied customers} = \frac{\textit{aggregate number of survey responses of 5, 6 or 7}}{\textit{aggregate number of survey responses of 1, 2, 3, 4, 5, 6 or 7}}$$

What influences customer satisfaction with Field Service Operations?

Many factors influence whether customers are generally satisfied with the field service from PSE. These include whether the customer was satisfied with the customer service representative at the Customer Access Center and whether they were satisfied with the service performed on-site by the field technician. Factors that influence satisfaction with the phone call in general are covered in Chapter 2. This chapter discusses the field response to a request for natural gas service.

Of the natural gas customers who requested field service, the most frequent reasons include customers who:

- Wanted to start up or stop service
- Suspected a natural gas leak or detected a natural gas odor
- Had no heat or hot water, as if their furnace or water heater had quit working
- Had a question about gas meters or service

Response to another question on the survey indicated almost 97 percent of customers reported they had no trouble reaching a customer service representative, and the CSRs earned high ratings from customers (almost 98 percent were satisfied). Satisfied customers said the CSR:

- Was courteous and friendly
- Was helpful
- Provided prompt service
- Answered their questions
- Said they would send someone right away

The customers who were less than satisfied suggested CSRs should:

- Have more information and be able to answer questions better
- Resolve problems more quickly
- Be able to offer narrower appointment time frames

The Customer Access Center management team also uses these findings to coach and train CAC employees to improve performance.

Customer satisfaction with Field Service Operations

Survey respondents were asked their satisfaction with the field technician on several specific attributes. In general, PSE service technicians got high ratings from customers (97 percent satisfied). Satisfied customers said the field technician:

- Was friendly, courteous and polite
- Was knowledgeable
- Was prompt in coming to the problem area
- Did a good job or fixed the problem
- Was helpful
- Clearly explained the situation

Satisfied customers also remarked that the technician was professional, thorough, showed care or concern, was efficient and went the extra mile.

The customers (15 percent) who gave less than a "7" rating were asked follow up questions to determine why they were not completely satisfied. These customers said the field technician:

- Was not friendly or was rude or abrupt
- Was not knowledgeable or experienced

Customers who were less than completely satisfied also wanted technicians to:

- Be more knowledgeable
- Come more quickly
- Fix the problem or complete the job in one trip

In 2009, more than 93 percent of customers said the technician was able to come on a day and time that was convenient for the customer, and 95 percent said the technician came within the time frame promised.

Historical trend for customer satisfaction with Field Service Operations

The following table shows Field Service Operations transactions customer satisfaction from 2005 to 2009.

Table 6: Field Service Operations transactions customer satisfaction from 2005 to 2009

	2005	2006	2007	2008	2009
Field Service Operations transactions customer satisfaction	90%	91%	90%	91%	95%
Benchmark	90% satisfied (rating of 5 or higher on a 7-point scale)	90% satisfied (rating of 5 or higher on a 7-point scale)	90% satisfied (rating of 5 or higher on a 7-point scale)	90% satisfied (rating of 5 or higher on a 7-point scale)	90% satisfied (rating of 5 or higher on a 7-point scale)

Working to uphold customer satisfaction with Field Service Operations

PSE's operations management team can now see specific information about a service order such as:

- When the customer call came in
- Which technician responded to the call
- What type of service was requested
- What work PSE actually performed for the customer
- When the work was completed
- Which CSR took the call

With this additional information, supervisors have been examining the data to identify customer concerns raised during the survey to then coach and train employees to improve customer service, including :

- Providing general and specific feedback, which includes customer comments to field service technicians who responded to calls.
- Examining the comments for employee performance trends and developing appropriate action and training plans should they be necessary.
  - Supervisors review both positive and negative comments with employees.
  - Employees that receive comments indicating a negative trend are coached to improve performance.
- Providing employee work groups with their SQI # 8 performance, including monthly progress reports on their scores.
  - 10 percent of the potential incentive for the employees performing this work is tied to meeting or exceeding SQI # 8.

While no data exists to directly support such a conclusion, PSE believes that coaching the company's employees, providing better access to customer historical data, improving understanding of the mobile system, improving customer information for order status and encouraging employees to meet the customer's needs in one visit has improved customer satisfaction ratings.

Going forward

In 2010, PSE will use the information gained in the survey to maintain a customer-service focus. As a result of customer surveys, PSE will be:

- Continuing to provide feedback to field service technicians.
- Providing ongoing training to improve knowledge.
- Where possible and practical, using a new tool that enables field personnel to perform maintenance without shutting off service to the customer. This advancement reduces the need for customers to call PSE to restore service and the resulting return trips.
- Using the mobile workforce system to further enhance performance measurement and reporting.

4
UTC complaint ratio (SQI # 2)

Overview

Each year the UTC receives a number of complaints from PSE customers on a variety of topics, such as bill disputes and disconnects for non-payment.

In 2009, while serving more than 1 million electric and nearly 750,000 natural gas customers, the UTC received 622 complaints concerning PSE, a 41 percent increase over 2008. Key reasons for the increase are addressed in this report.

Table 7: UTC complaint ratio for 2009

Key measurement	Benchmark	2009 Results	Achieved
UTC complaint ratio (SQI # 2)	No more than 0.40 complaints per 1,000 customers, including all complaints filed with UTC	0.34	☑

About the benchmark

The UTC complaint ratio is calculated by dividing the sum of all gas and electric complaints reported to the UTC by the average monthly number of PSE customers. The quotient is then multiplied by 1,000. The formula follows:

$$\textit{UTC complaint ratio} = \frac{\textit{electric and gas complaints recorded by UTC}}{\textit{average monthly number of electric and gas customers}} \times 1{,}000$$

The average monthly customer count is the average of the total number of PSE customers, per month, during the reporting period.

What influences the UTC complaint ratio?

Most customer complaints concern disconnects or disputed bills as is reflected in the following two tables. Although the percentage of complaints associated with these types has remained fairly stable over the previous four years, the raw number of these complaint types soared in 2009.

Disconnect complaints in 2009 were 66 percent above 2008 and are largely attributable to economic conditions affecting people's ability to pay. These conditions include double digit unemployment and record numbers of bankruptcies and home foreclosures. A shift in the "trigger" that causes a disconnect complaint occurred in mid-2009. Early in 2009, an actual disconnect was typically required to cause a complaint. By third quarter 2009, a customer's receipt of a "final notice" became the action that created the complaint. PSE has not yet determined the root cause of this customer behavior shift. The economy may have created a new category of customers who are now receiving the first "final notice" they have ever received.

The 2009 increase in disputed bill complaints directly correlates with the retroactive billing process that was initiated in mid-2008 and continued at a high rate through June 2009. Once the retroactive bills process slowed in July 2009, the number of disputed bill complaints dropped by over 10 percent per month. (See *Retroactive billing* Section that follows.)

Table 8: UTC complaint type frequency from 2005 to 2009

	2005	2006	2007	2008	2009
Disconnect	N/A	19%	24%	23%	27%
Disputed bill	N/A	40%	38%	53%	51%

Table 9: UTC complaint type volume from 2005 through 2009

Complaint type	Complaints				
	2005	2006	2007	2008	2009
Construction	22	12	7	9	15
Customer service	30	71	58	34	45
Deposit	N/A	13	17	11	26
Disconnect	N/A	91	117	102	167
Disputed bill	N/A	192	184	235	319
Quality of service	30	66	64	30	24
Other	11	40	37	21	26
Total	93	485	484	442	622

Note that 2005 complaint data was not categorized by deposit, disconnect or disputed bill types and is thus not available (N/A).

Retroactive billing

Each year, a fraction of a percent of PSE's more than 1.8 million meters fails. When a meter stops functioning, energy continues to be provided, but the usage is not reported to PSE. These malfunctions result in the customer's statement showing zero usage, and the customer only receives a bill for the minimum charge. When PSE replaces the meter, the customer receives a retroactive bill for the amount of energy they used during the time the meter was not functioning properly. In some cases the amount of energy used needs to be estimated.

In 2007, PSE determined there was a backlog of accounts with failed meters that had not been replaced. As a part of the 2008 rate case settlement agreement, PSE committed to resolve 75 percent of these by December 31, 2008 and 100 percent by June 30, 2009. The commitments were met and as the backlog was reduced, a corresponding large number of retroactive bills were sent to customers. These retroactive bills were a source of customer dissatisfaction and UTC complaints.

Nearly 30 percent of the complaints to the UTC in 2009 were due to retroactive bills.

Many of these meter problems are inherent with the technology that PSE adopted in the 1990s called Automated Meter Reading (AMR). AMR offers customers many advantages including:

- The ability to view daily usage to help understand their usage pattern.
- The ability to take steps to conserve energy usage based on their current usage pattern.
- Preliminary electric system outage and restoration information in non-storm events.
- Ability to detect potential meter or module issues daily.

AMR is an evolving technology and managing the transition from manual to automated meter reading has been complex. The electric AMR meter has been very accurate and stable. However, the interface between the AMR gas module and the meter has been the source of most of the AMR problems.

PSE has examined issues involved with AMR and has implemented new operating procedures to help reduce the number of retroactive bills. This has been accomplished by:

- Identifying stopped meters earlier and taking prompt corrective actions.
- Initiating preventive actions by partnering with equipment manufacturers to ensure more robust AMR equipment to reduce the number of stopped meters.

These efforts have resulted in a reduction in monthly retroactive bills for stopped meters by 68 percent from the first half of 2009 to the second half of the year. This reduction in retroactive bills has reduced disputed bill complaints.

Historical trend for the UTC complaint ratio

PSE is committed to managing UTC complaints to identify root causes and to initiate corrective and preventive actions. Successful management of complaints includes integration of the complaints with other SQI measures to assure success in all areas.

Table 10: UTC complaint ratio from 2005 to 2009

	2005	2006	2007	2008	2009
Actual complaint ratio	0.17	0.28	0.27	0.25	0.34
Benchmark complaint ratio	0.50 complaints per 1,000 customers, including all complaints filed with UTC	0.50 complaints per 1,000 customers, including all complaints filed with UTC	0.50 complaints per 1,000 customers, including all complaints filed with UTC	0.50 complaints per 1,000 customers, including all complaints filed with UTC	0.40 complaints per 1,000 customers, including all complaints filed with UTC

Working to uphold customer satisfaction

PSE investigates the facts and root cause of specific individual complaints and those of complaints grouped by type. Corrective and preventive actions are pursued through process improvements. PSE has taken the following actions to manage the complaint process to improve performance:

- In 2009, PSE created and filled an Escalated Complaints manager position. The manager's primary responsibilities include:
  - Defining and implementing a complaint management system.
  - Developing root cause identification and complaint prevention processes.
  - Ensuring prompt, accurate and consistent complaint resolution.

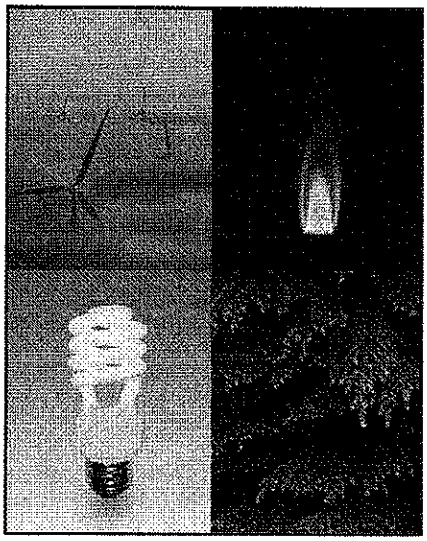
  All of these responsibilities are underway as of the end of 2009.
- A complaint tracking and management tool was implemented in 2009. It provides effective methods to
  - Track complaints
  - Conduct root cause analysis by complaint type
  - Assure effective and timely review and response

  This tool is the foundation of an enhanced system that will allow more effective coding and management techniques. The enhanced system will be implemented in early 2010.

- Training processes have been developed and implemented that provide PSE customer service staff with the tools and skills required to provide prompt and consistent support for customer issues. These include:
  - Protocols for entry of customer comments to ensure consistency and accuracy in documentation. This is particularly helpful in addressing follow up contacts from the customer.
  - Monthly review of recordings of customer service phone conversations with customers. The calls are reviewed by supervisors, managers and the employees to identify areas of strength and areas that can be improved.
  - Formal classroom and desktop training regarding PSE credit policy, federal "Red Flag" (identity theft) and other skills to assure PSE representatives are consistent, accurate and efficient in serving PSE customers.
- Customers are provided free energy advice to assist in energy efficiency and cost reduction in their homes and businesses. This advice ranges from phone conversations to in-home "energy audits" that provide detailed results on where, why and how to save on energy consumption.
- Customers are provided with information on how PSE can assist customers with paying their bills. PSE offers a variety of programs, including the Home Energy Lifeline Program (HELP), which assist low-income customers.

Going forward

PSE Customer Service staff works to resolve issues with customers before a complaint is made to the UTC. In 2010, PSE will initiate the enhanced complaint management system that will provide improved tools for root cause analysis, preventive actions and, in particular, allow effective integration of complaint management with other critical business initiatives.



Customer services

The first point of contact for most customers is PSE's Customer Access Center. PSE devotes resources and implements creative but consistent solutions to help ensure that telephones are answered promptly, CSRs are well trained to appropriately handle customer requests and customers are treated fairly and with respect with regard to disconnects for non-payment for services. To monitor and improve performance, PSE tracks many measures of customer service, including the number of calls that are answered within 30 seconds and the number of customers disconnected for non payment.

This Section discusses the two Service quality indexes (SQIs) relating to customer services that are reported annually to the UTC:

- Customer Access Center answering performance (SQI # 5)
- Disconnection ratio performance (SQI # 9)

5 Customer Access Center answering performance (SQI # 5)

Overview

PSE maintains a Customer Access Center where customer service representatives answer calls promptly and attempt to provide customers with the information or help they seek, as well as providing help with emergencies 24/7/365.

The Customer Access Center's goal is to answer 75 percent of calls within 30 seconds on an annual basis. This goal is achieved through continuous CSRs quality training, efficient call handling and adherence to performance expectations.

