

Nbr Street  
Phoenix, Arizona 12345  
July 4, 2013

Arizona Corporation Commission  
1200 West Washington  
Phoenix, AZ 85007-2996  
Attn: Docket Control

Re: Docket No. E-00000C-11-0328 – Reply to the A.C.C.

This is a reply to the packet sent to me by the Arizona Corporation Commission Staff about the safety of Smart Meters. This included reports from the Public Utility Commission of Texas, from the Vermont Department of Health on RF Radiation and Health, and from Richard Tell Associates on RF Fields produced by Smart Meters in Vermont. I will refer to this document as “the packet” in this letter.

Firstly, I would like to remind you of the concerns expressed in my original testimony, about the areas of possible harm to the public that have not been tested for, or addressed, by APS and other utilities:

- 1) These wireless devices are transmitting at a frequency that has definite ill effects on our energy, and no adequate studies were done on the effect of regular transmission bursts of these frequencies on humans. I was referring to, not the ionizing or heating RF radiation, but the non-ionizing and secondary electro-magnetic radiation spawned by the transmissions from these devices.
- 2) No adequate studies were done into the resonance of these frequencies in our home electric system (which surrounds us), when the “Smart Meter” is embedded as a component in it.
- 3) No adequate studies were done on the short-term and long-term physical and neurological effects of these devices on human beings or their pets.

Secondly, I would like to remind you of the boundaries in the relationship between the utility and the customer, as described in Arizona Law, that is the Arizona Administrative Code, Title 14 chapter 2 section R14-201. Arizona law is applicable to public electric utilities such as APS, which are regulated by the Arizona Corporation Commission, and by extension though not regulated by the Arizona Corporation Commission, to private electric utilities such as SRP.

The law defines a “Master meter” and a “Meter” as basically a passive device. It is “for measuring or recording the flow of electricity that has passed through it at a single location where said electricity is distributed to tenants or occupants for their individual usage”. This is so that the utility can be compensated for the electricity it provides the customer in a timely manner. Nowhere in the law is a meter defined as an active device that is allowed to affect the health and well-being of the customer. Nor is it defined as something that is used to regulate a customer’s pattern of electrical use, to build an infrastructure for the energy market’s “proper functioning”, or to support an over-arching political agenda.

The law defines a “Utility” as “the public service corporation providing electric service to the public in compliance with state law”. To include, while providing electric service, a device that is harmful to the health of its customers, would be not in compliance with state law. This applies to public as well as private utilities.

The “Utility responsibility” is defined by Arizona Law in these terms:

1. Each utility shall be responsible for the safe transmission and distribution of electricity until it passes the point of delivery to the customer.
2. The entity having control of the meter shall be responsible for maintaining in safe operating condition all meters, equipment, and fixtures installed on the customer’s premises by the entity for the purposes of delivering electric service to the customer.

The safe transmission, distribution, and metering of electricity to the customer is thus a basic requirement of Arizona law, and applicable to public and private electric utilities. This means not in such a way as to endanger the health of the customer.

We need to keep in mind the inalienable right of every individual in Arizona to life, liberty and property, and that no one can be deprived of any of these without due process of law, which would mean conviction of a crime or civil liability in a court of law.

The packet many times compared Smart Meters to other wireless devices, such as cell phones, microwave ovens, Wi-Fi routers, cordless phones, and other wireless appliances found in the home. However, there is an important difference: Every individual has the freedom to choose whether to use or not to use these other appliances. But no one can live in our society without electricity, and the electric utility is in a monopoly position as the only provider of electricity available to a given home. If an individual is being deprived of his or her health due to mandatory use of the Smart Meter, this constitutes a violation of the above-mentioned rights of the individual.

Thirdly, I would like to comment on the scientific evidence presented in the packet, which supports the contention that the Smart Meter devices are safe for humans.

The studies cited favorably in the packet are unanimous in proving scientifically that transmissions from Smart Meters are way below the Maximum Point of Exposure (MPE) in RF ionizing radiation, as enforced by the FCC and other regulatory agencies. They repeatedly cite the “level”, “intensity”, “amounts”, and “exposure limits” of RF emissions, which apply to ionizing radiation.

