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To:
Thomas Wheeler, Chairman, Federal Communications Commission
Washington, D.C. 20554

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Re: **Proceedings 14-177, 15-256, 10-112, and 97-95**

From:
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Background on The Berkshire-Litchfield Environmental Council:

The Berkshire-Litchfield Environmental Council (BLEC) is a 501 (3)(c) non-profit organization that focuses on environmental issues affecting the Northwest Corner of Connecticut and the Berkshires region of Massachusetts. BLEC addresses diverse environmental subjects, including a proposed/failed hydroelectric pumped storage power plant, water and air contamination, land preservation, zoning controls, vernal pools protection, the environmental effects of radio frequency radiation associated with the siting of telecommunications infrastructure, and industrial-scale wind turbines. Our focus is historically on the environmental effects of infrastructure. Founded in 1970, BLEC has over 500 members and holds educational forums on emerging environmental issues with speakers from federal agencies and researchers from around the world.

BLEC President, Starling W. Childs, a lecturer at the Yale School of Forestry and President of EECOS Inc. Environmental Consultants -- a land-use planning/scientific assessment group specializing in innovative farm and forest management and creative development designs -- has been a consultant to wind projects throughout the east coast.

BLEC Communications Director, B. Blake Levitt, is a decades-long member of the science press, former *New York Times* contributor, and award winning author of two books on the health and environmental effects of nonionizing radiation,[1] which includes the radiofrequencies of the electromagnetic spectrum used in all wireless technology.

With a focus on the health/environmental effects of infrastructure, BLEC is qualified to comment on the current FCC proposal on the 5G network.

Introduction:

The Federal Communications Commission (FCC) is about to vote on the expedited buildout of the 5G communications network, endorsed by Chairman Thomas Wheeler who has gone on record saying he wants the U.S. to be "…first out the gate," adding that "…Turning innovators loose is far preferable to expecting committees and regulators to define the future."

There are problems with that logic, most notably the fact that the FCC is a licensing and engineering entity that relies on other agencies for guidance outside of FCC's range of expertise. FCC is the first to point out that it is not a health or environmental agency, yet it is lauding innovators over those very regulators who know far more about this. That makes little sense. Would deference to those other agencies slow down the 5G buildout? Probably, but the entire 5G concept is still very theoretical and untested. There is time to get this right.

The buildout of a whole new wireless network, utilizing unusual wave propagation characteristics in new/untested technology, with unknown global consequences far into the future and that would create another ubiquitous layer of radiofrequency radiation (RF) – a biologically active exposure -- in frequencies not now in widespread use mandates a careful, thorough approach.

It appears to be getting the exact opposite.

At a time when other industrialized countries are calling for caution regarding wireless exposures, the U.S. is going in the opposite direction as evidenced by Chairman Wheeler's enthusiasm for 5G, which appears to preclude any in-depth review.

Most of the concerns today are in the health and environmental categories when it comes to the effects of wireless technologies. Radiofrequency radiation is a highly biologically active

[1] *Electromagnetic Fields, A Consumer's Guide to the Issues and How to Protect Ourselves,* by B. Blake Levitt, first edition, Harcourt Brace, 1996, second edition, iUniverse, 2011; and editor of *Cell Towers – Wireless Convenience? or Environmental Hazard? Proceedings of the "Cell Towers Forum, State of the Science/State of the Law,* first edition, Safe Goods/New Century Publishing, 2001, second edition, iUniverse 2010.

exposure across a range of frequencies. The 5G system is designed at present to function in the Super High Frequency (SHF) and the Extremely High Frequency (EHF) gigahertz (GHz) ranges between 3 GHz and 300 GHz, at intensities below current FCC exposure limits, but that should instill no confidence. The current FCC standards are for acute high-intensity, short-term exposures capable of heating tissue. Most exposures today are long-term, low-intensity but a systematically growing body of evidence finds those to be as biologically active, if not more so (see below) than the thermal effects regulated today. The 5G system, which will require literally millions of new antennas mounted everywhere, is exactly the kind of exposure that most alarms both scientists and citizens alike.

