

IMPORTANT NEWS

DANGEROUS SMART METER TECHNOLOGY IS COMING TO OUR NEIGHBORHOOD!!

Dear Neighbors,

Recently, you may have received a mailing from OG&E with the first line reading, "Great News - OG&E is installing smart grid technology in your area." We knew that this time was coming, as OG&E has been installing these meters in different parts of Oklahoma over the last several years... and it was only a matter of time before they came to *our* neck of the woods.

Most Americans have not yet heard of the "smart meters" that are being installed at a rapid pace across the state of Oklahoma and across our nation. Most Americans are totally unaware that someone will soon be showing up at your home and, without knocking or asking for your permission, will remove your old analog meter and replace it with a new digital smart meter.

Utilities all across the country are installing so-called "smart" meters". As a result bills are skyrocketing, health effects and safety violations are being reported, and privacy in our homes is being violated. **Do we really need wireless smart meters, and is this something that you really want?**



OG&E informs us that this new technology will "cut costs and lead to greater efficiency in electricity management" and is integral to OG&E's strategy to "delay the building of new fossil-fuel power generation until at least 2020." OG&E does NOT, however, inform us about HOW this new technology will save OG&E and its customers "hundreds of millions of dollars", or warn us about the health and safety concerns associated with smart meters, or tell us *who* has instructed them to undertake such an expensive task, or whether smart meters are optional and what laws are afforded to us to "opt-out" of this technology.

WHAT IS A SMART METER?

It's one that contains RF (radio frequency) so that it can be remotely controlled and read. No longer will a meter reader have to come to your home to read the meter. It will all be done remotely. When all is in place, the smart meter will not only keep track of how much electricity you are using, but it will be able to control, regulate, and ration your use of that electricity. If OG&E decides that you are using too much heat in the winter time, or too much air conditioning in the summer time, or using too much hot water in your showers or washing machine (even if you are willing to pay for that extra usage), that use of power will be automatically turned down. A future goal is to have all appliances replaced with those containing RF for even more regulations and controls. A smart meter records consumption of electric energy in intervals of an hour or less and communicates that info many times per day back to OG&E for monitoring and billing purposes. Smart meters enable two-way communication between the meter and the central system. Unlike home energy monitors, smart meters can gather data for remote reporting. Such an advanced metering infrastructure (AMI) differs from traditional automatic meter reading (AMR) in that it enables two-way communications with the meter.

IS THE INSTALLATION OF SMART METERS MANDATORY?

No. OG&E is simply trying to spend the \$127 million of stimulus funding that YOU gave to them. Often, when people say "no" to the utility employees who come to install the meters, they are told that the meters are mandatory. OG&E will tell you that the only way that you could refuse the smart meter is to "get off the grid." *Is this really true?* According to the federal Energy Policy Act of 2005 and its 550 pages of very fine print, which is the bill that is behind the smart grid and smart meters plan, the purpose is to encourage all electric utilities to use "time-based metering" and "time-of-use pricing." The goal of this is that if you know exactly how much it costs to operate each of your appliances at different times of the day, you will tend to run them when it is cheaper. It only mandates the utilities to "offer" them and to install them "upon customer request." Therefore, the installation is NOT mandatory; it should only be installed "upon customer request." It would be illegal for OG&E to shut off your electricity for simply refusing to install a smart meter.

Let's look at some important facts about smart meters and issues regarding smart grid technology.

PRIVACY AND SECURITY

Security and privacy experts have concerns about the vulnerability of the wireless smart meter networks, data ownership permissions, and the access to information by hackers and utilities and other third-party vendors when you start using your wireless smart meter and related smart grid home energy monitors and "smart" appliances; they will know what are you using and when, every 15 minutes of the day and night. Data gathered from smart meters and related smart meter technologies have serious potential privacy and security vulnerabilities.

DO SMART METERS RELAY MY PERSONAL INFORMATION?

