



# ARIZONA CORPORATION COMMISSION

## UTILITY COMPLAINT FORM

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OPINION for entry into the docket

Ms. Jerich,

I want to thank you for having your office contact me concerning the letter sent to the Commission, back in March of 2013. As stated in the letter, "Digital Electric Meters", "Smart Meters" and all digital wireless utility meters emit "packetized" and/or "pulsed" electromagnetic microwave radiation in power densities, timings and volumes known to be harmful and unsafe for exposure to humans, animals and plants. These Smart Meters have been shown to be damaging and dangerous in hundreds of published independent peer-reviewed scientific studies, and known to be particularly harmful to individuals classified as "Sensitive Receptors" or those who have been determined to be EMF Sensitive.

Microwave radiation is known to cause cancer, neurological illnesses and injuries, birth defects, childhood leukemia, childhood behavioral disorders and a wide variety of other physical symptoms. In fact, exposure to EMR can exacerbate any vulnerability and provoke injury in any physiological body. The widespread installation of digital electric smart meters and their towers represents reckless and inexcusable endangerment of the public and a clear violation of their rights.

APS's claims that these meters operate with radio frequencies is an absolute distortion of the facts! Research into the frequency range that these meters operate in, places them within the microwave transmission frequency, in essence turning everyone's home into a microwave oven which has been found to transmit data 24/7/365, contrary to APS's claims. Since no one is exempt from these harmful microwave radiation devices, then APS, SRP and unfortunately the ACC becomes complicit in allowing the continued installation of meters which are fast proving to be the immediate cause of health issues.

APS' claim that these meters are safe; and the so-called studies they claim have been done to prove it, are only right, in that the Electric Power Research Institute (EPRI) has provided them with written documentation claiming that Smart Meters are safe and meet existing safety standards.

However, as the attached documentation clearly shows, EPRI's research and findings are wholly funded by the utilities, power transmission and generation equipment companies; which is a clear and undeniable conflict of interest. Therefore, any reference to this report as credible, should be denied, under these conditions. This would in essence negate all claims made by APS to the people of the state of Arizona, the Commission and their attorneys.

Since hundreds of independent peer review reports (which have been generated worldwide) clearly express and define the dangers and ill health issues created by Smart Meters, their towers and their use, then the facts presented (and attached under separate cover) should speak for themselves, and be forwarded on the Arizona Health Department and the Commission members to aid in the study requested by the Commission.

The focus and goal of APS's drive to install the smart meter grid is based on the following claims (as found in their document labeled "Automated Meters - Myth versus Fact"), which I would like to enter into the docket along with the facts that are absent from their document.

UNDER THE HEADING OF "MYTH VS FACT"

1)"The meters allow customers to know when and how much energy they are using, helping them make informed decisions about their energy usage."

a)APS has neglected to inform the public and the Commission that there are readily available industry standardized alternative devices to accomplish these same goals without the installation of harmful Smart Meters onto a home or business.

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- b) As the attached documentation clearly shows, using industry standardized technology, there are three known devices which provide the same data as mined by APS from smart meters.
- c) These devices could be purchased and professionally installed by home or business owners to meet the needs as outlined by APS without any cost to APS.

### UNDER THE HEADING OF "AUTOMATED METERS POSE A SAFETY RISK TO APS CUSTOMERS"

#### 2) "Automated Meters are safe."

- a) Automated meters have not been proven to be "safe"
- b) Unlike the analog mechanical meters, which have been in service for over 100 years, the smart meters are a new technology which has never been certified by the Underwriters Laboratory as "safe"
- c) Although the Underwriters Laboratory has not had any need to safety certify utility meters in the past, with the change in technology and incorporation of programmable printed circuit boards and power mode switching supplies integrated into these meters, the need to prove they are safe for use is paramount.
- d) The Underwriters Laboratory has also seen a need to do so, and has made their organization available to the manufacturers to verify the safety of these meters. See attached documentation.
- e) The ideal safe "Smart Meter" grid would be one that is hard wired in place, and thus eliminating any chance of the utility or the state being directly responsible for all the well documented health issues related to their use from microwave transmissions.
- f) Numerous fires directly caused by smart meters installed onto homes have been reported and published nationwide and are readily available on line.
- g) Currently Smart meters only have to meet the following applicable standards, which are NOT safety standards. (See manufacturers comments - attached)
  - 1) ANSI C12.1 - 2008 - Code for Electricity Metering
  - 2) ANSI C12.20 (Class 0.5) - 2010 -- American National Standard for Electricity Meters 0.2 and 0.5 Accuracy Class
  - 3) ANSI C12.18 - 2006 -- American National Standard for Protocol Specification for ANSI Type 2 Optical Port
  - 4) ANSI C12.19 - 2009 -- American National Standard For Utility Industry End Device Data Tables
  - 5) ANSI C12.21 -- American National Standard Requirements for Pad-Mounted, Compartmental-Type Self-Cooled, Single-Phase Distribution Transformers With High Voltage Bushings; High-Voltage, 34500 GRVD/19920 Volts and Below; Low-Voltage, 240/120 Volts; 167 kVA and Smaller
  - 6) FCC CRF Title 47 Part 15.247 Subclass C -- Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

