

## DOCKETED

<b>Docket Number:</b>	16-EPIC-01
<b>Project Title:</b>	EPIC Idea Exchange
<b>TN #:</b>	221367
<b>Document Title:</b>	Claire Warshaw Comments Please consider human health issues when designing microgrids, i.e., EMF, noise
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Claire Warshaw
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	10/2/2017 2:00:14 PM
<b>Docketed Date:</b>	10/2/2017

*Comment Received From: Claire Warshaw*

*Submitted On: 10/2/2017*

*Docket Number: 16-EPIC-01*

## **2017\_10\_2 Please consider human health issues when designing microgrids, i.e., EMF, noise**

I only listened to the morning part of the joint staff agency (CEC, CalISO, CPUC) California Microgrid Scoping Workshop, so I am not certain that these teams will not address my concern in the later day. I hope they do.

I am concerned about Electromagnetic Frequency (EMF) issues and how they relate human health. I am guessing that microgrid stakeholders probably use a number of internet connected devices. After noticing numbers on my own Cornet EMF meter that I bought after having difficult to explain and define health issues myself, I am starting to believe everyone ought to carry an EMF meter of some sort.

Invisible waves obviously have impact. I know this after having had ionizing radiation. The idea that non-thermal radiation waves cause human health issues has been shown in recent research and some older research too. For various sources of such research, I suggest following Facebook's Campaign for Radiation Free Schools administered by Camilla Rees and the International Institute for Building Biology (IBE) & Ecology (ibelc.org). Also see their recommendations for creating safe spaces (<http://www.createhealthyhomes.com/richtwerte-2015-englisch.pdf>). Biochemist Dr. Martin Pall's lectures and several other distinguished researchers have convinced me of possible human health damage by EMF - DNA damage, Ca ion transport causing internal cell nitrous oxide changes. Please verify for yourselves.

Today, in connecting to this lecture with my Apple I-phone 6, I watched my Cornet meter have high radio frequency readings (195.8 milliWatts/meter squared, 200.4 mW/m<sup>2</sup>, 303.3 mW/m<sup>2</sup>) placed near the phone in a certain position. I took several photos of these readings and will try to attach a few. I kept the phone far from me as I listened. Building biologist recommendations (<http://www.createhealthyhomes.com/richtwerte-2015-englisch.pdf>) for no anomalies show 0.1 microWatts/meter = squared. (I think they are referencing microWatts). For slight anomalies, they show 0.1-10 microWatts/meter squared. Again please verify as I am interpreted their symbology and data. 200.4 milliWatts = 200400 microWatts, right? I am open to being wrong; please let me know if you notice errors in my analysis. Readings from my cell phone drop off dramatically the further away one is from the transmitting or receiving device. Radio frequency readings like this are unusual to think about. Human organs operate at very low frequencies in comparison. Why would anyone not be concerned seeing this? Whatever the case, these readings are far above what they consider natural.

Designing to prevent human health hazards seems desirable and can be done. These are preventative and done so that we do not have to wonder why a human health issue is happening. I suggest watch to not place transmitting/receiving devices and machine frequency adding devices near human heads. I would suggest not pulsing smart meters near a human head. This includes IoT devices such as thermostats. I have machine frequency readings off my old fashioned thermostat that make not want to sleep near it. Digital clocks create high readings too. Various kitchen appliances can be interesting to assess as they have little transformers in their fancier digital additions, which make noticeable machine readings. "Dirty Electricity" (written about by Dr. Samuel Milham), jagged machine like readings when one adds various machines to a circuit, also surprised me.

I might guess that connecting to any wireless energy has potential hazards, which are not obvious. Most of these are probably small and not easy to see human health damage from. There are indications of EMF damage being accumulative much like toxins are. Our devices are not highly regulated. We chose the business money making model first it seems. Most of our businesses do not teach workers details about electromagnetic frequency even if

the businesses concern electrical sales. U.S. regulations are old and outdated compared to our modern technology. Many developed countries have tougher regulations on wireless transmission. It is probably time that the U.S. starts to examine EMF issues more.

Also, I am concerned that all of our connecting with wireless energy might be a contributing factor to global warming. I do not discount that our combustion engines, smoke and other pollutants are major causes, but after what I have noticed and read, I would be surprised if a satellite to earth connection and all of our interconnection does not carry some kind of heat. If we have more and more connections, to me it seems likely the connections may warm those areas more. Hopefully I am wrong about this, but I do think it might need some more expert eyes on EMF issues to really know.

Money being the driver of business over safety seems to obscure what we see sometimes. I understand we all want to make money, but I hope that in doing so we all can more embrace human health in our designs, including microgrid designs

*Additional submitted attachment is included below.*

Electrosmog meter