Yes. Every data transmission from a smart meter to OG&E contains an identifying meter number. That meter number is uniquely attached to your account, so every transmission from a smart meter contains personal information.

Any information that contains an identifying number is classified as *personal information*. That includes your social security number, your driver's license number, your employee badge number, your license plate number, and in this case, your 'meter' number. There exists a database which links the meter number with name, address, usage, payments, etc. While that database is not publically accessible, there are numerous instances where databases and servers have been hacked. It would be foolish to believe that any database is totally secure. Even if great lengths have been taken to protect the data as it goes into the database, there is no way to protect the data from those that actually control the database. Databases can be hacked from the inside as well as the outside.

ARE SMART METERS SECURE FROM ELECTRONIC ATTACKS?

No... At least not the ones being used by OG&E.

No wireless electronic device can be secure from electronic attacks. Just as no mechanical device can be secure from an explosion. The issue with electronic attacks is that they are often undetected and can also cover a very large number of devices simultaneously.

Electronic attacks can take several forms.

- a) Direct interception of data
- b) Hijacking data input or output
- c) "Man-in-the-Middle" attacks
- d) Hijacking of the meter and re-programming
- e) Viruses
- f) EMP
- g) Ability to monitor several properties electronically to check for patterns indicating no one home during the day or vacation mode.

Most important, even if the data transmission itself is secure, the data will eventually reside on a server somewhere. Servers containing banking information and credit card information are routinely hacked. Utilities are hacked. Satellites are hacked. Military drones are hacked. The only information that cannot somehow be compromised is information that is never transmitted or stored.

WILL SMART METERS LET THE UTILITY OR OTHER ENTITIES KNOW WHAT APPLIANCES I'M USING?

Yes. Even if an appliance doesn't send a signal to the smart meter directly, the energy used by each appliance has a "signature" that can be identified. Think of being able to know which of your neighbors is driving down the street based upon the noise of their car. With a little experience, you can detect the sound of the muffler or breaks. You can tell the difference between a motor cycle and an automobile and a semi-truck by the way they sound. Likewise, a great deal of information can be inferred about appliance's use by looking at a residence's electrical profile.

The profile is essentially a summation of all of the current being used by all of the appliances and you can easily break them apart and figure out *which* appliance is being used. For example, a refrigerator operating in a fixed temperature environment when no one is at home will cycle on and off at a predictable frequency. It is just a motor that draws a fixed current for a period of time. Likewise, an air conditioner will cycle for a period of time, then turn off, then cycle again. The A/C will cycle more frequency as it gets hotter outside and there is more heat loss from the residence. If a set-back thermostat is being used, then A/C profile will look different. When the temperature is raised by the set-back thermostat, there will be a long delay without the A/C cycling. It will then cycle periodically throughout the day. When the set-back thermostat adjusts the temperature to cool the residence in preparation for the family's return, there will be an unusually long cycle while the house cools down. An oven or stove has an identifiable profile as do most appliances – even televisions and washers and dryers.

Hence, by knowing the profile of the energy use, a great deal can be inferred about the occupancy of the home. Likewise, comparing energy profiles from day to day, an analyst can easily tell if the residents are on vacation and have turned the A/C up to save energy.

WHAT ARE THE SECURITY RISKS OF SMART METERS?

Data interception and decoding by hackers.

1. **There is no such thing as a secure wireless network.** There are many techniques to capture data, decrypt it and analyze it. The “mesh” network is particularly insidious from a security standpoint because any person in the area, in a home, a car, or business can monitor hundreds of homes simultaneously. Hackers are remarkably adept at obtaining tools, and radios that operate on the 900 MHz band are readily available.
2. **What else operates on the 900 MHz band?** Garage Door openers, TV and satellite remotes, Cordless phones, WIFI. The meter radio is always on and will detect activation of any consumer device within the home. It may not be able to decode it, but consumer devices have signatures that can be used to locate proximity and timing.
3. **Viruses.** Viruses are devious pieces of software that are usually undetected during normal operation, but that activate based on specific criteria. The smart meter contains downloadable code capability, which means that the software that operates the meter can be updated over the wireless network. A sufficiently sophisticated virus could cause all meters to shut down at a certain time on a certain day, for example, and then not turn back on again. The utility company would have to manually repair or replace every meter in the entire network one by one in order to restore power.
4. **The expected service life of these meters is in the range of 20 years or so.** It is naive to believe that *decrypting technology* will not exist within that timeframe that will expose the network and every homeowner to serious and irreparable harm.

