

Testimony of Vermonters for a Clean Environment
Senate Finance Committee
H.513

April 12, 2019

My name is Annette Smith. I am Executive Director of Vermonters for a Clean Environment. For 20 years, VCE has helped raise the voices of Vermonters so they have a say in what goes on in their communities, and hold corporations accountable for their impacts.

Thank you to the Chair and the committee for hearing my testimony on H.513 today. I will speak to the definition of broadband, and Section 19. Pole Attachments.

The purpose of H.513 is “to establish measures to support broadband deployment” in underserved areas of Vermont.

I want to be very clear that I support the goal of this bill. I am fortunate to live in VTel’s service territory now served by high speed fiber optic, with upload and download speeds of 900 mbps. VCE supports the goal of fiber to the premises of every Vermonter.

However, this bill may not do what it professes, and it enables deployment of equipment and technologies other than fiber optic. Broadband is an undefined term in the bill, but I understand from Stephen Whitaker that it is defined in statute and means more than just fiber optic. If the purpose of this bill is to deploy fiber optic cable in Vermont, that is what it needs to say.

VCE’s journey into the world of telecom has been more like a treasure hunt, trying to get to the truth about the potential deployment of 5G, and the public process surrounding its deployment.

In 2017 we participated in a meeting with Attorney General TJ Donovan that included an attorney, a brain tumor expert, and a Canadian scientist to discuss 5G. Rep. Cynthia Browning and a Vermonter who is EMF sensitive attended. EMFs are the electromagnetic fields of radiation emitted by technology.

More recently, Vermonters from many areas of the state have reached out to us with concerns about possible deployment of 5G. Those concerns include ugly infrastructure that will harm the state’s aesthetics, the desire to have a say in what is happening in our neighborhoods, and potential harm to health and the environment.

Some people believe they are already seeing small cell antennas being installed which emit 4G microwave radiation signals at close range in anticipation of software *only* upgrade for fifth-generation technology, or 5G.

There is no question that health concerns are legitimate. As of January 2019, 247 EMF scientists from 42 nations have signed an Appeal urgently calling upon the United Nations

and its sub-organizations [the WHO and UNEP, and all U.N. Member States] for greater health protection on EMF exposure.¹

In recent months, I embarked on an investigation into the regulatory process around deployment of 5G to determine what needs to be enacted from a regulatory perspective to enable it, and the public process involved for people to receive notification and have a voice in deployment of this controversial technology.

Here is what I discovered.

In January, the Department of Public Service petitioned the PUC to open a rule-making to update Rule 3.700, Pole Attachments, and specifically the industry-sponsored make-ready policies. The PUC complied and opened Case No. 19-0252. Comments by stakeholders were submitted March 8. A workshop at the PUC is scheduled for May 3.

I happened to be in the Statehouse on Feb. 14 and heard the testimony in this committee about 5G by AT&T, Verizon and VTel. Chair Cummings summed up what we heard: “5G is not coming to Vermont any time soon.”

When the committee hearing was over, I left the room, and DPS Telecom Infrastructure Specialist Corey Chase followed me out and asked to talk to me.

He told me that I shouldn’t talk about 5G because it is not a defined spectrum. Tell that to the people of Minneapolis² and Chicago³ where 5G was deployed by Verizon last week. AT&T deployed 5G this week in parts of Austin, Los Angeles, Nashville, Orlando, San Diego, San Francisco, and San Jose.⁴

Mr. Chase told me that I shouldn’t talk about health concerns because those are federally preempted. Tell that to the New Hampshire legislature, where the House passed HB.522⁵ and it is being taken up by the Senate Health and Human Services Committee next week.

HB.522’s summary analysis states: “This bill establishes a commission to study the environmental and health effects of evolving 5G technology.” Several other states are also considering legislation specifically focused on potential health risks of 5G technology.⁶

Health is particularly relevant since in November the U.S. National Toxicology Program’s \$30M cell phone study found “clear evidence” – the highest public health warning they can issue – of cancer and DNA damage from radiofrequency radiation. Italy’s Ramazzini Institute published corroborating findings in another large 2018 study.

