

BASIC INFO AND SOLUTIONS

**All underlined text are hyperlinked resources*



WHAT ARE SMART METERS?

The Environmental Health Trust states, "Smart meters are the new utility consumption measurement devices for electricity, water, and gas that are being installed across the nation, at residences and other buildings. There would be a separate meter for each type of utility and they are installed by the companies and governments that provide the utilities."

WHY ARE CUSTOMERS CONCERNED ABOUT SMART METERS?

Power companies are misrepresenting the reality of smart meters and forcing customers to get them regardless of their negative health impacts they are having. Virginia customers are led to believe that their only options are a smart meter or a opt-out smart meter, and now being threatened to have their power cut off when they express they'd like to keep their electromechanical analog meter or the ability to have one as an opt-out choice.

Smart meters violate residents/consumers on many levels - below are just a few:

- There is no informed consent prior to receiving a smart meter
- There is no disclosure of the smart meter risks involved in their installation and operation
- Smart meters are fire hazards (not UL certified)
- Smart meters have the ability to track specific energy usage within our homes (when we turn off the lights, when we flush the toilet, when we use the fan, etc.)
- Our data garnered by these smart meters can be used/sold without our consent
- Smart meters are part of the IoT mesh network created by all of the wireless "smart" devices and cell phone towers
- Smart meters are easily hacked
- Smart meters allow our electricity to be controlled by a push of a remote disconnect button, which means customer power is completely at the mercy of the powerful public utilities
- Smart meters are installed hot and many times without informing the homeowner first
- Subcontractors hired to install most of the smart meters are not licensed electricians

SOLUTIONS

- Take immediate legislative action to offer a state wide opt-out that includes electromechanical analog meters and non-wireless ethernet connection meters.
- Waive all fees for any opt-out selected for the meter itself, its installation, and continued operations.
- Mandate Dominion and other power companies to revise their RFR and Smart Meter Fact Sheets to be factual without industry bias and misrepresentations. (See Dominion Smart Meter FAQ's here: <https://www.dominionenergy.com/projects-and-facilities/electric-projects/smart-meter-upgrades-va/smart-meter-faqs>)
- Acknowledge that adverse harm can happen from low level radio frequency radiation (RFR) that is well below the FCC RF Safety Guidelines for thermal heating of tissue and that the effects are cumulative.
- Require all Virginia state procurement contracts for AMI smart meters to include a dirty electricity filter in the low kHz range for the switch mode power supply (SMPS).
- Require disclosures for conflict of interest in any health data that is used to make a claim that smart meters are safe.
- Create smart meter free safe zones (radiation-free areas) to protect those that are most vulnerable: school children, pregnant women, elderly, disabled, and those who are EMS, etc.
- Plan for installing Ethernet wired utility meters in the next 2-5 years as the smart meters fail or expire. These Ethernet meters have the capability for distributed energy resources, without the wireless connectivity, and are called Intelligent Energy Meters.

WHAT ENERGY COMPANIES ARE CLAIMING*

THE TRUTH



Smart Meters are better for the environment.

- Dominion and others claims "smart" meters have less impact on the environment because they use less fossil fuel energy by not driving around and checking the analog meters. This statement is telling people to focus on one thing in order to completely ignore the fact that these meters emit radio frequency radiation (RFR) which is a Group 2B possible carcinogen and air pollutant as recognized by the telecom insurance industry (such as Swiss Re and Lloyds of London)
- Radiofrequency Radiation (RFR) is not good for the environment. The Communications Technology industry is slated to be using 51% of global electricity by 2030 and "smart" meters communicate up to 190,000 times a day, which is creating an RF mesh bubble all around our homes 24/7.
- Per the FCC, smart meters can consume up to 1W per household to complete their RF mesh operations. Using Dominion as an example, the corporation now has 2,589,754 million customers in the state of Virginia. This means Dominion is environmentally responsible for consuming more than 2.5 million more watts due to smart meters - and the greenhouse gasses that result from producing that additional power - so even if there is less fossil fuel being used for Dominion's trucks, it hardly offsets the toxic dumping of RF radiation pollution. The same goes for all power companies within the state and all other utility meters such as water and gas, which are operating at a much lower power level to support the IoT mesh network.
- RFR is not monitored by the EPA like other air pollutants. As the quality of our air continues to become more saturated with this wireless radiation, there is no one monitoring this air pollution and the the adverse health effects that result in each household by being exposed to unnecessary low levels of RFR in close proximity to the meter 24/7.
- There will never be "energy efficiency" as long as there is dirty electricity being generated by these smart meters in violation of FCC Part 15 interference rules.
- Smart meters have a life span of 5 to 7 years versus electromechanical analog meters, which last at least four decades if not more. These devices are now computers and they have to be maintained. Where will all of this unusable equipment go if not back into the environment?

