

**Re: Department of Health and Human Services –
Request for Information on Electromagnetic Fields (EMFs), Radiofrequency (RF)
Radiation, and Wireless Radiation Exposure**



Not a biologically-based health/safety test

The smart meter health and safety question NEVER should have been diverted to local politicized battles for the right to an opt out meter.

This was a massive failure of federal policy which has proceeded under the administrations of both political parties.

The assumptions fueling the entire smart grid agenda(s) require review, and immediate intervention to protect a portion of the population from further harm, and to prevent further ratepayer investment in an inappropriate technology choice.

**Confronting the Smart Meter Narrative with a focus on the “Health and Safety”
“Science” past and present – *among other issues***

**“We live in a society exquisitely dependent on science and technology
in which hardly anyone knows anything about science and technology.
This is a clear prescription for disaster”- Carl Sagan**

Introduction/Overview: Smart Meters, Health and Beyond

Numerous writers working in the area of 'clean energy' have used the term "low hanging fruit".¹

[Edu.ba](#) explains, *"This metaphor refers to tasks, opportunities, or solutions that are easiest to achieve and provide quick results with minimal effort. Just as fruits hanging on the lower branches of a tree are the easiest to pick, low-hanging fruits in professional and personal contexts represent easy wins that require less investment but offer immediate benefits."*

The term reportedly has its roots in business and marketing, but denotes potentially far more nefarious potentials regarding the misdirection of public sentiment.

Low hanging fruit can be part of an intentional strategy of compartmentalization and manipulation, to create support for a particular agenda that would not be accepted if fully and transparently disclosed.

For example, during the Obama administration, the drive to increase the adoption of solar energy was tied to the claim that smart meters would be required, without mention of the long-range plan to eventually tie smart meters to a much larger agenda.

The industry's talking point was that technicians needed to be able to shut down the solar systems to work on the lines, for safety. The obvious point that the meters were only necessary on homes with solar systems has never been addressed.

The strategy resulted in inadequately informed solar proponents also becoming smart meter advocates.

Another instance of industry messaging is that smart meters would/will eliminate the previous truck rolls and carbon costs necessary for starting and stopping service in the case of a move/relocation.

Less attention is given to the fact that the smart grid has greatly increased the costs of electricity, potentially resulting in increased remote (no contact) power shut offs for non-payment for low-income ratepayers. Where is that data?

Could the smart meter health issue be investigated as part of a larger effort to re-evaluate the cost-benefits of the entire paradigm?

¹ Industry commentator David Roberts of [VOLTS](#) has used the term low-hanging fruit repeatedly, including here: [US electricity emissions are halfway to zero If you squint just right](#), here [What's going on with geothermal?](#) and here [Trump's latest attempt to save coal](#)

Assessing “Health Impacts”

A 2012 health impact assessment investigated Commonwealth Edison’s proposal to introduce “smart metering” in western metropolitan Chicago, specifically looking at how the technology could affect the risk of exposure to life-threatening extreme temperatures.²



In short, the study focused on utility cost impacts and poverty.

The combination of remote shut-offs enabled by digital meters and poverty can have deadly results, especially when families without power resort to candles for lighting, or use alternative heat sources.

This early HIA research (2012) did not include questioning the impact of increased radiofrequency radiation exposures or grid impacts.

(Also ignored in the promotion of smart meter benefits is the potential hacking risk introduced by the remote, wirelessly enabled shut-off. Installing insecure infrastructure is the equivalent of a blank check to the industry for future security expenditures.

Scrutinizing the Integrity of Behavioral Modification Agendas for Real World Impacts

Very little scrutiny has been directed to the intended behavioral modification models enabled by smart meters, because many consumers have widely accepted the premise that the end goal is sustainability.

They also assume that the utilities are adequately regulated.

² [The Health Impact Assessment \(HIA\) of the Commonwealth Edison \(ComEd\) Advanced Metering Infrastructure \(AMI\) Deployment | Health Impact Assessment](#)

An assumption is that punitive pricing is needed to evoke behavioral change, without ever testing any alternative approaches, including education about peak loads.

Early on in the smart meter discussion in the Northeast, former RI Utility Commissioner Paul Roberti noted that the expectations imposed/facilitated by time varying rates do not correspond to real world circumstances – for example, the push to shift consumers to run appliances in the middle of the night.

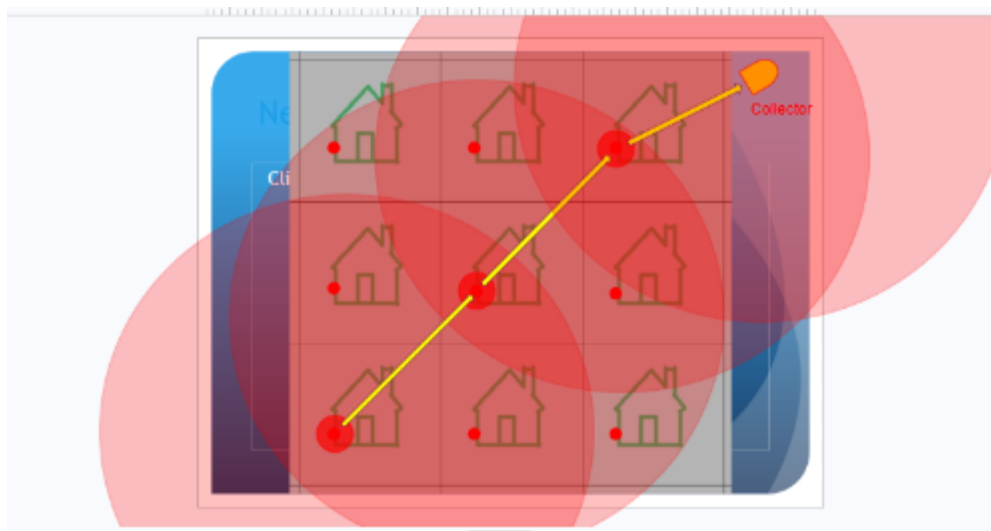
Like whack-a-mole for utilities, this issue became more prominent due to the scenario of unattended EV charging and fires during sleep hours.

The fact that sleep disturbance accompanied nighttime appliance use, including in densified housing, (washers and dryers proximal to occupied residences that previously promoted quiet hours)) was also downplayed in favor of the ideals of clean energy.

Yet despite all of the perhaps unintended but apparent “Late Lessons from Early Warnings”, former Rhode Island regulator Paul Roberti stated,

*“Despite the reservations of some high profile state officials, Consumer Reports says that a national smart-meter implementation across the United States is ‘all but a given.’”*³

The question is why.



The choice of mesh network technology on the basis of compromised science is creating devastating consequences for some individuals.

³ [Smart meter skepticism gains traction in R.I., Mass.](#) Published Aug. 12, 2013

Also, This letter was sent in 2025 to RI Energy's Director of Government Affairs regarding the ongoing implementation of "smart meters" and privacy concerns about collection, usage, and storage of people's data.
[LETTER Re: RI Energy Smart Meters - ACLU of Rhode Island](#)

Billing Inequities Resulting from Time Varying Rates

Through an extensive multi-year billing analysis in Ohio, research analyst Vince Welage has documented that time-of-use/time varying rates benefit higher consumption households with reasonable discretionary load, such as an EV charger or central air conditioning.

Households with lower consumption are subsidizing the savings awarded to high usage ratepayers, for example with central AC and EV chargers. Fixed charges and riders comprise a higher portion of the bill for low usage consumers, many of whom already observe a conservation lifestyle.

The cost shifting burden is especially pronounced for customers paying an opt out fee for a non-transmitting meter if it is even available⁴

Any increase in costs for essential services drives a portion of the population towards the crisis of “heat or eat.”

Societal Risks of Lack of Disclosure and Informed Consent, and Compartmentalization

Insights about the risks of lack of disclosure and compartmentalization in organizations were identified by Lisa Martino-Taylor In her 2011 [dissertation](#) as a doctoral candidate at the University of Missouri.

She investigated the Manhattan Project and the covert human conducted on poor black communities by the U.S. government, involving ionizing radiation.

In 2018, her work was published as the book [Behind the Fog: How the U.S. Cold War Radiological Weapons Program Exposed Innocent Americans.](#)

As reported here: [Lisa Martino-Taylor | The first secret city](#) [] “when I started looking at the larger context about larger military contracts at the time, there was a lot of evidence that it was part of a national program that in fact included: injection, ingestion and inhalation studies on radiological materials done by a highly coordinated group of scientists-turned-military-officers that were working on the Manhattan Atomic Bomb Project. They were doing these studies around the country and they were looking for an area to target for an inhalation study. St. Louis was their closest match for Stalingrad and Moscow.”

“Parsons and the Army falsely described the experiments in the *St. Louis Post-Dispatch* as feasibility studies related to testing “a kind of smoke screen” to protect the St. Louis urban population from potential aerial attacks by foreign enemies.” []

⁴ [Ohio Utility Energy Disparity; Charges Lack Conditional Exemptions](#) – Ohio Roundtable, Feb 12, 2025

Was/is sustainability the smokescreen for smart meter surveillance and control?

The narrative changes based on the prevailing political sentiment, but smart meter deployment has proceeded, uninterrupted, - without adequate transparency and scrutiny or post market monitoring and investigation.

Compartmentalization and Lack of Disclosure: Smart Meters

As a recent example of smart grid compartmentalization, when two young women arrived unannounced at my residence last spring to replace a non-working gas meter, they explained that the new meter only transmitted data once a month for billing purposes.

They could not provide a contact number for the utility when I demonstrated with a professional grade detection meter that this was not the case.

They apparently knew nothing about the specifications for the meter. I don't think that they were lying. I think they were trained to respond in certain ways if asked.

In her research, Lisa Martino-Taylor described how college students were recruited to disperse aerosols over the St. Louis community, with no knowledge of the actual agenda.

This somewhat mirrors the approach to a lesser degree) that was used in Worcester MA for the National Grid smart meter pilot program. Earnest students at Clark University interested in sustainability were specially selected to “wear the face of the utility in the community” to promote the smart meter pilot to the public and to increase acceptance by reinforcing the idea that the pilot was created with neighbors within the community, for the community.



(The Sustainability Hub mentioned in the slide was a high tech dedicated storefront opened in a former bar on a corner of the Clark University campus, where ratepayers could learn about clean tech and ask questions about their bills – financed by ratepayers.

Several public servants noted that rather than funding the pilot with its both on-and-off

books expenses, that ratepayers would benefit more from lower bills.

Although opponents of the pilot did not engage in any property destruction or violence, when the Sustainability Hub held its grand opening, there was a heavy police presence and the public was specifically not invited.

The Sustainability Hub costs vastly exceeded its approved budget. over budget, yet the DPU continued to authorize additional funding.

The facility was renamed the Propaganda Pub by community advocate Clare Donegan)

Were the students exploited?

The Question of Smart Meter Health Safety was Reduced to the (Highly Politicized and Patchwork) Question of Opt Outs Policies, Posing Endangerment to a Portion of the Population. This is not Science.

In Worcester, MA, the auto-enrollment, behind-schedule, and over-budget pilot was in fact co-created with a large number of actors, behind the scenes, and foisted on the community, with the public in the role of guinea pigs.

Then Attorney General Martha Coakley objected to the pilot program's size, cost, and scope. She objected to the automated shut-off noting that it posed a hacking risk. (The pilot's authorization proceeding MA DPU 11-129 is filed at: [Docket No.11-129 – Mass DPU Fileroom](#))

The pilot program featured a no-fee opt out, which was heavily promoted as indicative of the utility's commitment to customer choice.

The no-fee opt out was only necessary because the meters were being installed on the premises of auto-enrolled customers.

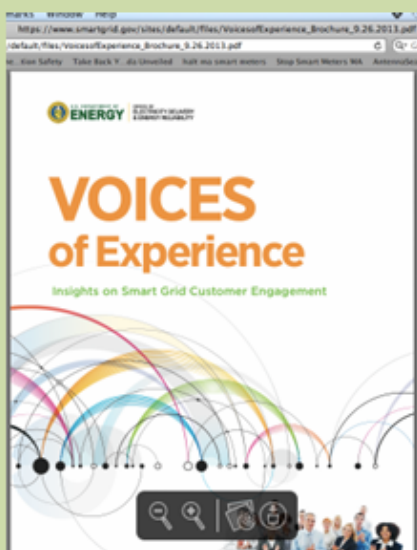
This was just one aspect of the pilot's theater that did not correspond with the long range plans for the utility

. Another was that the pilot was rewarding customers who visited the website even once, so that they could be counted as "active participants." The pilot was gamified with participants eligible to receive Ipads and gift cards.

These practices have not been replicated in any actual deployment.

The pilot was conducted several years after other deployments were already completed in other states, and the pilot appeared to be designed specifically to address and nullify many of the issues that had emerged.