This misses the point entirely. No one is contesting this. I and many others are much more concerned with the effects of non-ionizing radiation and secondary electro-magnetic effects on the human body. We are also concerned about the long-term, cumulative effects of exposure to the non-ionizing radiation emitted by the Smart Meter, as well as to the indirect effects of having these obnoxious transmissions resonating throughout the electric system of which the meter is a part.

There is a small hint in the Vermont study that there is more to the picture than just ionizing, heat-inducing radiation. Low frequency electric and magnetic fields were measured in front of the test meters. The lowest frequency band, 0 – 1 kHz, which would have the most effect on the human nervous system, showed an electric field increase 75 times over normal background, and a magnetic flux density increase of almost 4 times over normal background when the Smart Meter transmitted. Although the authors said this was well below the recommended exposure limits, the limits they cited as “recommended” have not been established scientifically as standards for human health.

Many of the studies cited in the packet admit that effects of non-ionizing radiation, and the secondary fields produced by it, have not been measured to the extent adequate to set standards for human health. Some say that further studies should be done to measure these effects.

They say that no credible evidence has been found of definite or proven biological effects from exposure to low-level RF signals, or that there are no known non-thermal effects from exposure to RF EMF. Yet no studies have been done adequate to set standards for human exposure. So this is not an acceptable disclaimer. It leaves enough reasonable doubt for the customers to refuse taking a chance on Smart Meters, to protect themselves and their families.

Concerns have been raised by well-qualified environmental scientists and physicians about the effects of exposure to the Smart Meter frequencies on metabolism, genomes, human cells, hormones, fertility, the blood/brain barrier, and risks of certain cancers, especially cumulatively over time. Children are especially at risk for altered brain development, impaired learning and behavior. And the electro-magnetic effects of non-ionizing radio frequencies have been seen to add synergistic effects to the damage observed from toxic chemicals.

Yet the packet minimizes and dismisses these concerns, while admitting that adequate research has not been done to establish standards for non-ionizing radiation and associated electro-magnetic effects on the human body. The packet calls into question the competence and credentials of the scientists who caution against the effects of the non-ionizing radiation, but does not address the issues they raise, and only repeats that Smart Meters are well below the MPE threshold for ionizing radiation. Many times the packet dismisses the concerns of “laymen”, like myself, who do not understand RF radiation or scientific studies. But I say we can certainly recognize scientific studies that avoid addressing the issues that have been raised, and over time we are competent to judge the effects of the Smart Meter device on our own bodies. This is especially true when symptoms or effects appear after a Smart Meter is installed, and then disappear when it is removed.

The packet pooh-poohs the WHO classification of Smart Meter radiation as a Class 2B carcinogen, and ignores the wide testimony in scientific literature of these reported symptoms associated with the non-ionizing and electro-magnetic radiation:

Sleep problems (insomnia, difficulty falling asleep, night waking, nightmares)

Stress, agitation, anxiety, irritability

Headaches, sharp pain or pressure in the head

Ringling in the ears, ear pain, high pitched ringling

Concentration, memory or learning problems

Fatigue, muscle or physical weakness

Disorientation, dizziness, or balance problems

Eye problems, including pain and pressure

Cardiac symptoms, palpitations, arrhythmias, chest pain

Leg cramps, or neuropathy

Arthritis, body pain, sharp, stabbing pains

Nausea, flu-like symptoms

Sinus problems, nose bleeds

Respiratory problems, cough, asthma

Skin rashes, facial flushing

Urinary problems

Endocrine disorders, thyroid problems, diabetes

High blood pressure  
Changes in menstrual cycle  
Hyperactivity or changes in children's behavior  
Seizures  
Recurrence of cancer  
Body aches

I reported experiencing some of these symptoms personally in my original letter to the Commission, and that the symptoms disappeared when the Smart Meter was removed.