In light of the newly released $28-million multi-year study by The National Toxicology Program (NTP) at the National Institutes of Health (NIH), which found a causal relationship between RF in cell phone frequencies and malignant brain cancers (glioma), as well as benign nerve tumors (schwannomas) of the heart in male rats,[2] The Berkshire-Litchfield Environmental Council strongly recommends that the FCC apply the brakes and not move forward until all of the current biological information is taken into consideration, biologically based standards enacted, and the appropriate agencies consulted. To do otherwise is a severe overreach of FCC's traditional role in responsibly managing the nation's airwaves. The current proposal throws all caution to the wind.

What is 5G?

5G stands for "Fifth Generation" and is a massively complex network made up of both cloud-based wireless transceivers and ground-based fiberoptic wired systems that will enable full buildout of the "Internet of Things," including driverless cars, interconnectivities between cell phones and 'smart' homes and businesses, and faster telecom services and entertainment to businesses and consumers among myriad applications yet-to-be-imagined. There are serious concerns at all levels of government and in many private sectors about such massive interconnectivity regarding cybersecurity, safety, and privacy -- concerns that may be irreconcilable given how technology basically functions in an interconnected world.

Spectrum allocated for 5G is spread across a range of frequencies between the Super High Frequency (SHF) and the Extremely High Frequency (EHF) bands between 3 GHz and 300 GHz. These are also known as the millimeter bands. Current cell technology functions in the Ultra High Frequency (UHF) bands between 300 megahertz (MHz) and 3 GHz. 5G may end up functioning close to the lower regions of the laser frequencies visible to other species. These upper ranges are in fact the only area of the nonionizing bands of the electromagnetic spectrum that is relatively untouched. Most others are completely filled in.

The FCC is looking between 24 GHz and 90 GHz for 5G. Samsung Electronics has already demonstrated a 28 GHz system.

The FCC also plans to open up multiple wide areas of other bands for 5G too. This is the first time since the advent of telecommunication in the 1990's that the FCC has opened this

[2] http://ntp.niehs.nih.gov/results/areas/cellphones/index.html

much spectrum – more than the 1-through-4G systems combined. 5G makes use of digitized millimeter waves that function best in narrow beams/bands that do not wrap well around obstacles like buildings, is easily deflected and has poor penetration ability. But new antenna designs have overcome those limitations and can now aim and process the radiation into coherent signals that easily penetrate buildings, people, everything. According to Chairman Wheeler, 5G will require millions of new antennas, as well as hundreds of billions of microchips, and will be an economic multiplier with tens of billions of dollars in economic activity. He calls 5G "infrastructure intensive" [3] and the system(s) will presumably fall under the same restrictions of the Telecommunications Act of 1996 that prohibited states and communities from taking the "environment effects" of radiofrequency radiation into consideration in infrastructure siting if the emissions are within FCC limits.

Toward the 5G initiative, the FCC last year also enacted rules that gave distributed antenna systems (DAS) – a precursor of how 5G will operate in combination with fiberoptic cable -- expedited review at the local level for both environmental effects and historical significance, which now cannot be taken into consideration. These are historically sacrosanct tools that local governments use to determine suitability for any proposal, not just telecomm infrastructure.

That this buildout will bring increasing levels of RF to the living environment is a given at a time when there are serious concerns in many countries about just such exposures. Yet Chairman Wheeler has expressed contempt toward other countries that have elected to study 5G's effects before buildout. In the U.S., the approach is the opposite. Chairman Wheeler expressly says that technology should drive policy, not the other way around. While China, Japan, and North Korea have agreed to cooperate, the EU has actually put up 50 million Euros to study 5G before implementation. The U.S., therefore, will be the first nation on earth to give total license to the companies that stand to profit most, with virtually no scrutiny for safety. Chairman Wheeler sees the FCC's role as making spectrum available but thereafter to let technology take it from there. As such, 5G will basically be unregulated. And since he is averse to "micromanaging" technological development, that means we are missing a critical opportunity to make recommendations or requirements for safer devices and infrastructure. Chairman Wheeler also says that an increase in unlicensed RF uses will also play a critical role in 5G. That means even less regulation for devices, apart from the infrastructure.

These are huge missed opportunities, given what is known – and continuing to emerge -- about the health and environmental exposures of radiofrequency radiation. Examples include:

. The International Agency for Research on Cancer (IARC) at the World Health Organization (WHO) classified RF as a 2B (possible) human carcinogen in 2011.[4] The NTP study not only reinforces that classification but appears to indicate a reclassification of RF to a 2A (probable) carcinogen, or even to Group 1 (known) carcinogen for humans in the not too distant future.