In 2009, PSE improved its answering performance measure by 1.6 percent over the previous year and surpassed the annual benchmark. The 2009 results are reported in the following table:

Table 11: Customer Access Center answering performance for 2009

Key measurement	Benchmark	2009 Results	Achieved
Customer Access Center answering performance (SQI # 5)	At least 75% of calls answered by a live representative within 30 seconds of request to speak with live operator	78%	☑

About the benchmark

The Customer Access Center typically receives most customer inquiries and represents PSE to customers. When a customer calls PSE, they have the option of going into an Interactive Voice Recording (IVR) system, where, in 2009, about 48 percent of the calls were resolved through the self-service IVR system. At any time, the customer is able to press zero and be connected to a live operator. The Customer Access Center performance is measured from the time the customer has initiated a request to speak with a live operator until the operator comes on the line.

PSE is engaged in initiatives to ensure the Customer Access Center's answering performance meets the performance benchmark of 75 percent. The average calculation is demonstrated through the following formula:

$$\textit{Monthly call performance} = \frac{\textit{aggregate number of calls answered by a company rep within 30 seconds}}{\textit{aggregate number of calls received}}$$

The annual performance is determined by the average of the monthly percentages.

What influences monthly call performance?

PSE receives about 4 million calls each year. The types of incoming calls throughout the year vary and are influenced by many factors including the weather, economy and other consumer notifications.

The Gilmore Research Group identified the two most frequent non-emergency reasons for customer calls:

- Issues and concerns regarding customer billing and payment
- To start or stop service for their home or business

The Customer Access Center's Workforce Management team provides continuous forecasting and monitoring throughout the day to ensure that staffing levels are adequate for the call volume. The Gilmore report indicates that 94 percent of their customer respondents state that they did not have any trouble reaching a CSR within PSE.

The following chart shows the types of calls that were received in 2009:

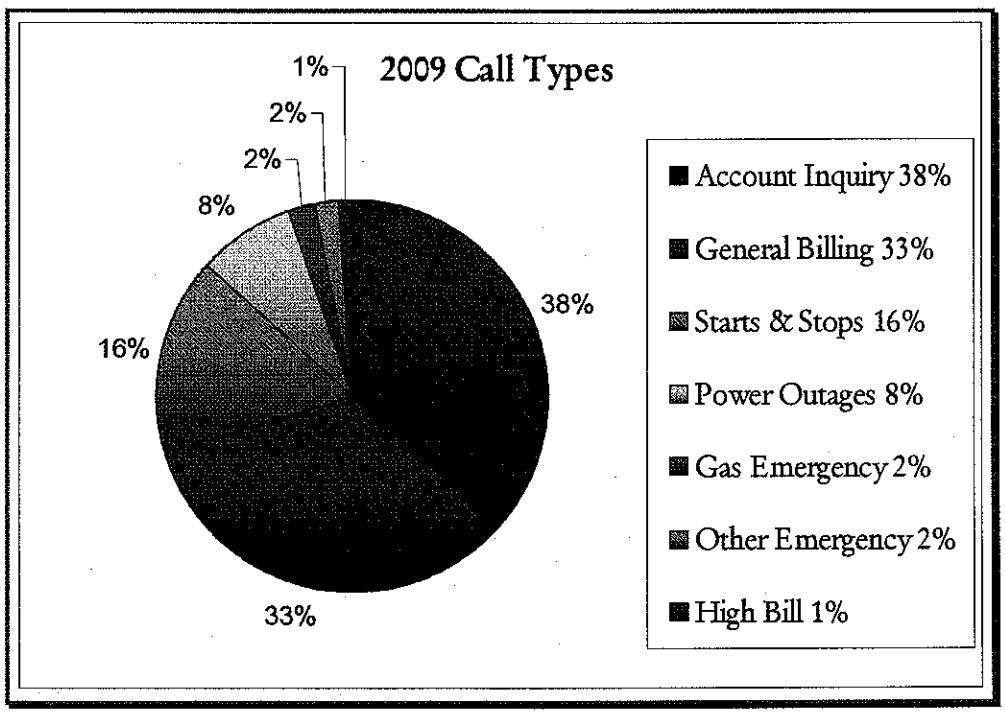


Figure 6: 2009 call types

To answer the variety of incoming calls, PSE has over 200 CSRs: approximately 21 percent are home-based agents, 3 percent are fluent in Spanish and 2 percent focus on alternate customer contact methods such as the web, mail and fax.

Call performance, or service level, is measured from the time the customer has initiated a request to speak with a live operator until the operator comes on the line. Call volumes directly impact service level. Weather or other significant events where large numbers of customers are without power can quickly and dramatically increase call volume. The influx of calls due to weather or significant events is unpredictable and causes an immediate impact to the service level.

Management actions taken in staffing and work load leveling in 2009 resulted in a more stable service level. In previous years, the service level in the 1st quarter was considerably lower than the benchmark and then considerably higher in the summer months.

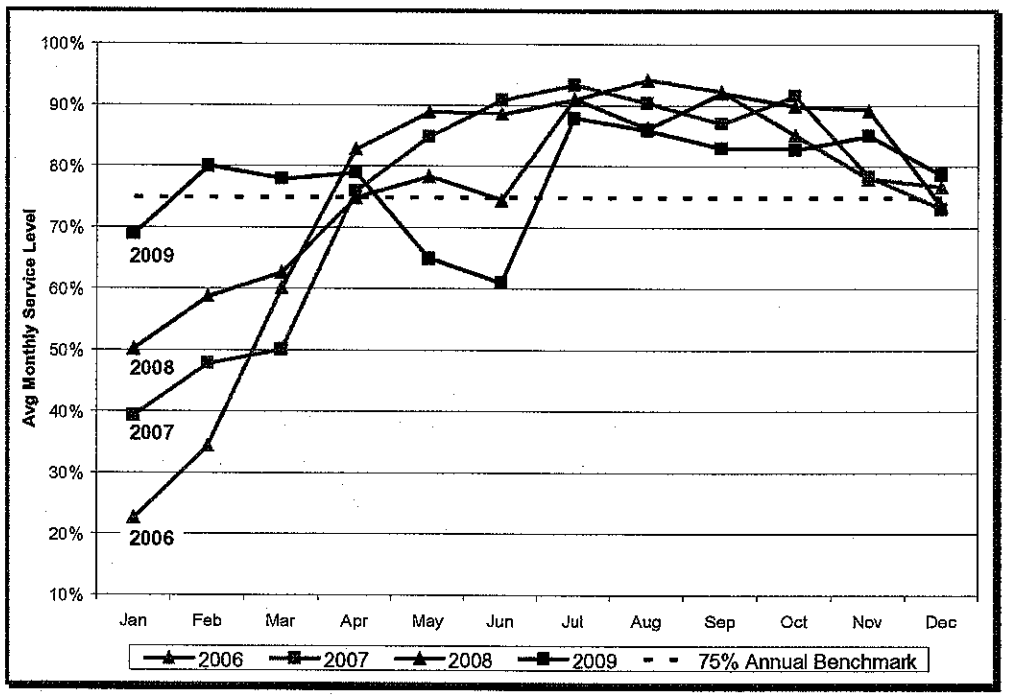


Figure 7: 2006 to 2009 Customer Access Center answering performance

Historical trend for Customer Access Center answering performance

The following table shows PSE's Customer Access Center answering performance from 2005 to 2009:

Table 12: Customer Access Center's answering performance from 2005 to 2009

	2005	2006	2007	2008	2009
Customer Access Center answering performance	75%	75%	75%	77%	78%
Benchmark	75% of calls answered by a live representative within 30 seconds of request to speak with a live operator	75% of calls answered by a live representative within 30 seconds of request to speak with a live operator	75% of calls answered by a live representative within 30 seconds of request to speak with a live operator	75% of calls answered by a live representative within 30 seconds of request to speak with a live operator	75% of calls answered by a live representative within 30 seconds of request to speak with a live operator

Working to uphold the Customer Access Center's answering performance

PSE is committed to delivering outstanding customer service at a reasonable cost with the goal of minimizing monthly service level fluctuations. The Customer Access Center strives to ensure that every CSR is well-trained to efficiently perform their duties with the latest tools and technology, ultimately providing better customer service. To improve call answering performance, PSE's Customer Access Center focuses on the following:

- Providing customers and Customer Access Center staff with technological tools that make their tasks more efficient to perform and increase accuracy.
- Improvements in recruiting, coaching, staffing and work load management, including:
  - Hiring seasonal agents resulting in significantly reduced labor and training costs and the ability to support the higher volume call times during peak months.
  - Proactively scheduling agents based on upcoming weather events.
  - Creating a remote agent program, through which agents situated strategically around PSE's service territory are able to respond quickly to power outages on an as-needed basis.

As a result of the management actions taken, there is less fluctuation in the monthly service level (See Figure 7).

Technology enhancements

PSE is innovative in providing customers and the CSRs that serve them with technological tools that make their tasks easier to perform and more accurate.

- **IVR self-serve options** have been updated to provide customers a more efficient call routing system, reduce call transfers and minimize wait times. This improvement provides customers the ability to perform the following tasks online or over the phone:
  - Pay by check, debit card or credit card
  - Inquire about account balance, last payment date and amount of last payment
  - Request a payment arrangement
  - Report a power outage and receive outage updates
- **Website improvements** include offering the customer the ability to view account information, print bills, examine and graph energy usage and receive and pay bills online. Customers are offered the following self-serve options at PSE.com:
  - Create a My PSE account
  - Pay, view and print bills
  - Request to start or stop energy services
  - Graph energy use
  - Request payment arrangements
  - Request paperless billing
  - Report an outage and receive outage updates
  - Use an interactive map to locate the closest pay station

Figure 8: My PSE account

- **Web-based Time Payment Arrangement (TPA) tool** provides CSRs a faster and more efficient method to assist customers in identifying alternate payment arrangements. This tool helps minimize the time the customer must remain on the phone with the CSR as payment plans are created.

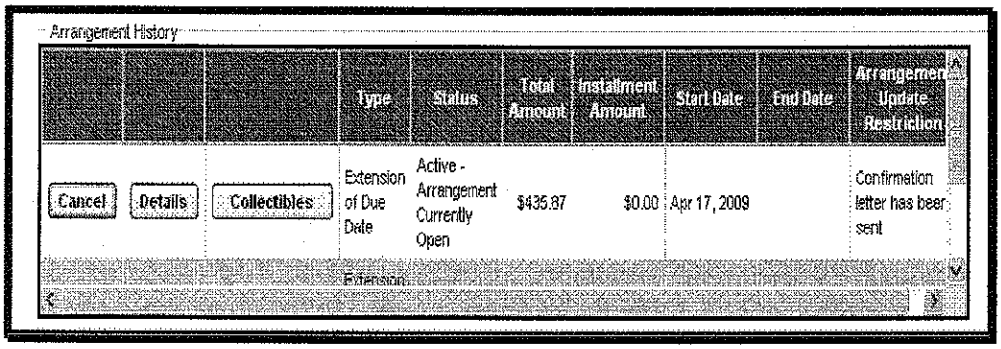


Figure 9: Web TPA tool snapshot

- **Real-time call monitoring application** is an enhanced technology that enables CAC management to closely analyze incoming call volumes and to balance and adjust staffing resources as needed throughout the day.

Application tools November 5, 2009					
Incoming calls	Handled calls	Average handle time	Average post-call task time	Average wait	Service level
10,043	7,915	4:34	0:27	0:28	78.81%

Figure 10: Real-time call monitoring snapshot

Training accomplishments

PSE promotes efficiency and excellent customer service through extensive training and process improvements.

- **Desktop training modules** have been established to promote CSR learning independence and to provide better customer service. The desktop training is available at all times and can be accessed at any time by CSRs for review. By increasing the availability of desktop training, CSRs are available to take calls when the call volume increases.

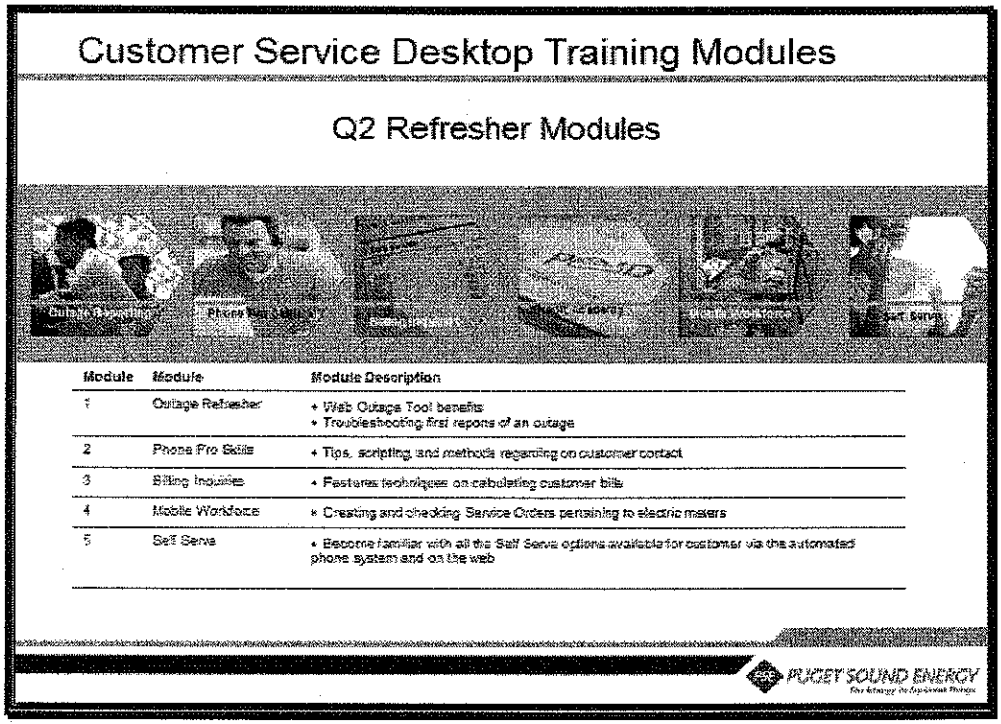


Figure 11: Desktop training module sample

- **The documentation standards process** provides PSE another avenue to track and monitor customer calls. This is a standard method for notating customer accounts and is now used across the Customer Care organization. This documentation method increases CSR efficiency and prevents customers from having to repeat information that they may have provided on earlier calls.

