

## **City Council Public Comments re: PG&E's Sebastopol Smart Meter Proposal**

In order to help residents better understand some of our community's significant concern about installation of smart meters, I would like to read excerpts from a publication called the **Bioinitiative Report: A Rational for Biologically-based Exposure Standards for Low-intensity Electromagnetic Radiation**. It was completed in 2007, updated in 2012 and, again, in 2022. This report was prepared by 29 authors from ten countries, ten holding medical degrees (MDs), 21 PhDs, and three MSc, MA or MPHs.

This Bioinitiative Report looks at a total of 2,018 studies thru 2022 researching some aspect of the effect of Radio Frequency Radiation (RFR) and Extremely Low Frequency Electro Magnetic Fields (ELF) on living things. Of these, 1,655 studies showed a significant negative physical effect from exposure to EMFs. In other words, 82% of the world-wide research into the effect of RFRs and ELFs on living things shows that they are harmful. If this statistic is not enough to persuade those in charge of regulating and distributing devices such as smart meters, then I don't know what is.

Here are Excerpts from the Bioinitiative Report:

### **"Why We Care – The Stakes Are Very High**

Human beings are bioelectrical systems. Our hearts and brains are regulated by internal bioelectrical signals. Environmental exposures to artificial EMFs can interact with fundamental biological processes in the human body. In some cases, this can cause discomfort and disease. Since World War II, the background level of EMF from electrical sources has risen exponentially, most recently by the soaring popularity of wireless technologies such as cell phones (two billion and counting in 2006), cordless phones, WI-FI and WI-MAX networks. Several decades of international scientific research confirm that EMFs are biologically active in animals and in humans, which could have major public health consequences. In today's world, everyone is exposed to two types of EMFs: (1) extremely low frequency electromagnetic fields (ELF) from electrical and electronic appliances and power lines and (2) radiofrequency radiation (RF) from wireless devices such as cell phones and cordless phones, cellular antennas and towers, and broadcast transmission towers. In this report we will use the term EMFs when referring to all electromagnetic fields in general; and the terms ELF and RF when referring to the specific type of exposure. They are both types of non-ionizing radiation, which means that they do not have sufficient energy to break off electrons from their orbits around atoms and ionize (charge) the atoms, as do x-rays, CT scans, and other forms of ionizing radiation...

**The largest single source of community-wide, pervasive RFR yet rolled out is the 'smart meter' infrastructure.** This program places a wireless device (like a mini-mobile phone base station) on the wall, replacing the electromechanical (spinning dial) meter. They are to be installed on every home and classroom (every building with an electric meter). Utilities from California to Maine have installed tens of millions already, despite health concerns of experts and enormous public resistance. The wireless meters produce spikes of pulsed radiofrequency radiation 24/7, and in typical operation, will saturate living space at levels that can be much higher than already reported to cause bioeffects and adverse health effects... These meters, depending on where they are placed relative to occupied space in the home or classroom, can produce RFR exposure levels similar to that within the first 100 feet to 600 feet of a mobile phone base station (cell tower).

The cumulative RFR burden within any community is largely unknown. Both involuntary sources (like cell towers, smart meters and second-hand radiation from the use of wireless devices by others) plus voluntary exposures from ones' personal use of cell and cordless phones, wireless routers, electronic baby surveillance monitors, wireless security systems, wireless hearing aids, and wireless medical devices like implanted insulin pumps all add up. No one is tallying up the combined exposure levels. Billions of new RFR transmitters from the smart meter rollout alone will raise the baseline RFR levels, and will significantly add to the existing RFR background.

Sometimes, science does not keep pace with new environmental exposures that are by-products of useful things we want to buy and use in society. So, the deployment runs ahead of knowledge of health risks. It is an old story. This is the case for EMF and RFR, and this Report underscores the critical need to face difficult questions, make mid-course corrections, and try to repair the damage already done in this generation, and to think about protecting future generations.