



June 25, 2019

To: Federal Communications Commission

Re:

Establishing a 5G Fund for Rural America Universal Service GN Docket No. 20-32
Universal Service Reform – Mobility Fund

Comments in opposition to FCC Docket NO. GN. 20-32

On behalf of the Advisors to the International EMF Scientist Appeal, I hereby submit comments to outline serious issues of concern are raised by this proposed rulemaking.

FCC is pursuing an accelerated deployment schedule to install the 5th generation wireless infrastructure throughout the United States. This is being done without FCC's having conducted, in collaboration with the U.S. federal health agencies, a health and safety review of the growing body of scientific evidence that reports increased rates of reproductive problems, neurological diseases and cancers known to be related to exposure to electromagnetic radiation from wireless sources.

FCC asserts that "full participation in today's society requires that all American consumers, not just those living in urban areas, have access to the most current and advanced technologies and services available in the marketplace". This statement ignores the fact that many Americans live in rural areas because they prefer a low technology lifestyle or, due to health reasons, many Americans have been forced to live in rural areas because the increasing levels of electrosmog from multiple sources of artificial non-ionizing radiation sources have forced them to move away from urban areas."

This rule proposed to disaggregate legacy support, which means to carriers would be allowed to continue its drive to dismantle wireline phone services in the U.S, this making all Americans reliant on wireless communications technologies. Proposals to dismantle wireline phone services have been strongly oppose in some states, including by the California State Legislature. Now, the FCC is seeking to accomplish by this federal rule, what has not been achieved by going through each state legislature. This is federal overreach and would create unnecessary public health and safety risks. Many people prefer not to be reliant on wireless technologies or who are unable to use wireless technologies because they are electromagnetically sensitive. The move to disaggregate, and eventually dismantle America's wireline phone service, would deny these Americans access to telephonic communications which could have life-threatening consequences.

FCC is over-stating the demand for wireless services in this proposed rule. The economic benefit arguments are far outweighed by the need to consider the health and well-being of the American people.

Due to the federal health preemption, enabled by Section 704 of the Federal Telecommunications Act of 1996, that were extended by FCC's 5G rules, published in 2018, state powers to protect the population are more limited. With the introduction of 5G, power levels and environmental exposures to multiple frequencies will increase, along with antenna densification. New chronic and involuntary RFR exposure conditions will be created. The FCC plans to allocate ultra-high frequencies from 6GHz up to 3 Terahertz and would incorporate these frequencies, by reference, under the current FCC human exposure radiofrequency guidelines. 5G transmissions will include millimeter waves with rapid pulsations at higher power levels, with signal characteristics that include multiple input/multiple output (MIMO), bursts of high energy beams, and phased array. These signal characteristics have not been safety tested prior to deployment for commercial communications purposes.

FCC is introducing wireless power transfer (WTF) technologies, along with a new thermal-based standard for electricity, without providing information on the technical specifications or the applications. Examples of WTF applications include electrical vehicles, antennas, and personal wireless devices.

FCC continues to have no plans to monitor RFR emissions to ensure exposure conditions are compliant with the current FCC radiofrequency radiation human exposure guidelines.

Who will protect the public? Who can people turn to should they be harmed?

The International EMF Scientist Appeal is currently signed by over 250 scientists in 44 nations. These scientists have published peer reviewed EMF papers in professional journals, reporting biological or health effects from artificial sources of non-ionizing radiation on humankind and nature. The reported findings of these EMF papers support their collective view that the current exposure guidelines set by the FCC, by international organizations and, by many nations, are obsolete and do not provide adequate health protection.

We initiated this Appeal in May, 2015 and we continue to urgently call upon the United Nations, its sub-agencies, the World Health Organization, the United Nations Environment Programme and all UN member nations to investigate and address what many experts now define as a growing global health crisis. The Appeal emphasizes the serious health risks posed to children and pregnant women and calls for greater health protection for all, including the most vulnerable, including people who are electrically sensitive, are older, or, are ill.

In 2015, the EMF scientists stated that "numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.

Recently, both the U.S. National Toxicology Program (NTP), and the Ramazzini Institute in Italy, published long term studies on radiofrequency radiation frequencies used for 2nd and 3rd generation wireless that found increased rates of certain types of cancers – schwannoma cancer cells in the heart and brain gliomas.

At the time the NTP study was released, on December 1, 2018, the U.S Food and Drug Administration (FDA) immediately issued a statement stating they had no intention of conducting a quantitative risk assessment of the study findings to evaluate the human health implications, even though NTP conducted this toxicological assessment after FDA made a formal request to NTP to conduct such an assessment in 1999.

In 2017, the Advisors to the International EMF Scientist Appeal issued a statement saying, “in keeping with the U.N. Guiding Principles on Business and Human Rights, to “Protect, Respect and Remedy”, 5G technologies must be subjected to an independent health and safety assessment before they are launched.”

On July 29,2019, the Advisors to the International EMF Scientist Appeal resubmitted the Appeal to the U.N. Environment Programme’s Executive Director, Inger Andersen, requesting the UNEP to reassess the potential biological impacts of next generation 4G and 5G telecommunications technologies on plants, animals and human. We told them that plans for antenna densification will escalate a global health crisis...new antennas will be densely located throughout residential neighborhoods using much higher frequencies, with greater biologically disruptive pulsations, more dangerous signaling characteristics, from transmitting equipment near to and inside of homes and buildings. The Advisors to *The Appeal* recommended UNEP seriously weigh heavily, the findings of the independent, non-industry associated EMF science.

While we have yet to receive a formal reply from the international and national governmental agencies to which this Appeal is addressed, we can report that, this Appeal, which was published in a professional journal, has gone viral world-wide. It is frequently referred to in public testimony, in court filings, is cited in professional publications, and is mentioned in articles published by mainstream press and social media messages.

The FCC needs to urgently consider the potential impact on the health and safety of the U.S. population, by evaluating the frequencies, modulations, power levels, and exposure conditions associated with 5th Generation wireless. We further urge FCC to consider the limited scientific studies on 4G and 5G frequencies that report biological changes and adverse health effects at levels far below the current FCC human exposure guidelines.

Moreover, we advise FCC to proceed with caution, until more is known through science, to avoid causing harm.

For further information, we refer you to the Appeal at www.emfscientist.org.

Regards,

/S/

Elizabeth Kelley, MA
Director
EMFScientist.org

On behalf of Magda Havas, Henry Lai, Ronald Melnick, Joel Moskowitz and Annie Sasco,
Advisors to the International EMF Scientist Appeal