SmartMeter Ambassador Toolkit

Share the Message



How to read your meters—quick reference guide

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Customer installation: before, during and after

Program facts and benefits

Pacific Gas and Electric Company [PG&E] is dedicated to providing our customers with the best service possible. We're always looking for new and innovative ways to make daily interactions with us faster, easier and more convenient.

That's why we're implementing the PG&E SmartMeter" program. Through our SmartMeter" program, we are installing an automated gas and electric metering system for all our customers. With this new system, we are improving the way we obtain meter readings and providing new features and tools to help customers see how and when they use energy, better manage their energy use and save money.

Employee Intranet (internal) http://pgeatwork/CUST/SmartMeter/

Customer Internet (publi www.pge.com/smartmeter





Program facts and benefits

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We use an ongoing quality assurance process for all our SmartMeter™ devices to ensure they are properly measuring energy use. The main difference in the new meters is that a SmartMeter™ communication device, installed in or on the meter, automatically transmits meter reads to PG&E.

SmartMeter™ System Key Facts

What is the SmartMeter™system?

- The SmartMeter™ system integrates automated wireless technology with gas and electric meters, enabling PG&E to read meters remotely.
- Remote access means faster response times to outages and service interruptions.

Why is PG&E using the SmartMeter™system?

- The SmartMeter™ system is part of a statewide effort approved by the California Public Utilities Commission (CPUC) to upgrade California's energy infrastructure with automated metering technology.
- Policymakers and utilities in much of the country are focused on accelerating the transition to a Smart Grid. Modernizing the electrical system to be stronger, smarter and more efficient is essential to encouraging growth in renewable energy sources, empowering consumers to reduce their energy use if they choose, and laying the foundation for sustainable, long-term economic expansion.
- This technology will enable new programs that encourage California energy customers to use less energy and save money.

How does the SmartMeter™system work?

- The SmartMeter™ system uses programmable, solid-state metering technology that provides one-way communication for gas modules and two-way communication for electric meters between the meter and PG&E using secure wireless network technology.
- Meter usage data is transmitted daily directly to our network.



SmartMeter™ Customer Benefits

Current benefits:

- Customers can see how and when they use energy, giving them the power to control their energy use and costs.
- Customers can view their energy use online at www.pge.com/myaccount once their SmartMeter™ devices are
 activated on the SmartMeter™ system.
- Customers enjoy convenience because we no longer need to visit their property or interrupt their schedule to read the meter.

Future benefits:

- Customers can sign up to receive notifications from PG&E that provide information about energy usage and the likelihood of moving into higher pricing tiers.
- Customers will have access to new electric pricing plans that allow greater control over energy bills.
- Customers will receive faster power restoration because SmartMeter™ technology pinpoints power outages and locations, allowing PG&E to respond faster.
- Customers will be able to automate their energy use by installing home energy management systems that
 will communicate with automated appliances and electronic devices via PG&E's planned Home Area Network.
- Customers will enjoy smarter, cleaner energy supplies.

The ability to monitor energy usage gives customers the information they need to conserve or shift energy usage. When many individuals conserve, the results can include decreased pressure on the power grid, less need to build new power plants, and reduced carbon emissions.

SmartMeter™ Employee Benefits

Safety

We'll collect meter data without having to set foot on the customers' property, mitigating safety risks for our field personnel.

Faster power restoration

We'll be able to resolve service problems more easily and provide current information to service personnel through the SmartMeter™ systems.

Faster problem resolution

We'll become more efficient by utilizing our SmartMeter™ technology on routine service requests.

Reduced access issues

We'll no longer need to rely on customers to provide appropriate access, and estimated bills will decrease.

Energy usage data

We'll have fewer energy cost inquiries because customers can monitor their own energy usage online at **www.pge.com**.

Customer installation: before, during and after

- 1 Two to eight weeks prior to installation, the customer will receive:
 - Installation letter: This letter explains what to expect during the installation process and identifies the meter(s) to be upgraded.
 - Two-sided insert: Included with the installation letter, the insert describes the short- and long-term benefits of SmartMeter™ technology.
- 2 Day of installation
 - A PG&E representative or an authorized contractor from Wellington Energy, Inc., will knock on the customer's door before starting the work.
 - The customer doesn't need to be home as long as the installer has access to the meter(s).
 - The installer will replace the existing electric meter with a digital electric meter and add a small module to the gas meter.
 - The installer will leave a door hanger after the installation is complete.