Manufacturing Consent, Hand-picked Advisory Group



Worcester Community Summit (Broader Collaboration)—**National Grid** decided to work with the city's Sustainability Office and locate their 15,000 household pilot in this diverse city that is representative of the state population as a whole. They invited key stakeholders to be part of the steering committee for a Community Summit. (See www.green2growth.com.) **As part of the planning, the group identified the mix of roles/perspectives desired to be part of the visioning process. Each committee member identified specific people they knew** (and provided contact details, which saved tremendous time and opened doors.) Those personal relationships and follow up were why 300 community leaders were willing to spend two workdays focused on the community's energy future. **The steering committee morphed into a Green2Growth Council.**

"Voices of Experience" is a DOE-curated collection of utility and customer stories that can help utilities, policymakers, and consumers understand how smart meters are being deployed, what works, and how to improve engagement and trust. [Voices of Experience: New Guide Offers Utilities' Insights on Engaging with Smart Grid Customers | Department of Energy](#)

The pilot did not monitor for health or environmental impacts.

Many local and state public servants played supporting roles for the utility, including planning officials, the property assessor, and in particular, the health department's alarming report.

In addition, serious concerns about the results reporting have been documented and never addressed publically. Misleading claims about cost and energy savings continue to be repeated in current proceedings.

One approach to investigating the health and safety aspects of smart meters would be a larger investigation involving other agencies, that would include but not be limited to the question of how health issues were addressed.

Giving the relevant individuals and agencies an opportunity to self-report the need for improved policies regarding both transparency, and specifically the information about how often the meters transmit, and health and safety requirements, could be a diplomatic starting point.

Soliciting whistle blower reports and placing high emphasis on citizen science would also be helpful.

Regarding health, valuable data and insight about harm is held within the community of injured ratepayers and those who have attempted to assist.

Bending Science – Decision-based Evidence Making vs. Evidence Based Decision Making Highlights the Risks of Misuse of Data, especially if it Involves Harm to Health and it is Never Even Collected

In their book *Bending Science: How Special Interests Corrupt Public Health and the Environment*, Thomas O. McGarity and Wendy E. Wagner have identified corruption in the science/policy-making pipeline.

[Bending Science — Grokipedia:](#)

"Bending science refers to the deliberate distortion or selective presentation of scientific research by special interests to influence regulatory decisions, litigation, and public policy, often in domains affecting public health and the environment."¹

This practice involves tactics such as commissioning biased studies, amplifying uncertainty in data, suppressing inconvenient findings, and deploying legal maneuvers to challenge evidence, thereby delaying or derailing protective measures."²

*The concept was systematically articulated in the 2008 book *Bending Science: How Special Interests Corrupt Public Health and the Environment* by University of Texas law professors Thomas O. McGarity and Wendy E. Wagner, published by Harvard University Press."²*

Drawing on public records and case studies, the authors outline a repertoire of strategies employed primarily by corporations and advocacy groups, including "strategic delay" through endless data requests and "tactical diversion" via alternative research narratives that prioritize economic interests over empirical rigor."¹

These methods exploit gaps in regulatory frameworks, where science informs but does not dictate policy, allowing interested parties to "bend" findings without outright fabrication."³

While the framework highlights industry-driven abuses—such as those seen in tobacco, chemical, and pharmaceutical sectors—empirical patterns indicate that analogous manipulations occur across ideological lines, including by government entities seeking

to align science with political agendas, as documented in critiques of federal research oversight.^{[45](#)–}

Claimed Patterns of Influence McGarity and Wagner posit that special interests systematically "bend" science by exploiting vulnerabilities in the research and regulatory processes to generate uncertainty about health risks, a tactic they trace as originating with the tobacco industry's playbook in the mid-20th century and extending to sectors like chemicals and pharmaceuticals by the 1980s and 1990s.^{[16](#)}

This manufactured doubt involves commissioning studies designed to highlight methodological limitations or conflicting data, thereby equating well-supported consensus views with minority opinions lacking empirical backing, which delays regulatory action despite accumulating evidence of harm.^{[17](#)}

The authors argue this pattern persists due to incentives where industries prioritize short-term profits over long-term public health, funding research through proxies to obscure direct conflicts of interest.^{[18](#)}

A recurring mechanism claimed is the strategic funding of research by trade associations and product defense firms, which selectively amplify uncertainties—such as variability in exposure assessments or animal-to-human extrapolations—to undermine regulatory thresholds, often without transparent disclosure of sponsorship.^{[16](#)}

This extends to influencing peer review and publication by supporting journals or panels predisposed to skepticism, creating an illusion of scientific debate where none substantively exists based on the weight of evidence.

The book contends these tactics are not ad hoc but institutionalized, with industries investing millions annually in "sound science" campaigns that rhetorically demand higher evidentiary standards for regulation than for product approval.^{[17](#)}

Influence on regulatory agencies like the EPA, FDA, and OSHA is asserted to occur through substantial lobbying expenditures, coupled with revolving door placements in which many senior appointees had prior industry ties, predisposing decisions toward prolonged data requests or risk reassessments favoring deregulation.^{[19](#)}

McGarity and Wagner highlight how this political bending integrates with scientific manipulation, as agencies face pressure to incorporate industry-generated data, effectively stalling rules on substances linked to significant health risks and fatalities, such as silica dust or certain pesticides, until political winds shift.^{[18](#)}

These patterns, per the authors, erode public trust in science by prioritizing adversarial litigation-style scrutiny over precautionary principles grounded in probabilistic risk assessment ".^{[16](#)}

[Bending Science — Grokipedia](#)

According to the criteria in the book *Bending Science*, both the Worcester National Grid smart meter pilot program and the current FCC's re-opening of 13-84 bear the marks of corruption of the science pipeline.

I believe that the public's tolerance for bent science, combined with exorbitant utility bills, is waning.

The Health Question and Opt Out Debacle is Unfolding Now in Real Time in MA, RI, and parts of New York; These Are Health Issues that Never Should Have Been Politicized and Dismissed

Some Massachusetts residents are currently seeking opt-outs from the new AMI meters. (Opt out meters are required by the MA state regulator to be offered as part of its grid modernization authorization, with the option for the utility to impose a surcharge.)

Although the MA DPU specified an analogue opt out, utilities across the county claim that analogues are no longer available, and instead are providing a digital meter with the radio turned off. This does not resolve the issue of polluted power quality, and radio off meters have been found to have been reactivated after installation.

You can see DPU confirm opt-out fees in Order DPU 21-80-B, -81-B, -82-B, <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/15824167>

D.P.U. 21-80-B/D.P.U. 21-81-B/D.P.U. 21-82-B Document (not PDF) Pages 307-308

IV. OPT-OUT TARIFF

B. Proposals

NSTAR Electric submitted an AMI opt-out tariff modeled after National Grid's existing AMR opt-out tariff (D.P.U. 21-80, Exhs. ES-AMI-1, at 41; ES-AMI-6). NSTAR Electric proposed the following fees: (1) \$42 for the removal of an advanced meter or installation of an analog meter; (2) \$34 for monthly meter reading; and (3) \$42 for the re-installation of an advanced meter (D.P.U. 21-80, Exh. ES-AMI-6, at 1).

National Grid submitted a modified version of its existing AMR opt-out tariff, M.D.P.U. No. 1215 (D.P.U. 21-81, Exhs. NG-AMI-1, at 23-24; NG-AMI-7; NG-AMI-8). National Grid proposed the following fees: (1) \$26 for the removal of an advanced meter or installation of an analog meter; (2) \$11 for monthly meter reading; and (3) \$26 for the re-installation of an advanced meter (D.P.U. 21-81, Exh. NG-AMI-7, at 2). The fees in the proposed tariff are unchanged from the existing tariff (D.P.U. 21-81, Exh. NG-AMI-8, at 2).

Unitil did not submit an opt-out tariff and requested a waiver from the opt-out tariff requirement (D.P.U. 21-82, Exh. Unitil-KES-1, at 22). Unitil cited its unique situation, where AMI metering has been in place for more than ten years without an opt-out tariff and meter data is not transmitted through radio frequencies (D.P.U. 21-82, Exh. Unitil-KES-1, at 22).

Special alert on document page 307, also document page 312: DPU specifically refers to "analog meters."

What is Happening in MA with Smart Meter Opt Outs?

One MA ratepayer recently moved to a home that already had a new transmitting smart meter installed. Due to dangerously high nighttime spikes in blood pressure seemingly provoked in the new residence, an opt out meter was requested as a matter of extreme urgency.

The utility National Grid (a UK company) initially indicated that there could be a one-month delay for receiving an opt out meter, in part because they are using a subcontractor to install the opt out meters.

(This information about the subcontractor was shared by an NGrid employee. The customer had filled out the on-line form registering concerns about health harm [being suddenly awoken with skyrocketing blood pressure]. The customer followed up with a phone call several days later to inquire about the delay in having the meter removed, with no response.

A form letter was sent in the mail from the utility describing how to undo the opt out request if it was in error.

During a subsequent ½ hour call the employee explained that the opt out requests needed to be consolidated because an independent contractor is used, and that a one-month delay might occur.

After a call to the regulator, the utility reported that they would replace the meter on a Friday, but they never showed up or informed the ratepayer that they were not coming. The utility regulator who had also been contacted called and claimed that the home did not have a smart meter.

The delay tactics in providing an opt out meter are examples of unnecessary administrative overlays that increase costs for all ratepayers.

Also in Massachusetts, the investor-owned utility Eversource recently contacted its opt out customers because the opt out meters it had installed were found to be transmitting.

Those customers who paid an opt out fee were being surcharged each month. Now another meter needs to be ordered and installed. The utility appropriately offered to refund the opt out fees, but the debacle in terms of providing an opt out meter continues.

Opting out is not even effective in densified housing, indicating that health is not being viewed as a legitimate issue.

This is not science.

The utility National Grid came to install an opt out meter that was found to be still transmitting, even though the customer filled out the paperwork for an opt out meter. She was then instructed to call back and to request a non-com meter, stating that the meter that they provided for an opt out meets the needs of some customers because it uses a different type of radiowaves?

The choice to utilize a mesh network may be the reason for the utility to want to place a transmitting meter on some opt out premises?

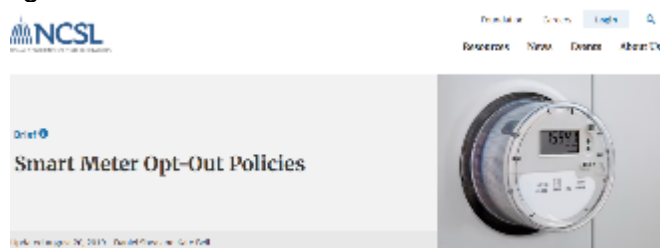
Vendors can program the meters to whatever specs the industry needs. For example, APS in Arizona provides a true non-transmitting meter that does not pollute premise power quality for its opt out customers - the Itron C1S meter.

Placing a national priority on providing a true non-harming analogue meter on homes where health harm is an issue is possible. Utilities cannot assure the safety of all ratepayers with the current technology choice.

Previous History of Opt Out Provisions

The NCSL (National Conference of State Legislatures) may be regarded as an authority for providing decision-makers with up-to-date information about smart meter opt out

policies across the country. Note that the organization presents smart meters as inevitable, and as progress.



Smart Meter Opt-Out Policies

Updated August 20, 2019

Like most other technologies, electric meters look much different than they did 20 years ago. They function differently too. These new “smart meters” are considered vital to grid modernization efforts, providing an array of real-time information to utilities and grid operators that allows them to develop a better understanding of electricity usage and consumer behavior. So far, utilities have installed [more than 70 million smart meters](#) covering [over 50% of U.S. households](#). By 2020, that number could reach 90 million.

But as utilities increasingly deploy smart meters, a small number of groups oppose their installation, citing a variety of health and privacy concerns about the new technology. This opposition has led at least seven states to enact policies to allow customers to opt-out of having a smart meter installed on their home, while New Hampshire requires customer consent for smart meter installation and Pennsylvania law prohibits opt-outs. In another 22 states, utility regulators have ruled on whether utilities can implement opt-out programs on a case-by-case basis. In recent years, the issue has more frequently landed before state legislatures, with at least 17 states considering smart meter opt-out legislation in the past four legislative sessions.

The opt out information has not been updated. I will return to the question of the science promoted by NCSL later in this testimony.

Epstein; A development built around "asset tracking, video surveillance, and smart devices"

Very few utility consumers are yet aware of the revelations contained within the Epstein files regarding the creation of surveillance-ready communities, as reported by [Alisa Valdes-Rodriguez here](#):

“Sandia National Laboratories sits on Kirtland Air Force Base in Albuquerque. It is responsible for the non-nuclear components of American nuclear weapons — the triggering systems, the delivery mechanisms, the backbone of how America’s arsenal actually works. []

Mesa del Sol broke ground in 2005 and was under active development through at least 2015. Zorro Ranch — Epstein’s New Mexico property — sat approximately 60 miles to

the north, also on state-adjacent land, also operating during this same window. Both properties had relationships with New Mexico's State Land Office. Both operated under the political protection of the Richardson-Denish administration. Richardson himself — documented in the Epstein files as having visited Little Saint James and having continued meeting with Epstein in his Manhattan townhouse as late as 2018 — was the governor who personally pushed the Mesa del Sol tax financing through the Legislature.

