

Smart meters raise suspicions

March 12 2011, By Dan Vergano

Coast to coast, from Maine to Marin County, Calif., the number of homes being outfitted with smart meters that keep a close eye on homeowner electricity use is on the rise. And so is the number of folks who think smart meters are a dumb idea.

Some complain about the meters' accuracy. Some worry about potential burglars watching when they turn off the lights. Others center on fears the [radio waves](#) from the meters could trigger ringing ears, headaches, nausea, sleeplessness and worse. There's no medical evidence for the concern, but people still worry.

"I'm old enough to remember running behind the DDT trucks as a child (which sprayed the insecticide as a gas cloud to kill mosquitoes), and everyone told us those were safe," says South Portland, Maine, Mayor Rosemarie De Angelis. She had her home's freshly installed smart electricity meter removed last fall. "It feels the same way now when people say smart meters are no problem."

Nationwide, some 3 million homes have smart meters, digital electricity gauges equipped with wireless communications, according to the federal Department of Energy, DOE. According to the utility industry's Institute for Electric Efficiency, about 65 million smart meters will be working in U.S. homes by 2020.

The meters mean the end of the meter reader wandering into the backyard to record numbers off the whirling gauges. Instead, a [radio signal](#) either goes directly to the utility company over power lines or is

sent by cell phone signal. The meter puts access to that same information inside for the homeowner to see.

"For consumers, it really is about empowering them to make choices about their [energy use](#)," says DOE's Stephanie Mueller. Hooked to the coming "smart" [electrical grid](#), homeowners with smart meters should be able to select pricing plans that let them purchase juice at off-peak hours when it is cheaper, saving them money and the power company the extra cash it spends to run generators during peak afternoon hours.

Boosted by \$4.5 billion in federal smart-grid spending over the past two years, 140 power company projects have started installing smart meters in homes.

"A lot of smart meters are being installed quietly, and with no complaints," says Intelligent Utility magazine's Kate Rowland. "The success stories aren't noticed, while a handful of complaints get all the media attention."

One of the utilities getting attention is Central Maine Power, which installed, and removed, the smart meter in De Angelis' house. The utility matched a \$96 million federal grant last year to start installing 650,000 meters across southern Maine. But with only about 56,000 in place, the meters have become political footballs. The state utility commission will hear complaints in a March 16 meeting, and Maine Gov. Paul LePage says he favors letting homeowners "opt out."

Various complaints dog the technology

Similar protests, including arrests and demonstrations, have bedeviled Pacific Gas & Electric's rollout of smart meters across Northern California. And in Texas, the power company Oncor received hundreds of complaints about the accuracy of its new smart meters, leading the

state utilities commission to hire independent analysts to confirm their accuracy.

Complaints have come in various flavors:

-Accuracy. In both California and Texas, higher bills led to independent audits of smart meters. A lawsuit by a Bakersfield, Calif., resident Peter Flores, who said his monthly bills went from \$200 to \$500, halted installation of meters there. A hot summer in California and a cold winter in Texas seem to be partly at fault for the anger, the audits concluded. But misperforming meters have led to utilities handing out refunds, says Mark Toney of The Utility Reform Network, or TURN, consumer group in San Francisco.

-Security and privacy. Smart meters can communicate when power demands go up or down at individual houses, leading to more anxiety. "Who is getting the information about when my garage door is going up and down?" De Angelis asks. "I don't want to come home and find my house has been ransacked by someone who knows when I'm gone." For this reason, the Energy Department and most states require rules that prohibit sharing such data in smart-grid designs. But with firms such as Google and Microsoft marketing software to manage home power that will rely on [smart-meter](#) signals, De Angelis and others worry about private data leaking to the open market.

-Health. In an era of cell phone and power-line worries, news that a radio-frequency-equipped meter has been installed on your house worries some homeowners. Such concerns led to the California Council on Science and Technology issuing an independent report in January that concluded smart meters delivered less radio frequency energy to homeowners than cell phones or microwave ovens. Both the Food and Drug Administration and World Health Organization found no evidence linking such radiation to health problems.

"In the absence of information, people assume the worst," says Peter Honebein of the Customer Performance Group in San Diego, an industry consultant. Around San Diego, Georgia, Ohio and the District of Columbia, where smart meters were rolled out only after utilities made intense efforts to educate customers, there have been far fewer complaints.

De Angelis sees the value in that. "I felt like it would be a lot 'smarter' if they had answered my questions before they installed it."

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