HEALTH ISSUES

The World Health Organization has recently classified the type of radiation emitted from smart meters (non-ionizing radiation) as a Class 2B carcinogen, on par with lead and DDT. Would you want the inside and outside of your home and schools and neighborhood sprayed with DDT 24/7 every day of the year? Due to the microwave radiation bursts emitted from the smart meters day and night, consumers who live near wireless smart meters or have had them installed on their homes are reporting illnesses and disabling health effects, including headaches, nausea, insomnia, ear ringing, heart palpitations and heart racing. Keep this in mind... there has NEVER been any studies done by our federal or state governments to look at the health safety aspect of smart meter technology.

HAVE ANY HEALTH EFFECTS BEEN REPORTED SINCE THE ROLLOUT OF SMART METERS?

Yes. Utility customers have reported new or worsening health problems since the utility smart meter system has been installed on their home or in their neighborhood. Symptoms include:

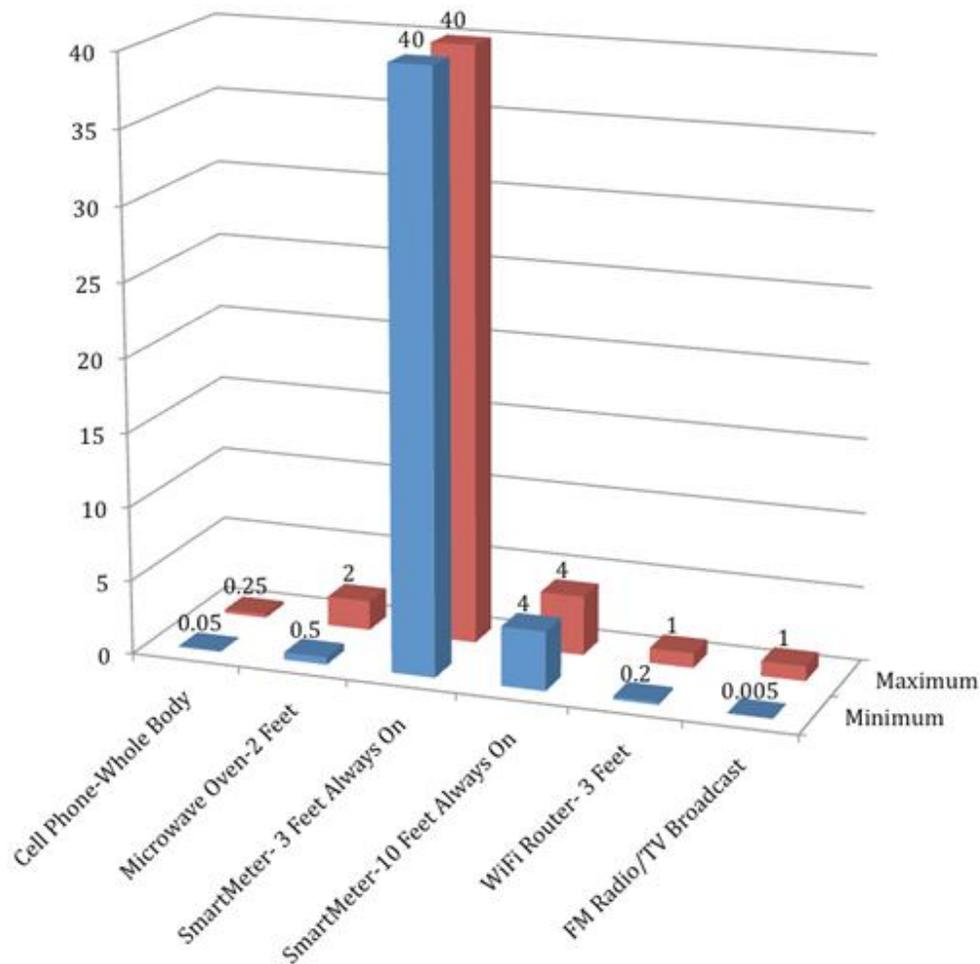
- Sleep problems (insomnia, difficulty falling asleep, night waking, nightmares)
- Stress, agitation, anxiety, irritability
- Headaches, sharp pain or pressure in the head
- Ringing in the ears, ear pain, high pitched ringing
- Concentration, memory or learning problems
- Fatigue, muscle or physical weakness
- Disorientation, dizziness, or balance problems
- Eye problems, including eye pain, pressure in the eyes,
- Cardiac symptoms, heart palpitations, heart arrhythmias, chest pain
- Leg cramps, or neuropathy
- Arthritis, body pain, sharp, stabbing pains
- Nausea, flu-like symptoms
- Sinus problems, nose bleeds
- Respiratory problems, cough, asthma
- Skin rashes, facial flushing
- Urinary problems
- Endocrine disorders, thyroid problems, diabetes
- High blood pressure
- Changes in menstrual cycle
- Hyperactivity or changes in children’s behavior
- Seizures
- Recurrence of cancer