Mesa del Sol's own planning documents describe a development built around "asset tracking, video surveillance, and smart devices" — with a stated goal of creating what the developers called a "safe neighborhood networking solution." That's where Sandia's interest lay.

Smart meters were installed in residential buildings. Granular data on residents' energy consumption, movement patterns, and daily behavior was collected continuously and is publicly available today on machine learning research platforms. A real-life Truman Show, for military surveillance of civilians.

Sandia National Laboratories — the nuclear weapons facility whose systems Robert Maxwell compromised with backdoored surveillance software in 1985 — was the technical partner overseeing this infrastructure. Japan's government energy agency invested \$22 million in the project. Nine Japanese companies were involved.

The people of New Mexico were sold a hip, cutting-edge residential community. What we were actually being asked to move into at Mesa del Sol was a federally partnered, nationally significant data collection testbed — built on state trust land, financed with half a billion dollars in public bonds, developed by a company whose founding family appears in Jeffrey Epstein's files, with the second-in-command of the state's husband on the payroll. — [Source](#)

A community built for covert surveillance requires residents who are surveil-able.

Those whose energetic immune systems detect night-time data transfers and the fine tuning of 5G transmissions from cell towers to provide more coverage during commutes, or the addition of more antennas and more exposures. present an inconvenience.

Opt out Policies Do Not Imply Science

Unfortunately, the U.S. has chosen to proceed with the installation of smart meters and a “smart grid”, promoted in part via a carrot that consumers will “save money” and “make better energy decisions,” without disclosing that the cost of electricity may vary considerably based on the choices of for-profit monopoly corporations.

The smart meter health and safety question NEVER should have been diverted to local politicized battles for the right to an opt out meter.

This includes punitive surcharges, double billing, excluding densified housing from reasonable protections, not providing an analogue opt out meter to address polluted power quality, and not investigating and addressing the reported health harm and acute onset of disability.

This was a massive failure of federal policy which has proceeded under the administrations of both political parties.

The meters are introducing undisclosed increased surveillance and customer behavioral control capabilities enabled by time-of-use/time varying rates billing schemes.

Evidence that the demand to power data centers may be met in part by diverting electricity from residences, enabled by the meter technology, are now emerging in some states, including Ohio. ⁵

With a new national/political focus on supporting the growth of AI and 6G, the health and safety question has been overlooked completely.

Many legitimate concerns about smart meter deployment that could have informed future design and policy making were minimized, ridiculed, dismissed and ignored, including but not limited to adverse health effects.

⁵ See the March 2026 article by the [Ohio Register: Kim Georgetown Joins In HB 427 Opposition](#) n November of last year, Mayor John Marra of the Village of Timberlake, Ohio issued [formal opposition](#) to the bill to the Ohio House Energy Committee.

What HB 427 really does, Marra said, is “[give] utilities legal authority to: • Remotely control air conditioners, water heaters, or other appliances during grid events; • Bid aggregated household load reductions into PJM’s capacity market for profit; and • Collect performance incentives from the Public Utilities Commission of Ohio (PUCO).”

“Customers can override an event—but too many overrides mean being barred from participation. When participation determines whether a family gets a \$25-\$50 rebate, ‘voluntary’ quickly becomes coerced compliance.”

“Demand-response programs already exist for industrial users who can shift loads safely without affecting household comfort,” Marra said. “HB 427 flips that model upside-down, using private homes as grid-stabilizing equipment while data centers and crypto-mines consume electricity without any curtailment obligation.”

“The irony,” Marra said, “is that demand response itself is essential for grid protection. During the 2022 Winter Storm Elliott, demand-response actions kept PJM from cascading outages across the Midwest and Appalachia. That system worked because industrial users bore the burden, not families in their homes. But under HB 427, as hyperscale data centers ramp up to consume thousands of megawatts, utilities will instead reach into our living rooms to reduce load – because there will be nothing left to shed from the industrial side.”

[Data centers](#) are at, well, the *center* of the growing problem of a maxed-out electrical grid in Ohio. It seems to be no coincidence that a bill to allow utilities to choose how much power consumers are allowed to use at “peak” times would be introduced at this time.

In Contrast, The German Approach to Intelligent Metering

Germany has instituted a very different policy for its intelligent metering, and is only installing a transmitting module on the homes of consumers with reasonable discretionary load.⁶

The German digital meters also are not collecting and transmitting personal usage data⁷ whereas in the United States the dual use smart meters are being incorporated into a surveillance and control grid – (at significant additional complexity and cost to ratepayers).

Germany's approach to intelligent metering not only reduces upfront costs, and does not require the data collection, transmission, and storage but it most likely does not introduce two simultaneous risks introduced in the United States – the increased radio frequency exposures and the pollution of the home electric supply with high voltage transients introduced by the digital device, which then emanate into the occupied living space.⁸

⁶ Germany's Intelligent Metering: Which households will get a smart meter?

Anyone who has an above-average electricity consumption of 6000 kilowatt hours or more per year will receive a smart meter. Such high electricity consumption arises, for example, if there is an electric car in the household that is charged via a wallbox. Electricity customers who operate a solar system with an output of more than seven kilowatts will also receive the intelligent control system with a communication module. Anyone who operates a controllable night storage heater or a heat pump is still excluded from the smart meter obligation, but can opt for it if they wish. Source: [Digitale Stromzähler 2026: alle Infos auf einen Blick | LichtBlick](#)

⁷ Digital electricity meters record electricity consumption in detail

A digital electricity meter measures the consumption in your household and breaks down the data in detail. A display replaces the classic counting disc. The digital meter can neither receive data from the outside nor pass on information to third parties. You still have to read your electricity consumption manually. For classic households with average consumption, these meters are sufficient. Source: [Digitale Stromzähler 2026: alle Infos auf einen Blick | LichtBlick](#) (translates at link)

⁸ See the testimony from epidemiologist Dr. Sam Milham from an Arizona court proceeding along with other resources posted here: [Dr. Samuel Milham: "Smart meters are a public health hazard." | Smart Grid Awareness](#) Most people assume that when adverse health complaints are reported due to "smart" meters that the likely cause would be the intentional wireless RF emissions transmitted through air from the smart meter back to the utility. These reported health effects are certainly plausible based upon the evidence already presented at this website [2][3]. However, there are additional possible sources of electromagnetic field (EMF) exposure associated with smart meters, e.g., dirty electricity (DE).

As explained by Dr. Milham [1]:

"Dirty electricity" or "dirty power" are terms coined by the electric utilities to describe the electrical pollution consisting of high frequency voltage transients and harmonics riding along on the 50 or 60 Hz wave form and contaminating the electricity delivered to users. ...

The APS "smart" meters are electronic devices which replaced the old electromechanical analog meters used to measure electric power consumption for billing purposes. The smart meters have circuitry to measure power consumption and a microwave transmitter to send this information to the utility. The health effects of microwave exposures are well known. All transmitters, including the microwave transmitters in smart meters, operate on direct current (DC). The APS smart meters contain a switching mode power supply (SMPS) which changes the utility 60 Hz alternating current to DC. ...

German citizens may be more attuned than Americans to the risks of both propaganda and state and/or other centralized abuses of power.

Why Question Smart Meters Now?

A 2017 Arizona court case resulted in a ruling allowing for a non-transmitting meter to be installed for those requesting the opt out, with a \$5/month surcharge for a manual read.

The entire smart meter agenda could have benefitted from the testimony and ruling of the Arizona court case brought by Warren Woodward against APS.

Vermont has a no-fee opt out.

Many customers cannot afford the punitive opt out fees being charged, and the state of Pennsylvania is not offering a smart meter opt out, with devastating health impacts for some ratepayers.

As the AMI infrastructure is installed in the last few states, there is an opportunity to revisit the issue of health and safety in real time, an/or to document the results of meter installations and removals with appropriate science.

Smart Meters are Costing Ratepayers \$\$\$, Loss of Privacy, and Health

Many Americans are experiencing the consequences of rising costs for essential services including heat, electricity, gas, propane, and water, with no relief in sight.

In addition, many Americans are objecting to surveillance as they become aware of automated license plate readers and other technologies aimed not at adversaries, but inward towards the nation.

And, as information is being brought to light in any number of areas about wrong-doing, including the Epstein files, at least a portion of the population supports corruption being addressed.

Individuals who are committed to the ideal of clean energy have extended an unquestioning attitude of trust and policy support for the ideals of progress in clean energy, but are vastly uninformed about unintended consequences.

Much of the surveillance agenda has also proceeded under the guises of "safety."

Because it is at the front end of a building's wiring, the dirty electricity from the smart meter's SMPS has a gateway into that building's wiring, and also into the earth via the house ground. The house wiring acts as an antenna and the fields capacitively couple to the body through the air within 6 to 8 feet of the house wiring or extension cords plugged into the outlets. ...

I believe that our evolutionary balance, developed over the millennia, has been severely disturbed and disrupted by man-made EMFs. I believe that man-made EMFs, especially dirty electricity, are chronic stressors and are responsible for many of the disease patterns of electrified populations. ...

It is my professional opinion that smart meters are a public health hazard. References at Ink.

Data centers have become a flashpoint for the upcoming election, but scrutiny of the effects of all of the data flying through the air has yet to reach critical mass.

In a play out of the tobacco playbook, the wireless industry has focused the public's attention on the issue of brain cancer and cellphones.

Cancer can take a long time to develop and the burden of proof is extensive.

Critical mass was reached in the tobacco wars when a Japanese researcher proved that the widows of smokers were also dying of lung cancer. In the years following, many other adverse outcomes, including other types of cancer, became known.

In the case of RF, the source of the exposure is invisible, but in terms of the science, there may be new opportunities to verify adverse effects on the brain, including the impairment of the brain's detoxification system.

Like tobacco, it is likely that we will soon understand that there is a basis for the fact that different individuals will experience different adverse impacts from the same exposure.

But in addition to supporting non-industry science, another approach would be for Health and Human services to simply investigate the "science" that has been historically promoted by the industry and its regulators about the juxtaposition of RF and the utility grid.

Why Mention Tobacco Scientists?

Many groups and individuals especially on the political left have been chronicling the fossil fuel industry's use of what has become known as the tobacco industry playbook and its impact on scientific integrity, litigation, and policy making.⁹

⁹ This includes both David Michaels' book *Doubt is Their Product*, and Naomi Oreskes *Merchants of Doubt*. "Michaels served as Assistant Secretary of Labor for [Occupational Safety and Health](#) under U.S. President [Barack Obama](#). [] *Doubt is Their Product* documents how the [tobacco industry](#)'s tactics spawned a multimillion dollar industry that is dismantling public health safeguards in areas far from tobacco. Product defense consultants, he argues, have increasingly skewed the scientific literature, manufactured and magnified scientific uncertainty, and influenced policy decisions to the advantage of polluters and the manufacturers of dangerous products. To keep the public confused about the hazards posed by [climate change](#), [second-hand smoke](#), [asbestos](#), [lead](#), [plastics](#), and many other toxic materials, industry executives have hired unscrupulous scientists and lobbyists to dispute scientific evidence about health risks. In doing so, they have not only delayed action on specific hazards, but they have constructed barriers to make it harder for lawmakers, government agencies, and courts to respond to future threats.^[2] - [Source](#)

Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming is a 2010 non-fiction book by American [historians of science](#) [Naomi Oreskes](#) and [Erik M. Conway](#). It identifies parallels between the [global warming controversy](#) and earlier controversies over [tobacco smoking](#), [acid rain](#), [DDT](#), and the [hole in the ozone layer](#). [] Oreskes and Conway are seen to demonstrate that the doubt merchants are not "objective scientists" as the term is popularly understood. Instead, they are "science-speaking mercenaries" hired by corporations to process numbers to prove that the corporations' products are safe and useful. Buchanan says they are salesmen, not scientists.^[12] [Source](#)

But the same groups and individuals cast a blind eye when they received complaints about the experts testifying in favor of smart meter health and safety.

Low hanging fruit would be reversing the burden of proof of safety back to the industry and regulators, and away from the public to prove harm.

This would include rejecting the so-called expertise of a very small number of product defense/ mercenary tobacco scientist whose opinions are bought and paid for, and whose work prevailed with public utility commissions, legislatures, and municipalities across the county.