¹ <https://emfscientist.org>

² <https://www.cnbc.com/2019/04/05/verizons-new-5g-network-confusing-and-difficult-early-tests-say.html>

³ <https://www.engadget.com/2019/04/04/verizon-5g-network-testing-chicago-data-speeds/>

⁴ <https://www.engadget.com/2019/04/09/att-5g-live-in-seven-more-cities/>

⁵ http://gencourt.state.nh.us/bill_status/billText.aspx?sy=2019&v=HP&id=267

⁶ <https://sites.google.com/site/understandingemfs/massachusetts-emf-bills-2019-20/bills-in-other-states-2019-20>

Other non-industry funded peer-reviewed published studies link radiofrequency radiation to infertility, autism, Alzheimer's, insomnia, headaches, anxiety, depression, cognitive impairment, behavior issues and more. The studies show children are especially vulnerable.

Bringing large numbers of 4G/5G small cell antennas into our neighborhoods at close range will expose us all to toxic microwave radiation 24x7/365.

Many comments were filed with the Vermont PUC on Rule 3.700 on March 8. Among them were comments from CTIA, "The Wireless Association."⁷ From CTIA's comments, Vermonters learn that 5G is, indeed, coming to Vermont sometime soon, and updating Rule 3.700 is a key part of that deployment.

...the wireless industry is presently engaged in deploying advanced 4G and 5G networks. Small cells are being deployed across the nation today to support these networks, and access to infrastructure, such as utility poles, is essential to such deployments. Accenture research projects that small cell deployments will escalate rapidly from a nationwide cumulative deployment of roughly 52,000 in 2017 to over 800,000 nationwide by 2026.³ Accenture also projects that this investment will lead to \$500 billion in national GDP growth, three million jobs created, and over \$275 billion invested in 5G wireless infrastructure nationwide, but only if wireless infrastructure can be deployed efficiently.⁴

The wireless industry is a driver of Vermont's economy. There are over 6,700 wireless-related jobs in Vermont and the wireless industry is responsible for a \$495 million annual contribution to Vermont's GDP.⁵ Deployment of 5G networks will only enhance the wireless industry's contribution to Vermont's economy. **In Burlington, 5G deployment will lead to an estimated 394 new jobs and \$64 million in new GDP; in Montpelier, 5G deployment will lead to an estimated 70 new jobs and \$11 million in new GDP; and in St. Johnsbury, 5G deployment will lead to an estimated 58 new jobs and \$9 million in new GDP.⁶ Benefits like these will be felt across Vermont wherever 5G networks are deployed. The Commission can help ensure that these benefits are realized fully and promptly by modifying its rules to better facilitate attachment of wireless antennas to utility poles.**

AT&T's FirstNet build-out is "a springboard to 5G."⁸ The company's CFO stated "We're putting all this in place at once and getting a step-function above the LTE that we had, and

⁷ "The Wireless Association ("CTIA") (www.ctia.org) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable Americans to lead a 21st century connected life. The association's members include wireless carriers, device manufacturers, and suppliers as well as app and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry's voluntary best practices, hosts educational events that promote the wireless industry and co-produces the industry's leading wireless tradeshow. CTIA was founded in 1984 and is based in Washington, D.C."

⁸ <https://www.rcrwireless.com/20190313/carriers/firstnet-is-atts-springboard-to-5g>

evolving it toward 5G at the same time,” said John Stephens, noting that the equipment AT&T is using is 5G-upgradeable via software and towers will not need to be climbed again to enable the upgrade.

This means that 5G equipment is already being installed in Vermont. Residents in Bethel are seeing utility trucks attaching things to poles. Yesterday in a meeting with the Town Manager he said he knew that Verizon and T-Mobile were in town but he did not know anything about what they are doing.

Now that we know 5G *is* coming to Vermont soon, what do we know about its safety?

In December 2018, Connecticut Sen. Richard Blumenthal, formerly Ct.’s Attorney General for 20 years, held a Briefing in which he asked the FCC for the studies that prove 5G is safe.⁹ In February, 2019, during a Congressional hearing he asked the industry directly for those studies.¹⁰ The industry responded that it does not have studies proving 5G is safe.

Wired Magazine recently summed it up this way:¹¹

5G: Cool for your cellphone, terrible for your health?

5G, the cell phone network that promises to exponentially increase data speeds for all, might help load a web page faster but could also hurt your health.¹² It turns out your sweat glands act kind of like antennas in response to the high frequency waves planned to be used in the service, and funding for research on the health effects is relatively slim. 5G is still in its infancy in the US though, so here's to hoping research about its potential health hazards catch up with the technology itself.

