

June 14, 2013

Arizona Corporation Commission
Docket Control
1200 W. Washington St.
Phoenix, AZ 85007

Docket E-00000C-11-0328 Smart Meters

Preliminary survey of people affected by smart meters

A survey is presently being conducted of people who consider themselves harmed by smart meters. The study uses an online survey service and is open to anyone. The project is organized by Richard Conrad, PhD, the principal of the consulting service Conrad Biologic.

Dr. Conrad made a preliminary report of the 210 people who responded to the survey before the end of January 2013. A final report will be available after the study period closes.

This study is not designed to find out what percentage of a population is affected, which is called a prevalence study. A prevalence study is more difficult and costly to do, and one has never been done for smart meters.

This study looks only at people who consider themselves affected by smart meters. A full 97.6% of the 210 respondents were either very sure or fairly sure that their smart meter caused new or worsened symptoms.

The preliminary report is over 120 pages long and includes pie charts of each survey question, as well as 32 pages of anecdotes entered by the respondents. We present here an executive summary of this preliminary data, put together by the Safer Utilities Network for an Arizona audience. The preliminary report itself is available at: www.mainecoalitiontostopsmartmeters.org/wp-content/uploads/2013/01/Exhibit-10-Smart-Meter-Health-Effects-Report-Survey2.pdf.

Demographic information on the respondents:

- 75% live in the United States (the rest Canada and Australia)
- 6% live in Arizona
- 73% are female

- all respondents are adults (18 or older)
- 52% are 45 to 59 years old
- 67% have education beyond high school

Health before the smart meters were installed:

- 59% were not electrically sensitive
- 82% reported good or excellent health

The smart meter exposures

The communication technology used by the smart meter is reported as:

- 65% wireless
- 5% PLC
- 30% don't know

The PLC technology has not been covered much in the public discussion, which may account for the uncertainty, and possible underreporting.

57% report that there are more than three smart meters within 50 feet of their residence, including their own meter and any “smart” gas or water meters.

27% report that they spent much time (such as sleeping) within 9 ft of a smart meter.

Health effects

The survey asked about what symptoms were brand new or had worsened since the smart meters were installed. Reports of insomnia, tinnitus, pressure in the head, difficulty concentrating, headaches and heart arrhythmia were particularly common. Bar charts are attached at the end of this filing.

About 45% of the responders believe that the smart meters caused them to become electrically sensitive.

Of those who had the smart meter removed, 91% saw an improvement in their health.

Effects of new or worsened electrical sensitivities, due to smart meters:

- 19% were forced to leave their job
- 24% needed accommodations at work
- 48% needed accommodations at home
- 64% had limited capacity to work
- 17% moved away from their home
- 37% want to move away, but cannot
- 24% can use a cell phone without symptoms, as opposed to 50% before the smart meter
- 39% can use a computer without symptoms, as opposed to 79% before the smart meter

Could the health effects have another cause?

The survey explores other explanations through several questions. Other possibilities include equipment installed in the home around the time the smart meter was installed, as well as outside sources, such as nearby transmitters. The answers do not point to such alternative explanations.

A key finding is that 42% report having symptoms *before* they knew the smart meter had been installed, making anxieties a much less likely cause of the symptoms. This is also supported by 63% responding that they were not concerned about smart meters beforehand.

The comments

The online survey allowed for comments of up to 300 words. Many respondents left a detailed comment, for a total of 32 pages in the preliminary report.

The comments are usually about how the smart meters have affected people's lives in a profound way. Many also mention that pets are affected.

A common theme is that smart meters on adjacent dwellings are a problem, which is not addressed by an opt-out.

The comments make the statistics come alive — that these are real people.

Discussion

This is apparently the first study of the health impact of smart meters. It is a simple survey of a self-selected group of people, but with very provocative results.

It does not tell us how many people are affected, and it does not tell us much about long-term effects. More research is urgently needed.

There is also an urgent need for a study of PLC smart meters. Dirty electricity has been studied very little, despite preliminary evidence pointing to health effects.

Due to the common problem of special interest influence on science, such studies must diligently be free of political and special interest influence.

Important lessons can be learned from the present data. That 91% reported some or full relief from the removal of the smart meter points to allowing people to opt-out as a right — without discouragements. The study suggests that an opt-out doesn't solve all problems. It shows that 63% were not initially concerned and thus unlikely to have opted out if they could have. The study also points out that an opt-out may be insufficient with close-by neighbors.

As 42% reported symptoms starting before they knew the smart meter was installed, and the survey explores various alternative explanations, it is reasonable to accept people's complaints about smart meters as genuine.

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Attached:

- *Brand new symptoms after exposure to smart meters that had never been experienced before* [chart]
- *Previous symptoms that worsened to severe intensity after exposure to smart meters* [chart]