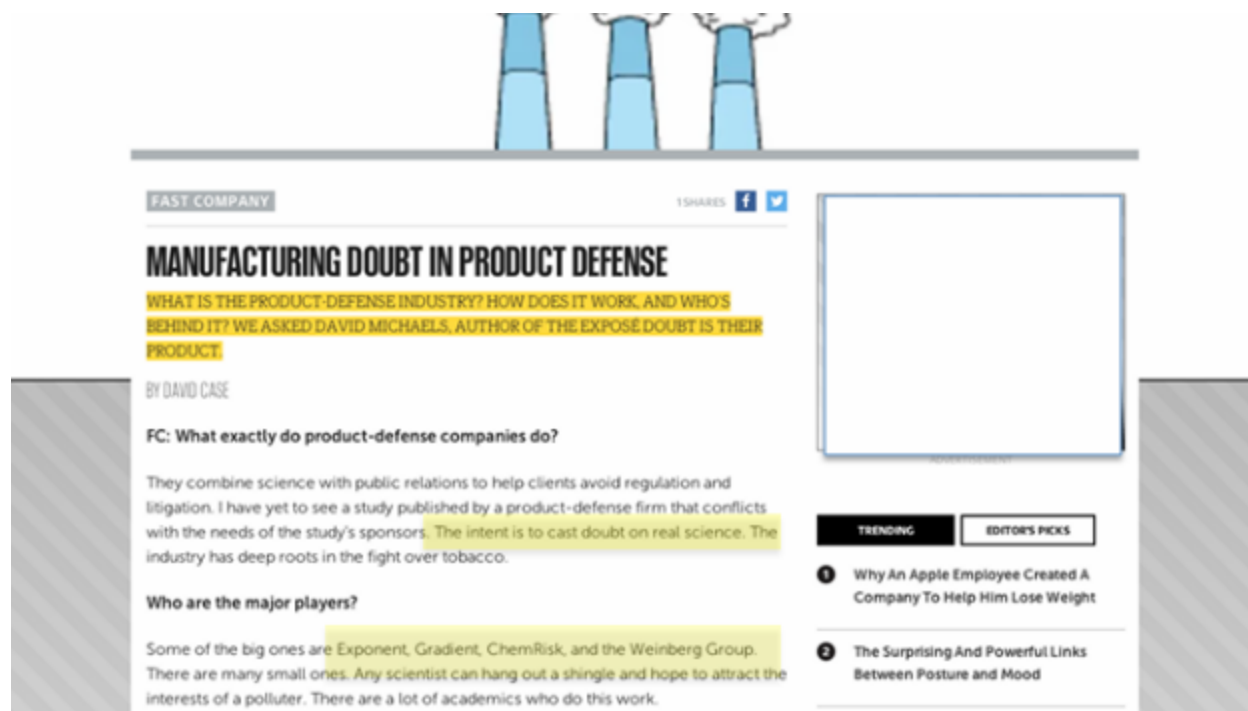
Product Defense and Smart Meters

With smart meters, tobacco science came to the rescue of another inadequately regulated industry that was causing harm.

But it was no longer product defense.

Compromised expertise was used offensively against the public because there were inadequate checks and balances to prevent the erosion of science pertaining to health and safety.

It is not too late to bring integrity to the safety inquiry.



[Manufacturing Doubt in Product Defense - Fast Company](#)

Early Framing of the Smart Meter Health and Safety Issue

From the start, the industry, regulators, and allied interests shifted the “burden of proof” for harm to the public, instead of requiring biologically-based premarket proof of safety.

Massachusetts and Rhode Island and parts of New York are currently deploying smart meters, and the state of the safety conversation is now on display on the websites of the investor-owned utilities involved. Not much has changed in 15 years.

These deployments offer an opportunity to witness the current state of the health science unfolding in real time.

National Grid's MA site currently offers; [Meter Safety | National Grid](#) (accessed 10/20/27)

Frequently Asked Questions

Are smart meters widely used? ▼

What's radio frequency (RF) technology? ▼

Are the RF signals emitted by my smart meter safe? ▼

Am I still in control of my energy usage? ▼

Will my personal information and data remain secure? ▼

How does a smart meter's RF exposure compare to other household devices? ▼

Scrolling down to the question:

Are the RF signals emitted by my smart meter safe? ▲

The RF emitted by smart meters is well below the limits set by Federal Communications Commission, and is only a fraction of the levels produced by other everyday devices like cell phones, baby monitors, and microwave ovens. In fact, to get a dose equivalent to, you would need to be exposed to the RF from a smart meter for 375 years.

With over 25,000 articles published on the topic over the last 30 years, scientific knowledge about the effects of RF is now more extensive than for most chemicals. No credible evidence shows any threat to human health from RF emissions at or below RF exposure limits developed by the FCC.

Source:

- [SmartGrid Consumer Collaborative: Myths vs. Facts \(pdf\)](#)

(Working link to unsubstantiated flyer from the SmartGrid Consumer Collaborative from screen shot above.: [1009-WaltBaum04.pdf](#))

MYTH NO. 2

Smart meters are a health threat because they communicate using wireless signals.

TRUTH: In-depth review of the scientific literature by the World Health Organization (WHO) revealed that the small amount of radio frequency (RF) energy produced by smart meters is not harmful to human health.

TRUTH: RF emitted by smart meters is well below the limits set by Federal Communications Commission and it is below levels produced by other common household devices like cell phones, baby monitors, satellite TVs, and microwaves. In fact, you would have to be exposed to the RF from a smart meter for 375 years to get a dose equivalent to that of one year of 15-minutes-per-day cell phone use.

No credible evidence shows any threat to human health from RF emissions at or below RF exposure limits developed by the FCC. With over 25,000 articles published on the topic over the last 30 years, scientific knowledge in this area is now more extensive than for most chemicals.

Re; the quote referencing the 375 years comparison to cellphones offers no source for the calculations.

The word “credible” is utilized to strategically to nullify reported harm.

The link to another page on the website takes the reader here:

Smart meter safety resources

[**Read more about smart meter radiation from trusted sources.**](#)



The drop down menu is below.

Read more about smart meter radiation from trusted sources. ▲

- [FCC Radio Frequency \(RF\) Safety Guidelines](#)
- [RF Safety FAQ from FCC](#)
- [World Health Organization \(WHO\) information on electromagnetic fields and health](#)
- [WHO International EMF Project \(1996\)](#)
- [Jersey Central Power and Light RF Fact Sheet](#)
- [US Dept of Energy – Smart Meter Summary Report](#)
- [California Council of Science and Technology – Health Impacts of Radio Frequency Exposure from Smart Meters](#)
- [Texas Senate – The Truth about Smart Meters](#)
- [National Institute of Environmental Health Sciences \(NIH\) Electric & Magnetic Fields](#)
- [Electric Power Research Institute \(EPRI\) RF Exposure Associated with Residential Automatic Meter Reading Technology](#)

ADDITIONAL ARTICLES AND RESEARCH

- [Dr. Joe Schwarcz, Director of McGill University's "Office for Science and Society" - Smart Meters and Radio Waves](#)
- [Klaus Bender, PE, Director of Standards & Engineering, Utilities Telecom Council - "No Health Threat From Smart Meters"](#)
- [Dr. Samet Tonyali, IEEE SmartGrid - Security and Privacy Concerns in Smart Metering: The Cyber-Physical Aspect](#)
- [Afiq Fitri, Tech Monitor - How secure are smart meters?](#)

(Hyperlinks are not live because this is a screen shot. Listings are edited for length).

In the first grouping of resources, the Jersey Central Power and Light RF Sheet is here:

[New Jersey Smart Meter radio frequency fact sheet](#)

In fact, smart meters produce significantly less RF exposure than other common electric devices, such as cell phones, baby monitors, wireless routers, laptop computers and microwave ovens. What's more, RF exposure depends partly on the proximity of the RF source to a person. Smart meters are usually located on the outside of your house in a metal box, away from your daily routine activity. Due to the extremely brief exposure to the radio waves that smart meters produce, there have been no long-term health effects identified as a result of the installation of smart meters, according to a study conducted by the California Council on Science and Technology.³

The CCST "study" linked above is described here:

[Abstract](#) Smart Meters are electronic monitoring devices that continuously measure the electricity output from each household and business. They communicate on a regular basis back to the utility. The goal is to enable power companies to better understand

patterns of power consumption throughout the day and adjust power generation accordingly.

At the request of Assembly Member Jared Huffman (Marin) and Assembly Member Bill Monning (Santa Cruz), CCST agreed to compile and assess the evidence available to address the following two issues:

- Whether FCC standards for SmartMeters are sufficiently protective of public health taking into account current exposure levels to radiofrequency and electromagnetic fields.*
- Whether additional technology specific standards are needed for SmartMeters and other devices that are commonly found in and around homes, to ensure adequate protection from adverse health effects.*

CCST found that, given the body of existing, generally accepted scientific knowledge regarding smart meters and similar electronic devices, the FCC standard provides an adequate factor of safety against known RF induced health impacts of smart meters and other electronic devices in the same range of RF emissions. At this time, there is no clear evidence that additional standards are needed to protect the public from smart meters or other common household electronic devices.

The final version of the report takes taking into account input and reviews received during the public comment period in January. Comments received as part of this process have also been released.

The CCST paper is not a “study.” It is an opinion.

It was “published March 31, 2011 (Last Updated: February 20, 2015)”

The link to [Texas Senate – The Truth about Smart Meters](#) is a link to the same flyer that is provided by the Smart Grid Consumer Collaborative, a non-profit industry group which incidentally has no consumers, and has since been rebranded The Smart Energy Consumer Collaborative:

“SECC is a nonprofit organization that works to learn the wants and needs of energy consumers in North America, encourages the collaborative sharing of best practices in consumer engagement among industry stakeholders, and educates the public about the benefits of smart energy technology”.

Most of the resources listed are from the engineering community, and none represent research regarding smart meters and human health and biology.

The allied organizations are simply parroting a theory that there are no non-thermal impacts for non-ionizing RF radio frequency radiation, and therefore smart meters are safe.

In the second grouping of additional resources, there are four listings:

ADDITIONAL ARTICLES AND RESEARCH

- [Dr. Joe Schwarcz, Director of McGill University's "Office for Science and Society" - Smart Meters and Radio Waves](#)
- [Klaus Bender, PE, Director of Standards & Engineering, Utilities Telecom Council - "No Health Threat From Smart Meters"](#)
- [Dr. Samet Tonyali, IEEE SmartGrid - Security and Privacy Concerns in Smart Metering: The Cyber-Physical Aspect](#)
- [Afiq Fitri, Tech Monitor - How secure are smart meters?](#)

The first link is an article, not a study: [Dr. Joe Schwarcz, Director of McGill University's "Office for Science and Society" - Smart Meters and Radio Waves](#) is the article "Smart Meters and Radio Waves "Are the new Smart Meters from Hydro Quebec safe? Are they different from a cordless or cell phone when it comes to RF emissions?" March 20, 2017

Author Joe Swartz is listed as a PhD, not a MD:

Cell phones, microwave ovens, wi-fi, smart meters. What do they have in common? They all emit radiation in the radiofrequency range. And they all radiate controversy. Given that these devices are set to become as commonplace as light bulbs, it is understandable that questions arise about their possible health effects. There are all sorts of allegations that exposure can trigger ailments ranging from headaches to cancer. Allegations, however, do not amount to science. And there is a lot of science to be considered.

The "smart meters" that are being installed by electrical utilities monitor the use of electricity and relay the information via a built-in radio transmitter. But the radiation to which people are exposed from these meters quickly drops off with distance, as with the light bulb, and is way below established safety limits. Furthermore, the smart meters only transmit for a few milliseconds at a time for a grand total of a few minutes a day! Cordless phones, cell phones, routers, baby monitors, video game controls and especially operating microwave ovens expose us to similar radiation, usually at far higher levels. Smart meters are responsible for a very small drop in the radiofrequency photon bucket. []

It must be pointed out, though, that safety standards are essentially based on the heating of tissues. But what about the possibility of “non-thermal” effects? What if radiofrequency photons cause damage by some other mysterious mechanism? Over the last 30 years more than 25,000 peer-reviewed papers have been published on electromagnetic fields and health, many devoted to non-thermal effects. Health agencies do not find present evidence persuasive of a hazard at ordinary exposure levels, and given the extent of research that has been carried out, it is unlikely that one will be identified in the future.

Despite the weak evidence, the International Agency for Research on Cancer has classified electromagnetic fields associated with radiofrequencies as “possibly carcinogenic,” indicating a level of suspicion without any implication that the fields actually cause cancer. This notion pertains to cell phone use and has nothing to do with the far weaker fields associated with wi-fi and smart meters. I would have no issue with a smart meter in my house.

What then about those consumers who claim they have developed symptoms after smart meters were installed? I think it is appropriate to consider John Milton’s poetic view of the power of imagination: “The mind is its own place, and in itself can make a heaven of hell and a hell of heaven.”

Translation: It’s all in their heads.