Brussels, Belgium,¹³ Portland, Oregon¹⁴ and cities in California¹⁵ are attempting to put the brakes on 5G deployment because of health concerns. Dozens of cities are suing the FCC over rules that limit the amount cities can charge for 5G infrastructure.¹⁶ Pennsylvania’s legislature chose not to pass the industry-sponsored legislation called “Small Wireless Facilities Deployment Act”.¹⁷

Vermont’s Telecommunications Plan¹⁸ and Long Range Transportation Plan¹⁹ envision and encourage the deployment of 5G. The Telecom plan says [on page xiv]:

⁹ <https://youtu.be/3XORGvLGFRo>

¹⁰ <https://youtu.be/ekNCOJ3xx1w>

¹¹ <https://www.wired.com/story/5g-health-hazard-facebook-zuckerberg-right-to-repair/>

¹² <https://www.wired.com/story/why-5g-makes-reconsider-health-effects-cellphones/>

¹³ <http://www.brusselstimes.com/brussels/14753/radiation-concerns-halt-brussels-5g-for-now>

¹⁴ <https://gizmodo.com/portland-lawmakers-want-to-block-5g-rollout-citing-sha-1833253078>

¹⁵ <https://techcrunch.com/2018/09/10/bay-area-city-blocks-5g-deployments-over-cancer-concerns/>

¹⁶ <https://www.smartcitiesdive.com/news/cities-and-counties-sue-fcc-over-5g-vote/540889/>

¹⁷ <https://www.philly.com/philly/business/comcast/5g-bill-runs-out-of-time-in-harrisburg-20181016.html>

¹⁸ https://publicservice.vermont.gov/sites/dps/files/documents/2018%20Telecommunications%20Plan_0.pdf

¹⁹ <https://vtrans.vermont.gov/planning/long-range-plan>

“The common refrain on 5G is that “it’s not coming to rural America.” 5G should come to rural Vermont and the state should take efforts to improve its reach into rural areas.

First, the State should adopt changes to Section 248a that distinguish between macro- and micro-cell sites and provide a streamlined permitting process for small cell and distributed antenna systems. Such changes will be needed to address the issue of unpermitted wireless facilities within the right-of-way.”

VCE’s investigation into the possible deployment of 5G technology in Vermont reveals that all the regulatory processes are being put in place to enable this highly questionable technology, without any discussion about the public’s right to know what is happening in their neighborhoods.

Let me be very clear: Under the “Broadband” label, 5G is enabled by Section 19 of H.513. Revising Rule 3.700 enables the industry’s ability to upgrade existing antennas to 5G without public notice. Industry representatives tell you “it’s not coming any time soon” while all the groundwork is being laid without mentioning the term 5G.

Vermont’s Department of Public Service promotes the industry’s hype. As Corey Chase said to me, “everyone is asking for it. Everyone wants it.”

In the Vermont I live in, I have not heard anyone say they want 5G. Most people have no idea what it is. A survey reported on by a Forbes writer found that “Most consumers don’t know 5G is about to launch, aren’t keen on the new standard, and aren’t excited about it,” and that “other customer service surveys show wireless customers are often unhappy with their carriers.”²⁰

No, most Vermonters are not asking for 5G. They are asking for an honest, transparent discussion about the numerous issues surrounding 5G deployment in Vermont.

Citizens are expressing legitimate concerns about what is becoming increasingly obvious – all the pieces of the puzzle are being put in place outside of a transparent public process.

Now is the time to talk about 5G, to talk about the health concerns, and assure that the interests of Vermonters are being served, rather the interests of industry.

- Please add language to H.513 similar to New Hampshire’s legislation that establishes a committee to evaluate the health concerns before deciding to deploy 5G.

²⁰ <https://www.forbes.com/sites/christopherelliott/2018/10/14/as-5g-launches-consumers-couldnt-care-less-heres-why-they-should>

- Please modify Section 19 of H.513 to place a backstop against deployment of further wireless infrastructure until the health and safety issues are addressed and satisfied.
- Please require the PUC to limit updates of Rule 3.700 to fiber optic cable to the premises and exclude the use of further wireless technology buildout at this time.
- Please ask the PUC to create a public process around notification of deployment of RF antennas and power supplies wherever they are placed, whether on poles or church steeples or under manhole covers.
- Please ask the PUC to require public notice about modifications to existing RF equipment that is being upgraded to 5G via software.

Any update to Rule 3.700 to enable close range 4G/5G needs to specifically mention 5G so that people know what they are being exposed to in their communities and neighborhoods.

Thank you for hearing this testimony.

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**Please join EMF Safety for Vermont in Room 10 on Thursday April 18
from 1 - 3 pm to learn more about 5G and hear from Vermonters**