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[3] "The Future of Wireless: A vision for the U.S. Leadership in a 5G World," Thomas Wheeler, FCC Chairman, National Press Club, Washington, D.C. June 20, 2016. **www.c-span.org**/.../fcc-chair-**tom-wheeler**-delivers-remarks-**5g**-networks

[4] http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf

. In 2015, 220 scientists who had published in peer-reviewed journals from 41 nations signed the International Scientists Appeal[5] to the United Nations and the WHO to coordinate their classifications of both low frequency electromagnetic fields (EMFs) and RF as 2B carcinogens in a manner that would strengthen WHO's own standards recommendations. It was a dramatic way to warn the august international public health entities that there is grave concern for the increasing ambient exposures from technology. Their warnings included everything from cell phones, infrastructure, wifi, 'smart' meter/grid technology and devices like baby monitors to commercial broadcast uses. This warning *de facto* would extend to 5G, and because of its nascent global ubiquity and potential consequences, 5G may warrant a WHO recommendation of its own.

. The BioInitiative report, edited by Cindy Sage and David O. Carpenter, MD, updated in 2012, is a treasure trove of experts and papers on the health and environmental effects by those who have done the work, including nearly 2000 papers from 29 international scientists – Ph.Ds and MDs -- from over 10 countries including 10 from the U.S. Their conclusions note that the continued unfettered rollout of wireless technologies jeopardizes global health and recommends stricter biologically based standards, lower exposure limits, and certainly a more cautious, science-based approach – the exact opposite of Chairman Wheeler's technophoria and market/based embrace of 5G.

The above are only a handful of examples of the professional concerns today.

The question is: What do all of these people know that Chairman Wheeler doesn't, all the while he waives concerns aside in favor of free-market ideology? Does this serve the public good?

Health Concerns are Real: Problems at the FCC

That there are potential adverse health and environmental effects from nonionizing radiation has been known since the advent of radar used in WW2 aboard U.S. ships when cataracts, numerous cancers and infertility were observed in U.S. Navy midshipmen and radar technicians. Since that time, and especially within the last 15 years, the use of wireless technologies has exploded – all without a clear understanding of the biological implications and without adequate regulatory controls. Ambient nonionizing radiation exposures are the fastest growing environmental exposures today. In fact, it has become a hidden variable in all research.

The FCC has standards in place but they only regulate for acute, short term, high-intensity exposures capable of heating tissue the way a microwave oven cooks food. Although a safety margin is built into the standards, any biological effects below that thermal threshold are simply unregulated. In addition, the FCC categorically excludes from review any device or application that falls below a certain power density threshold which most wireless products do. That means that there is no true regulatory oversight of just about all of the wireless products in use today with the exception of cell phones which have to meet a threshold for a specific

[5] https://www.**emfscientist**.org

absorption rate (SAR) of energy deposited in tissue. The FCC is currently reviewing the adequacy of cell phone and RF exposure limits but there is intense pressure to make the current inadequate standards even more lenient.

One primary criticism of how the FCC functions is that they time-average exposures rather than regulate for peak exposures, which is the most important biological metric. Smart meters, for instance, during the duty cycle, put out a peak burst of RF that has been found to exceed FCC limits by orders of magnitude. (Cell phone manufacturers tell consumers not to hold a functioning cell phone against the body or it too may exceed FCC limits.) Yet that peak is averaged away into the duty cycle's lower exposures and essentially disappears into what is deemed "safe." That is like saying that a bullet passing through flesh is "safe" because it comes out the other side and moves more slowly by the time is passes through bone, blood and tissue. The FCC standards are based on a dosemitry model of how to make communications systems work with the least amount of transmitted power necessary, not on true biological models regarding the consequences to living systems in the path of technology. The proposed 5G network will contain peak exposures of its own that will also be lost in the background noise of how FCC regulates.

In addition, the FCC standards – and indeed no state or federal regulatory entity – regulates for cumulative exposures from myriad sources all functioning together. RF power density and categorical exclusion are considered one product at a time. The 5G network will add a whole new layer of ambient RF exposure that does not now exist.