Consumers are reporting that smart meters are giving them non-stop headaches, insomnia, heart palpitations and body aches, and making them so sick they are going to have to sell their home and/or move.

DON'T UTILITY COMPANIES TELL US THAT THE EMF RADIATION FROM SMART METERS IS SAFE?

Of course they do. In response to the EMF Safety Network request for safety hearings, PG&E, one of the first energy companies to install smart meters in California, stated, "Exposure to radio frequency energy from SmartMeter™ technology is considerably less than the exposure from other radio devices in widespread use." PG&E then listed many sources including cell phones, cordless phones, microwave ovens as examples of other radio devices in widespread use. Following this list they claim, "These devices often involve more frequent radio transmission, emit radio frequency energy for longer periods of time and operate in closer proximity to humans, than PG&E SmartMeter™ devices."

What PG&E didn't mention, is that their statement was NOT based on whole body exposure; as cell phones or cordless phones are pinpointed to one part of the body (e.g. ear and head) whereas as smart meter radiation exposes the ENTIRE body to EMF radiation. If you correct for whole body, cumulative exposure, the chart would be more like:



Another thing that PG&E didn't mention is that a person has the right to CHOOSE how much they want to use a cell phone or cordless phones or microwaves (if at all). But, with smart meter technology Americans do NOT have a choice to how much EMF radiation they want to be exposed to. If they install smart meters in our neighborhood, we are ALL going to be bombarded by microwave radiation day and night, every second of every day, by up to 13,000 microwave EMF pulses per day. Does anyone really believe, other than the utility companies, that this will NOT have any serious health ramifications?

Shouldn't YOU be the one to decide whether or not your family should be exposed to hazardous EMF radiation?? Should we leave our health in the hands of the utility companies and their "opinions" on the safety of *their* product?

Relating potential heart problems to smart meters: persons with pacemakers are being advised to check with their doctors to see if there will be any problems if they get too close to a smart meter.

You can get more information about the health effects of EMF radiation at:

- PubMed.org - *Electromagnetic hypersensitivity* (<http://www.ncbi.nlm.nih.gov/pubmed/21793784>)
- YouTube - *The Dark Side of 'Smart' Meters* (<http://www.youtube.com/watch?v=FLeCTaSG2-U>)

OTHER MAJOR CONCERNS

Because this is such a new and infinitely evolving technology, and the utilities and federal and state agencies regulating them may not have anticipated the groundswell of consumer concerns and response actions they would generate, there are a growing number of reasons why we should be concerned about wireless smart meters.