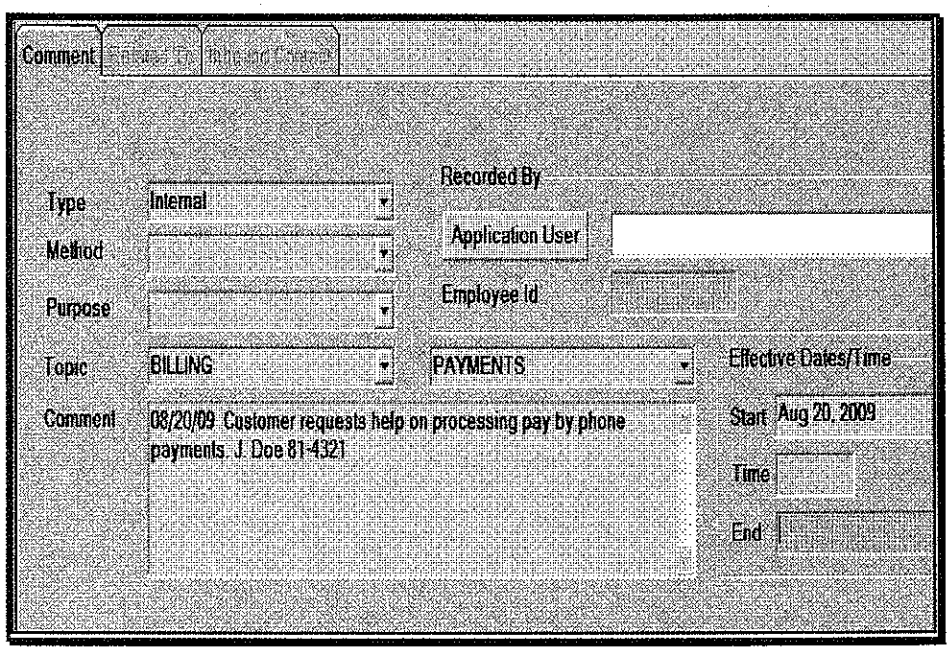


Figure 12: Customer Access Center application snapshot

Customer Access Center improvements

PSE has implemented several improvements to enhance customer service:

- **The Floor support model**— The CAC floor is managed by a team of Leads and Supervisors. When an agent has a question or customer concern, a Lead or Supervisor can provide the agent with immediate support as opposed to having the agent arrange to call customers back with more information at a later time, increasing PSE's goal of First Call Resolution.
- **The Remote agent program**— Remote agents are selected CSRs who work from external offices or from their personal residences. They are proficient with PSE technology, system applications and other online resources. Remote agents are most beneficial during events where a large number of customers are without power. Situated strategically around the geographic region, remote agents are able to take customer calls on an as-needed basis. The remote agent program enables the CAC to expand the number of agents on the phone in a matter of minutes. The percent of CAC remote agents has increased from 7 percent in 2006 to 21 percent in 2009.

Call abandonment and busy calls

Call abandonment is the term used when the customer hangs up before they reach a CSR or have their inquiry abandoned in the IVR. The Customer Access Center makes every effort to answer all incoming calls within 30 seconds. The Gilmore Research Group states that 95 percent of PSE customers report having no trouble reaching CSRs when calling.

PSE's phone system is configured so that no customer calling 1-888-Call-PSE will receive a busy signal. Refer to the *Exhibit E* in the main *2009 PSE SQI Performance Report.*

The table below shows PSE's five-year history on call abandonment performance:

Table 13: Abandoned call history from 2005 to 2009

	2005	2006	2007	2008	2009
Total calls	3,452,990	5,070,763	4,119,289	3,938,249	4,107,539
Calls abandoned	74,694	150,161	91,306	69,256	64,447
Percent abandoned	2.16%	2.96%	2.22%	1.76%	1.57%

Going forward

Throughout 2010, PSE will continue to provide a consistent level of performance with its Customer Access Center, taking into account the impact of catastrophic storms or other extreme events that impact customer call volume fluctuations. In 2010, PSE plans to continue to maintain or improve the CAC's answering performance through the following:

- Continue developing the management of resources and call volume forecasting.
- Ensure that service level fluctuations and CAC staffing are consistently adequate to handle the incoming call volume 24/7/365.
- Expand the Remote Agent program.
- Enhance the IVR menu.
- Expand self service options available to customers.

6 Disconnection ratio (SQI # 9)

Overview

PSE actively works with customers to avoid service disconnection by providing notices of payment delinquencies and offering payment arrangements where possible. For some customers who may qualify for energy assistance, PSE provides information about programs available and how to apply. However, service disconnection is necessary when PSE is faced with continued customer non-payment.

In 2009, the average number of disconnections per customer per year is 0.029, which met the benchmark of up to 0.030. The results from 2009 are shown in the following table.

Table 14: Disconnection ratio for 2009

Key measurement	Benchmark	2009 Results	Achieved
Disconnection ratio (SQI # 9)	No more than 0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.029	☑

As a utility, the limitations of this benchmark pose some serious challenges. The prospect of disconnected service encourages customers to pay their bills and therefore reduces the amount of bad debt to be absorbed by remaining customers. The UTC has recognized this and for 2010 has increased the limit from 3.0 to 3.8 percent. However, to meet the disconnection SQI benchmark, the number of disconnections PSE can perform is still limited, possibly leaving even more bills unpaid. The SQI limit puts a greater burden on customers who pay their bills.

About the benchmark

The overall disconnection ratio is calculated by adding the number of electric customers disconnected and the number of natural gas customers disconnected and then dividing that by the sum of the average number of electric customers and the average number of natural gas customers. The formula follows:

$$Annual\ disconnection\ ratio = \frac{number\ of\ electric\ customers\ disconnected + number\ of\ natural\ gas\ customers\ disconnected}{average\ annual\ electric\ customers + average\ annual\ natural\ gas\ customers}$$

What influences disconnections?

Economic conditions influence PSE's disconnection ratio. The current recession has challenged many customers as unemployment rates are high, and home foreclosure rates and bankruptcies are at record levels. Many customers are experiencing economic hardship for the first time. All these economic factors create an inability to pay for many customers, causing PSE to disconnect their utility service. The volume of accounts meeting internal guidelines for disconnection remained high due to economic conditions.

The number of disconnections performed remained steady throughout 2009. More accounts would have been eligible for disconnection had cap been higher. However, with the cap in place, PSE managed resources and work to ensure the 3 percent disconnect cap was not exceeded.

Historical trend for disconnections

The following table shows the disconnection ratio from 2005 to 2009.

Table 15: Disconnection ratio from 2005 to 2009

	2005	2006	2007	2008	2009
Disconnection ratio	0.030	0.024	0.028	0.024	0.029
Benchmark	0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment	0.030 disconnections per customer for non-payment of amounts due when UTC disconnection policy would permit service curtailment

Working to help customers avoid disconnections

PSE will continue to work with customers through these challenges to make payment arrangements, identify energy assistance options and provide energy efficiency options. When these options are exhausted, termination of service becomes necessary. In the vast majority of cases, service is restored within 24 hours with payment.

PSE provides its customers with the following options to try to avoid disconnection:

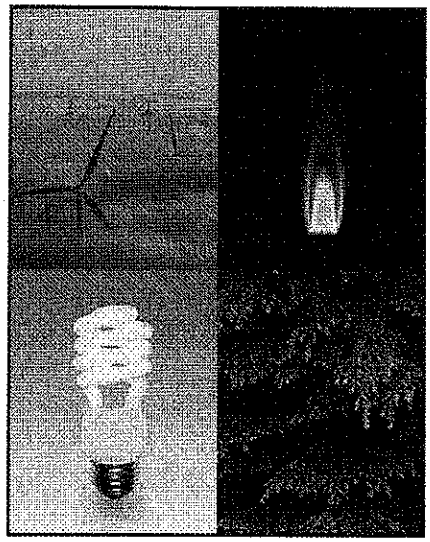
- **Energy efficiency**— PSE offers a variety of information to help customers manage their energy usage, including home energy audits, energy-efficient appliance rebate programs, fluorescent lighting coupons and weatherization rebates. PSE.com contains information on energy efficiency, and customers can contact PSE's Energy Efficiency department directly with their questions and requests.
- **Budget payment plan**— To help families balance their utility expenses over the year, PSE offers its customers a Budget Payment Plan. The Budget Payment Plan is designed to minimize large fluctuations of energy bills from season-to-season. Customers can get details and sign up by calling PSE Customer Services toll free at 888-225-5773 and asking about the Budget Payment Plan.
- **Pay online and automatic funds transfer options**— To make bill paying more convenient, PSE customers can pay their bills online or arrange for funds to be transferred automatically from their bank accounts. Bills can also be paid by mail, in person or by telephone. Details on these options are available at PSE.com.

Going forward

For 2010, the UTC increased the allowable number of disconnections to an average of 0.038 disconnections per customer per year. Therefore, in 2010 PSE will be shifting resources to ensure that enough field personnel who perform disconnects and reconnects and support staff are available to meet the anticipated increased workload. As in the past, catastrophic events pull resources from this work.

PSE is refining a newly developed risk analysis tool that will enable PSE's workforce to focus collection activity on the higher risk customers who tend not to pay at all versus the slow pay customers who pay eventually.

PSE plans to pilot a program to proactively call high risk customers for payment before they are at a point of being disconnected. This live call will be in addition to the Washington Administrative Code (WAC) requirements for a written notice and/or automated phone notice already in place.



Operations services

PSE is in the business to deliver safe and reliable electric and natural gas service. Many factors influence how reliably energy can be delivered.

Providing electric service to homes and businesses is inherently less reliable than providing natural gas service because storms and related tree damage can damage power lines and equipment, disrupting electric service. Damage to power lines from trees is a key issue for PSE because PSE's transmission lines average over 1,995 trees per mile, many more than other utilities. Natural gas service is less susceptible to damage from storms but can be interrupted by excavation and natural disasters, such as flooding. In addition, gas leaks, low-hanging or downed power lines and other system equipment damage can pose serious safety risks. PSE has teams dedicated to responding quickly to electric and gas emergency situations and to restoring service to customers.

An operations service issue customers find important is that PSE keeps appointments it has made to perform requested services. PSE monitors appointments kept and missed and provides a $50 credit to customers when an appointment is missed. For more information, see Chapter 12 on *Service guarantees*.

To measure electric service reliability, PSE uses the System Average Interruption Frequency Index (SAIFI) and the System Average Interruption Duration Index (SAIDI). These indexes track how often power is interrupted and how long it takes to restore service, respectively. PSE also measures how quickly response teams respond to emergency situations.

This Section discusses the five Service quality indexes (SQIs) relating to operations service that are reported annually to the UTC:

- Gas safety response time (SQI # 7)
- Electric safety response time (SQI # 11)
- SAIFI (SQI # 4)
- SAIDI (SQI # 3)
- Appointments kept (SQI # 10)

7
Gas safety response time (SQI # 7)

Overview

The primary responsibility of the Gas First Response (GFR) organization is to respond to natural gas emergencies. In 2009, PSE responded to about 23,000 calls concerning natural gas safety. These emergencies include reports of inside or outside odors, third-party damage to PSE's system, leaks and carbon monoxide concerns. It includes other responses to support first response organizations, such as fire departments. PSE's ability to respond to these emergencies is tracked and reported in this chapter.

In addition, the GFR organization performs various maintenance and inspection activities, inspects, adjusts and performs minor repairs on customer equipment and monitors excavation by contractors and others when it occurs near certain underground facilities.

In 2009, PSE bettered the response time benchmark by an average of 22 minutes, reducing the time by 6 percent over its 2008 performance. The following table reports the results for 2009.

Table 16: Gas safety response time for 2009

Key measurement	Benchmark	2009 Results	Achieved
Gas safety response time (SQI # 7)	Average 55 minutes or less from customer call to arrival of field technician	33 minutes	☑

About the benchmark

The gas safety response time is calculated by logging the time each customer service call is created and the time the gas field technician arrives on site. The difference is then calculated and averaged.

$$\textit{Annual natural gas safety response time} = \frac{\textit{sum of all response times}}{\textit{annual number of natural gas safety incidents}}$$

PSE has Gas First Responders located throughout its service territory. These technicians are available on a 24/7/365 basis.

What influences gas safety response time?

The response time for a typical safety-related customer request, such as if a gas leak is suspected, depends on a number of factors, including:

- Time of day
- Location of the incident— especially if it can only be reached by ferry, such as Vashon Island
- Traffic conditions
- Location of the nearest, available responder
- Number of other gas safety calls

In case of a natural gas emergency, such as a ruptured gas main, firefighters may be the first to arrive. PSE works with the fire departments in PSE's service area to train them in the appropriate practices for responding to natural gas emergencies. For example, firefighters are trained in how to turn off the gas to a building and evacuate occupants and in what not to operate, such as main valves. Some firefighters have gas scopes and are trained in using them. Gas scopes determine the amount of natural gas in the atmosphere.

PSE also works with the police departments, who will control traffic, street closures and spectators.

GFR also has other important work:

- Perform compliance work, which includes performing leak surveys done on the gas delivery system, changing out meters for testing or that may have stopped working properly and other periodic maintenance and inspection activities.
- Respond to customer needs, such as equipment issues ranging from no heat or no hot water to lighting gas-fired equipment after maintenance. When responding to these requests, PSE also:
  - Inspects customers' equipment to ensure it is in safe operating condition
  - Makes minor adjustments or red-tags the equipment until it can be repaired or remediated
  - For a fee, makes minor repairs or replaces some parts to restore customer equipment to proper functioning

Historical trend for gas safety response time

The following table shows the average gas safety response time from 2005 to 2009.

