

# Making a case against smart meters | Opponents cite health, safety, privacy concerns

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World photo/[Mike Bonnicksen](#)

Electric meter readers could become a rare sight if the Chelan County PUD goes for smart meter technology.

WENATCHEE — A small but vocal group of county residents staunchly opposes the Chelan County PUD’s effort to replace its more than 48,000 electric meters with electronic “smart” meters.

The meters, which transmit power-usage data wirelessly, emit radiofrequency radiation that some studies find could lead to potentially negative health effects. Other studies have found no ill effects. Opponents also point to reports of meters that have caught fire, concerns of higher cyber security risk, and higher energy bills.

“Basically, it’s an added stress,” says opponent Robyn Casal of Chelan of what would be the meters’ contribution to the increased electromagnetic and radiofrequency radiation caused by more wireless devices. “It’s an added stress. I don’t want to be the guinea pig.”

PUD officials cite top health organizations that say studies have shown no definitive link that low-level radiofrequency radiation is harmful and say the meters meet federal safety standards, would create money- and time-saving benefits.

“Obviously, we don’t want to do anything that is unsafe to our customers,” Andy Wendell, PUD customer service director, said. “You will never get me to question whether or not someone should be concerned. That’s a personal decision. It’s my job to ensure our customers are well-informed and that we are in compliance with those entities that govern us.”

PUD commissioners Monday will likely OK finding a supplier for the \$8 million to \$13 million project. Installation of the new meters would begin next year and be finished in 12 to 36 months.

PUD officials would require all participating suppliers of smart-meter equipment to address health, safety and security questions raised by customers and would take that into account when choosing a winning bidder, Wendell said.

Mobile phones, Wi-Fi hotspots for wireless computer and smartphone use, wireless home security systems, microwave ovens and computer tablets all emit electromagnetic or radiofrequency radiation that some say have contributed to headaches, brain fog, insomnia, ringing in the ears and even cancer in high enough exposures.

“We’re becoming super-saturated,” says George Maki, also of Chelan, of the radiofrequency radiation around us. “Our cellular (biological) structure is swimming in a sea of EMF (electromagnetic frequency) pollution.”

### **Making their case**

Opponents support their concerns by citing studies, testimonials, anecdotal information and research all available for viewing on the Internet.

The 2013 Canadian documentary “Take Back Your Power” has become a rally cry for smart meter opposition.

Its producer and director Josh del Sol compiles news segments, videos of court proceedings, statistics and testimonials from doctors and victims that appear to justify opposition concerns, although these concerns are somewhat downplayed by the country’s major health organizations.

### **Health concerns**

The International Agency for Research on Cancer, part of the World Health Organization, classifies radiofrequency electromagnetic fields — as a “Group 2B” carcinogen for at least one study of mobile phone users who may have developed brain tumors as a result of cell phone use.

The World Health Organization, American Cancer Society and Centers for Disease Control all acknowledge that possible link to cancer, but say studies to date don’t show “consistent evidence” that exposure to radiofrequency radiation is harmful, nor that smart meters, which emit far less radiation than cell phones, could be linked to negative health effects.

More and longer-term research is needed, they say.

Opponents like Chelan’s Casal, Maki and others say lack of definitive proof doesn’t mean risk from radiofrequency radiation isn’t real and smart meters don’t contribute to it.

“When doctors are diagnosing the symptoms, they never even ask if smart meters or electronics have been recently installed,” Casal said, explaining a lack of data. “Everything’s going to be perfectly fine... until it isn’t.”

They also say funding sources determine study outcomes. A University of Washington analysis showed that appears to be the case.

Dr. Henry Lai, professor emeritus from the school’s Department of Bioengineering, had his students review 400 studies on the biological effects of cell phone usage.

Seventy percent of the independently funded studies concluded cellphones had potentially harmful effects, only 30 percent of the industry-funded studies reached the same conclusion.