Genetic damage, reproductive defects, cancer, neurological degeneration and nervous system dysfunction, immune system dysfunction, cognitive effects, protein and peptide damage, kidney damage, and developmental effects have all been reported in the peer-reviewed scientific literature, associated with the non-ionizing radiation typical of Smart Meters. Also reported are chromosomal instability, altered gene expression, gene mutations, DNA fragmentation and DNA structural breaks. Genotoxic effects are documented to occur in neurons, blood lymphocytes, sperm, red blood cells, epithelial cells, hematopoietic tissue, lung cells and bone marrow.

The packet dismissed Electromagnetic Field Hypersensitivity Syndrome (EHS) as not scientifically established, and even due to psychiatric conditions or stress reactions from worry about EMF health effects. But Electromagnetic field (EMF) hypersensitivity has been documented in controlled and double blind studies with exposure to various EMF frequencies. It has been demonstrated that under double blind placebo controlled conditions, 100% of subjects showed reproducible reactions to that frequency to which they were most sensitive. Pulsed electromagnetic frequencies were shown to consistently provoke neurological symptoms in a blinded subject while exposure to continuous frequencies did not. Long range EMF or RF forces can act over large distances setting a biological system oscillating in phase with the frequency of the electromagnetic field so it adapts, with consequences to other body systems. This also may produce an electromagnetic frequency imprint into the living system that can be long lasting. These devices are integrated into a mesh network or grid, and as such are transmitting pulses far more frequently than a few times a day.

Fourthly, I would like to comment on the political agenda that is obviously driving the establishment of the transmitting grid of Smart Meters to be attached to our homes, as well as the transmitting network of Smart Appliances being promoted within our homes (the pulsing "Home Area Network").

It is clear that the utilities are under a lot of pressure to deploy Smart Meters, as part of the push to control and cut emissions of carbon dioxide, to fight man-made Global Warming. This theory of Global Warming due to increases in CO2 emissions has been widely discredited by scientists world-wide. Thousands of climatologists have rejected this theory on scientific grounds. The so-called "greenhouse effect" of CO2 trapping heat in the atmosphere is fictional, and has been disproven by the thousands of balloons that are sent up on a daily basis to measure atmospheric temperatures at various altitudes. The "greenhouse effect" also defies common sense, as CO2 is heavier than air and tends to collect close to the ground. Accurate historical graphing of atmospheric CO2 and temperatures shows that higher temperatures precede increases in CO2, and not the other way around.

Yet it is stated that “scientific consensus” has been reached on man-made Climate Change, just as it has allegedly on the safety of Smart Meters. The executive branch and its regulatory agencies, like the EPA, continue to pressure utilities to shut down or modify coal-fired generating plants, at great cost to consumers, and to push the Smart Meter Grid as a means of reporting on, and controlling, our patterns of electricity usage to minimize CO2 emissions. This is very clear in a letter from the Navopache Electrical Cooperative, describing their need to deploy Smart Meters to satisfy Federal regulatory costs and pressures. The theory of man-made Global Warming / Climate Change by CO2 emissions is nothing more than a money-making and control agenda hostile to the public good. There is no reason that we should be forced to have the dangerous and unproven technology of the Smart Meter Grid attached to our homes to support this baseless prejudice against CO2, which is after all one of the necessary gases in the balance of nature, and very nourishing to plant life. It is vibrant and healthy plant life that provides much of the oxygen that we humans depend on to survive and flourish.

The utilities and the A.C.C. are overstepping their authority by imposing this un-researched and possibly dangerous technology of the Smart Meter Grid on the public they are supposed to serve.

Sincerely,

Firstname Lastname

cc: Mr. AAAAA, Attorney General, State of Arizona  
Senator BBBBB, Arizona State Senate Dist. 28  
Rep. CCCCC, Arizona House of Representatives, Dist. 28  
Rep. DDDDD, Arizona House of Representatives, Dist. 28  
Senator EEEEE, Arizona State Senate Dist. 22  
Rep. FFFFF, Arizona House of Representatives, Dist. 21