It is the unregulated, long-term, low-level, chronic exposures that are increasing exponentially today from all manner of wireless devices, such as cell phones, wifi, cordless domestic phones, myriad screen 'apps,' wireless security systems, baby monitors, and now 'smart' grid/meters. Add to this ambient exposures from all of the infrastructure, such as cell towers and myriad antenna arrays to support 1G, 2G, 3G, 4G and soon the 5G network creating ubiquitous internet connectivity and it is easy to understand why many governments and health agencies outside the US are calling for a precautionary approach before further buildout.

What's more, man-made radiation creates very different kinds of exposures -- with unusual signaling characteristics like digital pulsing, phased array and saw-tooth waveforms, and at much higher power intensities than anything found in nature. RF is actually a form of energetic air pollution. Myriad species are known to be fantastically sensitive to low-level energy[6] and may be affected by these increasing background levels. No federal or state agency has standards to protect wildlife from RF. 5G could approach frequency bands that are actually visible to avian species.

What the Studies Show:

[6] For a list of studies on wildlife and RF, see http://www.livingplanet.be/emranimals.htm

Below is a chart compiled by Levitt and Lai[7] of biological effects at extremely low intensities comparable to 5G infrastructure. These exposures cannot be considered biologically inactive. Scores of studies have found otherwise, despite industry assurances.

Table I. A list of studies reporting biological effects at low intensities of RFR. These papers gave either SAR (W/kg) or power density (uW/cm^2) of exposure.

		SAR (W/kg)	Power density (uW/cm^2)	Effects reported
Belyaev et al. (2005) (in vitro)	915 MHz, GSM 24 & 48 hr	0.037		Genetic changes in human white blood cells
Belyaev et al. (2009) (in vitro)	915 MHz, 1947 MHz GSM, UMTS 24 & 72 hr	0.037		DNA repair mechanism in human white blood cells
Blackman et al. (1980) (in vitro)	50 MHz, AM at 16 Hz	0.0014		Calcium in forebrain of chickens
Boscol et al. (2001) (in vivo) (human whole body)	500 KHz-3 GHz, TV broadcast		0.5	Immunological system in women
Campisi et al. (2010) (in vitro)	900 MHz, CW or 50-Hz AM, 14 days, 5, 10, 20 min per day, CW- no effect		26	DNA damage in human glial cells
Capri et al. (2004) (in vitro)	900 MHz, GSM 1 hr/day, 3 days	0.07		A slight decrease in cell proliferation when human immune cells were stimulated with mitogen and a slight increase in the number of cells with altered distribution of phosphatidylserine across the membrane.
Chiang et al. (1989) (in vivo) (human whole body)	People lived close to AM radio and radar installations for more than one year		10	People lived and worked near AM radio antennae and radar installations showed deficits in psychological and short-term memory tests.
De Pomerai et al. (2003) (in vitro)	1 GHz 24 & 48 hr	0.015		Protein damages
D'Inzeo et al. (1988) (in vitro)	10.75 GHz CW 30-120 sec	0.008		Operation of acetylcholine-related ion-channels in cells. These channels play important roles in physiological and behavioral functions.
Dutta et al. (1984) (in vitro)	915 MHz, sinusoidal AM at 16 Hz	0.05		Increase in calcium efflux in brain cancer cells.
Dutta et al. (1989) (in vitro)	147 MHz, sinusoidal AM at 16 Hz 30 min	0.005		Increase in calcium efflux in brain cancer cells.
Fesenko et al. (1999) (in vivo) (mouse-wavelength in mm range)	From 8.15 - 18 GHz 5 hr to 7 days direction of response depended on exposure duration		1	Change in immunological functions.

[7] *Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays*, B. Blake Levitt and Henry Lai, Environ. Rev. **18**: 369–395 (2010) doi:10.1139/A10-018 Published by NRC Research Press. http://electromagnetichealth.org/electromagnetic-health-blog/levitt-lai/