Note: The upgrade doesn't require an interruption in gas service, but electric service could be interrupted for approximately five minutes. If so, customers may need to reset digital clocks on their appliances or equipment.

After installation

PG&E meter readers will continue to read meters on a monthly basis until the SmartMeter™ device begins transmitting the meter reads automatically. Once their SmartMeter™ devices are connected to the system, customers will be able to log on to www.pge.com/myaccount to view and track their hourly electric and daily gas usage up to the previous day.

4 Continued learning

Once the SmartMeter™ installation is complete and the meter begins transmitting data, customers will receive a booklet filled with important information about how to use their SmartMeter™ technology to better manage their energy use and costs as well as about how it will enable our energy future.

For more information about PG&E's SmartMeter™ program, visit www.pge.com/smartmeter or call our SmartMeter™ line at 1-866-743-0263.



Frequently asked questions

Q: Why is PG&E upgrading to SmartMeter™ technology?

A: The PG&E SmartMeter™ program is part of a statewide effort, approved by the California Public Utilities Commission (CPUC), to upgrade California's energy infrastructure. SmartMeter™ technology will enable new tools and programs that can help our customers learn more about how they use energy, understand how their usage affects their bills and make changes to their usage habits to save energy and reduce costs.

Q: What is a Smart Grid and what role does the SmartMeter™ program have in its development?

A: A Smart Grid is an intelligent monitoring system that keeps track of all electricity flowing through the system using two-way digital technology that allows customers to see how and when they use energy. Modernizing the electrical system to be stronger, smarter and more efficient is essential to encouraging growth in renewable energy sources, empowering consumers to reduce their energy use and costs and laying the foundation for sustainable. long-term economic expansion.

The evolution to a Smart Grid is a vital step toward realizing California's vision for a low-carbon, clean-energy economy, and SmartMeter™ technology is the foundation for this change. We believe this technology is a sound and wise investment for our customers, our economy and our environment.

Q: What are the benefits of the SmartMeter™ program?

A: There are a number of benefits for SmartMeter™ customers, including the ability to view energy usage data online within a day of actual usage or in near real time on the meter, which helps customers better manage their energy use and costs. The technology will also give customers the ability to obtain electric service within minutes and will enable faster power restoration.

In addition, SmartMeter™ residential customers have access to pricing plans like SmartRate™ that reward energy reduction on peak days. A number of future capabilities are planned, including customer notifications via text and email to provide information about energy usage and the likelihood of moving into higher pricing tiers, and PG&E's Home Area Network that will enable customers to remotely manage a new generation of smart appliances in the home, like dishwashers and clothes dryers.

Q: How does PG&E ensure that SmartMeter™ meters are accurate?

A: Before PG&E began installing SmartMeter™ technology, our manufacturing partners rigorously tested the new technology. Each meter is tested at the factory, with a number of meters being spot tested again prior to installation. In addition, PG&E randomly inspects and field tests meters during and after installation. If a customer asks to have their SmartMeter™ device tested, we will work with that customer to investigate the situation, test the meter and provide all the information needed to resolve the issue.

Q: Why is the CPUC randomly testing SmartMeter™ meters?

A: The CPUC is conducting an independent assessment of PG&E's SmartMeter™ program to provide additional verification of the accuracy of SmartMeter™ technology—including the meters, the communications system and PG&E's billing software—for our customers' reassurance. PG&E is committed to ensuring the accurate measurement of our customers' energy use and welcomes this third-party testing.

Q: If SmartMeter™ devices are accurate, why do some customers have higher bills?

A: A number of factors can increase a customer's bill from month to month, including hot or cold weather, being at home more often, having visitors or additional people living at the home and getting a new electronic device, such as a TV or computer.

Recent rate increases or failing to re-enroll in financial assistance programs that provide discounted electric rates can also cause a customer's bill to increase. With California's tiered pricing system, people pay more for electricity as they reach certain levels of consumption. In some cases, increased energy use could disproportionately increase a customer's monthly energy bill.



Q: Is SmartMeter™ technology the cause of the bill increases in Bakersfield?