#### 3) "They use wireless technology to communicate information about electricity usage to APS."

- a) As clearly shown in item 2.f.6 above, these meters operate in the microwave frequency band - NOT the radio frequency band APS would have the public and the Commission believe.
- 4) "The meters transmit this information through radio frequency signals."
  - a) Again as stated above, this is NOT a harmless radio frequency but a microwave frequency that due to internal house or business wiring turns ones place of occupancy into a microwave oven. See item 6.c below.
- 5) "Wireless automated meters result in much smaller levels of radio frequency than existing common household electronic devices such as cell phones and microwave ovens."

- a) This has been repeatedly proven to be a fabrication of the facts.
- b) Numerous independent scientific documents exist stating otherwise; and using commercially available high technology microwave frequency detection devices have proven that the levels of continual transmission far exceed any cell phone or microwave oven device.
- c) Unlike cell phones or microwave ovens, which are only used as required. Smart Meters are

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operational and transmit 24/7/365.

d) APS does not disclose to the public that between the hours of 3 - 4 AM every day of the year, that these smart meters perform a data dump, at which time the power level of the meter increases substantially, while the meter communicates with a repeater tower.

6) According to a study by the Electric Power Research Institute, a cell phone held against one's ear exposes someone to more than 1000 times the radio frequency as an APS automated meter from a distance of 10 feet."

a) Again, this is another fabrication of the facts. Using readily available microwave frequency detection meters (used throughout the industry) the magnitude of these meters far exceeds safe operating limits.

b) IF these Smart Meters are so safe (as APS claims), and broadcast microwave signals that are allegedly so much lower than a cell phone, then why does any vegetation located anywhere within the meters vicinity die? If the radiation is high enough to kill off plants, what is it doing to humans who believe they are safe within their place of occupancy?

c) Because standard 12 gauge electrical wire used in all homes or businesses is NOT shielded, it is susceptible to all RF signals and will act as an antenna radiating these harmful microwaves throughout the house. In order for standard copper wire to not act as an antenna, it has to be shielded to assure that RF signals do not affect it. NO house wiring is shielded!

d) Smart meters are NOT outfitted with a directional antenna to broadcast or communicate, but broadcast microwave radiation in a 360 degree radius.

e) Smart Meters continually communicate throughout the day with other meters within the neighborhood, not for a few seconds as APS claims.

f) As stated previously in item 5d, between 3 - 4 AM every day they perform a data dump to the repeater towers to give the days readings to APS. At that time the power levels of the meters increase substantially, causing sleep deprivation to home owners.

g) Why are there well documented cases of cancer clusters located anywhere there is a Smart Meter repeater tower located? Why does the Commission allow these to be installed anywhere where school children are attending class?

UNDER THE HEADING OF "APS WILL USE AUTOMATED METERS TO MONITOR THE ACTIONS OF ITS CUSTOMERS"

7) "Automated meters do not have this capability."

a) Another false and misleading statement by APS.

b) These meters DO have this capability. They also have the capability for the utility to isolate, shut off and curtail energy usage of any customer during peak demand cycles where electrical usage exceeds the grids capacity. Yet nowhere does APS disclose this.

c) The ultimate goal of the smart grid system is to integrate it with all new appliances which are classified as "smart", in order to detect appliance usage throughout the day.

d) Smart appliances have the capability to communicate directly with the Smart Meter - which in turn will have the ability to be isolated if usage demands are high.

8) "Like the old mechanical meters, automated meters measure how much energy customers use, not how they use energy"

a) See item "b" above.

b) Unlike the old analog mechanical meters, these smart meters measure electricity usage from the moment you turn on any device in your home or business.

c) These smart meters can detect any current draw (in terms of power usage) in the form of end rush current draw. This is the amount of power it takes to initiate any device, whether a hair dryer, TV, AC, refrigerator, etc.

d) Example, a heat pump Air Conditioner rated at 14,000 watts, will take about 20,000 watts to start it before it returns to the rated limit state. That extra 6,000 watts is now measured instantaneously which equates to an increase in electricity usage on your bill.