The Second Link: [Klaus Bender, PE, Director of Standards & Engineering, Utilities Telecom Council - “No Health Threat From Smart Meters”](#) 2010,

Excerpted from the Fourth Quarter 2010 Issue of the UTC JOURNAL. 9 pages

“So, when confronted with complaints that say smart meters cause a variety of health effects, ask the complainant to produce the science to support the claim. The conversation should end shortly thereafter. “



No Health Threat From Smart Meters

by
Rinos Bender, PE
Director of Standards & Engineering
Utilities Telecom Council

An examination of a majority of smart meters being deployed today will show these devices use low power levels associated with unlicensed devices, on the equivalent magnitude as the devices that provide WiFi connectivity in the home. Millions of laptop computers are used in homes every day that transmit at levels similar to the smart meter and the transmitters from these devices are always "on". Some utilities are deploying meter reading systems that use commercial wireless providers to gather data. These meters have the same radio components as cell phones, the same phone consumers raise to their head every day.

So when confronted with complaints that say smart meters cause a variety of health effects, ask the complainant to produce the science to support the claim. The conversation should end shortly thereafter.

Third Resource: [Dr. Samet Tonyali, IEEE SmartGrid - Security and Privacy Concerns in Smart Metering: The Cyber-Physical Aspect](#) July 2018 re Security, not Health

Fourth Resource: [Afiq Fitri, Tech Monitor - How secure are smart meters?](#) August 2022, How secure are smart meters? Despite huge investments in cybersecurity by energy companies, concerns persist about the vulnerability of smart meters to breaches, not Health

The Smart Grid Consumer Collaborative's work (mentioned on pages 13,14) and still being disseminated on utility websites.

In how many other product fields do these offerings pass as proof of safety, and in how many other fields is "science" this old passed off as up-to-date?

Who was the Smart Grid Consumer Collaborative? Members included a number of public utility commissions, environmental groups, and industry groups, all of whom ignored reported harm



Who is/was the Smart Meter Safety Expert for the Smart Grid Consumer Collaborative?



Gradient Tobacco Scientist Peter Valberg

Valberg's testimony submitted in Maryland was referenced in other state's proceedings.

For example here for Florida Power and Light: [Microsoft Word - Valberg Testimony 4-5-2012.docx](#)

None of the links in his testimonies actually reference smart meter safety research because no actual health and safety research was conducted

IN THE MATTER OF THE APPLICATION OF BALTIMORE GAS AND ELECTRIC COMPANY FOR AUTHORIZATION TO DEPLOY A SMART GRID INITIATIVE AND TO ESTABLISH A SURCHARGE MECHANISM FOR THE RECOVERY OF COST	• • • • • • •	BEFORE THE PUBLIC SERVICE COMMISSION OF MARYLAND Case No. 9208
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TESTIMONY OF DR. PETER A. VALBERG

1 **Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS.**

2 A. My name is Peter A. Valberg and my business address is Gradient, 20 University Road,
 3 Cambridge, Massachusetts 02138-5156.

4 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

5 A. I am a Principal for Environmental Health at Gradient, an environmental consulting firm
 6 specializing in quantitative assessment of environmental impact and human health risk. I
 7 specialize in quantitative analysis of exposure and toxicology of environmental agents,
 8 including ionizing and non-ionizing radiation. I have extensively researched and studied the
 9 links between human health and people's exposure to specific agents such as radio-wave
 10 frequencies ("RF"), and electric and magnetic fields ("EMF").

11 **Q: WHY ARE YOU PROVIDING THIS TESTIMONY?**

12 A: I have been asked by BGE to analyze the health effects of RF exposure from smart meters. I
 13 conclude that RF from smart meters do not present a hazard to health.

14 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.**

[Microsoft Word - Valberg Testimony 4-5-2012.docx](#) 11 pages

9 **Q. SOME OPPONENTS OF "SMART METERS" STATE THAT "Smart meters are**
 10 **always on and exposure people to constant pulsating RF energy." IS THIS A**
 11 **LEGITIMATE CONCERN?**

12 A. No. Smart meters transmit at a very low duty cycle (that is, the devices transmit for a very
 13 small fraction of the time). As calculated above, the approximate, full-day RF exposure to a
 14 resident of a house from a smart meter is comparable to that produced by use of a cellular
 15 telephone for about 10 seconds. Typically, the smart meters transmit less than about 2
 16 minutes a day on average, and less than about 16 minutes a day for 99.9% of meters.

Despite the fact that ratepayers in many areas objected to the compromised science and reliance on this source of expertise, Valberg and/or other tobacco scientists prevailed.

Does this constitute malfeasance on the part of some decision-makers?

MALFEASANCE Definition & Meaning - Merriam-Webster

<https://www.merriam-webster.com/dictionary/malfeasance>

malfeasance

mal-'fē-zən(t)s

NOUN

wrongdoing or misconduct especially by a public official

The investigation has uncovered evidence of corporate malfeasance.

How Many Transmissions?

The obfuscation of the actual number of times that a meter transmits came to light in California, after an explosion of health complaints associated with the highly publicized installations over fifteen years ago.

As reported by the EMF Safety Network here: [PG&E's Big Confession](#)

"PG&E's paltry, inconsistent and contradictory information on RF emissions from Smart Meters is unbelievable and at odds with other RF expert findings. Several PG&E bulletins and spokespersons make varying claims on how often the Smart Meter electric meters transmit RF, anywhere from every hour to every 4 to 6 hours to 2% or 4% of the time."

We just wanted the facts, but the CPUC rubber stamped PG&E's claims of RF safety and dismissed our application stating:

"All radio devices in PG&E's Smart Meters are licensed or certified by the FCC and comply with all FCC requirements."

"Smart Meters produce RF emissions far below the levels of many commonly used devices."

PG&E provides information from Richard Tell Associates on their website titled, "Supplemental Report on An Analysis of Radiofrequency Fields Associated with Operation of the PG&E SmartMeter Program Upgrade System"

This report states Smart Meters transmit at 1 watt with 0 antennae gain. It claims:

The 1 watt transmitter is configured to transmit data approximately once every four hours back to the company so its duty cycle is very small (the actual data transmission duration during any four hour period will vary, however, depending on how often a particular meter transmitter acts as a repeater for other nearby meters).

From PG&E's Smart Meter FAQ: *SmartMeters™ utilize a low power (1 watt) wireless radio to send customer energy-usage information wirelessly to PG&E for data collection.....*

Do electric SmartMeters™ constantly emit RF? PG&E answers:

No. SmartMeters™ communicate intermittently, with each RF-signal typically lasting from 2 to 20 milliseconds. These intermittent signals total, on average, 45 seconds per day. For the other 23 hours and 59 minutes of the day, the meter is not transmitting any RF.

In a [letter to Congresswoman Lynn Woolsey](#), the FCC writes, “the devices [Smart Meters] normally transmit for less than one second a few times a day and consumers are normally tens of feet or more from the meter face...”

CPUC administrative law judge Amy Yip-Kikugawa ordered all investor owned utilities (IOU's) to answer Smart Meter radio frequency (RF) questions. [PG&E's answers](#) are an astounding confession!

Question 2: How many times in total (average and maximum) is a smart meter scheduled to transmit during a 24-hour period?

PG&E says the average number of RF pulses for the electric meter would be about 10,000, per meter, per day and the maximum number over 190,000.

90% of these pulses are for the mesh network maintenance (signals bouncing from homes) and only 6 pulses are for reading the meter data. This doesn't include Home Area Network transmissions.

How about peak power figures? **The PG&E electric meter transmits at 900MHz with 1 watt of transmit power. It has an antennae gain 4.0 dBi for a peak level power of 2.5 watts.** *That's two and a half times more than their safety data stated.* The wireless gas meters transmit between 4 and 5 times a day at 132-794 mW. Answers provided by [San Diego Gas and Electric](#) and [So Cal Gas](#) were similar, although PG&E electric meters appear to be five times stronger, just like Sage Associates found in their [study](#). – EMF Safety Network.

How many times a PG&E smart meter transmits in 24 hours

TABLE 2-1

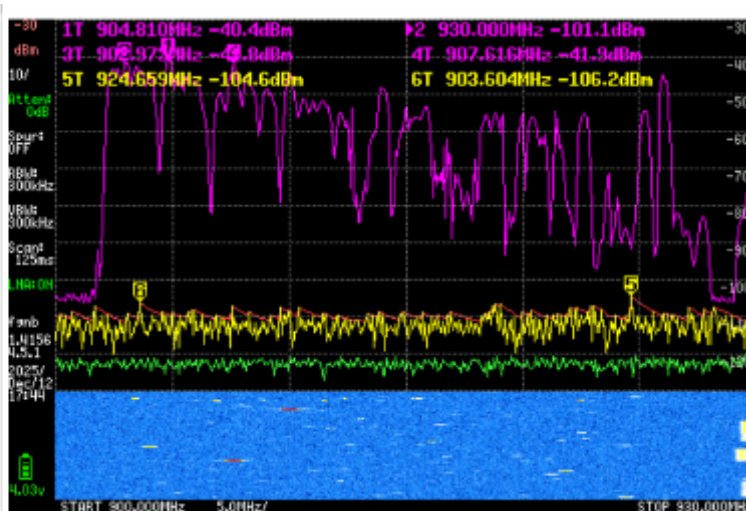
Electric System Message Type [a]	Transmission Frequency Per 24-Hour Period: Average	Transmission Frequency Per 24-Hour Period: Maximum (99.9 th Percentile)
	[b]	[c]
Meter Read Data	6	6
Network Management	15	30
Time Synchron	360	360
Mesh Network Message Management	9,600	190,000
Weighted Average Duty Cycle	45.3 Seconds ^d	875.0 Seconds
TOTAL TRANSMISSIONS	9981	190,396

Forensic Evidence in a Massachusetts Home, Transmissions Every Ten Seconds

In her anonymous testimony to the HHS; "Submitted by Anonymous: An 80-year old Massachusetts widow and grandmother driven from my owner-occupied townhouse – by smart meter radiofrequency radiation, *when harm had already been reported years earlier,*" forensic evidence is provided indicating that the meters being deployed in MA were transmitting every 10 seconds. Exposures from banks of meters have never been questioned by the FCC or the industry.

Readings from a Townhouse with Multiple Meters, Explanation Courtesy a Certified Building Biologist:

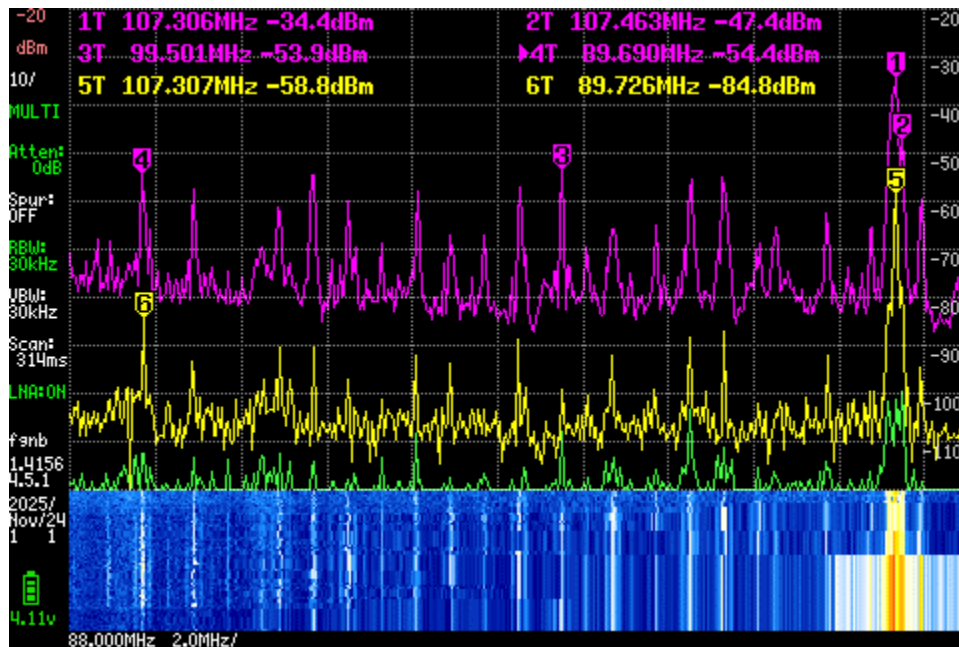
Also in the hallway with the as-found mylar on the wall, we see very high AMI/AMR traffic in the 900MHz range. This is what we think the mylar might be blocking a bit, but these signals are still pretty high. The bright red lines and dot in the blue region represent meter traffic that is very strong and likely on the other side of the wall.



Observing the RF Radiated In Front of the Meter Bank. I was situation about 2-3 feet in front of the E360 Revelo meters, though contributions from the other 5 older meters were probably included. Over the course of one minute, several strong pulses were detected in the 900MHz range. More important will be the signals as measured inside the home.

