

Comments by: B. Blake Levitt, Communications Director, The Berkshire-Litchfield Environmental Council, Invited Guest by U.S. Senator Richard Blumenthal

At: Press Conference, 12/3/18, Legislative Office Building, Hartford, CT, Room 1B, 11:00 AM.

Re: U.S. Senator Richard Blumenthal's Letter to FCC Commissioner Brendan Carr re: 5G

To my press colleagues -- thank you for a few moments of your time to address a most significant issue...

I'm Blake Levitt, a medical and science journalist, author, and communications director for The Berkshire-Litchfield Environmental Council -- a tri-state nonprofit housed in the Northwest Hills. BLEC has focused on the how infrastructure affects biology, which most environmental organizations do not. We have been ardent fans of Senator Blumenthal for decades as, in our opinion, he is always on the right side for the environment. And he is proving that again today with his letter to the FCC, seeking clarification on the safety of the next generation of technology called 5G.

Thank you Senator Blumenthal for taking on this most significant and complex issue – you go where angels fear to tread!

The importance of Senator Blumenthal's letter could not be more timely, or ask more pertinent questions. The FCC has been described by Harvard University's Center for Ethics writer, Norm Alster, as "the most captured agency in DC,"¹ acting more as an industry cheerleader than a regulator. This is especially true today with 5G where there are serious safety concerns and potentially misleading information coming from FCC. Senator Blumenthal's questions to FCC Commissioner Brendan Carr pull back the curtain on that.

5G is unlike anything we have seen before regarding telecommunications. It may seem futuristic but in fact pilot networks are being built now in major US cities. 5G is not just about faster downloads for consumers. It is the "Internet of Things" -

¹ *Captured Agency: How the Federal Communications Commission is Dominated by the Industries It Presumably Regulates*, by Norm Alster, http://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf

- machine-to-machine communication so your refrigerator can call your cell phone (did you know you wanted that?) and things like driverless cars. It's about applications we can't even imagine yet, according to former FCC Chairman Tom Wheeler.²

But is it safe? Not according to many who are in a position to know. 5G uses high frequency millimeter wave bands never licensed by FCC before for civilian use. That spectrum has mostly been reserved for military applications in their non-lethal weapons program for crowd control etc. MMW have very short wave lengths that don't travel far. Such a network requires a very dense infrastructure with literally hundreds of thousands of new small cell antennas mounted on buildings and utility poles -- along every street, potentially every 3-to-5 houses apart.

But infrastructure densification is not the only difference. The signaling characteristics of 5G are incredibly complex, using what's called phased array and beam forming technology. Such characteristics are known to have hazardous impacts to humans as well as other species. MMW's couple maximally with skin tissue. Thin-skinned amphibians are at special risk. And because of their small size, insect species in particular are in peril from millimeter waves. Effects are caused not by power density and tissue absorption as reflected in the FCC standards, but rather by the signaling characteristics alone. That's huge. 5G has the theoretical ability, even at very low power intensities, to punch irreparable holes in the food web, and what affects insects affects everything.

There is no environmental oversight for such effects to non-human species. FCC exposure standards do not include wildlife. Their standards are strictly for short term, acute exposures to humans, not the long-term, chronic, low level exposures common today. Current FCC standards, adopted in 1996, are also obsolete and inadequate to protect even human populations.

Simply put, FCC is completely unprepared, unable and possibly unwilling to oversee 5G for safety, even as it barrels toward us. They are falling back on tired definitions and panaceas long since disproven. To make matters worse, recent FCC

² [FCC Chair Tom Wheeler speaks at The National Press Club ... www.youtube.com/watch?v=tNH35Kcao60](https://www.youtube.com/watch?v=tNH35Kcao60)

rulings and numerous industry-friendly bills passed at the state and federal levels between 2016-2018 remove the last vestiges of local/state review over infrastructure siting – just when we need it most. Those rulings – and unfortunately companion federal legislation that backs it up – now preempts states and municipalities from conducting their own reviews for environmental effects and for time-honored concerns about protecting our historic areas. While localities have long been constrained by the Telecommunications Act of 1996 from taking the environmental effects of radiofrequency radiation into consideration in telecom macro- tower siting, these recent small cell preemptions are on steroids. Small cells can now be mounted on buildings and utility poles by right after an expedited local review so constrained as to be almost meaningless. This is frustrating not only to municipalities charged with protecting the public health, safety and welfare, but state agencies too. There is significant pushback all across the country, including in New York, Boston, California, New Mexico, Oregon, and Michigan to name a few.

There has been a major power grab in favor on one industry at the federal level, with serious safety questions on the table, and few are aware of it. FCC's rulings may also be in violation of The National Environmental Policy Act (NEPA), and The National Historic Preservation Act (NHPA) -- federal laws that FCC is required to follow. Lawsuits are currently challenging FCC actions.

In the meantime, Senator Blumenthal has been following all of this closely and now makes a most reasonable request to the unreasonable FCC: Show us the data. Show us the studies, reveal your review process, and demonstrate why you claim ubiquitous small cells are “safe.”

Many respected scientists are recommending caution. International appeals have been signed by hundreds of scientists. We have to get this one right. The stakes are high. Plus industry needs public buy-in for this to be successful – something they do not now have. Other species count too. We are all in this together, on one planet.

Thank you again, Senator Blumenthal, for asking the right questions at the right time. Let's see what the FCC has to say...

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