

Statement and Comments of Linda Kurtz Regarding GN Docket Nos. 12-353 and 13-5

1. I am strongly against the current proposal. Many individuals—including myself—are unable to tolerate radiofrequency or the voltage transients and harmonics (power quality issues) that would be caused by the proposed technology. The FCC has a duty to the public to protect the public health and safety from harm from radiofrequency radiation. (H.R. Report No. 104-204, p. 94).
2. In FCC 14-5, the Commission stated: “As today’s Order makes clear, no experiment should jeopardize access to communications for persons with disabilities. As such, we will only be able to approve a proposal if we are convinced that the proposed experiment considered accessibility issues.”
3. There is no indication in the Commission’s report that it has even considered taking into account the effect on health of the population in general and electro-sensitive individuals in particular of wireless technologies and voltage transients and harmonics (power quality issues) that would be caused by the proposed technology
4. My health is severely impacted by radiofrequency and pulsing, erratic currents such as those that will be generated by U-verse and/or wireless technology.
 - a. I am unable to be in buildings with wireless without impacting my health in severe and noticeable ways.
 - b. I am unable to be in buildings which have severe power quality issues such as those that would likely be engendered by digitally transmitted signals without impacting my health in severe and noticeable ways.
 - c. I am unable to be near wireless routers. I have experienced severe heart problems when in proximity to them.
 - d. I am unable to use a cell phone except for a minute or less without severe health effects, including the closing of my nasopharynx and intermittent paralysis of my vocal cords.
5. Immediate impacts on my health include
 - a. Unremitting insomnia
 - b. Heart palpitations
 - c. Headaches
 - d. Nausea
 - e. Agitation
 - f. Intermittent memory loss like that found in the elderly
 - g. Severe fatigue
6. This Commission document on this proposal is entitled “FCC OKs Voluntary Experiments Testing Impact of Technology Transitions.” This experiment is *not* voluntary on my part or on the part of any other citizen. It is voluntary only on the part of a corporation. It is an experiment without consent on my health and the health of others, including animals.
7. The Department of the Interior, in a February 7, 2014 [letter](#) to the Commerce Department, stated that there is a growing level of anecdotal evidence showing harm to nesting and roosting wild birds and other wildlife from non-thermal, non-ionizing electromagnetic radiation from cell-phone communication towers.

8. There is also a growing level of anecdotal evidence regarding the health effects of wireless communication frequencies on human health.
9. There is growing anecdotal evidence regarding the health effects of voltage transients and harmonics on human health.
10. Beyond that, there is clear and convincing scientific evidence that these electromagnetic fields cause harm to the human organism. Thousands of scientific studies have found harm and are fully reported in or referenced in the following:
 - a. *BioInitiative Report: A Rationale for Biologically-based Public Exposure Standards for Electromagnetic Radiation* (2012), BioInitiative Working Group, Cindy Sage and David O. Carpenter, Editors (<http://www.bioinitiative.org/>) (report updating the 2007 report, listing 1800 studies, by 29 independent scientists and health experts from around the world, about health effects of wireless technologies and all kinds of electromagnetic fields)
 - b. Henry Lai, *Research Summaries* (scientific literature, as well as collections of scientific abstracts on free radical damage from electromagnetic fields, covering the research published between 1990-2012) (<http://www.bioinitiative.org/research-summaries/>)
 - c. Listing of studies, <http://www.justproveit.net/studies>, a listing of the thousands of studies, dating from 1925 to the present, categorized.
 - d. Martin Blank, Ph.D., *Overpowered: The Dangers of Electromagnetic Radiation (EMF) and What You Can Do about It* (2014) (Dr. Martin Blank is an expert on the health-related effects of electromagnetic fields and has been studying the subject for over thirty years. He earned his first PhD from Columbia University in physical chemistry and his second from the University of Cambridge in colloid science. From 1968 to 2011, he taught as an Associate Professor at Columbia University, where he now acts as a special lecturer. He has served as chairman of the Organic and Biological Division of the Electrochemical Society, as president of the Bioelectrochemical Society, and as president of the Bioelectromagnetics Society. He has published over 200 papers and reviews, and has served on the editorial boards of several journals, including the *Journal of the Electrochemical Society*, *Bioelectrochemistry* and *Bioenergetics*, and *Electromagnetic Biology and Medicine*.)
11. The FCC does not possess the expertise to set biologically-based radiofrequency radiation safety limits. EPA does. Therefore, the FCC should advocate that Congress direct the EPA to establish biologically-based radiofrequency radiation safety limits and provide the budget and resources to carry out that task.
12. Ensuring that people with disabilities have access to *technology at all*—not just “evolving technology” — is also a core value of the Telecommunications Act. The forced utilization of technology that requires a customer to accept a connection that brings radiofrequency-emitting devices into their home, or creates power quality issues such that their electrical wiring is contaminated by voltage transients and harmonics is not in line with the core values of this nation.
13. In FCC 14-5, the Commission stated: “We also recognize that new technologies have the potential for negative impacts. Therefore, the Commission’s evaluation will also take into account details about how applicants will ensure they meet the needs of persons with disabilities. In designing experiments, providers should pay particular attention to access to 911

services by individuals with disabilities, the provision of TRS, the transmission of remote closed captions, and the development, use of, and compatibility with assistive technologies.”

- a. Nowhere is there any indication that the Commission will take into account the negative impacts on people who are electro-sensitive.
14. One of the reasons that wireless technologies cause a host of seemingly odd and unrelated symptoms is that the waves knock calcium ions off the cell membrane. Calcium plays a crucial role in neurotransmission (brain communication, heart rhythm, blood pressure, oxygen intake, etc.). Just a few citations:
- a. --Calcium Signaling [http://www.cell.com/abstract/S0092-8674\(07\)01531-0](http://www.cell.com/abstract/S0092-8674(07)01531-0)
 - b. One of the earliest studies is Ross Adey, “Biological Effects of Electromagnetic Fields,” *Journal of Cellular Biochemistry* 51, no. 4 (April 1993): 410–16)
 - c. --Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects
<http://onlinelibrary.wiley.com/doi/10.1111/jcmm.12088/full>
 - d. --Calcium Influx: Initiation of Neurotransmitter Release
<http://web.williams.edu/imput/synapse/pages/IIA1.htm>
 - e. --Electromagnetic Fields and Health http://www.hese-project.org/hese-uk/en/papers/emf_health_summary0109.pdf
 - f. --Multiple Roles of Calcium Ions in the Regulation of Neurotransmitter Release
<http://www.sciencedirect.com/science/article/pii/S0896627308007423>
 - g. --Neuroprotective Effect of Ginseng against Alteration of Calcium Binding Proteins Immunoreactivity in the Mice Hippocampus after Radiofrequency Exposure
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3773416/>
15. Why some people are extremely affected by electromagnetic waves is not known, but there are literally thousands of studies (as noted above) showing that cells are affected by them—usually in a deleterious way. Only a few epidemiological studies have been conducted. All of them indicate that people—even those who feel no changes in their health—are adversely, often severely, affected.
16. There is mounting evidence that most people will be affected over the long term. If you studied a group of smokers for a day or three months, or even a year, you would likely find no changes in their health status. This is not an indication that tobacco is not harmful, as we now know, 40 years later. So it is with the wireless frequencies so commonly used today.
17. I know, in addition to myself, many individuals who are severely impacted by wireless technologies and power quality issues.
18. I need access to a telephone. I need to be able to live in my own home and also to be able to walk and move about outside my home. This proposal, if it becomes the status quo throughout the nation, will make that impossible for me and many others. This is not hyperbole.

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