Public safety hazards: Consumers are reporting that their wireless smart meters have exploded or started fires, and there have been reports of unsafe installations leading to public safety hazards; is OG&E informing you about potential public safety hazards, and what to do and who to call if anything should occur?

Interference problems: Consumers are reporting that their wireless smart meters interfere with home security systems, wireless routers and other home appliances, as well as medical devices; is OG&E informing you about potential interference problems and what to do and who to call if you experience them?

Disturbingly higher utility bills: Consumers are angry to receive dramatically higher utility bills after their wireless smart meter is installed, even after dramatically reducing their energy usage - this has led to reports of inaccurate billing, faulty smart meters, and class action lawsuits in Bakersfield, CA, and Texas. Is OG&E explaining its plans and rate programs that may affect any rise or drop in your utility bill after installation of the smart meter, and what commitment they have to resolve any problems?

No federal mandate for states and utilities to adopt wireless smart meters: Consumers are angry that utilities are installing the wireless smart meters without obtaining prior consent, and without allowing consumers the choice of opting in or opting out or having other non-wireless options, or keeping their old analog meter, *because there is no federal law requiring mandatory adoption of wireless smart meters*. In addition, national and state consumer advocate groups are recommending voluntary adoption. So who stole or gave away our freedom and liberty of choice? Did you sign into a smart metering program? Has OG&E explained the options and choices that ratepayers have if they want to opt out of a wireless smart meters, and has it informed you how it will respond if you decide to refuse wireless smart meter technologies?

Utilities continue to dismiss, bully and intimidate ratepayers: Consumers are reporting wireless smart meter utility customer service reps are responding with rude, dismissive and unhelpful remarks and answers to their requests to opt out, and that installers are using bullying and intimidation tactics in the field on ratepayers who request they want to opt out and don't want a wireless smart meter installed on their home.

State PUC's (public utilities commission) lack of response; standards and options: Most state utility regulatory agencies, including the Oklahoma Corporation Commission, have not conducted public hearings and proceedings to fully vet, examine, address and recommend what kind of standards and options utility companies should adhere to, offer and provide when customers and communities request to opt out of or choose to refuse wireless smart meters and smart grid technologies, as well as what kind of standards and training requirements should be made of installers in the field and their response to consumers who do not want the wireless smart meters installed on their homes.

State PUC's lack of response; standards and options to address health reports and health effects from non-thermal RF radiation: The Oklahoma Corporation Commission has not fully explored or examined the potential non-thermal health effects of wireless smart meters and smart grid technologies, especially for those who are electro-sensitive, vulnerable populations, and those being reported and documented by physicians after their patients have had wireless smart meters installed on or near their homes.

Damage and Real Estate Liability: Who is liable for any conventional home appliance, structural and/or health damages due to wireless smart meters and their installation? Who is liable if a wireless smart meter installation reduces the value of your home or your ability to sell your home? When you move into a new home that has adopted wireless smart metering technologies, will you have the right to request it be removed, or have the choice of a wired option? Who is vetting and determining the answers to these questions - your city, OG&E or the OCC?

Other Smart Grid components and devices emit additional radiation: Environmental health advocates are concerned that wireless smart meters also typically come equipped with a wireless Home Area Network (HAN) component that will emit additional wireless RF radiation into your home; the HAN will then proceed to communicate wirelessly with the "smart" home display monitor and "smart" appliances in your home, adding to the cumulative RF radiation environment in your home; has OG&E told you if your wireless smart meter comes with a wired or wireless

HAN, and if they will be providing a wired or wireless home display monitor? Will the home display monitor be mandatory, and if so, how soon will it be required? Or will the home display monitor be optional?

