

## On the path to the smart grid: PG&E SmartMeters stirring up compliments, controversy

Allison White/The Times-Standard - Humboldt County News

Updated: 11/26/2010 11:20:41 AM PST

Click photo to enlarge



Pacific Gas and Electric Corp. has started installing SmartMeters for Humboldt County homes, but responses have been mixed locally and across the state regarding the new technology.

SmartMeters are designed to transmit power use data electronically instead of having a meter reader physically come by each home or business. The plan is to eventually allow customers to see how and when they are using power so they can find ways to save money and use less, according to PG&E.

However, a number of concerns regarding health and privacy have been raised about the new meters. As part of increasing outreach to California communities, PG&E has been making the rounds to local city councils in the last few months to explain what the SmartMeters will do and why they are installing them.

The company started installing the meters in 2006, as part of an overall effort to increase the effectiveness of its power grid, said PG&E spokesman Jeff Smith. About 7 million of the 10 million meters have been installed so far, and PG&E plans to wrap up the installations by 2012. Some of the first complaints came in when the SmartMeters were being installed in Bakersfield, where many customers thought the installation increased their utility bill.

Smith said that was a misunderstanding and a case of bad timing -- the installation came during a heat wave in the area, which is what drove the cost of utilities up, not the meters.

As complaints, an independent evaluation of PG&E's SmartMeters was conducted by The Structure Group and submitted to the California Public Utilities Commission. The results, released in September, found SmartMeters were accurate, but PG&E had failed to communicate the changes

and had confused and frustrated customers during the transition. "It was an important lesson to us that we took to heart," Smith said.

The radio frequencies emitted from the SmartMeters to transmit the data, about three times per day, were also determined through a PG&E study to be no more powerful than a cell phone's frequency, meeting Federal Communications Commission (FCC) standards.

Not everyone is convinced of the findings. Websites have popped up with PG&E customers claiming they are seriously hurt by the radio frequencies emitted. The California Public Utilities Commission Division of Ratepayer Advocates filed comments with the commission on Monday requesting a study be completed on the radio frequency emissions. The EMF Safety Network filed an application requesting the commission examine the health and safety impacts of the emissions, but PG&E filed a motion to dismiss, stating among other arguments that the FCC has the authority to regulate radio frequency emissions, not the state.

The advocate division filed the comments, arguing that although the FCC has authority to regulate, it does not "deprive this (state) commission of its authority under state law to ensure that the in-state utility infrastructure does not jeopardize health and welfare." The comments also state that PG&E's declarations and evidence on its emissions are not thorough enough.

"Unless the public's concerns can be put to rest, there is a very great risk that PG&E's SmartMeter deployment will turn out to be a \$2.2 billion mistake that ratepayers can ill afford," according to the comments.

The state utility commission has not yet responded to the comments, officially.

Other customers are concerned about their privacy, saying that they don't want PG&E to know what kind of appliances they have and how and when they use them.

Smith said they take the privacy of their customers seriously, and they have made sure the data is protected. SmartMeters will eventually have the capability of "talking" with household appliances to track energy usage and relay the information to the customer on their bill. As new appliances are developed with this technology in place, Smith said customers would be able to use that data to lower the usage and their bill, such as schedule their refrigerator to defrost during non-peak hours.

"Overall, it's the direction the country is headed," Smith said.

A number of California communities have enacted moratoriums on the SmartMeters installation, including Watsonville in Santa Cruz County. The Watsonville City Council implemented the moratorium because they wanted PG&E to slow down and inform customers about what was going on, said Watsonville City Manager Carlos Palacios. Residents had raised concerns and the city did not feel like PG&E had addressed them properly, Palacios said.

Fortuna City Councilman Dean Glaser attempted to put such a moratorium on the Fortuna council's agenda for consideration, but did not receive enough support from his fellow council members to do so. He said he attempted to bring the moratorium up for discussion because he thinks the meters violate people's constitutional rights. Customers cannot opt out of the installation, he said, which can track a customer's energy usage in a more detailed manner.

"In other words, you end up hooked up to Big Brother," he said.

Glaser said he is also concerned about the health issues some have reported as a result of the radio frequencies, stating that they are emitted constantly, not just a few times a day. He also said PG&E plans to increase rates for electrical usage during peak hours.

"PG&E is not our friend," Glaser said. "They are our enemy."

PG&E spokesman Paul Moreno said that by 2012 residents will have their rate structures defaulted to the Peak Time Rebate program that offers residents a rebate if they conserve during peak hours, but they are not charged more for usage during peak hours. In 2014, all residential customers will default to the Peak Day Pricing program, which has higher rates during peak hours on nine to 15 afternoons per year. Customers can opt out of that program back to the Peak Time Rebate program.

"Reducing the peak demand load on the electric grid means better utilization of renewable energy, which tends to generate at its peak capacity during non-peak hours (solar at midday when the sun is at its highest point, and wind at night)," Moreno said in an e-mail. "It also means that going forward, we won't need as many power plants or transmission lines just so we can meet the highest demand periods of the year."

Although the digital meter has its critics, many are excited about the innovations it brings. Arcata Mayor Alex Stillman said that although the change might be harder for those who live in hotter climates than Humboldt County, she hopes that it will eventually help kick everyone into thinking green.

"The next evolution will be having people know how they use their electricity," Stillman said.

Many people are looking for ways to reduce their energy usage and be more efficient with it. Knowing how much they use and at what times of the day, and eventually knowing what appliances are using what amount of energy, will be great tools for people to make those reductions, Stillman said.

It might also prompt people to go back to more "naturalistic" ways of doing tasks that many people now use electricity to do for them, she said. With concepts like sustainability gaining popularity, Stillman said there may be an evolution of thought on how to use energy on the horizon.

The newly hired executive director of the Redwood Coast Energy Authority, returning local Matthew Marshall, said his group has not received many complaints specifically, although it has heard some of the concerns. However, he sees SmartMeters as a technology that can help people make better use of electricity.

With the current meters most residents have, Marshall said energy usage is like shopping in a store that has no price tags, making it difficult to budget without "real time data."

"If done well, it has a lot of potential to empower people," Marshall said. On the web: For the full independent study on PG&E's SmartMeters:

<http://www.cpuc.ca.gov/PUC/energy/Demand+Response/solicit.htm>

For the comments from the Division of Ratepayer Advocates calling for radio frequency emission testing: <http://162.15.7.24/EFILE/CM/126712.PDF>

Staff writer Allison White can be reached at 441-0506 or [awhite@times-standard.com](mailto:awhite@times-standard.com).