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9) "The automated meter does not store or transmit any personal identification information."

- a) The smart meter has to store information on the meter, as each meter is designated to a given customer.
- b) If these meters do not "transmit" data, then how is the data received by APS?
- c) Each customer is assigned a meter based on a precise location and rate plan.
- d) Each meter is assigned a serial number which is associated with a given address
- e) Since any programmable device is hackable, the data stored on the meter can be viewed and manipulated by anyone who so desires to do so.

10) "The automated meters give APS no indication of who our customers are, what they are doing, nor can they determine what appliances customers are using."

- a) See items 9 c and d above for the facts. b) See item 7 b above

UNDER THE HEADING OF "THE CUSTOMER USAGE DATA THAT APS COLLECTS WILL BE SOLD TO OTHERS OR WILL BE ACCESSIBLE TO OUTSIDE PARTIES"

11) "We continue to work with meter vendors, electric utilities and governmental agencies to ensure that security remains at the highest levels."

- a) If items 9 and 10 of the APS documentation was true, why would they be worried about "security"?

12) The usage data collected is intended for customers to make choices that enable them to pay the least amount possible for their electric service."

- a) Using the alternative devices indicated, which does the same thing a smart meter does without endangering the public; they can collect data and transmit it to APS via phone, fax or computer (via the internet) as indicated on the attached documentation.
- b) Using any one of these devices (TED 5000, Dent TOUCT Data logger or the Efergy E2 Wireless Electric Monitor) customers whether residential or business, could provide APS with complete and accurate Time of Use (TOU) data that would make them eligible for ALL of the rate plans offered by APS.

UNDER THE HEADING OF THE INSTALLATION OF AUTOMATED METERS RESULTS IN HIGHER COSTS TO THE CUSTOMER

13) False. APS customer rates have not gone up due to the installation of automated meters.

- a) While it is true that the "rates" have not gone up, the usage charges have. b) See items 8 c and d to understand why.

14) "In fact, APS expects that over time the meter reading charge on the customer monthly statement will be reduced as company costs to read the meter are reduced."

- a) Using the devices identified in 12 b, APS would NOT have to send a meter reader to perform a monthly reading either, and therefore would assist APS in reducing its cost due to not requiring a meter reader to come read the meter.
- b) If APS wants to perform a quarterly or annual check on the accuracy of the TOU device compared to the physical meter then that cost should be borne by the opt out fee they propose, but it should be limited to the fees already imposed for meter reading already which is being done automatically, which is a valid charge only for those without a smart meter at this time.
- c) All others being charged for meter reading, constitutes a fraudulent charge and should be reflected in their

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monthly bills as a credit for all time since a smart meter was installed onto their place of occupancy where a meter reader was not used.

15) "As always, it is 100 percent up to our customers to choose the service plan they use, no matter which meter is installed on their home or business."

a) This is an absolute lie!

b) APS does NOT allow customers to choose the service plan they use unless they have a smart meter. c) APS fixes the price of those who choose NOT to have a harmful, dangerous smart meter on their home with the highest rate plan they have in violation of state and federal laws.

d) Contrary to their claims, they do not allow the end user (who chooses an analog mechanical meter for health reasons) any option other than one.

e) Although there are devices (as indicated above in item 12 b) which can and should be allowed to be utilized, so that the extreme financial burden maliciously placed on the end user by APS can be avoided.

f) APS has deliberately and maliciously financially punished those who refuse a smart meter by disallowing them any option to reduce their utility costs, unless they are forced into taking a smart meter.

On a personal note, since the removal of this dangerous and harmful smart meter from our home (which is a "certified" Energy Efficient Home by Arizona Public Service Company) we have seen our utility bills increase by as much as 240% for the same amount of electricity used previously when we had a digital electric meter. This is nothing short of extortion and should not be allowed by the Commission, when rates increase by this amount.

APS was contacted and provided the same information (as attached) which would allow anyone who has switched from a smart meter to a safe analog mechanical meter to enter in to their rate plans and structures.

Their response was to the effect that they could not verify the PLC data as being accurate, so they refused to consider it. Let's explore that possibility!

PLC whether it is in the form of a Programmable Logic Card, it is used in every smart meter installed throughout their grid. It is the means by which the meter measures, stores and transmits the data via microwaves to APS for exact time of use and the amount of power used whether by the minute, the hour, the day or the month.