### **Opting out**

PUD officials have said that customers who prefer to continue with their old analog meter could “opt out” of the proposed smart meter system, but it would come at an extra cost of about \$20/month to cover the expense of sending a meter reader.

But opting out, says Casal, won’t necessarily help reduce exposure unless entire cities opt out. The extra fee associated with the opt-out options could discourage more customers from choosing the option, she said.

### **Fires**

News agencies have reported on house fires that originated in a malfunctioning smart meter or smart meter base.

Opponents of the meters say it’s unclear who would be responsible for damages from such a fire if it weren’t covered by a homeowner’s insurance policy.

Wendell said the PUD would accept liability only if they discovered negligence on their part with the installation of the meter, not necessarily because of a defect in the meter.

He said fires have been infrequent and have been linked to analog meters, as well.

### **Security and spying**

Opponents worry their utility companies will use their smart meters to spy on them in their homes by compiling energy use data that reveals their habits or use the meters to communicate with other “smart” devices in the home to conduct surveillance.

The PUD’s Wendell says the PUD meters would not “see” beyond the meter into the home. They wouldn’t be able to spy or otherwise interact with household appliances.

The PUD's smart-meter support system would be secured with data encryption and other layers of protection to prevent computer-savvy criminals from taking control of the system.

Too many data breaches at the hands of mischievous hackers have made international news in recent years for that PUD assertion to be much of assurance, say Casal, Maki and other Chelan County residents interviewed for this report.

The U.S. Department of Energy and related websites contain reports that express similar concerns.

PUD officials say support for smart meters at the public meetings they've hosted or addressed have been mostly favorable. Opponents say that wouldn't be the case if people were better informed.

"If a certain number of people opted out, it would no longer be economically viable for the PUD (to make the switch), Casal said. "What we need is more time to educate people."

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## **MORE INFO**

### **Hook up with opponents**

Learn more

County residents have launched an online petition to urge county residents to "opt out" of Chelan County PUD's effort to replace its electric meters with "smart meters." View it at [tinyurl.com/yb4ub47s](http://tinyurl.com/yb4ub47s). As of late Thursday it contained 56 signatures.

Contact the opt-out folks at [optoutsmartmeters@aol.com](mailto:optoutsmartmeters@aol.com)

## **MORE INFO**

### **What's a smart meter?**

"Smart meters," also called "advanced two-way meters" would replace the Chelan County PUD's standard analog and "one-way" electronic meters — the bubble-like devices mounted to the outside of homes and other buildings.

More than 67.7 million smart meters are in use nationwide. About 88 percent of those are on homes and multi-family complexes, according to the U.S. Energy Information Administration. They account for more than half the electric meters in use.

The new system would let the PUD check electric use from its offices rather than sending out meter readers. Customers would not be billed for the meters' replacement cost, officials say.

The “smart” or “advanced 2-way meters” would be installed in the same location as the old meters. They send energy-use information and perform other tasks wirelessly by communicating over a frequency of the radio spectrum directly with PUD headquarters.

- For the utility and its customers, smart meters would eventually pay for themselves, PUD officials say, by bringing a host of benefits that would save money. Here’s a look:
- They'd save time, fuel and wear-and-tear on vehicles, because manual or drive-by meter readings would no longer be necessary.
- Response time to outages would be faster.
- Electric customers could use an Internet site to observe their energy usage almost in real time. This could help them decide how to reduce their energy use and save money.
- PUD officials could turn power to a smart meter off and on remotely — a task that now requires a site visit from.
- The meters compile a vast amount of usage data that could help the utility more precisely plan for future growth.
- Smart meters are more accurate than analog meters.

PUD officials say they don’t know for sure if individual customer bills will be affected by more accurate reads. Some online sources say customers complained of spikes in their bills after the new meters were installed, but these were often explained by other factors, such as weather patterns.

Cowlitz County PUD switched to smart meters in 2010, making it one of the state’s earliest adopters. Alice Deitz, a spokeswoman there, said she’d spoken with no one who could remember customer complaints of higher bills after the meters were installed.

-- Christine Pratt, World staff