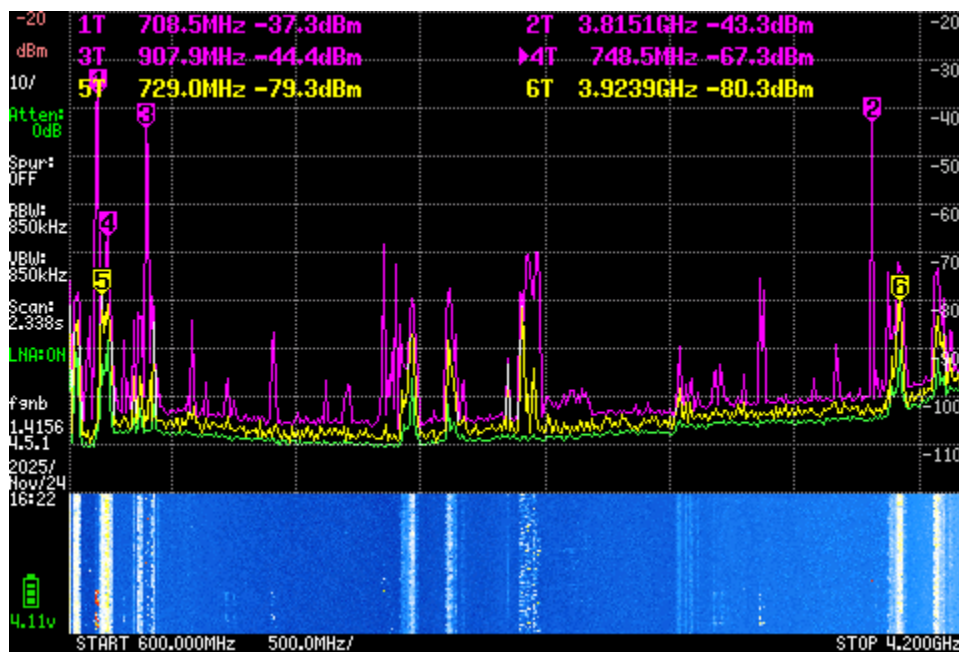
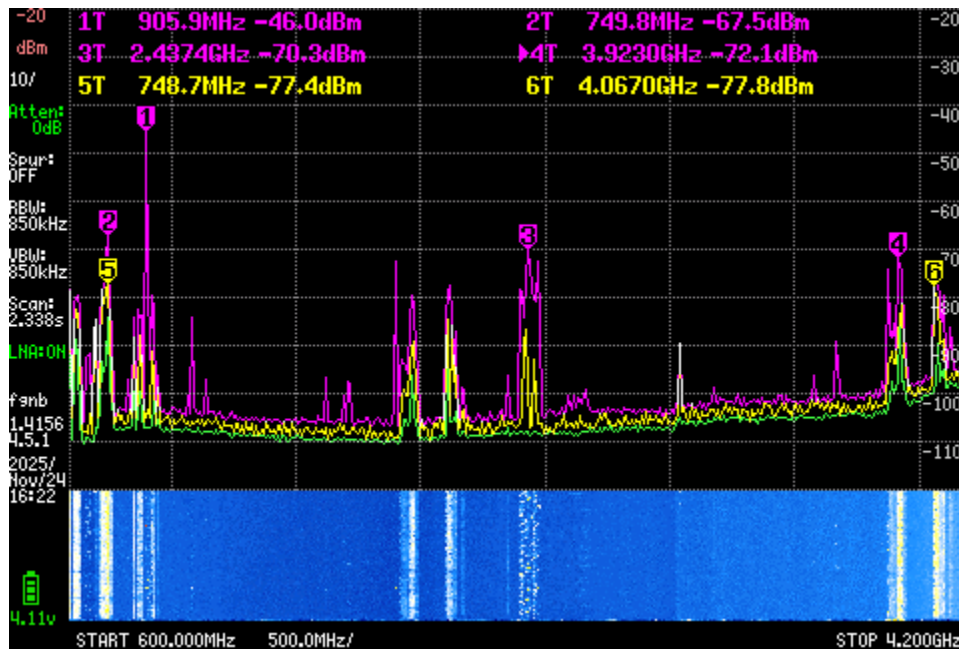


There is a very strong local FM radio station but the smart meters were at least double that strength (≥ 4 dB).



Other signals in the condo were generally at least 4X - 40X lower in peak value than the ongoing smart meters (~-6 - -16 dB). The owner does not employ much wireless technology in her home, except for short periods.

When the neighbor is active, then their WI-FI or cell signal do increase the exposure, but it is for a relatively short time period by comparison to the 24/7 impact of the smart meters for those dozens of condos.

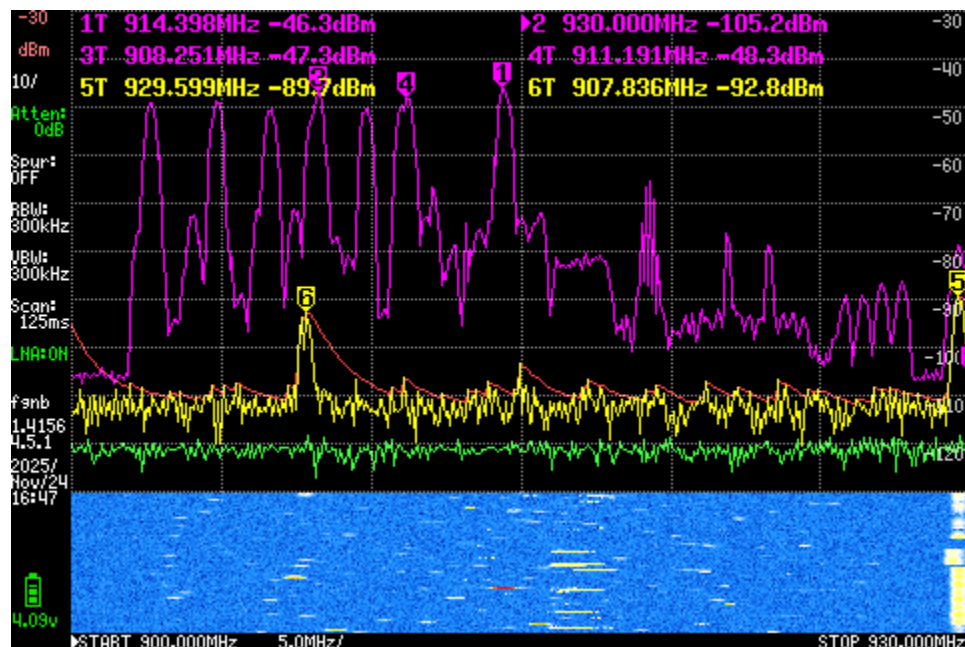


Everywhere in the apartment, there is a constant assault from the NGrid AMI/AMR meters.

The blue represents the history of the last 10 seconds.

Every little horizontal 'dash' represents a short data pulse portion on the order of a few milliseconds in duration.

There is not a second that went by in which some AMI/AMR RF broadcast was detected inside her condo.



Here is the current claim that National Grid makes about how often the meters transmit:

[Meter Safety | National Grid](#)

How does a smart meter's RF exposure compare to other household devices?

RF exposure from a smart meter is far less and more infrequent than other common household devices (see chart below). Plus, a smart meter usually broadcasts its signal for less than 60 seconds and typically less than a total of 15 minutes per day.



[Meter Safety | National Grid](#)

Eversource currently avoids the question about how often the meters transmit, simply referring to “low levels”

Are smart meters safe regarding radio frequency (RF) and electromagnetic field radiation (EMF)?

We rely on Radio Frequency (RF), which is a type of Electromagnetic Field Radiation, for many devices in our everyday lives, such as police and fire radio systems, cell phones, wireless internet and more. The Federal Communications Commission requires that all wireless devices sold in the United States, including smart meters, meet minimum guidelines for safe human exposure to RF energy. RF is also monitored and regulated by the Environmental Protection Agency, Food and Drug Administration, National Institute for Occupational Safety and Health and the Occupational Safety and Health Administration.

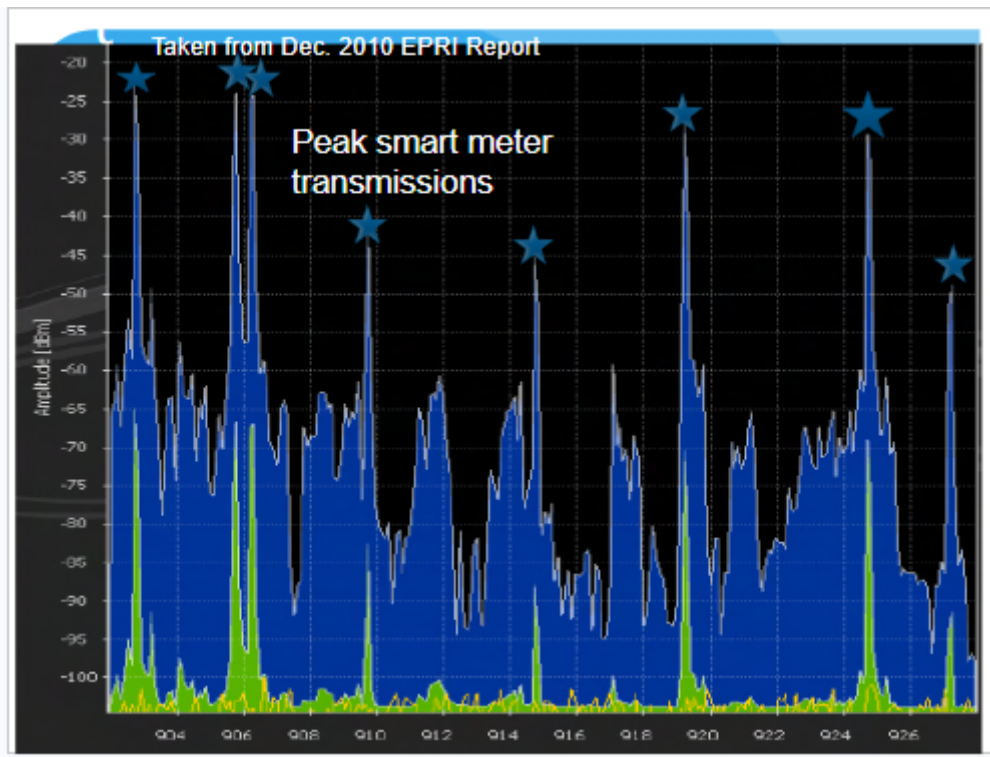
The low levels of RF emitted from a smart meter are well below regulatory limits. When a smart meter is transmitting, the exposure to RF energy at a distance of 8 inches from the meter is 0.06 mW/cm² at 902 Mhz, or almost 10 times lower than the exposure limit set by the FCC.

Here are some additional resources on smart meters and RF.

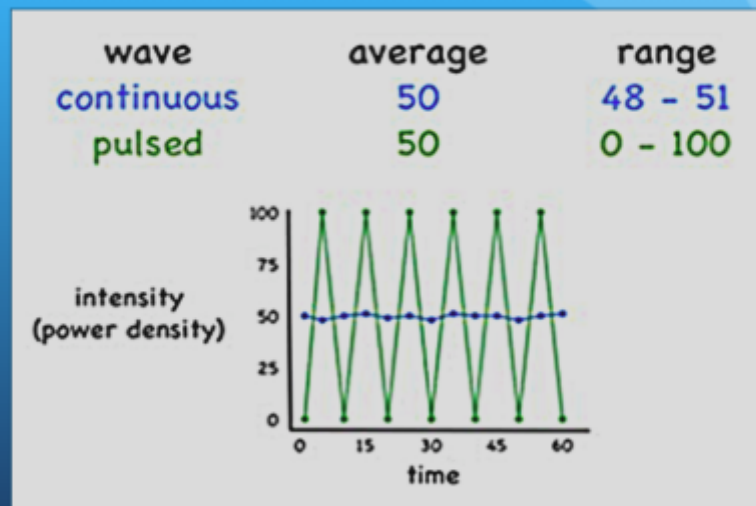
- [Electric Power Research Institute](#)
- [American Cancer Society](#)

Any investigation of the biological impact of the meters on health requires accurate data about the actual exposures created by the meters and supporting infrastructure.

This includes not averaging the peak exposures, and paying attention to the all of the variables for the different transmissions.



Pulsed versus Continuous Wave



Bodies react to actual exposure, not averages!

Beyond the Smart Grid Consumer Collaborative, how extensively has the reach of tobacco science infiltrated the smart meter safety discussion?



Tobacco Scientist Peter Valberg: "consumer concerns about smart meters are unfounded and not based in science."



Tobacco Scientist Peter Valberg for Utilities Telecom Council



Tobacco Scientist Peter Valberg Debunking Myths about Smart Meters



Radio Frequency Health Expert Tobacco Scientist Peter Valberg



The screenshot shows a web browser window with the address bar displaying 'http://www.energysmartflorida.com/'. The page title is 'Energy Smart Florida'. The navigation bar includes links for 'What is the smart grid?', 'What is a smart meter?', 'What is a smart plug?', and 'Resource Library'. The 'Resource Library' link is highlighted. The main content area is titled 'Resource Library' and features a grid of video thumbnails. A large blue arrow points from the 'What is a smart plug?' video thumbnail to the 'Energy Smart Plug' video thumbnail.