Forgacs et al. (2006) (in vivo) (mouse whole body)	1800 MHz, GSM-217 Hz pulses, 576 □s pulse width; 2hr/day, 10 days	0.018		Increase in serum testosterone.
Guler et al. (2010) (In vivo) (rabbit whole body)	1800 MHz AM at 217 Hz, 15 min/day, 7 days		52	Oxidative lipid and DNA damages in the brain of pregnant rabbits
Hjollund et al. (1997) (in vivo) (human partial or whole body)	Military radars		10	Sperm counts of Danish military personnel, who operated mobile ground-to-air missile units that use several RFR emitting radar systems, were significantly lower compared to references.
Ivaschuk et al. (1999) (in vitro)	836.55 MHz, TDMA 20 min	0.026		A gene related to cancer.
Jech et al. (2001) (in vivo) (human partial body exposure- not included)	900 MHz, GSM- 217 Hz pulses, 577 □s pulse width; 45 min; narcoleptic patients	0.06		Improved cognitive functions.
Kesari and Behari (2009a) (in vivo) (rat whole body)	50 GHz; 2hr/day, 45 days	0.0008		Double strand DNA breaks observed in brain cells
Kesari and Behari (2009b) (in vivo) (rat whole body)	50 GHz; 2hr/day, 45 days	0.0008		Reproductive system of male rats
Kesari et al. (2010) (in vivo) (rat whole body)	2450 MHz, 50-Hz modulation, 2 h/day, 35 days	0.11		DNA double strand breaks in brain cells.
Kwee et al. (2001) (in vitro)	960 MHz, GSM 20 min	0.0021		Increased stress protein in human epithelial amnion cells.
Lebedeva et al. (2000) (in vivo) (human partial body)	902.4 MHz, GSM 20 min		60	Brain wave activation.
Lerchl et al. (2008) (in vivo) (hamster whole body)	383 MHz (TETRA), 900 and 1800 MHz (GSM) 24 hr/day, 60 days	0.08		Metabolic changes.
Magras and Xenos (1999) (in vivo) (mouse whole body)	'Antenna park'-TV and FM-radio, Exposure over several generations		0.168	Decrease in reproductive function.
Makova et al. (2005) (in vitro)	915 and 905 MHz, GSM 1 hr	0.037		Chromatin conformation in human white blood cells.
Mann et al. (1998) (in vivo) (human whole body)	900 MHz GSM pulse-modulated at 217 Hz, 577 □s width, 8 hr		20	A transient increase in blood cortisol.
Marinelli et al. (2004) (in vitro)	900 MHz CW 2 - 48 hr	0.0035		Cell's self-defense responses triggered by DNA damage.
Navakatikian and Tomashevskaya (1994) (in vivo) (rat whole body)	2450 MHz CW and 3000 MHz pulse-modulated 2 □s pulses at 400 Hz	0.0027		Behavioral and endocrine changes, and decreases in blood concentrations of testosterone and insulin.

	Single (0.5-12hr) or repeated (15-60 days, 7-12 hr/day) exppsure, CW-no effect			
Nittby et al. (2007) (in vivo) (rat whole body)	900 MHz GSM 2hr/wk, 55wk	0.0006		Reduced memory functions.
Novoselova et al. (1999) (in vivo) (mouse whole body-wavelength in mm range)	From 8.15 -18 GHz, 1 sec sweep time-16 ms reverse, 5 hr		1	Functions of the immune system.
Novoselova et al. (2004) (in vivo) (mouse whole body-wavelength in mm range)	From 8.15 -18 GHz, 1 sec sweep time-16 ms reverse, 1. 5 hr/day, 30 days		1	Decreased tumor growth rate and enhanced survival.
Pavicic et al. (2008) (in vitro)	864 and 935 MHz, CW, 1-3 hrs	0.08		Growth affected in Chinese hamster V79 cells.
Panagopoulos et al. (2010) (in vivo) (fly whole body)	GSM 900 and 1800 6 min/day, 5 days		1 - 10	Reproductive capacity and induced cell death.
Panagopoulos and Margaritis (2010a) (in vivo) (fly whole body)	GSM 900 and 1800 6 min/day, 5 days		10	'Window' effect of GSM radiation on reproductive capacity and cell death.
Panagopoulos and Margaritis (2010b) (in vivo) (fly whole body)	GSM 900 and 1800 1- 21 min/day, 5 days		10	Reproductive capacity of the fly decreased linearly with increased duration of exposure.
Pérez-Castejón et al. (2009) (in vitro)	9.6 GHz , 90% AM, 24 hrs	0.0004		Increased proliferation rate in human astrocytoma cancer cells.
Perssson et al. (1997) (in vivo) (mouse whole body)	915 MHz-CW and pulse-modulated (217-Hz, 0.57 ms; 50-Hz, 6.6 ms) 2-960 min; CW more potent	0.0004		Increase in permeability of the blood-brain barrier.
Phillips et al. (1998) (in vitro)	813.5625 MHz (iDEN); 836.55 MHz (TDMA) 2 hr and 21 hr	0.0024		DNA damage in human leukemia cells.
Polonga-Moraru et al. (2002) (in vitro)	2.45 GHz 1hr		15	Change in membrane of cells in the retina.
Pyrpasopoulou et al. (2004) (in vivo) (rat whole body)	9.4 GHz GSM (50 Hz pulses, 20 □s pulse length) 1-7 days postcoitum	0.0005		Exposure during early gestation affected kidney development.
Roux et al. (2008a) (in vivo) (tomato whole body)	900 MHz		7	Gene expression and energy metabolism.
Roux et al. (2008b) (in vivo) (plant whole body)	900 MHz		7	Energy metabolism.