Table 17: Gas safety response time from 2005 to 2009

	2005	2006	2007	2008	2009
Gas safety response time	35 minutes	36 minutes	38 minutes	35 minutes	33 minutes
Benchmark	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician

Working to uphold gas safety response time

PSE continues to work to maintain its gas safety response time at a level which exceeds the SQI threshold. For example, in 2009 PSE:

- Utilized the *Mobile Workforce Dispatch System* with computer-aided dispatching, which enabled PSE to better assign the available service technicians required in a gas safety situation and to determine the closest possible responder.
- Reviewed events with response times of two hours or more to determine why they were longer and how response times could be shortened in the future in similar situations. Lessons learned were applied in the following ways:
  - Improved PSE's after-hours process for calling out employees from home to respond to emergencies by changing callout areas to encompass a greater number of personnel.
  - Used response time data to revise staffing levels and better balance staffing with workload.
  - Adjusted shifts to better match customer calling patterns, including assigning some staff to 12-hour shifts and utilizing a 3-11 p.m. shift.
- Continued its employee training efforts.

PSE also committed to annual reporting on the monthly percentage of responses to gas emergencies that are met within 60 minutes. Monthly percentages are shown in the following table:

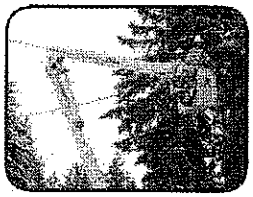
Table 18: Gas safety response times within 60 minutes in 2009

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Percent responses within 60 minutes	89%	91%	93%	93%	93%	94%	94%	94%	92%	92%	91%	92%

Going forward

PSE will continue analysis of long response times to determine and address trends if needed. PSE will continue to adjust staffing where beneficial to help with response times and adjust processes to increase the percentage of calls with response times under 60 minutes.

With the SQI filing for the 2010 SQI performance year (filed in 2011), PSE will also submit a separate report stating its position regarding whether the current SQI metric for gas response time should be changed to a performance standard requiring PSE to respond to a minimum of 95 percent of gas emergencies within 60 minutes.



8
Electric safety response time (SQI # 11)

Overview

PSE has a team of employees assigned to Electric First Response (EFR) whose primary responsibility is to respond to customer outages and other non-outage electric system emergencies. Examples of the types of the emergency events that PSE responds to include: downed wires, equipment failures, car-pole accidents, bird- and animal-caused outages, trees or limbs on lines, third-party dig-ins and customer voltage problems. EFR personnel are located throughout PSE's service territory and are available to respond on a 24/7/365 basis. EFR's priority is to ensure public and worker safety and then to restore service to customers. After addressing safety concerns, service restoration is made through temporary or permanent repairs or reconfiguration of the electric system. If the repair is beyond the capability of EFR, construction crews are called in to make permanent repairs. PSE typically responds to more than 12,000 electric incidents annually.

PSE continues to strengthen its electric safety response work processes and has met this benchmark, just as it has since the inception of this metric in 2002. The following table reports the results for 2009.

Table 19: Electric safety response time for 2009

Key measurement	Benchmark	2009 Results	Achieved
Electric safety response time (SQI # 11)	Average 55 minutes or less from customer call to arrival of field technician	51 minutes	☑

About the benchmark

The electric safety response time is calculated by logging the time of each customer call and the time the EFR arrives on site. The annual performance is determined by the average number of minutes from the first customer call to the arrival of EFR.

The formula follows:

$$Annual\ electric\ safety\ response\ time = \frac{sum\ of\ all\ response\ times}{annual\ number\ of\ electric\ safety\ incidents}$$

Events are excluded from the measurement on days that:

- Are excluded for SAIDI and SAIFI performance measurement, such as major events and associated carry-forward days.
- All available EFRs in a local area are dispatched to respond to service outages (localized emergency event days).

What influences electric safety response time?

Electric safety response time is influenced by many factors, including:

- **Number of electric safety responses**— The number of electric safety events varies during the year and is typically higher during the storm season where response times may be longer than other times.
- **Time of day an event occurs**— Events that occur outside of normal business hours often require call-out response and may require a greater response time. Events that occur in early morning or late afternoon may experience longer response times due to traffic conditions For example, more than 25 percent of outages in the 12 months that ended December 2009 occurred during the peak commute hours of 8 a.m.–10 a.m. and 4 p.m.–6 p.m.
- **Weather conditions**— PSE responds to electric incidents in all weather conditions. Response times can be lengthened by adverse driving conditions such as snow, ice, flooded streets, land slides or downed trees.
- **Location of the emergency event**— Some areas in PSE's service territory can only be reached by ferry, bridge and border crossings or are remote, so access may require snow-machines or "walk-ins."
- **Location of the nearest, available responder**— PSE's approximately 80 EFR personnel live and work throughout PSE's service territory and are readily available to respond to an outage or electric-system incident. Although PSE has seven operating bases, the majority of the time personnel respond directly from a field location, where they may be working on non-emergency or non-outage customer requests. For after-hours emergencies, they may respond directly from their homes.

Historical trend for electric safety response time

The following table shows average electric safety response time from 2005 to 2009.

Table 20: Average electric safety response time from 2005 to 2009

	2005	2006	2007	2008	2009
Electric safety response time	49 minutes	49 minutes	52 minutes	55 minutes	51 minutes
Benchmark	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician	Average of 55 minutes from customer call to arrival of field technician

Working to decrease electric safety response time

In 2009, PSE strengthened procedures and processes aimed at reducing electric safety response time. These efforts include:

- Increased non-core work schedules where needed to better support responses to outages or emergencies occurring outside of normal business hours.
- Continued communications and performance updates with field personnel regarding response times, worker safety and goal performance.
- Established supervisor and field worker performance expectations and guidelines to better drive consistent and effective performance.
- Provided EFR employees with feedback related to current electric safety response time performance information on a more frequent basis throughout the year.

Going forward

In 2010, PSE will continue its efforts to improve communication and coordination between field service personnel, system operators and dispatchers as well as enhance customer communications. The efforts include continuing:

- Ongoing analytics and process improvement pertaining to staffing, optimal shifts and call-out response.
- Evaluation of technology enhancements and leveraging technology to achieve consistent and efficient response.
- Education of customers and the public on electrical system safety, response time influences and PSE's dedication to restoring service as safely and quickly as possible.

9
SAIFI (SQI # 4)

Overview

For electric companies, maintaining a high level of reliability requires constant commitment. Supplying power depends on an interconnected network of generation, transmission and distribution systems to get power to homes and businesses. Most customer interruptions can be traced to trees, wind, snow and ice.

The System Average Interruption Frequency Index (SAIFI) measures the number of outages or interruptions per customer per year. Most electric utilities use this measurement in reviewing the reliability of their electrical system, excluding major outage events that cause interruptions to a significant portion of their customer base.

At PSE, for the purpose of measuring electric system reliability SQIs, major events are defined as days when 5 percent or more of the electric customer base in a 24-hour period experiences power interruption and the days following (carried-forward days), until all those customers have service restored. Major event days are excluded from this metric.

Two major events were experienced in 2009:

- A multiple transmission interruption event that affected all customers in Skagit and Island counties.
- A November wind event that primarily affected the Northern, Southern and Western counties.

These outage events are excluded from the 2009 SQI measurement. All other outage events are included in the SAIFI calculation in 2009.

The 2009 results are reported in the following table.

Table 21: SAIFI for 2009

Key measurement	Benchmark	2009 Results	Achieved
SAIFI (SQI # 4)	No more than 1.30 interruptions per year per customer	1.09	☑

About the benchmark

PSE, like most utilities, excludes major events in which large numbers of customers lose power. This is because major events, predominately storms, vary considerably from year-to-year. Excluding major events provides a more accurate measure of how well the system typically performs.

SAIFI is calculated by adding up the number of customers experiencing a sustained outage of 60 seconds or longer during the reporting period and then dividing it by the average annual number of electric customers, excluding outages that occurred during major event days. The formula follows:

$$Annual\ SAIFI = \frac{annual\ customer\ interruptions\ excluding\ major\ events}{average\ annual\ electric\ customer\ count}$$

In the 2008 Institute of Electrical and Electronics Engineers (IEEE) survey of 64 member utilities, PSE ranked in the top 14 percent (1st quartile) of this measure for 2008. (The results of the 2009 IEEE survey are expected in August 2010.) PSE has been a 1st quartile performer in this metric for the past five years. On average, PSE customers are affected by fewer outages than the other utilities across the United States that participated in this survey— even when taking storms into account.

What influences SAIFI?

PSE tracks outages by cause codes and groups the outage causes into three categories: tree related, controllable and third party. Vegetation is the major factor impacting PSE's SAIFI performance in 2009. System damage caused by trees and limbs impacted the most customers in 2009 as in previous years. Other major causes of outages within the other two categories include:

- Controllable
  - Equipment failures: includes outages when a fuse properly operates when a branch or tree brushes against the line
  - Bird or animal
- Third Party
  - Car pole accidents
  - Scheduled outages for system maintenance

The following graph shows the common causes for interruptions in 2009 and their impact on customers.

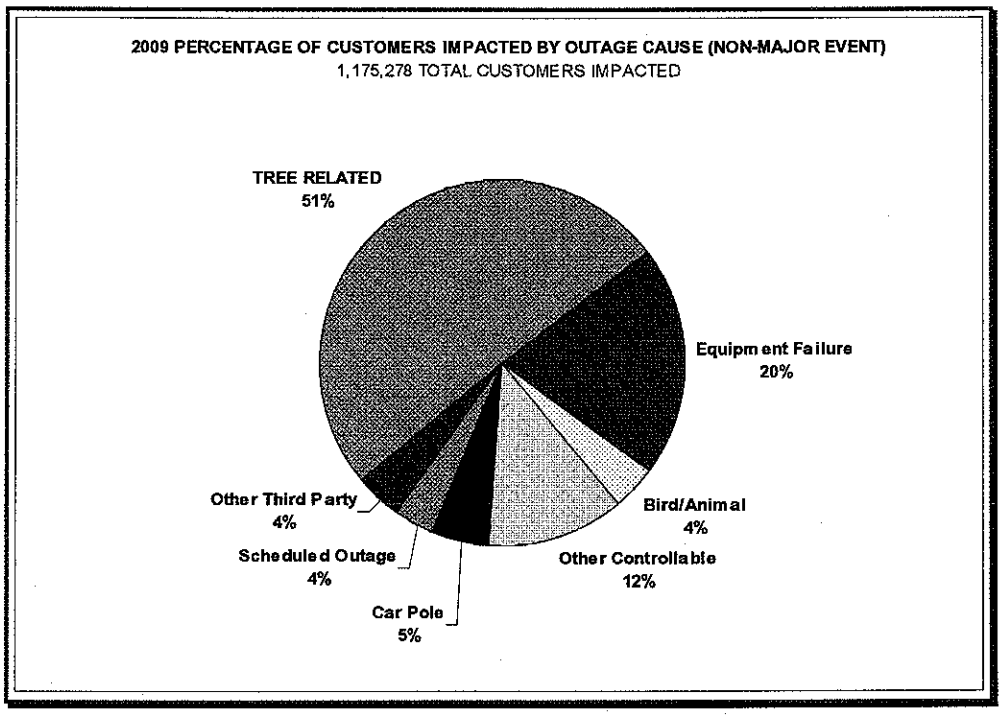


Figure 13: 2009 Percentage of customers out of service by outage cause

The Other Controllable group includes operator error, electrical overload and unknown. The Other Third Party group includes accidents, dig-ups and vandalism.

Historical trend for SAIFI

The following table shows SAIFI from 2005 to 2009.

Table 22: SAIFI from 2005 to 2009 (excluding major events)

	2005	2006	2007	2008	2009
SAIFI	0.94	1.23	0.97	1.01	1.09
Benchmark	1.30 interruptions per year per customer	1.30 interruptions per year per customer	1.30 interruptions per year per customer	1.30 interruptions per year per customer	1.30 interruptions per year per customer

Long-term historical trend

The following chart shows the SAIFI from 2000 to 2009. For the past 10 years, PSE customers have experienced fewer outages than the benchmark.

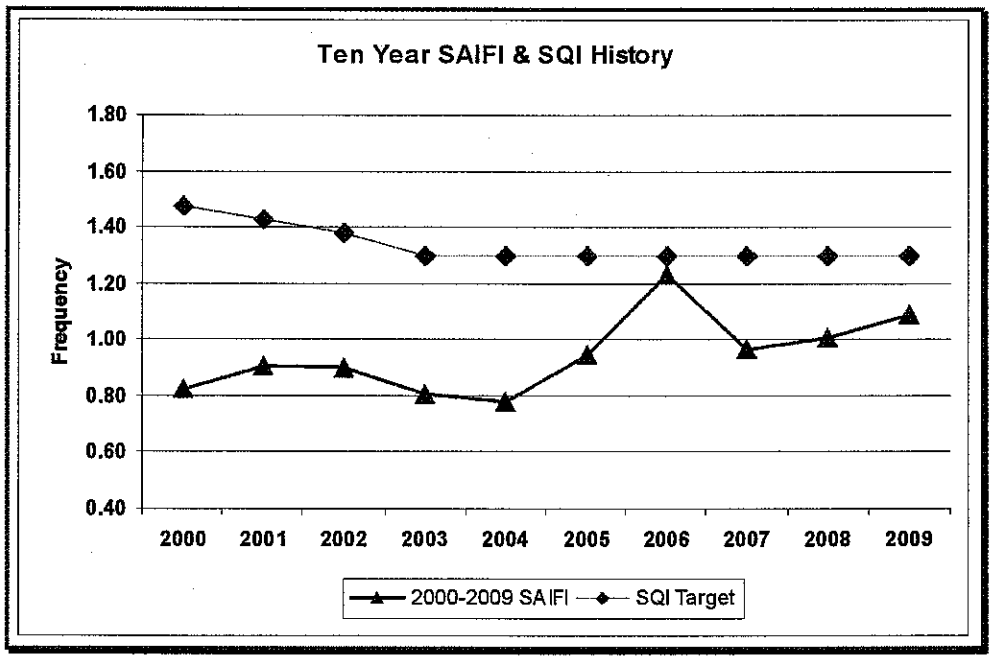


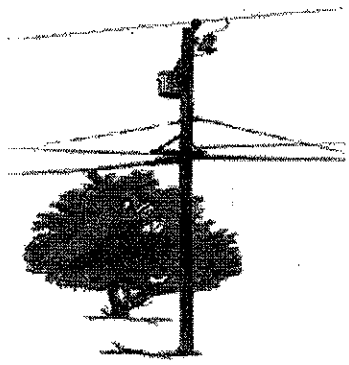
Figure 14: Ten-year SAIFI and SQI history

Working to uphold reliability

PSE works diligently to provide reliable electric service. This Section discusses the most frequent causes of outages and the efforts PSE took to reduce the number of outages.