Smart meters are designed to bring customers new levels of convenience and control.

- The opposite is true. Smart meters allow companies to turn off customer's power with a push of a button (unlike electromechanical analog meters) for reasons other than non-payment of bill and to know everything that goes on in the home. The Green Button Technology Alliance claims that Connect My Data (CMD) technology is the only way to get real-time data through software applications on wireless user devices such as cell phones. The security of our data is questionable, and third parties are given unfettered access to "unlock" utility data supposedly conditional upon the unknowing customer's electronic authorization.

Your data is secure [with a smart meter].

- See this January 7, 2022 State Corporation Commission order (page 11) where the Walmart asks to bypass the customer in order to send the customer's interval data directly from Dominion to the third party vendor using "Connect My Data" green button functionality which purports to to deploy "privacy by design" software." However, any 3rd party vendor may be able to "unlock your utility data" for software application purposes.

WHAT ENERGY COMPANIES ARE CLAIMING*

THE TRUTH



Your data is secure [with a smart meter] (continued)

- See summary provided on hacking a smart meter by 'Hash', the Texas hacker. This hacker demonstrates how easy it is for an individual with the right equipment to intercept the smart meter data transmissions and decode the usage and location data that are attached to it. Each smart meter creates a node that can be hacked and include multiple customers' data by relay. It is also unclear as to how customer data will be used, as third parties are already making requests for direct access. These third parties are using voluntary customer authorization to access customer data and can potentially transition to an involuntary forfeiture of customer authorization in order to control resource distribution remotely.

Smart meters can measure energy usage in small intervals throughout the day, enabling [energy companies] to offer voluntary pricing plans with rates based on time-of-day usage, giving you even more control over your energy costs.

- Customers will not save money by having a smart meter on their home. Smart meters increase electricity bills because the customer has to pay for the dirty electricity voltage transients on the line, which adds about 10% more electricity to the bill. (Bill Bathgate, Michigan House Energy Committee Testimony, 2018). The voltage spikes make it look like the customer is using more electricity when they're not because the meter itself is using this electricity. There are reports of bills arbitrarily increasing - even doubling in one instance - and the companies claim this is due to customer usage when it could be the smart meter.
- Smart meters allow companies to offer "time-of-day usage" suggestions because they will have 24/7 access to how much power we are using, when we are using it, and which devices are turned on within our homes. This is an invasion of privacy.
- The Federal Wiretap Act and Stored Electronic Communications Act legally requires consent for installation of any surveillance device and any device that will collect and transmit private and personal data to unauthorized parties for unauthorized purposes. Authorization for sharing of personal and private information may only be given by the originator and subject of that information.

Smart meters are safe.

- The smart meter has insufficient electrical protections to prevent overheating, has no ground or surge protection and becomes an incendiary device on your house - Remote disconnect switch has a material defect that has not been fully mitigated where it easily overheats due to poor switch contact or cannot handle power surges when power is restored after an outage. This can result in arcing, sparking, popping and fires. (See Norman Lambe's Century National insurance risk management report for these details).
- Stockton, CA, 2015: A high voltage power surge from a damaged utility pole made smart meters explode turning the smart meters and plastic covers into projectiles. Residents reported it shaking their homes and sounding like a bomb went off. This explosion resulted in 5,800 homes (10%) losing power, about 60 which were significantly damaged.



Smart meters are not on all the time.

- This is a misrepresentation of how smart meters work because it's not one single period of time in which the transmissions take place, there are continuous pulses throughout the entire day/night.
- The power companies indicate that data usage transmission only takes place twice an hour, which means the majority of the [up to] 190,000 pulses per day by the smart meter is for RF mesh maintenance (not for electricity usage data transmissions).
- The biological effects of these "erratic bursts of modulated microwaves, typically produce relatively potent and very short pulsed RF transmissions which have never been fully tested." The millisecond-long daily transmissions and a peak level emission two and a half times higher than the stated safety signal.
- Power companies don't take into account the low levels of RFR radiating 24/7 coupled with dirty electricity and the cumulative exposure effects of these erratic pulses over time.

Smart meters won't affect your health.