Salford et al. (2003) (in vivo) (rat whole body)	915 MHz GSM 2 hr	0.02		Nerve cell damage in brain.
Sarimov et al. (2004) (in vitro)	895-915 MHz GSM 30 min	0.0054		Human lymphocyte chromatin affected similar to stress response.
Schwartz et al. (1990) (in vitro)	240 MHz-CW and sinusoidal modulation at 0.5 and 16 Hz, 30 min, effect only observed at 16-Hz modulation	0.00015		Calcium movement in the heart.
Schwarz et al. (2008) (in vitro)	1950 MHz UMTS 24 hr	0.05		Genes in human fibroblasts.
Somosy et al. (1991) (in vitro)	2.45 GHz, CW and 16 Hz square-modulation, modulated field more potent than CW	0.024		Molecular and structural changes in cells of mouse embryos.
Stagg et al. (1997) (in vitro)	836.55 MHz TDMA duty cycle 33% 24 hr	0.0059		Glioma cells showed significant increases in thymidine incorporation, which may be an indication of an increase in cell division.
Stankiewicz et al. (2006) (in vitro)	900 MHz GSM 217 Hz pulses-.577 ms width 15 min	0.024		Immune activities of human white blood cells.
Tattersall et al. (2001) (in vitro)	700 MHz CW, 5-15 min	0.0016		Function of the hippocampus.
Velizarov et al. (1999) (in vitro)	960 MHz GSM 217 Hz square-pulse, duty cycle 12% 30 min	0.000021		Decrease in proliferation of human epithelial amnion cells.
Veyret et al. (1991) (in vivo) (mouse whole body)	9.4 GHz 1 □s pulses at 1000 pps, also with or without sinusoidal AM between 14 and 41 MHz, response only with AM modulation, direction of response depended on AM frequency	0.015		Functions of the immune system.
Vian et al. (2006) (in vivo) plant	900 MHz		7	Stress gene expression.
Wolke et al. (1996) (in vitro)	900, 1300, 1800 MHz, square-wave modulated at 217 Hz; Also 900 MHz with CW, 16 Hz, 50 Hz and 30 KHz modulations	0.001		Calcium concentration in heart muscle cells of guinea pig.
Yurekli et al. (2006)	945 MHz GSM, 217	0.0113		Free radical chemistry.

(in vivo) (rat whole body)	Hz pulse-modulation 7 hr/day, 8 days			

Although many of the above studies were conducted across of range of frequencies lower than 5G, such studies demonstrate that vanishingly low-levels of RF affects every aspect of biological function. This is a body of work that we ignore at our own peril, especially with the deployment of a new infrastructure intended to penetrate every inch of living space.

Conclusion:

If the FCC votes to approve Chairman Wheeler's proposal, it waives aside an enormous amount of research, spanning decades, that indicates we need to be more prudent in our approach to technology. It would simply bypass what we already know and that other areas of the world take into consideration.

We cannot, and should not, endorse this proposal without at least including a request for new research appropriations by unbiased, independent government agencies, as well as a recommendation to refund the agencies that FCC relies upon to help them make such determinations – the EPA, NIH and the U.S. Fish & Wildlife Service. There are safe ways to live with and encourage technology, but this carte blanche 5G tech-friendly proposal is not it. The FCC is supposed to manage the airwaves for the common good. Throwing the doors open to an unknown technology that could essentially go unregulated other than via spectrum allocation, is not what the public wants from the FCC, which has been given oversight for RF safety. Approval would not reflect well on the agency. We can do better than this. There is time to be careful. We need a much clearer idea of where this is headed, and what the consequences may be, before moving forward.

Respectfully Submitted,

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