[illegible]

Tobacco Scientist Peter Valberg for Smart Meters: FLORIDA

The Facts about Smart Meters

Florida Power & Light Company is investing in smart grid technology to keep service reliability high and give customers more information to better manage their energy use and improve safety. Smart meters are an essential part of this system, and they are necessary to provide these important benefits. Some customers have asked us about false rumors they have heard or seen on the Internet. In the interest of accuracy, here are the facts.

Myths	Facts
Smart meters broadcast information about your daily personal habits.	Fact: Like the older mechanical meters, smart meters measure how much energy you use, not how you use it. The smart meter does not store or transmit any information about who our customers are, when they're in smart their daily, nor does it reveal what customers they use. We do not sell customer data or share information about their energy consumption with any third party. Unless the customer consents to it, we are required to respond to a legally bound subpoena or court order. At all times, we retain good records of our customer data and retain appropriate safeguards in place to protect customer data and the security of our network.
Smart meters present a health hazard due to radio frequency (RF).	Fact: Smart meters radio communications only short bursts lasting just a few seconds. In fact, on average they emit only one RF pulse every 10 minutes. The Federal Communications Commission (FCC) sets limits on the maximum permissible exposure to emissions of RF emitting devices. These limits are well below the point at which even designed research about smart meters using radio frequency (RF) signals or fields that are hundreds of times lower than the FCC limit. No credible peer-reviewed studies have substantiated claims that smart meters cause health problems.
Smart meters cause fire.	Fact: A smart meter is just like a mechanical meter, except it can send data. On the more than 10 million smart meters installed by FPL, our meter is built to meet the same safety standards as the older mechanical meters. These meters are well below the point at which even designed research about smart meters using radio frequency (RF) signals or fields that are hundreds of times lower than the FCC limit. No credible peer-reviewed studies have substantiated claims that smart meters cause health problems.
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Smart meters are an essential part of FPL's investments in modernizing the electric grid for the benefit of all customers. Smart meters help us deliver better service, improve safety, and help us manage our energy use and costs more effectively. Smart meters also help us deliver better service to our customers. Smart meters are a key part of the system, and they are necessary to provide these important benefits. Some customers have asked us about false rumors they have heard or seen on the Internet. In the interest of accuracy, here are the facts.

1. Improved reliability: Smart meters work with other components on the grid to help control and protect the system.

2. Faster restoration: Smart grid technology will help us see changes in the system so we can begin restoration more quickly.

3. Customers in control: By accessing the online energy dashboard, you can monitor your own energy use and get more control over it. Customers can already use the tool to save money, so you can use it on www.fpl.com/energysmart.

4. Better service: If you have a question about your bill, we can look at your energy dashboard with you and resolve issues more effectively.

5. More convenience: We won't have to come to your home every month to read the meter. You won't need occasional access for trouble-free service.

6. No more scheduled calls for meter-to-meter meters: You won't have to worry about scheduling your meter reading. Special arrangements to give us access.

To learn more, go to www.fpl.com/energysmart.

"In my opinion, people should not be concerned about the health impacts or health implications of smart meters because it's a technology that is very well-understood."

Dr. Peter A. Valberg, 30 years experience on the faculty of the Harvard School of Public Health and at Goddard, a leading environmental consulting firm.

Tobacco Scientist Peter Valberg for Smart Meters: FLORIDA

Smart Meters

Safe, Secure Technology is Part of a Smarter, More Reliable Power Grid

Florida Power & Light Company is investing in smart grid technology as part of our commitment to modernize the electric grid. Smart meters are a key part of this system. Some customers have asked whether there are potential health effects of electric and magnetic fields (EMF), or more specifically the radio frequency (RF) emitted from smart meters. We want to assure our customers that FPL's smart meters comply fully with Federal Communications Commission (FCC) health and safety standards.

How they work: Most electricity meters in place today use old technology, with either moving mechanical parts or electronic circuits that lack the ability to communicate remotely. With these

"In my opinion, people should not be concerned about the health impacts or health implications of smart meters because it's a technology that is very well-understood."

Dr. Peter A. Valberg, 30 years experience on the faculty of the Harvard School of Public Health and at Goddard, a leading environmental consulting firm.

Tobacco Scientist Peter Valberg for Smart Meters: MARYLAND



Human body heat is more energetic MARYLAND

Expert Testimony of Dr. Peter Valberg on Smart Meter Health Impacts

The radio waves from smart meters aren't dangerous to our health – our own bodies put out far more energy into the electromagnetic spectrum. Our bodies generate heat energy (in the infrared spectrum), that can be seen by a "night-vision" camera. These infrared waves are far more energetic than the radio waves used by smart meters, and the energy emitted continuously by our bodies (about 100 watts) is far greater than the intermittent signal from the smart meter at one watt or less.

The Electromagnetic Spectrum: Examples of How Wave Properties Change with Frequency:
Each column shows wavelength, frequency, and photon energy for each portion of the spectrum.

Radio	Cell Phone, Cordless Phone	Microcomputer, Radio	Radio (FM, AM, Shortwave)	Visible Light	Nuclear	Gamma Rays
100 m to 10 km	30 cm to 6 cm	1 m to 10 cm	100 m to 10 km	400 nm to 700 nm	10 ⁻¹⁰ m to 10 ⁻¹⁴ m	10 ⁻¹² m to 10 ⁻¹⁵ m
30 Hz to 300 kHz	800 MHz to 2 GHz	60 Hz to 100 MHz	300 kHz to 300 MHz	400 THz to 800 THz	10 ¹⁰ Hz to 10 ²⁰ Hz	10 ¹⁹ Hz to 10 ²⁴ Hz
10 ⁻¹⁸ J to 10 ⁻²⁷ J	10 ⁻¹⁸ J to 10 ⁻²⁷ J	10 ⁻¹⁸ J to 10 ⁻²⁷ J	10 ⁻¹⁸ J to 10 ⁻²⁷ J	10 ⁻¹⁸ J to 10 ⁻²⁷ J	10 ⁻¹⁰ J to 10 ⁻¹⁴ J	10 ⁻¹⁰ J to 10 ⁻¹⁴ J
Radio waves	Cell phone, cordless phone	Microcomputer, radio	Radio (FM, AM, Shortwave)	Visible light	Nuclear	Gamma rays

Tobacco Scientist Peter Valberg for Smart Meters: ARIZONA

aps Meter Information Center

Take control of your energy usage

At APS, we continue to improve our infrastructure to bring our customers the benefits of the smart technology. Since 2008, we have installed over 1 million smart meters, which have allowed the customer to take control of their energy usage and enables customers to use energy more efficiently and safely in their homes.

Please visit our customer benefit page to learn more about the opportunities that our smart meter delivers. Or take advantage of these new tools after your meter has been installed. It's a right to your APS account.

[Learn more](#)

APS: To smart meters, smart meters.

Dr. Peter Valberg, Ph.D., M.D. (Tobacco Scientist) discusses the health effects of tobacco products and the risks associated with tobacco use.

[Watch the video](#)

[Log in/Register](#)

To help improve the quality of your smart meter.

Tobacco Scientist Peter Valberg for Smart Meters: OREGON

Understanding radiofrequency (RF) waves and Smart-Meter health effects

Peter Valberg, Ph.D.
Public Health and Health Risk Assessment
Gradient
20 University Road
Cambridge, MA 02138

Presentation to EWEB on RF Safety and Smart Meters
July 23, 2013

Tobacco Scientist Peter Valberg for Smart Meters: TEXAS

ONCOR SAFETY

Radio frequency (RF) signals from smart meters are well within any scientific-based standards of safety governing impacts of RF on human health. And it is worth the peace of mind health benefits to customers' whole homes.

On Power's safety, former safety member and researcher at the Harvard School of Public Health

- Advanced meter radio frequency (RF) signals are well below those of other communications, including cell phones, baby monitors and microwave ovens.
- The Federal Communications Commission, the International Electrotechnical Commission and the American National Standards Institute have set comprehensive standards for advanced meter RF emissions, which Oncor strictly follows.
- No inactive scientific studies have linked the weak RF signals that advanced meters use to adverse health risks.
- Advanced meter RF levels are significantly less than other devices, and are also generally far below levels of the home, which further diminishes the weak, intermittent signal.

Tobacco Scientist Peter Valberg for Smart Meters: PENNSYLVANIA

Edison Energy Radio Frequency/Health

Numerous studies – including a study [conducted by the California Council on Science and Technology](#), as well as a study [conducted by the Electric Power Research Institute \(EPRI\)](#) – have shown that smart meters using radio frequency (RF) technology pose no health risk. A smart meter with RF technology uses a low-power radio to communicate the electricity usage of a home or business to the electric company through remote telecommunications technologies.

The radio technology employed by digital meters is similar to that used in a variety of devices that are in widespread use in homes, businesses, and public facilities. RF exposure from a smart meter is far below the levels and frequency of other common electric devices, including cell phones, televisions and remote controls, car stereo garage door openers, motion detectors, baby monitors and microwave ovens. In fact, the RF exposure levels from smart meters are far below the levels specified by the Federal Communications Commission (FCC), which sets health standards for RF exposure. Based on extensive reviews of the biological and health literature.

According to research by EPRI, the "relative risk" strength of the RF signals generated by smart meters means that any impact of RF exposure would be minimal – similar to the levels of the exposure from televisions and radios.

Due to the extremely brief exposure to the radio waves that smart meters produce, there have been no long-term health effects identified as a result of the installation of smart meters, according to a study [conducted by the California Council on Science and Technology](#).

The World Health Organization (WHO) states: "To date, all expert reviews on the health effects of exposure to RF fields have reached the same conclusion: There have been no adverse health consequences established from exposure to RF."

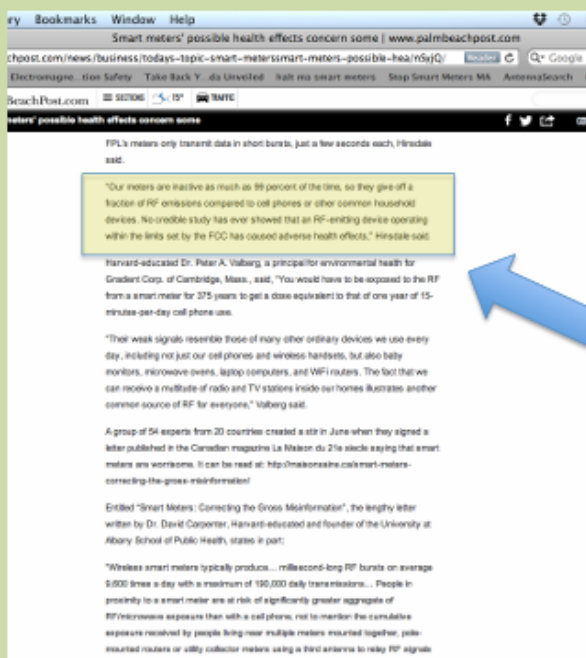
Quick Links

- FAQs
- Radio frequency/health
- Security and privacy
- Installation schedule
- What you can expect
- Online resources and fact sheets
- Contact us

"Radio frequency signals from (smart) meters are well within any **science-based standards** of safety governing impacts of RF on human health, and as a result, they pose **no legitimate health concerns** for customers whose homes have smart meters," Dr. Peter Valberg, former faculty member and researcher at the Harvard School of Public Health, said in the Oncor brochure. - TEXAS



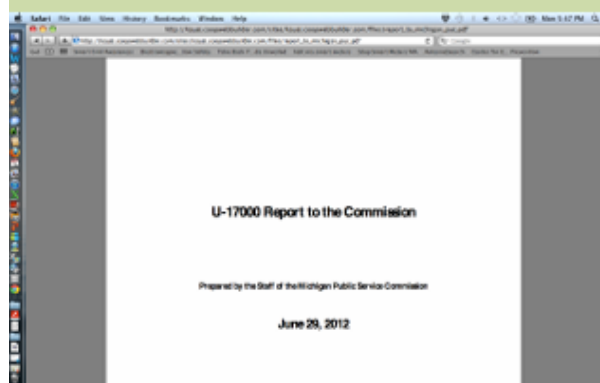
Harvard-educated Dr. Peter A. Valberg, a principal for environmental health for Gradient Corp. of Cambridge, Mass., said, "You would have to be exposed to the RF from a smart meter for 375 years to get a dose equivalent to that of one year of 15-minutes-per-day cell phone use." FLORIDA





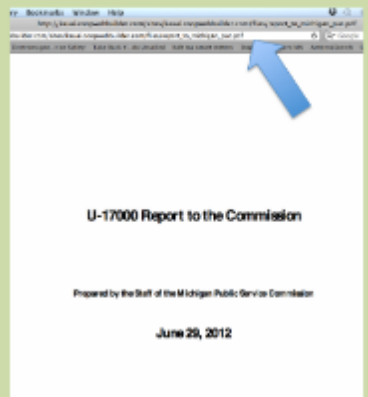
The image displays two side-by-side screenshots of a web browser showing the Vermont Department of Health website. The left browser window shows the 'About Us' page, featuring the University of Vermont logo and the text 'Vermont Department of Health'. The right browser window shows the 'Contact Us' page, which includes a 'Contact Us' button and a 'Feedback' button. A blue arrow points from the 'Feedback' button on the right browser to the 'Feedback' button on the left browser.