The increase in SAIFI over the past few years is attributed to the increasing outages related to vegetation. Trees remain a vital element of the region's quality of life. But they are also a major cause of power outages for local homes and businesses.

Vegetation management



To mitigate trees and limbs falling into electric power lines, PSE performs vegetation maintenance based on a cyclical schedule. The maintenance program focuses on achieving a safe and reliable system. Maintaining proper clearance from energized electric lines is important for public safety. Vegetation Management involves a variety of practices and techniques designed to keep trees and limbs from coming in contact with power lines and causing outages. Less than 10 percent of tree-related outages are caused by tree growth, illustrating an effective Vegetation Management Program[1].

[1] Ecological Solutions Inc. October 2008 page 39

Cyclical programs

PSE spends more than $12.5 million annually on a systematic, cyclical vegetation management program to reduce outages in its overhead electric distribution, high voltage distribution and transmission systems.

- **Overhead distribution system**— Usually trees are trimmed every four years for distribution lines in urban areas and every six years for lines in rural areas.
  - Those trees that are an imminent threat of falling into power lines (danger trees) are removed in these rights-of-way at the same time that trees are trimmed.
  - PSE usually completes roughly 2,000 miles of vegetation management on its distribution rights-of-way each year. However, in 2009, vegetation maintenance was performed on 1,930 miles of overhead distribution as PSE needed to expand its efforts to meet a new tree-clearing federal requirement on transmission systems and storm-related vegetation management work. In addition, the Hanukkah Eve storm in 2006 and associated restoration and clean up in 2007 also contributed to a delay in PSE's distribution system maintenance cycle, since more than 40 percent of PSE's transmission lines were knocked out of service. The maintenance cycle is planned to be back on schedule by 2013.
- **High-voltage distribution system and cross-country transmission corridor system**— Trees are trimmed every three years on PSE's high-voltage distribution rights-of-way and annually in transmission corridors. Spray and mowing activities are performed and danger trees are removed along the edge of these corridors at the same time trees are trimmed. In 2009:
  - 577 miles of high-voltage distribution lines were maintained
  - 327 miles of transmission corridors were maintained under new federal clearing requirements, a 22 percent increase over the number of miles trimmed in 2007
  - The danger-tree patrol of the high-voltage distribution system was completed. The storm season identifies imminent hazard trees that could fall during a wind storm. These trees are either trimmed or removed.
- **Fast growing, undesirable species**— Hot spotting and mid-cycle work and patrols occur yearly on the overhead distribution, high voltage distribution and the transmission corridors to remove fast growing undesirable species of trees.
  - In 2009, a total of 300 miles were treated for undesirable trees.

TreeWatch program

PSE also manages vegetation impacts with its TreeWatch program. The program addresses trees growing on private property beyond the typical 12-foot radius of the lines on PSE's rights-of-way. Certified arborists work with communities and property owners to identify "at-risk" trees more than 12 feet away from power lines. With the owner's consent, these trees that pose danger to power lines are removed at no charge to the customer.

In 2009, the TreeWatch program addressed approximately 200 miles of transmission and high voltage distribution lines and 60 miles of distribution lines. Nearly 15,000 trees were removed or pruned.

In 2010, PSE plans to remove or prune another 15,000 off right-of-way trees under the TreeWatch program, again focusing on transmission and high-voltage distribution lines.

Tree replanting program

PSE devotes about $500,000 each year to replanting trees and non-construction-related mitigation in PSE's service area. For the past nine years, PSE has earned the Tree Line USA award from the National Arbor Day Foundation in recognition of PSE's efforts to protect and enhance urban forests while ensuring reliable energy service.

To help customers improve system reliability, PSE has developed a vegetation planning guide called *Energy Landscaping*. The print and online handbook helps customers evaluate landscaping opportunities and is a how-to for planting trees and shrubs and tree care solutions. It also lists recommended trees and shrubs to plant near power lines.

High voltage distribution and transmission vegetation management study

A vegetation management study was conducted on PSE's overhead electric transmission system by Ecological Solutions, Inc. The results validate that Puget Sound Energy's pruning maintenance cycles are appropriate for the local tree growth rates. Additionally, the study illustrates that trees growing off the right of way are increasingly contributing to transmission system outages. The study concluded that 80 percent of tree-related outages are caused by trees from outside the right of way and 68 percent of trees that fail and cause outages are healthy trees. The study further suggests that outages caused by damage from healthy trees can only be addressed by reducing the electric system's exposure to trees, which based upon species and quantities may be impractical in PSE's case.[2]

Equipment upgrades

Equipment failure is the leading cause of non-storm outages. To reduce outages, PSE regularly inspects PSE's electric system to identify and correct deficiencies before they cause an outage or power-quality problem. PSE's maintenance programs involve testing certain equipment components on a regular schedule and identifying needed upgrades.

[2] Ecological Solutions Inc 3/09 study

Tree wire

PSE works to reduce outages by installing "tree wire," which is a tough, thick-coated power line capable of withstanding contact with tree branches that would otherwise cause an outage. Approximately 38 circuit miles of tree wire was installed in 2009.

Cable remediation

For an underground power-distribution system, age and moisture make buried cable vulnerable to failures and prolonged outages. Since 1989, PSE has managed a cable-remediation program that considers two remediation options: silicone injection or cable replacement.

- Silicone injection extends the life of underground power cable for 20 years by restoring the cable's insulating properties.
- Replacement is a new system with an expected life that exceeds 30 years.

In 2007 due to the rising cost of silicone injection, higher level of neutral corrosion and unit pricing on trenching costs, silicone injection became economically unfavorable in all circumstances except single phase installations. This trend will probably continue with roughly 10 percent of cables being injected and the remaining cables replaced. Initial cost, as well as lifetime cost, is considered in selecting the appropriate option.

PSE's cable remediation program prevented an estimated 2,000 outages in 2009.

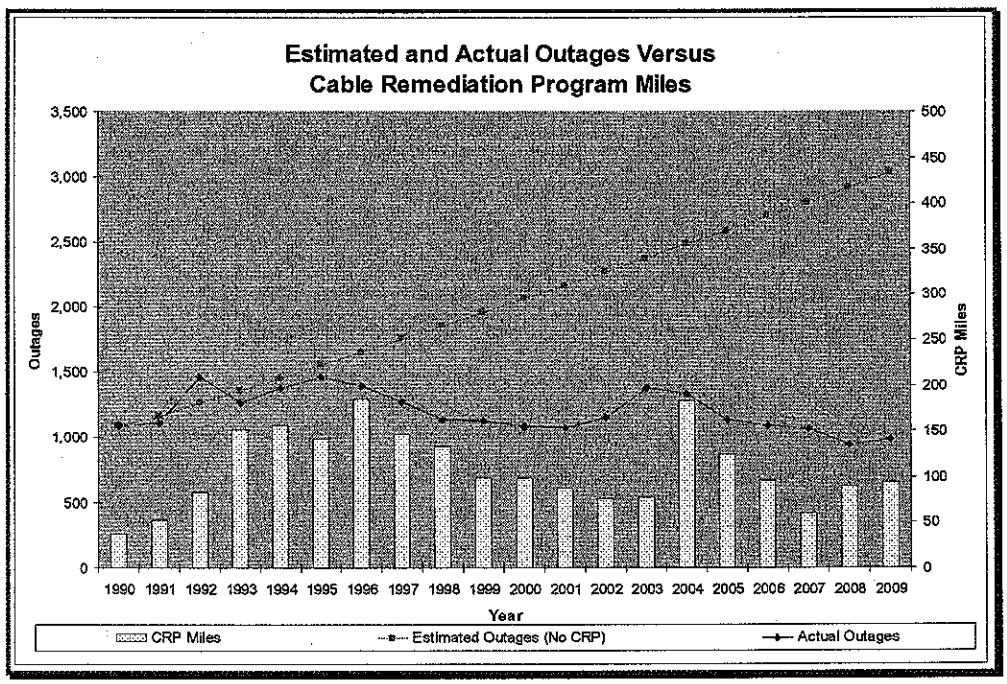


Figure 15: Estimated and actual outages versus cable remediation program miles

Wildlife

Birds and other animals cause nearly 2,000 outages annually, but each of these outage events typically only impacts 30 customers per event. To reduce animals, such as squirrels, rats or raccoons, from damaging transformers and other equipment, PSE installs animal guards around new transformers and adds these devices on selected circuits that have a history of animal-related outages. PSE also has installed raptor protection on selected sites. Since 2004, animal-related outages have decreased an average of 5 percent annually despite an increase in animal population, specifically Eastern Grey squirrels.[3]

Third-party and planned outages

When a vehicle hits a utility pole or similar third-party events occur, some customers will likely lose power. As part of a continuous effort, PSE planners review the location of the poles whenever a car-pole incident causes an outage. The pole may be relocated if the pole is likely to be hit again.

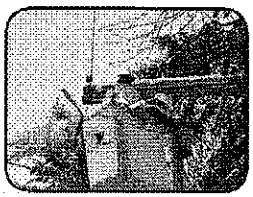
Scheduled outages, typically for connecting new or upgrading existing infrastructure, are the third leading cause of non-storm service interruptions. Unfortunately, service must be interrupted to safely connect new power lines or replace aging or damaged infrastructure. And the more improvements that are made, the more planned outages are necessary.

Going forward

In 2010, PSE will continue programs that will reduce power outages:

- PSE plans to remove or prune 15,000 off right-of-way trees under the TreeWatch program, again focusing on transmission and high-voltage distribution lines.
- PSE will continue to replace aging distribution infrastructure that are starting to fail (which includes the cable remediation program), install covered conductor (tree wire) to prevent tree limb outages and convert overhead lines to underground. Replacing failing poles and installing animal guards are incorporated in the scope of some of these projects as appropriate. This has a secondary benefit of preventing outages caused by wildlife, and preventing equipment failures due to aging plants.

[3] Washington Department of Fish and Wildlife biologist Mary Linden.



10
SAIDI (SQI # 3)

Overview

PSE is disappointed that investments and efforts to improve SAIDI performance are not reflected in the 2009 metric results. Providing reliable electric service is a top priority of electric companies. PSE's maintenance programs— such as vegetation management and substation maintenance— and capital investments are targeted at reducing SAIDI. But in spite of PSE's best efforts, sometimes power outages are simply unavoidable. Most outage minutes are caused by trees and vegetation. When the power does go out, PSE works around the clock to restore service as soon as possible.

The System Average Interruption Duration Index (SAIDI) measures the number of outage minutes per customer per year. Most electric utilities use this measurement in reviewing the reliability of their electrical system, excluding outage events that cause interruptions to a significant portion of their customer base due to extreme weather or unusual events.

SAIDI is similar to SAIFI, but SAIDI measures the duration of customer interruptions while SAIFI measures the number of customer interruptions.

At PSE, for the purpose of measuring electric system reliability SQIs, major events are defined as days when 5 percent or more of the electric customer base in a 24-hour period experiences power interruption, and the days following, until all those customers have their service restored (carried-forward days). Major event days are excluded from this metric.

The year 2009 had two major events:

- A multiple transmission interruption event that affected all customers in Skagit and Island counties.
- A November wind event that affected customers in the Northern, Southern and Western counties.

These outage events are excluded from this SQI measurement. The two major events encompassed four days as compared to 16 days in 2007 and five days in 2008. As a result, more days are included in the SAIDI results.

The 2009 results are reported in the following table.

Table 23: SAIDI for 2009

Key measurement	Benchmark	2009 Results	Achieved
SAIDI (SQI # 3)	No more than 136 minutes per customer per year	190 minutes	☐

About the benchmark

SAIDI is calculated by adding up the outage minutes of all the customers that have been without power and then dividing by the average annual number of electric customers, excluding outages occurred during major event days. The formula follows:

$$Annual\ SAIDI = \frac{Total\ annual\ customer\ outage\ minutes\ excluding\ major\ events}{Average\ annual\ electric\ customer\ count}$$

While the formula looks straightforward, different utilities use slightly different definitions for a major event and even for a sustained outage in calculating SAIDI. Other utilities may require a higher threshold of number of customers out of service before declaring a major event. In addition, some utilities define a sustained outage as being five minutes or longer rather than the 60 second definition that PSE uses.

To assist in benchmarking between utilities, many utilities use the Institute of Electrical and Electronics Engineers (IEEE) methodology for determining SAIDI. In the 2008 IEEE survey of member utilities, PSE ranked in the top 48th percent (2nd quartile) of this measure, a 2 percent improvement over 2007. The results of the 2009 IEEE survey are expected in August 2010.

What influences SAIDI?

PSE tracks outages by 40 cause codes and groups the outage causes into three categories:

- Tree related
- Controllable
- Third party

Tree related outages are the major factor impacting PSE's SAIDI performance in 2009.

Trees can drop large limbs or fall into power lines. A fallen tree will damage the line and could tear down supporting structures, cross arms and poles. The number of trees growing near power lines in the Pacific Northwest is unique among other regions in the United States. Nearly 75 percent of PSE right-of-way edge is treed. On average there are 1,995 trees per mile on PSE's transmission system. In comparison, National Grid, the second largest utility in the United States representing four states on the East Coast, has 313 trees per mile[4].

High winds in the fall season increase the risk of tree limb failure in deciduous trees because the trees have not fully shed their leaves. The crown of trees are less permeable when fully leafed thus there is a greater degree of limb breakage due to what is termed "sail" effect. The fully leafed crown acts like a sail causing a higher degree of wind loading or pressure on branches and limbs and increases the potential for breakage[5].