Costs of home display monitors and smart appliances: Consumer advocates are concerned about the costs and how many consumers will adopt the "smart" home display monitors and "smart" appliances that are needed to communicate with the wireless smart meter and result in possibly result in reduced consumer energy usage; has OG&E explained to you if they will provide for free or do they expect you to pay for the home display monitor?

Obsolete technology costs: Consumer advocates also recommend against the costly adoption of these meters burdening the ratepayers in the form of higher bills. In addition, they warn that many smart meter technologies and components could very well become obsolete with new-and-improved models just around the corner - who will bear the costs for those upgrades? (Guess who?)

Time of Use Rate Programs should not be mandated: Consumer advocates are also advocating against the mandatory adoption of Time of Use (TOU) or dynamic rate schemes (which many utilities want to adopt immediately or several months from now in order for the wireless smart meters to supposedly result in reduced consumer energy usage) - they are opposing these rate schemes because they would result in higher utility bills for seniors, retirees, those on medical support systems, small work-at-home business owners, homeschoolers, and low-income and fixed-income households that are unable to shift the time of day that they need to use energy; are you getting assurances from OG&E that they will never require or mandate you adopt a TOU rate scheme?

Questionable green energy benefits and savings: Many consumer and environmental groups and experts DO NOT agree that wireless smart meters will lead to substantial consumer savings. In communities and countries where wireless smart meters have been installed, consumers continue to complain of *dramatically* higher bills that are double or triple of what they used to pay. What is OG&E estimating will be your consumer savings and how much of a reduction you will see in your monthly bills after the installation and over the years that they will be upgrading and adding more costly smart grid technologies? What is OG&E estimating will be the cost in its long-term program to adopt smart grid technologies, and how will it recover those costs? (Guess how?)

SAY "NO" TO SMART METERS!

People across the country are taking action to stop unwanted installation of smart meters on their homes and businesses. Some have gotten a moratorium on installation of the new meters declared by their city.

1. Residents usually develop a petition, gather signatures and lobby their city council to get the issue considered.
2. If you are opposed to having a smart meter installed you should contact OG&E and notify them that you are requesting that it not be installed. **YOU NEED TO BE HEARD!**
3. Follow up with a certified letter (a template letter has been included with this info pack for you to sign and use).
4. Some customers have applied **DO NOT INSTALL** stickers or signs/affidavits on their analog meters and/or have taken steps to secure them by locking them up.
5. Contact the Oklahoma Corporation Commission and let them know that you **OPPOSE** this new technology.

If you choose to put a locking box or locking bar around your analog meter, just be certain to leave the "cut-off" switch available as emergency workers need to be able to shut off your whole house in an emergency (e.g. firemen).

Remember, it may be THEIR meter, but it is YOUR property... and you have the right to not let any OG&E worker on your property if you don't want them there, and you have the right to disallow them to alter or affect your property without your consent. Don't let them bully you! What would you do if a service company rep was found *in your house* altering your washer and dryer without your consent (ouch!)? Well, the same goes for the outside of your house as well. If you knew for certain that installing a smart meter on your home would cause irreparable damage to the health of your children, would you STILL let them do it? What if you weren't 100% sure... are you willing to take that chance? My job is to protect my children from harm, and some utility company technician is not going to circumvent that... not without possibly incurring bodily harm! **DEFEND your analog meter! DEFEND our neighborhood!**

I have enclosed a sign that you can put next to your meter. I would suggest that you get it laminated to protect it from the weather, and then place it squarely on the side of the meter where it can be seen. Place the included stickers on the side of the meter, or directly on the glass, where it also can be seen. If the OG&E technician circumvents your opt-out sign, he risks being sued and/or imprisoned. Don't be bullied or threatened!

Together, we can be proactive and protect our neighborhood, our families, our energy costs and our environment! Until you speak out, large corporations like OG&E will continue to do what is best in THEIR interest, and not yours.