A: No. A number of factors contributed to the perceived connection between SmartMeter™ devices and bill increases, including an increased number of extremely hot days during the month of July, which led to higher energy use (greater than 95 degrees), a previously scheduled rate increase taking effect and customers who didn't realize that they needed to re-enroll in financial assistance programs to continue receiving discounted electric rates

Of the 230 complaints from customers at Bakersfield and Fresno Town Hall meetings, PG&E has contacted 95 percent of these customers to resolve their issues - 101 customers experienced higher usage during the summer, 44 had similar or lower usage but were impacted by rate increases, 14 didn't actually have a complaint, 13 had not re-enrolled in the CARE program, 12 did not have a SmartMeter™ device, 10 had a complaint that wasn't related to SmartMeter™ technology and five had an estimated bill issue, which we addressed.

Q: How are electric rates set?

A: PG&E's electric rates are set through a process overseen by government regulatory agencies, with full public input. Rates include authorized costs to provide electricity generation, transmission and distribution services, including a fair rate of return on capital provided by PG&E investors. They also factor in state-approved incentives to encourage energy efficiency and renewable energy, and funding for programs to help lower-income customers afford electricity.

Q: Why does California have a tiered-rate system for residential electric customers?

A: By California law, all electric utilities must charge more per energy unit as the customer's energy use increases. This policy gives customers a financial incentive to conserve energy. Currently, energy use is divided into five tiers, with higher prices for each higher tier of use.

Q: Does PG&E earn more money by selling more electricity?

A: No. PG&E collects a fixed level of revenue, determined by independent regulators, regardless of actual energy sales. If energy sales are higher than the approved level, the excess revenues go back to customers. If sales are lower than the approved level, the shortfall is recovered the next year through a rate adjustment. PG&E actually earns incentives by achieving energy efficiency targets that may reduce sales. This system has helped California keep per-capita energy use flat over the past 30 years, while the rest of the nation has seen a 50 percent increase.

Q: Is SmartMeter™ technology and the network it uses to communicate safe?

A: Yes. SmartMeter™ technology is safe and more than 76 million meters are in use around the world each day. In fact, the radio frequency (RF) fields generated by SmartMeter™ technology are generally far weaker than the levels produced by many devices found in everyday environments, such as cell phones, microwave ovens and wireless Internet services.

The World Health Organization has reviewed this issue in-depth and has not concluded that low-level, long-term RF exposure causes negative health impacts. A study of RF fields produced by the transmitting components of SmartMeter™ devices shows the devices comply with applicable Federal Communications Commission regulations by a very wide margin.

Q: Is the customer's personal information secure with SmartMeter™ technology?

A: Yes. PG&E has done extensive testing and preparation to ensure that the SmartMeter™ network is protected and that customer data is safe. We require our vendors to meet strict security guidelines and work quickly if any potential security issues arise.

Q: Does the SmartMeter™ device allow PG&E to see which appliances a customer is using and when?

A: No. SmartMeter™ technology transmits the customer's total energy use at 15-minute or hourly intervals for billing purposes only. PG&E can see the customer's energy use, but keeps this information private. The goal is to encourage customers to use this information so they can adjust their energy use and save money.

Q: Will my neighbors be able to see my energy usage patterns?

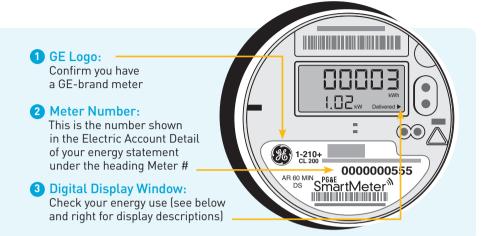
A: No. the technology that communicates a customer's data back to PG&E is private and secure. It can be compared to a phone network that shares many calls but keeps them all separate.

Q: Can PG&E customers opt out of the SmartMeter™ program?

A: PG&E's SmartMeter™ program was approved by the CPUC for all PG&E customers and does not have an opt-out option. We work with our customers on a case-by-case basis regarding any concerns they may have.

How to read your meters—quick reference guide

How to read your GE-brand electric meter.



Your GE SmartMeter™ electric meter automatically cycles through four displays.



The **five-digit number at the top** is the amount in kilowatt hours (kWh) of energy you have used to date since the installation of the meter. For reference, if you leave a 100-watt light bulb on in your home for one hour per day for 30 days, the energy used is $100 \text{ watts} \times 30 \text{ hours} = 3,000 \text{ watt hours}$, or 3 kWh. The **three-digit number at the bottom** is the actual amount of energy you're using right now. For instance, 1.02 means you're using 1.02 kilowatts—or 1,020 watts.