[4] Ecological Solutions Inc. study March 3, 2009

[5] *The Effects of Pruning Type on Wind Loading of Acer Rubrum* – E.Thomas Smiley and Brian Kane

The two other major causes of outages— controllable and third party— include categories such as:

- Controllable
  - Equipment failures: includes outages when a fuse properly operates to protect the system from damage
  - Bird or animal caused outages
  - Other: includes operator error, electric overload and unknown
- Third Party
  - Car pole accidents
  - Scheduled outages for system maintenance
  - Other: includes accidents, dig ups and vandalism

The causes of outage minutes for 2009 are shown in the following chart:

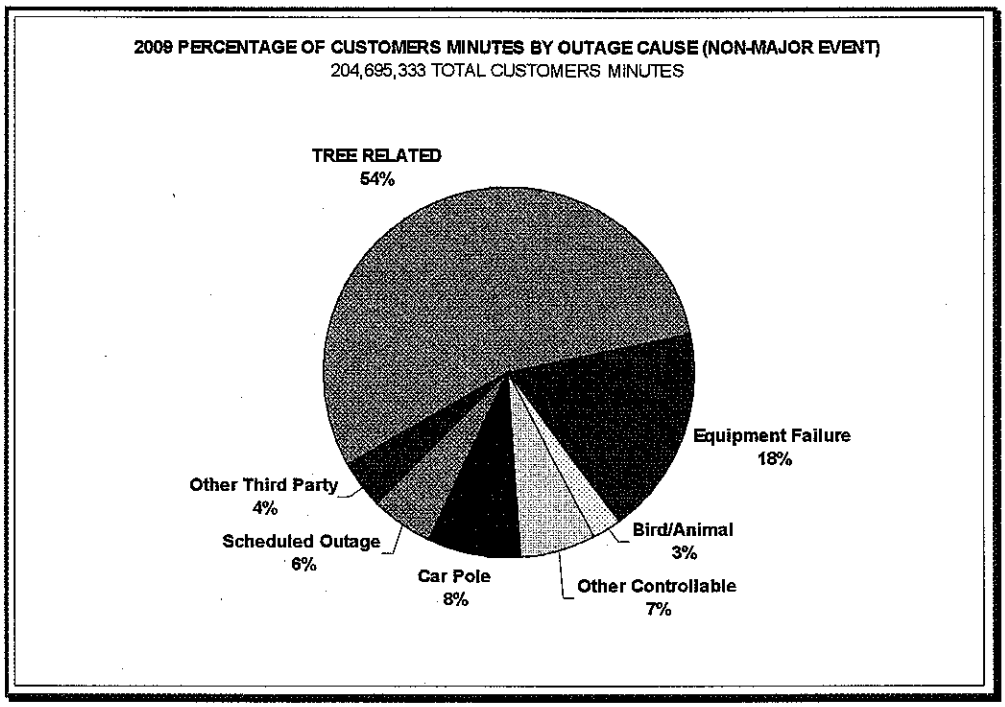


Figure 16: 2009 percent of customer minutes per outage cause

Response time is also a contributing factor to SAIDI. How long it takes to restore service depends on the complexity of the system, the number and types of system components damaged, the extent of the damage and location of the problem. The number of outages occurring at one time can also impact the availability of repair personnel to respond, thus adding to outage minutes.

PSE tracks all outage events longer than sixty seconds. The outage length is composed of response, assessment and repair time. Response time, the time from when the customer or the AMR system notifies PSE that an outage has occurred, until a service technician arrives at the site of the outage, is measured by SQI # 11, Electric Safety Response Time. Response and repair time for service providers are also tracked and measured. Both are described in more detail in the next Section.

Historical trend for SAIDI

The following table shows SAIDI from 2005 to 2009.

Table 24: SAIDI from 2005 to 2009 (excluding major events)

	2005	2006	2007	2008	2009
SAIDI	129	214	167	163	190
Benchmark	136 minutes per customer per year	136 minutes per customer per year	136 minutes per customer per year	136 minutes per customer per year	136 minutes per customer per year

In 2009, PSE missed the benchmark for SAIDI. Typically, PSE experiences several major events during the year, whose outage minutes are not counted against SAIDI. In 2009, customers experienced two widespread outages that qualified as major events. However, in 2009 a number of wind and flooding events occurred that caused many outages that contributed significantly to SAIDI. For example, after the record breaking cold and snowy December 2008, a La Nina followed in January 2009, bringing heavy precipitation. The heavy rain and the rapid snow melt led to extreme flooding throughout the state, causing landslides that toppled trees and limbs into power lines. These tree-related outages contributed 33 SAIDI minutes in January alone, as compared to the 19 SAIDI minutes that January has averaged over the past five years.

Additionally, PSE increased the number of capital improvement projects, some in part to improve SAIDI, contributing to the number of scheduled outages. All these factors contributed to more outages and more outage minutes per customer, increasing the overall company-wide SAIDI.

Long-term historical trend

The following chart shows the SAIDI from 2000 to 2009. Prior to 2006, PSE continually met the SAIDI SQI. Since 2006, PSE has not met the SQI.

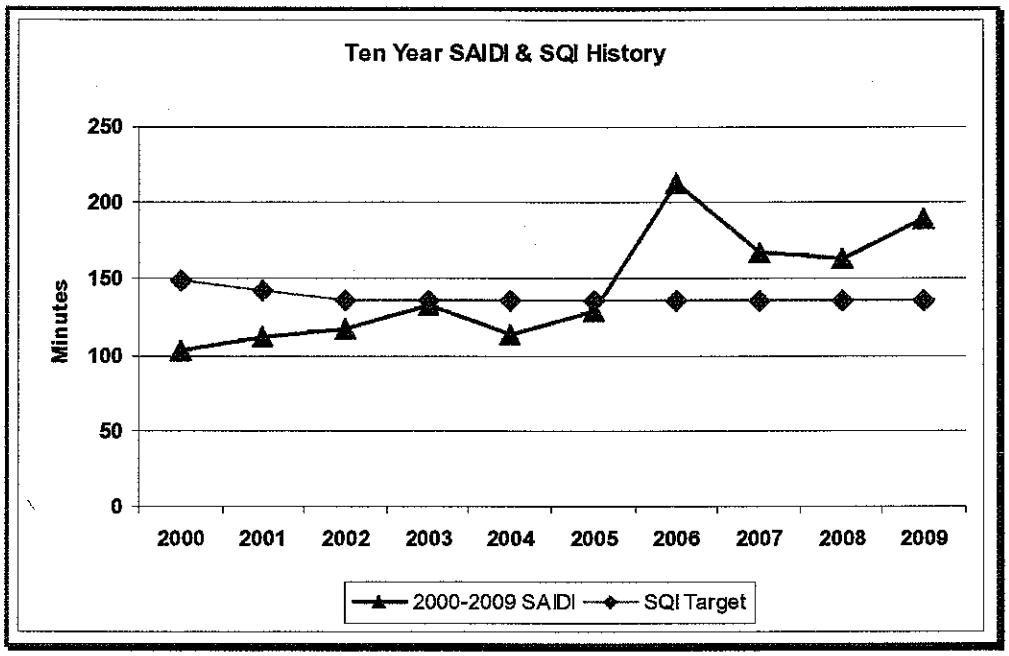


Figure 17: Ten year SAIDI and SQI history

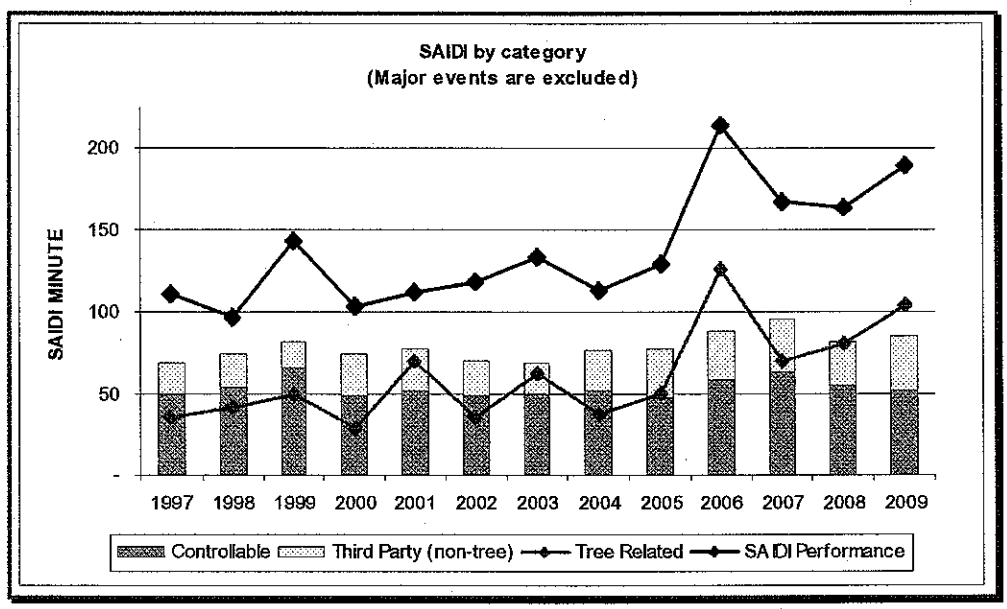


Figure 18: SAIDI from 2000 to 2009

Outages related to trees drive the volatility of SAIDI and continue to be a major contributor to SAIDI minutes each year.

Crew response and repair time

To ensure appropriate resource availability, PSE monitors several measurements. These metrics include:

- The length of time it takes to route resources to an outage event
- Crew response and repair times
- Resource levels
- Location of responders

PSE tracks Service Provider crew responses and restoration times (Job Completion Times) to electrical emergencies and outages and also monitors Service Provider crew levels and locations to ensure appropriate resource availability to address day-to-day emergencies, outages and potential storm response needs.

Working to improve SAIDI

PSE continues to work diligently to provide reliable service measured by SAIDI and SAIFI. In addition to the efforts to improve SAIFI in the previous chapter (see *Working to uphold reliability* in Chapter 9 SAIFI), this Section discusses the efforts to improve SAIDI. To focus on SAIDI, PSE's Total Energy System Planning department analyzes system performance and identifies plans and projects to:

- Reduce the time to diagnose the outage.
- Reduce the duration of the outage.
- Reduce the number of customers affected by the outage.

50 worst circuits

PSE reviews the performance of the 50 worst circuits contributing to the highest number of SAIDI minutes and identifies cost-effective solutions. These 50 circuits represent 4.7 percent of the circuits within PSE but contribute 26 percent of the total company-wide SAIDI minutes over the five years from 2004 to 2008. In 2009, 56 projects were completed on these circuits, specifically targeted at improving the SAIDI SQI.

PSE reviews the performance of the 50 worst circuits defined by "circuit SAIDI." Circuit SAIDI measures the performance of individual circuits as experienced by the customers on those circuits. This tends to be a customer-centric view as customer density on the circuit has less influence on the measure. In 2009, 48 projects were completed on these circuits targeted at improving circuit SAIDI.

Reliability initiatives program

In 2008, a high-level roadmap was developed to improve reliability and identify cost-effective tactics for planning consideration. In 2009, over 100 projects to install sectionalizing devices on the distribution system were completed, specifically 48 reclosers and 56 gang operated disconnect switches were installed. These devices are an improvement over conventional fuses. With a conventional fuse, a temporary fault, typically a branch brushing against the line, causes the fuse to blow open and de-energize the line. Service is not restored until a serviceman patrols the line and manually replaces the blown fuse using a bucket truck. In comparison, reclosers sense the fault on the power line and automatically attempt to re-energize the line. If the recloser no longer senses the fault, it will reclose and re-energize the line. If the fault is not temporary, the damaged section of the line can be isolated quickly with a gang operated switch which can be operated from the ground.

Substations and equipment

Along with projects targeted to improve reliability, PSE maintains substations and other system equipment and replaces aging infrastructure.

Specific equipment, such as substation breakers, is being installed on the system to help isolate and minimize the effects of customer outages. PSE continues to add more infrastructures, such as new conductors and distribution substations, to serve new loads, and improve reliability. For example, adding a new substation enables adjacent substations to shift customers to the new station during an outage.

In 2009, eight distribution substations were upgraded with SCADA. SCADA is a system used for monitoring and controlling substation equipment that will enable faster restoration of power to the customers.

Improved access

Outage duration can be extensive if access to the system problem is difficult. In 2009, PSE targeted over 70 miles of inaccessible high voltage distribution and transmission rights-of-way and corridors, improving access to them by mowing, improving hard surface roads and installing access gates.

2009 UTC penalties

For the 2009 performance results, the potential penalty is $ 1,340,074 for missing the benchmark for the average length of time customer were without power. However, PSE is requesting the exclusion of nine SAIDI minutes from the penalty calculation. These minutes were due to "non-access" issues that occurred in January 2009. If the UTC approves the request for mitigation of the nine SAIDI minutes, the penalty will be reduced to $1,116,728. PSE's investors will pay the penalty amount as approved by the UTC to the electric Home Energy Lifeline Program as an addition to the overall HELP funding.

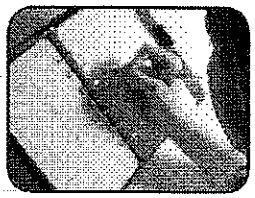
Going forward

PSE spent considerable effort having a third party evaluate existing initiatives and suggest alternative strategies and initiatives to remedy PSE's inability to meet this SQI. Historic efforts were validated, but additional investments are required and a high-level long-term reliability roadmap was developed. Targeted investments will continue in 2010 while additional programs, tactics and area-specific plans are under development.

Additionally, PSE is changing the way it manages transmission rights-of-way in response to the North American Electric Reliability Corporation adoption in 2007 of new vegetation management standards designed to reduce tree-related outages. The new standard requires the removal and/or mitigation of all vegetation that will exceed fifteen feet in height at mature height from the areas underneath and beside PSE's transmission rights-of-way. PSE intends to complete the transmission right-of-way clearing and mitigation by 2010. The recommendations and mitigation options to harden the electric transmission system detailed in the Ecological Solutions Inc. study are currently being considered.