By implication they are saying that the consumer has to trust them, and their meter, but they cannot trust an industry standardized device (like their smart meter) which does the same thing. Clearly a double standard for which the end user is denied equal opportunity to access their structured rate plans using the same technology.

If APS means they do not trust the Power Line Connection (PLC) used by an alternative device to extract the same data; then how do they explain how their meter works?

Since the reading and monitoring of any metering device for power consumption or exact Time of Use data is through a current transformer (which on a smart meter is located within the meter), then are they saying that the data collected from their meter is inaccurate?

The devices mentioned above all use industry standardized current transformers to measure the same usage data usage as it is passed through the electric lines coming into the meter. Any time any device within the place of occupancy is switched on, the current draw required to run the device is measured and the data stored for the record within the device - just like it is within the smart meter.

APS also stated that because the line current could not provide a "clean" signal to the device, that the data collected would not be accurate. Having checked all the current smart meters in use within our neighborhood by manufacturer, I can report that none of the smart meters in use have a circuit filter integrated inside the meter to filter out noise in the lines.

However, to negate any possible excuse by APS to dis-allow the use of these devices, and as clearly indicated

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on the attached documentation, a true in-line filter can be added to the device circuit to assure the data is accurate and clean of any noise.

Unlike the meters used by APS, the circuit that the device will operate off of CAN be filtered to eliminate any line noise in the circuit to provide clean accurate data. This in essence eliminates yet another excuse APS gave for not even considering the devices listed.

As you will note on the supplied documentation, the data collected by any one of these devices is measured, stored and graphed to show everything APS needs, to allow everyone access to their existing TOU rate structures. These devices can be purchased (by those consumers who do not want a smart meter) at no expense to APS.

The data APS requires and says comes from smart meters can then be transmitted via phone, fax or over the internet directly to APS billing offices to process on a monthly basis. This serves the exact same purpose as what the smart meter does without the health dangers or risks associated with it.

None of these available industry standardized devices require a meter reader, the usage is readily available to the consumer to make adjustments in how much electricity is used and the data can be compared to the meter reading at any time to verify the accuracy of the device. Unlike the meter readings the consumer has on their place of occupancy - all they have is the "word" of APS that they are accurate.

Further, APS can be provided or granted a direct connection into the computer which is monitoring the usage to verify its accuracy on a minute by minute, hour by hour, day by day, month by month or yearly basis. This is far more transparent than anything APS offers the public.

This opinion should be a matter of public record, so that everyone has access to the TOU alternatives available to them, so that they are not financially burdened or punished for refusing these dangerous meters.

I thank the Commission for its willingness to publish these opinions and to make them a part of the ongoing public debate on the many concerns we have for these (not so) smart meters.

Best regards, Doug Staab  
Attachments:EPRI member list  
Dent TOU Whole house monitor TED 5000 Whole house monitor eFergy TOU whole house monitor Hard wired in-line filter  
UL Services  
UL comments on Smart Meters  
Tron statement concerning safety and UL testing

THE FOLLOWING EMAIL ADDRESSES WERE PROVIDED AS REFERENCES TOTAL OF 34 PAGES:

<http://www.epri.com/About-Us/Pages/Our-Members.aspx>  
<http://www.epri.com/About-Us/Pages/Governance.aspx>  
<http://www.optimumstores.com/ted-5000-home-electricity-monitor-kits.html>  
<http://efergy.com/us/products/electricity-monitors/elite-true-power-meter>  
<http://www.ul.com/global/eng/pages/offerings/industries/power>  
[www.itron.com/consumers](http://www.itron.com/consumers)

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From: dstaab [r]  
Sent: Wednesday, January 29, 2014 7:30 PM  
To: Al Amezcu  
Subject: RE: APS Smart Meter-Data Sheet

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Hello again Al,

Here is the other information I promised to send to you regarding the independent studies on Smart Meter health issues. I would strongly urge you to look at the video imbedded in the document called "Index of Publications on biological effects of Electromagnetic Radiation" which clearly shows not only what is happening to a living plant located next to a smart meter, but also shows the amount of pulses sent out from the smart meter which far exceeds the "few seconds a day" claimed by APS. Several of these (few) studies date back over 40 years when they first knew of the dangers of exposure to microwave radiation. I appreciate your willingness to post these and get them to the right people within the state agencies researching the ill effects of smart meters on the community at large.