The **number 88888** with all the elements lit verifies that the display is working properly. The **three-digit number at the bottom** is the actual voltage (or electrical potential) right now.



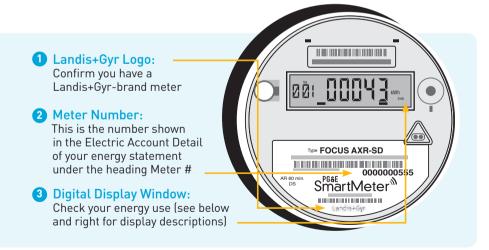
On indicates the switch is closed, and power is being delivered. **Off** indicates the switch is open, and power is not being delivered.



AdI (for Advanced Distribution Infrastructure) displays when the meter is communicating with the on-board SmartMeter™ module.

Delivered, at the bottom right of the displays, indicates use. If there is no power being used, it doesn't display.

How to read your Landis+Gyr-brand electric meter.



Your Landis+Gyr SmartMeter™ electric meter automatically cycles through either three or five displays, depending on your model.



This **five-digit number** is the amount in kilowatt hours (kWh) of energy you have used to date since the installation of the meter. If you leave a 100-watt light bulb on in your home for one hour per day for 30 days, the energy used is $100 \text{ watts} \times 30 \text{ hours} = 3,000 \text{ watt hours}$, or 3 kWh.

Read the bottom section on the back to find out how to track your hourly electric use online.



The **number 888888** with all the elements lit verifies that the display is working properly.



This **six-digit number** is the actual amount of energy you're using right now. For instance, 001.939 means you're using 1.939 kilowatts—or 1,939 watts.



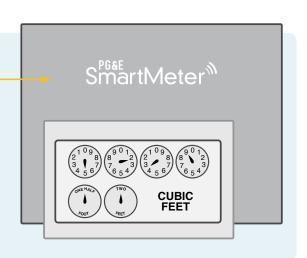
VLT indicates voltage (or electrical potential) is being delivered. **CLS** indicates the switch is closed and power is being delivered. *These displays are not available on all models*.



VLT reading of zeros indicates voltage is not being delivered. **OPN** indicates the switch is open and power is not being delivered. *These displays are not available on all models*.

How to read your SmartMeter™ residential gas meter.

The SmartMeter™ gas module added between the meter and the rotary dials records daily meter reads and then transmits the reads to PG&E.



The odometer-like mechanical dials on your gas meter measure the therms of gas that have traveled through the meter into your home.

Your gas meter uses multiple clock hands and typically has four dials to read. The first and third dials spin counter clockwise, while the second and fourth dials spin clockwise. When reading the meter, if the dial is between two numbers, use the lower number. For instance, the meter pictured here reads 5, 2, 3, 9.

The two dials without numbers are used by PG&E when testing the meter for accuracy.

Read the next section to find out how to track your daily gas use online.

How to track your energy use online.

Now for the first time ever, you can see exactly how much gas and electricity you're using up to the previous day and when you're using it. Knowing how much energy you're using puts you in control of your energy use, and allows you to make smarter energy choices.

With SmartMeter™ technology, you can track your energy use history online. If you don't already have an online account, you can set one up in just a few minutes:

- Go to: www.pge.com/myaccount
- The first time, you will click on 'Sign Up'
- Fill in the required information. You'll need your PG&E account number and the primary phone number on your account.

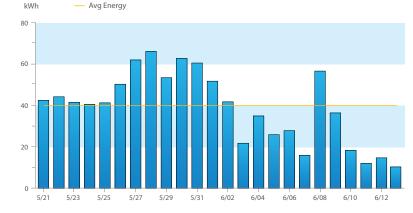
Once you've established your online account, you can 'Login' and access your gas and electric energy use history right up to the previous day at www.pge.com/myaccount.



Once you've logged in, click on **'Usage'** on the left navigation bar.

Select 'Usage History' to see your month-by-month energy use and compare your monthly bills. Clicking on 'Hourly/Daily Usage' will show you hour-by-hour electric or day-by-day gas energy use information (example shown below).

Daily Energy Use





For more information about the SmartMeter™ program, visit www.pge.com/smartmeter or call 1-866-743-0263.





