PG&E to increase efficiency of meters

By TIFFANY REVELLE The Daily Journal

Updated: 12/27/2010 09:17:21 AM PST

It may sound like Big Brother, but Pacific Gas & Electric says the thousands of new SmartMeters about to go into Mendocino County homes and businesses in 2011 will boost the county's already green mindset and bring an archaic system into the 21st century.

PG&E plans to install 52,301 SmartMeters in Mendocino County, starting in January and continuing throughout the year. The change is part of an effort stretching from Eureka south to Bakersfield to encourage energy savings by letting consumers see when during the day they use the most gas or electricity, and, hopefully, to get a better picture of how they can use less, according to PG&E spokesman Paul Moreno.

"Energy has to be created on demand," he said. "The hot, summer months put the biggest strain on the power grid.

The statewide energy crisis a few years ago prompted PG&E to solve the problem with "rotated outages," commonly called rolling blackouts. The issue was power supply and price, with peak demand hiking energy rates, according to Moreno.

Rates vary depending on the time of day, he said, making a monthly reading an inefficient way to a customer to track their energy use, both for the sake of their pocketbook and for the sake of the power grid.

"If we offer incentives to lower energy use, we can lower peak demand," Moreno said.

He offered historical perspective to illustrate the need for the upgrade.

"The old meters (currently in place) are analog, and they were developed about 100 years ago," Moreno said. "They have to be manually read. And before electric meters, Edison counted the number of sockets ... so you were charged based on your capacity, not on how much you used."

The electronic devices contain radio transmitters that allow the company and its customers to view each consumer's daily energy use online. The display screen on SmartMeters measuring electricity alternates between a measure the number of kilowatt hours used and the number of watts being used at a given moment.

The new meters installed in homes will transmit electricity consumption information every four hours, and bill payers will be able to see how much energy they used the day before, rather than having to sift through the data on a monthly bill.

For commercial energy consumers, the new SmartMeters will capture energy use data every 15 minutes.

The installation planned for Mendocino County includes 14,454 gas meters, which will transmit data once daily.

Another advantage for PG&E is that with the new meters, manual reading will no longer be necessary. The company employs 900 meter readers, and plans to eliminate meter reader jobs, Moreno said. About 80 percent have moved to higher positions in the company, according to Moreno.
The new meters will also let PG&E trace power outages more accurately, Moreno said, rather than having to rely on consumers to report them, then tracking them to a believed source, only to find later that another cluster of outages exists on the same line and having to make multiple trips.

He said PG&E expects to recoup the $2.2-billion cost of the upgrade over the project's 20-year life. The company hopes the daily readings will allow it to slash its operation costs and purchase less power from fossil-fuel-burning plants.

But PG&E knows from experience that customers are concerned for a number of reasons. Moreno said PG&E will not sell consumers' energy use information, and having a more detailed, accurate picture of each consumer's use won't mean bills will go up, and it won't mean a loss of privacy.

"It's none of our business what our customers do with the power (we sell them)," Moreno said.

If anything, reading meters will be a less intrusive process, with meter readers no longer needing to come onto a person's property once a month, he said.

Another fear is that the radio transmitters inside the meters will cause increased radio-frequency exposure. Moreno said each meter uses a one-watt transmitter, and a person would have to get behind the glass case to get close to what the Federal Communications Commission allows.

"You would have to live with a meter for 1,000 years to get as much radio-frequency exposure as a typical cell phone user gets in one month," Moreno said.

Tiffany Revelle can be reached at udjtr@pacific.net.