- The FCC RF maximum permissible exposure (MPE) safety limits are some of the highest in the world and power companies are not acknowledging that these safety limits were found to be arbitrary and capricious by the DC Court of Appeals in August 2021. 11,000 pages of evidence were submitted into the FCC record during this court case showing significant injuries can happen well below the current FCC RF safety guidelines. This means power companies still are not acknowledging these legal findings and only address the MPE health damages that can result from thermal heating. Who is protecting us?
- Smart meters conduct voltage transients or dirty electricity in the 2-50 kHz range which is within the frequency range that ICNRP, the FCC, and IEEE officially recognize as neurologically stimulating in humans.
- ICNRP cites that established adverse effects in individuals "exposed to low frequency magnetic fields are the stimulation of central and peripheral nervous tissues and the induction in the retina of phosphenes, a perception of faint flickering light in the periphery of the visual field." (Guidelines for Limiting Exposure to Time Varying Electric and Magnetic Fields (1 Hz TO 100 kHz), PG. 819. 2010)
- "In addition to nerve stimulation, radio frequency EMFs can affect the body via two primary biological effects: changes in the permeability of membranes and temperature rise." (ICNRP Guidelines for Limiting Exposure to Electromagnetic Fields (100 KHZ TO 300 GHZ) PG. 486, 2020)
- Ringing in the ears, leg cramps, balance problems, heart and eye problems, fatigue, headaches, "...nausea, vomiting, dizziness and disorientation are symptoms people experience after Smart Meter installation, as well as sleep disturbance, inability to concentrate, memory problems and mood disorders."
<https://smartmeterharm.files.wordpress.com/2012/12/1-smart-meter-problems-dec-2012-final.pdf> (page 100), <http://emfsafetynetwork.org/smart-meters/smart-meter-health-complaints/>
- Smart meters create dirty electricity through their switch mode power supply operation and this dirty electricity can create serious health problems.
- According to Doctor Samuel Milham, "Since dirty electricity is a potent carcinogen, and causes numerous health problems, the only way to avoid a public health catastrophe is to send the smart meter information over existing telephone land lines or go back to the analog meters. I'm not making light of or ignoring the RF pollution caused by the smart meters, but think the dirty electricity may be a more serious and intractable problem. (page 54)

WHAT ENERGY COMPANIES ARE CLAIMING*

THE TRUTH



Smart meters are more than 30,000 times lower than “always on” technology like your smartphone.

- According to Daniel Hirsch, retired director of the Program on Environmental and Nuclear Policy at the University of California, Santa Cruz, comparing RF radiation (RFR) exposures from a smart meter to RFR exposures from a cell phone is like comparing apples and oranges. Unless the RFR body exposure areas are standardized and the health effects of cumulative radiation (dosing) are acknowledged, then comparing smart meters to other types of RFR emitting technology will lead to grossly inaccurate conclusions. (See his video [HERE](#))
- The radiation from a smart meter is whole body exposure and involuntary, whereas RFR from a cell phone is voluntary and exposes the neck and ear (radiating a much smaller surface area of the body) when in use.
- Smart meters are pulsating with RFR from a 902 MHz and a 2.4 GHZ antenna, in addition to dirty electricity within the 2 to 50 kHz range 24/7. This means there is no reprieve from the RFR and dirty electricity generated and transmitted throughout the house. Customers do not have the option of turning a smart meter off, ever.
- The FCC admitted in 2019 that some RFs can cause non-thermal adverse effects with RF frequencies ranging between 3 KHz and 10 MHz and dirty electricity generated by smart meters falls within this range. (Page 18)

Customers have the ability to opt out to a non-communicating meter.

- Dominion (and other's) "opt-out" is essentially an "opt-in" to allowing them to change out the customer's meter whenever they feel necessary, and mentions being able to disconnect power if a resident doesn't allow them to do so.
- Dominion (and other's) "opt-out" also only allows customers to opt-out to a "non-communicating" meter, which prior to 2022 meant the antennas were disabled and could easily be reset with software without the customer knowing. Calling this option a "Non-communicating" meter is misleading because the meter does communicate when it is arbitrarily reset. See [HERE](#) for Dominion Energy's information page about the non-communicating meter option.
- [Virginians for Safe Technology](#) is contacted daily by residents across the state who want to keep their electromechanical analog meter, but are being threatened to have their power cut off or their current meter forcefully changed out against their will. Power companies are demonizing customers who are attempting to protect themselves, while at the same time refusing to address any of these very important issues.
- Currently Farm structures and Businesses DO NOT have the ability to opt-out in the state of Virginia.
- Those who do Opt-out are signing an open ended contract and it is only an Interim solution which can be cancelled at anytime without notice to the customer. Legislation is urgently needed to change this, require notice if this type of work is going to be scheduled, and offer electromechanical analog and Ethernet connection meters as additional options to customers.

*Statements taken from Dominion Energy's smart meter information page (with PDF's at the bottom): <https://www.dominionenergy.com/projects-and-facilities/electric-projects/smart-meter-upgrades-va>

All underlined text above denotes hyperlinked sources