Best regards,  
Doug Staab

ADDITIONAL EMAIL ADDRESSES WERE PROVIDED

<http://www.globalresearch.ca/smart-meter-dangers-the-health-hazards-of-wireless-electromagnetic-radiation-exposure/31891>

<http://www.magdahavas.com/international-experts%e2%80%99-perspective-on-the-health>

<http://www.nera.com/index.htm>

**Smart Meter Fires and Explosions**

The following is a compilation of reports from the US , Australia and Canada about fires, explosions or burned out appliances due to Smart Meter installations. If you have experienced similar problems, please post your story in the comment section below.

The US Consumer Products Safety Commission (CPSC) is a federal agency that will take complaints on utility smart meters from all US states. If you have or had smart meter electrical or fire problems CALL: (800) 638-2772 (800) 638-2772 FREE Monday through Friday from 8:00 a.m. to 5:30 p.m. ET or submit your complaint by email.

From: dstaab |  
Sent: Thursday, January 30, 2014 5:07 PM  
To: Al Amezcua  
Subject: RE: APS Smart Meter-Data Sheet

Al,

Have not heard back from you on the information sent yesterday, so I am hoping that you have received it and were able to get it onto the docket. I would appreciate it if you would let me know if you received it, as I have been having some issues on the email I have been sending of late in that it sometimes does not make it to the recipients.

Here is one more item to add to your list, it is a list of fires from sources worldwide and directly associated with Smart Meters as to root cause. Thought you may be interested to pass this on as well.

Best regards,  
Doug Staab

From: Al Amezcua  
Sent: Friday, January 31, 2014 7:44 AM

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To: '  
Cc: Al Amezcua  
Subject: RE: APS Smart Meter-Data Sheet

Good morning Mr. Staab,

This is to acknowledge receipt of you previous emails. I wanted to thank you for the information you sent me a few days ago. I will place it in the official docket sometime today. I have been extremely busy.

Thank you,  
Alfonso Amezcua

From: dstaab  
Sent: Friday, January 31, 2014 2:34 PM  
To: Al Amezcua  
Subject: RE: APS Smart Meter-Data Sheet

Al,

Thanks so much for all your help. I hope you can find some time in your own busy schedule to review the data, as it also will affect you and your family as well. Hopefully we can get this stopped before everyone finally realizes this is a bad idea, and has been since the beginning. Much like drugs that were once approved by the FDA and then found to be harmful or deadly and pulled leading to numerous lawsuits, I fear that Smart Meters are fast going down the same path.

Again, thanks for your help and support in getting this on the docket.

Best regards,

Doug Staab  
\*End of Complaint\*

**Utilities' Response:**

**Investigator's Comments and Disposition:**

From: Al Amezcua  
Sent: Tuesday, January 14, 2014 11:38 AM  
To:  
Cc: Al Amezcua  
Subject: APS Smart Meter-Data Sheet

Good morning Mr. Staab,

It was a pleasure speaking with your this morning. I was provided your letter that was mailed to the Executive Directors office of Jodi Jerich.

Please provide me with the Data Sheet you mentioned this morning in our phone conversation. Like I mentioned in our conversation if you wish to file an opinion go ahead and do so in this email. I will then enter your comments for the record and docketed.

Thank you,

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Alfonso Amezcua  
Arizona Corporation Commission  
Public Utilities Consumer Analyst II  
1200 W Washington St  
Phoenix, AZ 85007

From: dstaab  
Sent: Tuesday, January 14, 2014 9:58 PM  
To: Al Amezcua  
Subject: RE: APS Smart Meter-Data Sheet

Hello Al,

Thank you so much for your call. I am hoping I can have about 48 hours to reconstruct the information I want to send to you. As I stated, I am currently out of state on a job assignment, so I have to "re-invent the wheel" so to speak, to get you all the data we spoke of; and write a short brief for the docket.

Please let me know if this is OK, or if you need it sooner than that, and I will get you everything I can within the time you allow.

Thanks for your understanding.  
Doug Staab

From: Al Amezcua [mailto:  
Sent: Thursday, January 16, 2014 7:58 AM  
To:  
Subject: RE: APS Smart Meter-Data Sheet

Good morning Mr. Staab,

No worries send me your comments when you have a chance, in turn I will docket your opinion on your behalf. I will be in touch.

Thank you,  
Alfonso Amezcua

2/5/14 Comments noted for the record and filed with Docket Control. CLOSED.  
\*End of Comments\*

**Date Completed: 2/5/2014**

**Opinion No. 2014 - 114893**

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