

**ORIGINAL**

**Generic Smart Meter  
Investigation  
E-00000C-11-0328**



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BEFORE THE ARIZONA CORPORATION COMMISSION

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Arizona Corporation Commission  
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Phoenix, AZ 85007

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ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

Docket E-00000C-11-0328 Smart Meters  
October 21, 2011

**A medical opt-out policy likely to be completely ineffective in areas using PLC-type smart meters.**

Dear Commissioners,

Some utilities use smart meters that communicate by sending pulses or signals on the existing electrical wires. These types of systems are referred to as Power Line Communication or Power Line Carrier (PLC)

The PLC type systems have been promoted as a positive alternative to wireless smart meters. The reality is that they are a worse choice for the public health, especially people with electrical hypersensitivity.

The electrical wiring in houses and along the roads were not designed to carry higher frequencies. Unlike wires used for telephones, internet and other such systems, the electrical wiring is not shielded. The result is that they are turned into very large antennas, which radiate the frequencies carried across the wires.

These frequencies are referred to as "dirty electricity" and is the source of ongoing research. There have been credible case stories of people who have been unable to live in their homes after PLC- type smart meters were installed.

Mitigation is difficult, as the signals from other houses in the area will enter a house that has retained an analog meter. A basic opt-out program is thus ineffective.

The European multinational utility company E.ON, has designed a line filter it offers to its customers. It is costly to install and unfeasible to move later on.

Arizona Corporation Commission

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Some types of PLC systems use low-frequency signals (referred to as "pulses") which experience shows to have direct health impact on sensitive people, these TWACS type systems are impossible to mitigate by other mean than relocation or full disconnect of a house from the electrical grid. Filters, line stabilizers, in-line UPS's, etc will not work. The TWACS technology is only suitable for rural areas. It has or is being installed in rural parts of Idaho, Oregon, Washington and Colorado.

A medical opt-out policy will be completely ineffective in areas using PLC-type system, unless the policy includes effective filtering systems. As no effective filters are possible for TWACS-type systems, we ask the commissioners to specifically disallow TWACS-type systems.

Respectfully,

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