Also, in 2010 seventeen distribution substations will be upgraded with SCADA.

For response times, PSE is reviewing the outage response process and identifying additional data to collect in order to further understand the drivers of response time.



11
Appointments kept (SQI # 10)

Overview

PSE provides its customers with a variety of services that can be scheduled, including:

- **Permanent service**— Permanent natural gas service from an existing main or permanent secondary voltage electric service from existing secondary lines
- **Reconnection**— Reconnection following move-out, move-in or disconnection for non-payment
- **Natural gas diagnostic service request**— For water heater, furnace checkup, furnace not operating, other diagnostic or repair or follow-up appointments

Other types of service, such as those involving safety, do not require scheduling and are performed on a 24-hour basis. These non-scheduled services include restoring electric service due to PSE outages or equipment malfunction or responding to a reported gas odor.

When a residential gas or electric customer requests scheduled service, PSE provides the customer with either a guaranteed date and time frame or a guaranteed commitment to provide service on or before a specified date.

In 2009, PSE kept over 99 percent of the appointments made.

Table 25: Appointments kept for 2009

Key measurement	Benchmark	2009 Results	Achieved
Appointments kept (SQI # 10)	At least 92% of appointments kept	99%	☑

About the benchmark

The appointments kept SQI is calculated by dividing the number of appointments kept by the total number of appointments.

The formula follows:

$$Appointments\ kept = \frac{annual\ appointments\ kept}{annual\ appointments\ missed + annual\ appointments\ kept}$$

Appointments will be considered missed when PSE does not meet the time period agreed upon when the appointment was initially set. The following are not considered missed appointments:

- The customer fails to keep the appointment.
- The customer calls PSE to specifically request the appointment be rescheduled.
- PSE reschedules the appointment because conditions at the customer site make it impractical to perform the service.
- The appointment falls during a SAIDI and SAIFI major event day.

Appointments that have been canceled by the customer, regardless of the customer's reason, will be considered "canceled" appointments and are not counted as either kept or missed appointments.

Additional appointments to complete repairs are considered new appointments.

Historical trend for appointments kept

The following table shows appointments kept from 2005 to 2009.

Table 26: Appointments kept from 2005 to 2009

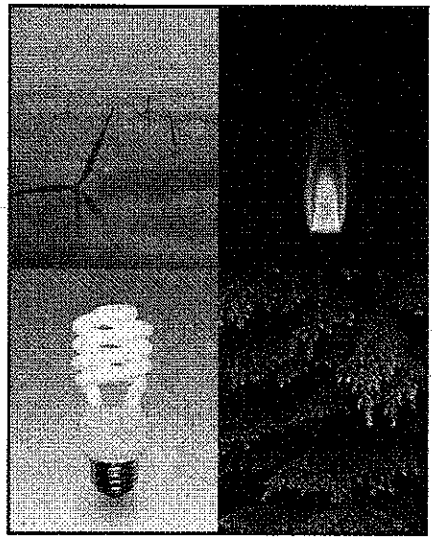
	2005	2006	2007	2008	2009
Appointments kept	99%	98%	99%	99%	99%
Benchmark	92% of appointments kept	92% of appointments kept	92% of appointments kept	92% of appointments kept	92% of appointments kept

Working to maintain appointments kept

Initiatives and practices PSE has put into place to maintain and improve customer satisfaction with field service operations transactions were discussed in Chapter 3 in *Field Service Operations transactions customer satisfaction.*

Going forward

PSE has consistently exceeded this metric with a rating near 100 percent. PSE will continue its current efforts and initiate new cost-effective practices to maintain its appointments kept service results at optimum cost levels.



Service guarantees

PSE's Customer Service Guarantee (CSG) program is designed to give customers a credit if PSE misses an appointment for certain services. Beginning in 2009, PSE is offering a power restoration service guarantee that provides a $50 credit whenever a customer experiences a 120 consecutive-hour or longer power outage.

This Section discusses PSE's service guarantees.

12
Service guarantees

Overview

The Customer Service Guarantee (CSG) program is designed to give customers a $50 missed appointment credit if PSE fails to arrive by the mutually agreed upon time and date to provide one of the following types of service:

- **Permanent service**— Permanent natural gas service from an existing main or permanent secondary voltage electric service from existing secondary lines
- **Reconnection**— Reconnection following move-out, move-in or disconnection for non-payment
- **Natural gas diagnostic service request**— For water heater, furnace checkup, furnace not operating, other diagnostic or repair or follow-up appointments

Note: This service appointment guarantee applies in the absence of major storms, earthquakes, supply interruptions or other adverse events beyond PSE's control. In these cases, PSE will reschedule service appointments as quickly as possible.

The Restoration Service Guarantee is designed to give customers a $50 credit if the customer experiences a 120 consecutive-hour power outage.

2009 customer credits

In 2009, PSE credited customers a total of $7,300 for missing 146 of more than 127,000 scheduled appointments. The 2009 Service Provider Report provides additional detail on missed appointment credits paid as of December 31, 2009 by PSE's Service Providers.

During 2009, PSE made no Restoration Service Guarantee payments to customers as criteria for payment was not met.

Restoration service guarantee

PSE offers another guarantee to its customers: Restoration Service Guarantee. Whenever a customer experiences a 120 consecutive-hour power outage, the customer may be eligible for a $50 credit. The total annual payments are limited to $1.5 million, or 30,000 customers, payable to eligible customers who request such payment or report their outage on a first-come, first-served basis. The pledge is always applicable but will be suspended if PSE lacks safe access to its facilities to perform the needed repair work. To receive the service guarantee payment, affected customers must report the outage or request the credit within seven days of their service restoration.

Information on this Restoration Service Guarantee is provided on PSE.com. Additionally, information about the guarantee was provided in the January–February 2009 and November–December 2009 editions of the customer newsletter.

When 5 percent or more of PSE's customers are without power or PSE opens its Emergency Operations Center, PSE's phone system will provide messaging regarding the guarantee when a customer is on hold and will advise customers how to make their request.

Puget Sound Energy

2009 Service Quality Program Filing

SQI No. 5 Benchmark Evaluation Report

Filed February 16, 2010

PUGET SOUND ENERGY

The Energy To Do Great Things

Table of Contents

Introduction

This report is prepared in accordance with the Partial Settlement Stipulation of Service Quality, Meter and Billing Performance, and Low-Income Bill Assistance ("Stipulation") adopted by the Commission on October 8, 2008, in consolidated Docket Nos. UE-072300 and UG-072301 Order 12 ("Order"). In this Order, the Commission approved the continuance Puget Sound Energy's ("PSE's" or "the Company's") Service Quality Program with revisions and new terms and conditions detailed in the Stipulation.

One of the new requirements is:

> "Additionally, with the SQI filing for the 2009 SQI performance year, the Company will submit a report stating its position regarding changing the current SQI No. 5 measurement and penalty to a two-part (annual and monthly thresholds) SQI. The Company's report will include an analysis of the costs and customer impacts associated with adopting a quarterly or monthly minimum performance standard, as well as information to the Parties concerning the key variables that impact customer call volume and the Company's call answering performance. The Company will informally consult with the Parties on the analysis prior to the completion of the report." (Pages 9 and 10 of Stipulation, paragraph 26, section J. SQI No. 5, Customer Access Center Answering Performance)

In accordance with the Stipulation, the Company sent a copy of this report on January 20, 2010, to the parties who entered into the Stipulation; the WUTC Staff, the Energy Project, and the Public Counsel; for their review. In the event that there are updates to this report, PSE will submit the revised report in its future-annual or annual SQI filing.

Benchmark Description

SQI No. 5, Customer Access Center ("CAC") Answering Performance is based on the percentage of calls answered within 30 seconds from a customer's request to speak with live operator until the call is answered by a PSE representative ("service level"). The annual SQI performance is determined by the average of the monthly service level percentages. The monthly service level calculation is demonstrated through the following formula:

$$\textit{Monthly Call Performance} = \frac{\textit{aggregate number of calls answered by a company rep within 30 seconds}}{\textit{aggregate number of calls received}}$$

Puget Sound Energy's Position

Puget Sound Energy ("PSE") does not believe changing the current SQI No. 5 measurement and penalty to a two-part (annual and monthly thresholds) SQI will benefit customers or be cost effective. PSE's position is that the annual benchmark of 75% can be achieved through practical, efficient staffing practices that provide a high level of customer service throughout the year. Staffing resources required to meet the 75% benchmark on a monthly basis would result in increased costs with marginal, if any, benefit to customers. Customer satisfaction with telephone center transactions as measured by SQI No. 6 has been generally above 90% each month since PSE's first SQI reporting in 1997. No direct correlation was found to

support the hypothesis that customers would be more satisfied should a monthly threshold be required.

In the analysis performed, PSE modeled cost and performance data from 2006 through 2009. The cumulative amount to support a monthly threshold over these four years would have increased the CAC operating costs by $4.6 million (reference Figure 1 and Table 1 in the Cost Analysis Overview section). Note that this $4.6 million makes a number of very conservative assumptions (see the Cost Analysis Overview section for details) that are not feasible to implement; the actual costs would be higher.

Customer Service Impact

PSE's analysis shows that maintaining a 75% monthly threshold for SQI No. 5 will not necessarily lead to a significant increase in customer satisfaction. In the forty-eight months from 2006 through 2009, survey results show customer satisfaction with PSE's Customer Access Center transaction (SQI No. 6) dipped below 90% only four times (two of which were months immediately following the extraordinary Hanukah Eve wind storm of December 2006) while in fifteen of those forty-eight months service level fell below 75%. While the SQI No. 6 monthly results stay mostly above 90%, the monthly service levels tracked for SQI No. 5 follow a seasonal pattern of ups and downs. When plotted graphically (reference Figure 2 and Figure 3 in Customer Satisfaction Impact section) statistical analysis shows there is no apparent correlation between customer satisfaction and percentage of calls answered within 30 seconds.

PSE is committed to delivering outstanding customer service at a reasonable cost with the goal of minimizing monthly service level fluctuations. To improve call answering performance, PSE Customer Access Center focuses on the following:

- Providing customers and Customer Access Center staff with technological tools that make their tasks more efficient to perform and increase accuracy.
- Improvements in recruiting, coaching, staffing, and work load management, including:
  - Hiring seasonal agents resulting in significantly reduced labor and training costs, and the ability to support the higher volume call times during peak months
  - Proactively scheduling agents based on upcoming weather events
  - Creating a remote agent program, through which agents situated strategically around our service territory are able to respond quickly to power outages on an as-needed basis.

As a result of these management actions taken, the SQI No. 5 performance results for 2009 had less variation in the monthly service level than the previous three years (See Figure 4 in Service Level Stabilization section).

Key Variables that Impact Customer Call Volume

PSE receives about 4 million calls each year. Call types vary throughout the year. The two most frequent reasons for customer calls are issues and concerns regarding customer billing and payment and requests to start or stop service for a home or business.

Call volumes are influenced by many factors including the weather, economy, and PSE consumer notifications. The biggest fluctuations in customer call volume result from weather or other significant events where large numbers of customers are without power. During these events, the call volume can change quickly and dramatically. The influx of calls due to weather or significant events is unpredictable and can cause an immediate impact to the service level. Figures 5 and 6 in the Call Variability Section demonstrate the variability of call volumes within a month or a day. These two figures are meant to demonstrate the challenge of staffing to levels necessary to meet the 75% benchmark on a monthly or daily basis. Daily, even hourly, staffing level adjustments would be required to meet a monthly service level threshold, but such adjustments are impractical and costly.

Supporting Analysis

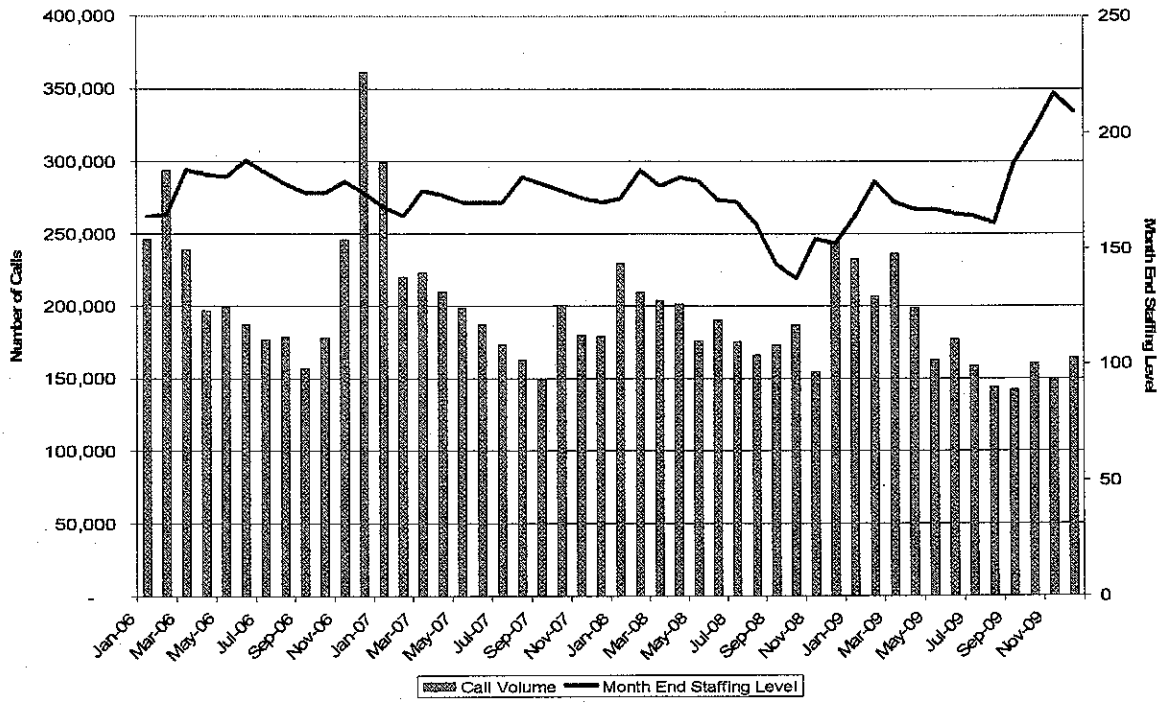
Cost Analysis Overview

PSE performed an analysis of the additional labor and labor overhead costs associated with staffing to maintain a 75% monthly benchmark in addition to the annual benchmark. Costs reflected in Table 1 do not include any supervisory or support staff that are required, or the cost of hiring and training an agent. Most notably, the cost estimates below assume that additional labor can be added for a one month period and then released, an unfeasible labor practice. As a result, the incremental cost estimates presented below are extremely conservative, and it's expected the true cost to rate payers would be much higher. Regardless, the trend clearly shows that actions taken in 2009 in staffing and technology improvements have significantly closed the incremental gap in cost and staff required to achieve monthly service level threshold.

