
From: Ray, Peter (DPU)
Sent: Friday, March 28, 2014 1:30 PM
To: Orcutt, W Michael (EEA)
Subject: Kirsten Beatty, Revision of 12-76, 3/19/14

From: Kirstin Beatty [<mailto:krzbeatty@yahoo.com>]
Sent: Thursday, March 20, 2014 11:28 AM
To: Lackey, Alison (DPU); Patricia Burke
Subject: Revision of 12-76 Docket Commentary

Dear Ms. Lackey:

Please replace my submission yesterday to Docket 12-76 regarding smart meters with the following letter:

To: Department of Public Utilities

RE: Docket 12-76 Investigation of Smart Meters and Grid Modernization

*From: Kirstin Beatty
(413) 536-3505*

Earth Healing Refuge: <http://www.meetup.com/HEALove/>

Before specifically addressing the climate change amelioration as discussed further below (see header), I would like to briefly add some information on the health aspects of grid modernization in response to some of the unanswered questions and considerations from the DPU panel discussions. Further, I believe grid modernization should also include respect for the latest understandings for the effects of the electrical system upon our health:

* SAGE, an advisory group on magnetic fields funded by government, business, and a leukemia charity, published several documents with detailed recommendations for improving the electrical delivery system: <http://www.sagedialogue.org.uk/> . Phase 1 was published in 2007, while Phase 2 was published in 2010.

* Sam Milham's recent research (see <http://www.sammilham.com/index.shtml>) of the effects of dirty electricity (i.e. arcing, transients, etc.) upon human beings (not only electrical equipment) has found considerable scientific support and thus Massachusetts would do well to initiate regulations for manufacturers and energy suppliers in order to reduce increasingly dirty electrical lines by installing filters and insuring lines carry only 60 Hz energy.

* The question was brought forward as to the meaning of frequencies and power densities utilized in wireless meters versus cellphones. The frequencies and power densities used by AMI smart meters, as compared to cell phones and AMR meters are worse, because:

* AMI meters have at least two antennas, rather than one antenna as found in an AMR meter, doubling radiation exposure as compared to an AMR meter.

* the two most lethal frequencies are inside every smart meter: .95 and 2.45 GHz! In fact, different frequencies are known to have varying effects, and some are being utilized for healing. However, the following study found two exceptionally lethal frequencies in an investigation of rat mortality:

- Polson, P, DCL Jones, A Karp, and JS Krebs. Final Technical Report: Mortality in rats exposed to CW microwave radiation at 0.95, 2.45, 4.54, and 7.44 GHz. January 1974. Stanford Research Institute, Menlo Park, CA. Prepared for: U.S. Army Mobility Equipment Research and Development Center, Fort Belvoir, Virginia

*The slideshare <http://www.slideshare.net/fullscreen/nehakumar01/cell-tower-radiation-report-2010-dot-india/1> reviews from pages 1-5 the mathematics involved in understanding that there is a much higher dosage of radiation than is accounted for conventionally. Electrical engineer and Prof. Kumar also notes that in fact, recommendations for cell phone power are meant to apply for only 6 minutes of usage. These comments apply also wireless meters, which would be placed upon homes and regularly apply radiation exposure.

* Smart meters increase electromagnetic pollution by collecting wireless transmissions from appliances and other electronic equipment engineered to transmit wirelessly to smart meters.

* Dr. Daniel Hirsch, PhD. U. of C. says: whole body radiation from a Smart Meter equates to from 45 to 450 times more than a cell phone - depending on one's distance from the Smart Meter

* In my own measurements of a wireless AMR meter, I found a power density of 100 mW/cm² and this is from only one antenna. This measurement is over 1000 times above a typical cell phone in power density, and yet this signal transmitted day and night every few minutes in pulses of billions of times per second. What does this mean? According to the following slideshare by electrical engineer Professor Kumar, the meaning is quite negative:

- On page 9 of this slideshare (<http://www.slideshare.net/fullscreen/nehakumar01/cell-tower-radiation-report-2010-dot-india/1>) prepared by Professor Kumar, leukemia, headaches, weakness, fatigue, bladder cancer, skin melanoma, is noted to initiate at much lower levels a thousand times below that transmitted by my wireless meter. The chart provided is very clear and frightening in demonstrating the power density levels of different gadgets and risks.

CLIMATE CHANGE & ENERGY USAGE

The DPU has asked how can the grid modernization be useful in terms of ameliorating climate change effects. Recent climate change data shows that New England is experiencing increased warmth, humidity, flooding, and more as well as stronger hurricanes. Based on this knowledge, grid modernization should include plans to foster localized energy distribution, in order to reduce the detrimental effects of power outages. Other step to reduce power outages include placing power lines underground. Considering the time and cost involved, lines supplying power to schools, hospitals, and communication systems could be identified for preferential support. Copper landlines require upgrading, as well as access to public, non-cellular phones, with respect to power outages.

In terms of climate change, the profiteering goals of energy companies are often at odds with the concept of reducing energy use, as these companies earn based upon units of energy sold. As a public, tax-funded organization, the DPU has an important job in determining how to alter this obvious conflict of interest. The DPU might be able to modulate behaviors with the proverbial carrot and stick. These are some possibilities:

- * Provide tax penalties/bonuses based upon the performance of energy companies, municipalities, and businesses in relation to climate change amelioration.
- * Intensify public education outreach, utilizing local papers, public parks/museums, and libraries as well as screen-based distribution, including information on unusual products and businesses of assistance in reducing energy usage.
- * Provide competitive awards to municipalities, businesses, and manufactured products initiating original energy reduction efforts.
- * Support funding to search for and identify areas of energy waste for remediation (such as urban heat islands, see: <http://thermoguy.com/smart-meters-not-saving-energy-or-addressing-waste/>) and provide partial funding for remediation.
- * Tax unnecessary appliances and gadgets, perhaps based on excessive power requirements
- * Penalize manufacturers and cell tower operators which inject dirty electricity onto the grid.

Another aspect of ameliorating climate change involves reducing energy use by avoiding excessive manufacturing or other waste such as wasted power. For example, the wireless transmissions from meters are quite dangerous and can contribute to fire & building hazards, thus requiring additional maintenance or rebuilding. At the panel discussion, I submitted a paper by electrical engineer and magnetism expert Curtis Bennet, "Thermoguy," which discussed how wireless can initiate fires in wiring. Wireless, like dirty electricity or transients, also causes subtle damage to electronic equipment and buildings, as Bennet discusses online at this link <http://thermoguy.com/specific-absorption-rate-test-used-for-rf-emf-exposure-not-applicable-to-building-codes/>, in which he states: "The RF EMFs will go through walls and roofs electromagnetically inducing the building as well as cause high speed vibrations 1.8 to 4.8 billion times per measurable second. Accelerated corrosion is the reality and it undermines architects, engineers, trades, insurers, fire services, home owners as well as the municipality."

Smart meters create an infrastructure which will draw or have additional power requirements, quite unlike purely mechanical meters. The infrastructure for smart meters requires additional cell towers, computer software, and also creates an opening for new appliances to be manufactured which integrate with the reception of smart meters. For this reason, too, it is suggested to stick with mechanical meters.