Tobacco Scientist Peter Valberg for Smart Meters: MICHIGAN



Tobacco Scientist Peter Valberg for Smart Meters: HAWAII

- Michigan Testimony referencing Peter Valberg was also submitted in Hawaii



Tobacco Scientist Peter Valberg of **Gradient** is presented as an expert on smart meters safety in many states.

Other states including Nevada and Maine have relied on tobacco scientists from the product defense firm **Exponent** for expert testimony in denying smart meter health concerns.

Product Defense by Exponent NEVADA

The image shows two side-by-side screenshots of a presentation slide. The left screenshot shows the title and authors, while the right screenshot shows the role of Exponent.

Perspective on Public Health and Safety Concerns about RF Signals from NV Energy's AMI Network

Yakov Shkolnikov, Ph.D.
William H. Bailey, Ph.D.

Exponent's Role

- Provide calculations of AMI network RF fields
- Identify relevant exposure standards and guidelines
- Explain scientific rationale for health guidance from national and international health agencies
- Respond to public comments

Topics

Yet we don't keep children off sunny beaches because of these IARC classifications – P.V.

The image shows a screenshot of a presentation slide titled "IARC and mobile phone use, 2011 (3)".

IARC and mobile phone use, 2011 (3)

- The International Agency for Research on Cancer (IARC) periodically reviews the science on chemicals and things people are exposed to and classifies them into categories:

Group 1, known human carcinogens	111
Group 2A, probable human carcinogens	66
Group 2B, possible human carcinogens	285
Group 3, unknown carcinogenicity	505
- IARC's ranking of heavy cell phone use as Group 2B was not directed at smart meters, and IARC's Group 2B category includes everyday items (carbon black [car tires], coffee, 'carpentry,' talc, nickels, iron pills, pickled vegetables, mothballs, some teas, etc.).
- Notably, IARC classifies both 'sunlight' and 'sand' at much higher risk rankings, namely, Group 1, as "known" human carcinogens. Yet, we don't keep children off of sunny beaches because of these IARC classifications with regard to sunlight and sand.

Blue Ribbon Panel

Public health agency consensus views (4)

- RF guidelines for safe-exposure levels are not based on "non-thermal" effects, because such effects remain speculative and have not been demonstrated to lead to disease.
- The World Health Organization, June 2011, stated: *"To date, no adverse health effects have been established as being caused by [RF from] mobile phone use"*
- Great Britain's "Advisory Group on Non-Ionizing Radiation" concluded in 2012: *"Although a substantial amount of research has been conducted in this area, there is no convincing evidence that RF exposure below guideline levels causes health effects in adults or children"*
- Recommended approach: rely on legitimate public health agencies:** None of the "blue ribbon" scientific review groups has determined that RF levels from smart meters are harmful to health.

GRADIENT

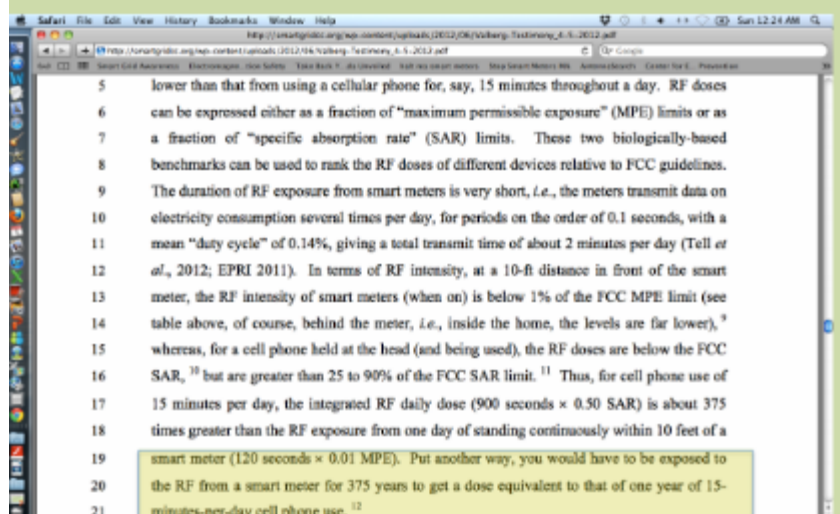
"The librarians at Gradient provide me with reports" Literature Review, No Health Study, No Research

Q. Please summarize your experience in the area of electric and magnetic fields (EMF) and related issues.	Answer
1. I am a member of the Health Physics Society (HPS) and the International Commission on Radiological Protection (ICRP).	
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20. I am a member of the Health Physics Society (HPS) and the International Commission on Radiological Protection (ICRP).	

No mention of career as tobacco scientist

Q. PLEASE SUMMARIZE YOUR EMPLOYMENT EXPERIENCE AND PROFESSIONAL CREDENTIALS?	Answer
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375 years claim is widely used by utilities



National Conference of State Legislators Systematically Promoted the Opinion of Industry "Tobacco Scientists" As Experts Regarding Smart Meter Safety

Emerging Issues

Mike Oldak
 VP Strategic Initiatives & General Counsel
 Utilities Telecom Council

NCSL 2012 Energy Policy Summit
 August 5, 2012

Smart Meter Safety Expert Testimony

- Dr. Volberg, testifying before the Maryland PSC stated
 – IARC has not found any "... adverse health consequences established from exposure to RF fields at levels below the international guidelines on exposure limits published by the International Commission on Non-Ionizing Radiation Protection."
http://enrpsc.psc.state.md.us/Intranet/Casework/CaseAction_new1.cfm?CaseNumber=5034
- Dr. Yakov Shkolnikov and Dr. William H. Bailey testifying before the Public Utility Commission of Nevada
 – "... the evidence is limited that cancer develops from exposures from RF fields." "... the indications of potential risk derive almost entirely from statistical associations in some studies between the use of mobile phones and certain types of cancer."

In 2012, Mike Oldak of the Utilities Telecom Council assured the NCSL National Conference of State Legislatures that smart meters were safe, based on the opinions of product defense experts from 2 firms, Gradient and Exponent. The firms and individuals involved literally worked in defense of the cigarette industry.

The quote from Peter Valberg states that the World Health Organization found no harm, despite the fact that the agency's IARC declared RF a possible human carcinogen in 2011. He did it by quoting an older testimony.

This resource from the Utilities Telecom Council has been removed from the NCSL website, as have other earlier posts about smart meters. The damage was already done.

Product Defense is Not Health and Safety Science

From Environmental Working Group:

"They profit by helping corporations minimize public health and environmental protection and fight claims of injury and illness. In field after field, year after year, this same handful of individuals and companies comes up again and again...

They have on their payrolls (or can bring in on a moment's notice) toxicologists, epidemiologists, biostatisticians, risk assessors, and any other professionally trained, media-savvy experts deemed necessary.

They and the larger, wealthier industries for which they work go through the motions we expect of the scientific enterprise, salting the literature with their questionable reports and studies.

Nevertheless, it is all a charade.

The work has one overriding motivation: advocacy for the sponsor's position in civil court, the court of public opinion, and the regulatory arena [where these studies benefit their sponsors] not because they are good work that the regulatory agencies have to take seriously but because they clog the machinery and slow down the process.

Public health interests are beside the point. Follow the science wherever it leads? Not quite. This is science for hire, period, and it is extremely lucrative." –David Michaels

Only by discovering the facts behind the scene and by **bringing to light the true motivation of profit-driven public relations campaigns** can we promote and defend the health of the environment and the safety of consumer products. For a veteran in the subject who may have participated in some of the struggles described in *Defending Science*, or for a new member of the environmental and occupational health community, this book is a great introduction to the state of the field and the battles ahead that still need to be fought.

Source; Environmental Working Group [How industry shanghaied science](#), ***A review of Doubt is Their Product: How Industry's Assault on Science Threatens Your Health* by David Michaels.**

Too Many Roads Lead Back to Peter Valberg, Gradient, and Rigged Science

Vinyl Chloride

In Feb. 2016, David Heath of the Center for Public Integrity published the article, [Making a cancer cluster disappear](#) as part of the series, [Science for Sale](#), co-published with Vice.com.

The cancer cluster in question was the largest cluster of work-related brain tumor fatalities ever reported.

The likely culprit? **Vinyl chloride.**

The other culprit? The Chemical Industry's Successful Application of Tobacco Science

Another Co-Collaborator: The World Health Organization's IARC International Agency on Research on Cancer

One of the experts? Peter Valberg

*"One such expert, **Peter Valberg of Gradient Corp.**, wrote that the families in McCullom Lake were citing early studies linking vinyl chloride to brain cancer but failed to cite more recent reviews.*

"These in-depth summaries and updates of worker cohorts do not support a causal link between VC exposure and brain cancer," Valberg wrote." – Center for Public Integrity

Can Valberg's testimony be applied regarding the lack of more recent reviews for smart meters and radio frequency radiation?

Tobacco

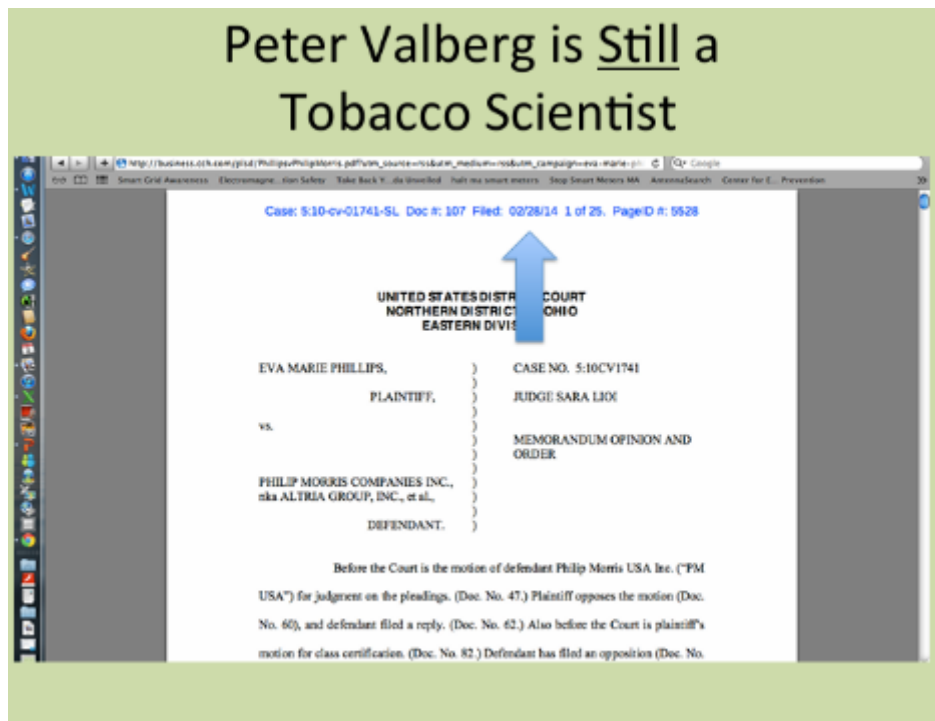
Peter Valberg's work is also featured in the "Science for Sale" series article ["Meet the 'rented white coats' who defend toxic chemicals"](#) when he, along with Evan Nelson, came up with a scheme to defend the asbestos industry by shifting the blame for mesothelioma to tobacco.

"There was an obvious problem with Nelson's "science." Researchers for decades have exhaustively analyzed data on the health of hundreds of thousands of smokers. Since 1964, the U.S. Surgeon General has summarized the findings of study after study, none of which shows evidence that tobacco causes mesothelioma.

It seems incredulous that Valberg would shift the blame for mesothelioma on tobacco because he is, literally, a tobacco scientist for Phillip Morris.

Valberg and Smart Meters and Cigarettes, MA DPU 2014

Valberg testimony for Phillip Morris is dated February of 2014 for his work to de-certify a [class action lawsuit](#) application in Ohio concerning light cigarettes. “PM USA’s expert, Dr. Peter Valberg, relied on his review of numerous published studies evaluating the smoking behaviors of consumers who switched to light cigarettes in forming his opinions.”



That was the same week that [he testified](#) before the Massachusetts Department of Public Utilities over-riding citizen health concerns about wireless smart utility meters.



As previously noted his (outdated) opinion also formed the basis of a presentation given to the National Conference of State Legislatures justifying smart meter safety in 2012.

Public utility commissions across the U.S. were influenced by or relied on Valberg's opinion when authorizing the installation of wireless utility meters, despite reported harm, including the acute onset of neurological complaints, microwave illness, disability, and sensitivity to electromagnetic fields.

Previous generations witnessed public servants questioning the addictive nature of tobacco products.

Hopefully these generations will see the recovery of science integrity and the removal of product defense from public policy making for utilities and telecommunications.

Thank you for your kind attention, Patricia Burke