Table 1: Summary of Cost Analysis

Service Level Cost Comparison	2006	2007	2008	2009
Actual CAC Operating Costs	$13.8M	$13.4M	$14.4M	$14.9M
Estimated Cost to Achieve 75% Monthly Service Level	$15.4M	$14.8M	$15.4M	$15.4M
Estimated Incremental Cost to achieve 75% Monthly Level	$1.6M	$1.4M	$1.0M	$0.6M
Average Monthly No. of Full Time Employees ("FTE") during Peak Season	171	172	178	209
Average Incremental Increased FTE to achieve 75% Monthly Service Level	81	83	42	19

Figure 1: 2006-2009 Monthly Call Volume and Staffing Level



Customer Satisfaction Impact

Monthly Customer Access Center transaction satisfaction survey (taken for SQI No. 6) results have exceeded the target most of the months from 2006 through 2009. This was achieved regardless whether the monthly service level was met. In performing a correlation analysis of the two data sets, there is minimal correlation between the results of SQI No. 6 and the monthly service level.

Figure 2: 2006-2009 Monthly CAC Satisfaction and Service Level

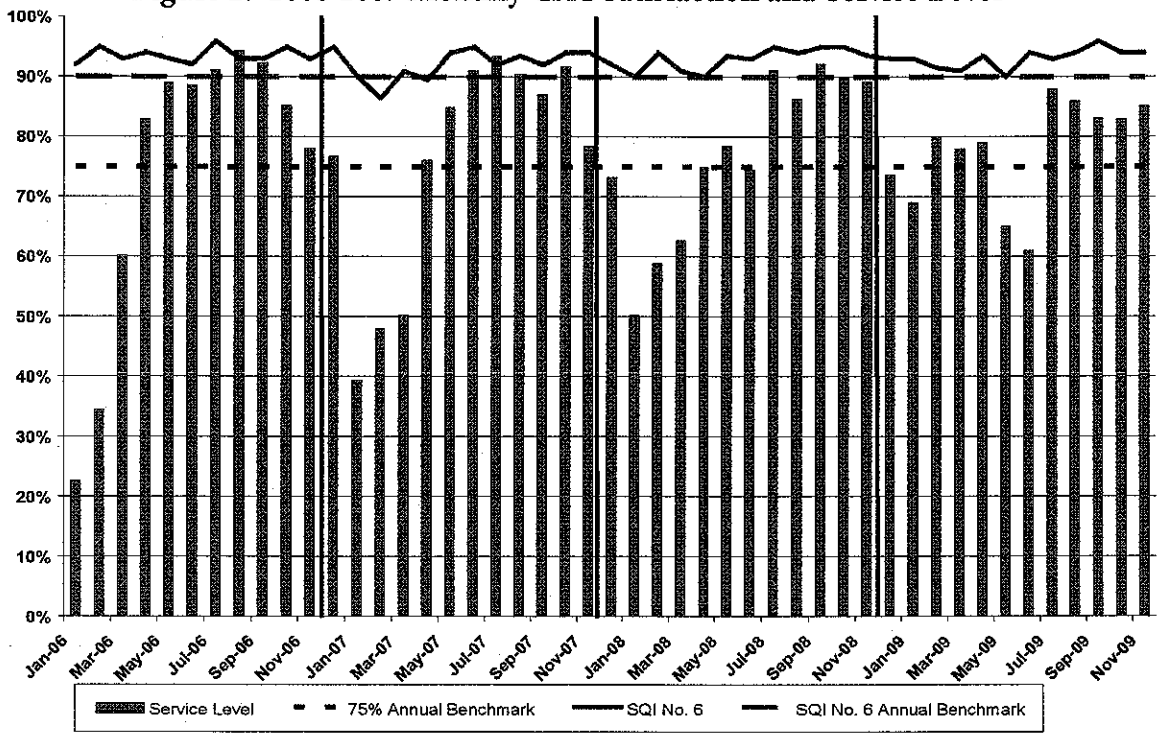
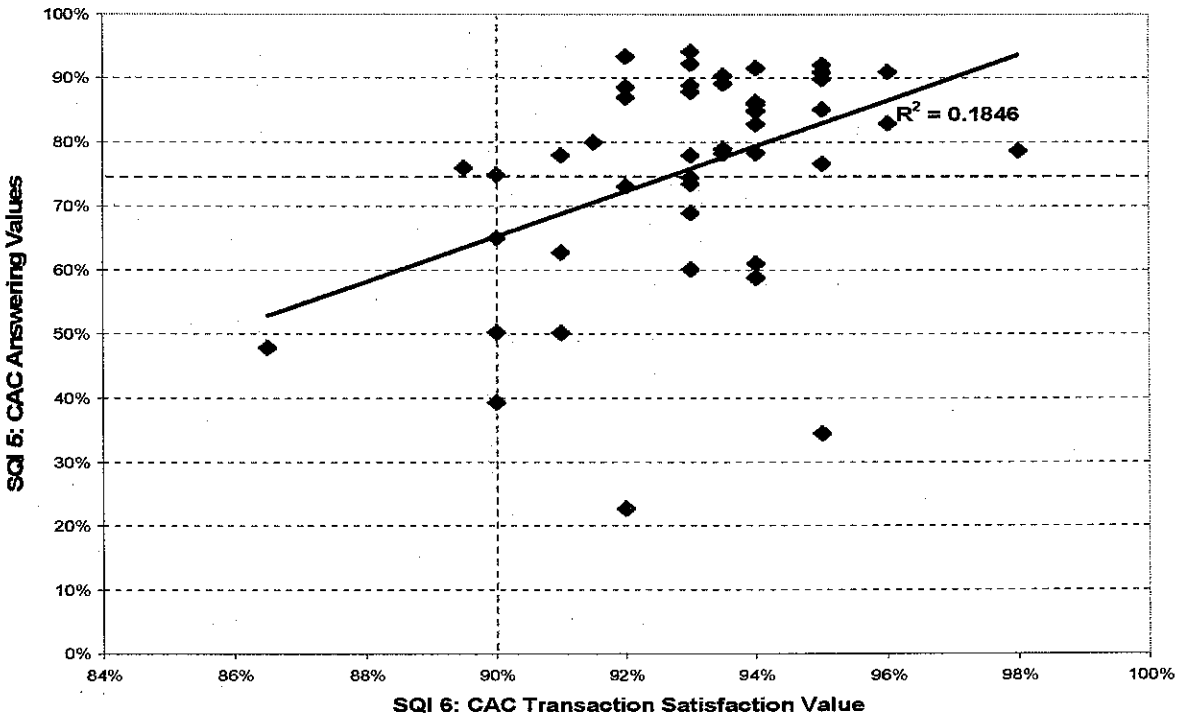


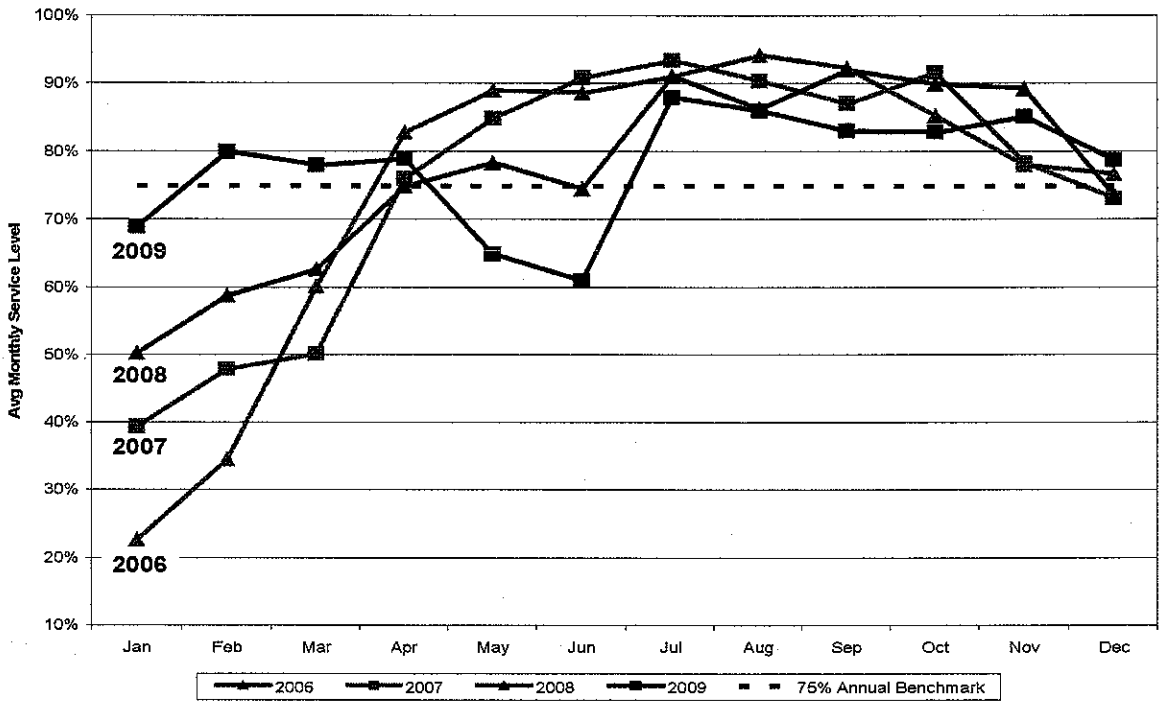
Figure 3: Correlation Scatter Plot of the Monthly CAC Satisfaction and Service Level



Service Level Stabilization

Management actions taken in staffing and work load leveling in 2009 resulted in a more stable monthly service level. In previous years, the monthly service level in the 1st quarter was considerably lower than the annual benchmark and then considerably higher in the summer months. As can be seen from Figure 4 below, these management actions greatly increased the monthly service levels during the first quarter of 2009.

Figure 4: 2006-2009 Monthly Service Level



Call Variability

Figure 5 demonstrates the variability and difficulty in staff planning. The chart shows daily call volumes and service levels achieved for April and May 2009.

Figure 5: April-May 2009 Daily Call Volumes and Daily Service Level

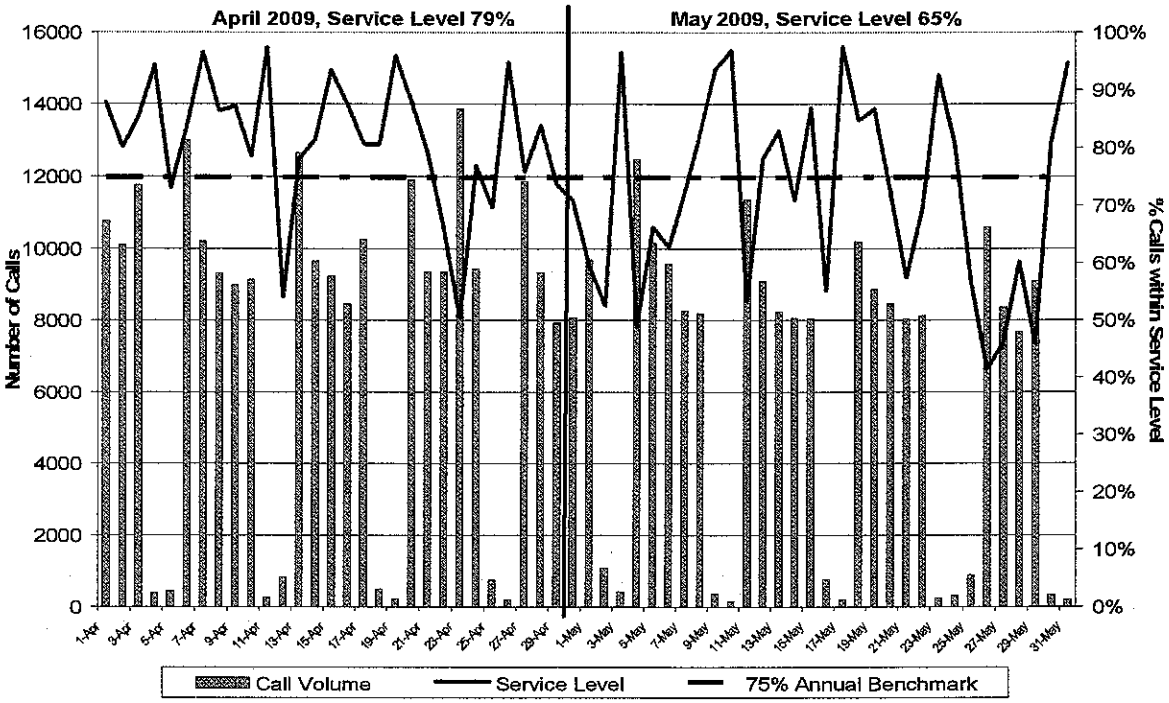


Figure 6 illustrates how one unpredictable weather event can influence service level. On a typical Saturday in August 2009, PSE would have seven customer service agents available to answer inbound calls. With the increased volume between 8:30 and 9:30 on this Saturday morning, staffing required to be within a 75% service level would to jump to 150 representatives, but they would have only been needed for two hours. Through the course of an average year, there could be over 200 events such as this.

Figure 6: August 22, 2009 Calls Offered to CAC Agents