

Members of the Science, Technology and Energy
Committee
The General Court of New Hampshire
107 North Main Street
Concord, NH
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P.O. Box 33
Maple Grove Village Postal Outlet
Oakville, ON., Canada
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Re: Canadians for Safe Technology in Support of Safe Bill HB1644-FN

February 7, 2022

Spoken Comments to be Read by NH Commission Member Ken Wells

Esteemed Committee Members,

My name is Frank Clegg and I am the retired president of Microsoft Canada, and founder of Canadians for Safe Technology.

I flew in to testify with you in 2019 on Rep. Abrami's original House Bill 522 and I am one of the experts brought in for the 5G Commission investigation.

I've met with scientific experts from around the world¹ and have concluded wireless technology is not safe. I am especially concerned with 5G, and the impact of wireless technologies on children.

Your groundbreaking New Hampshire commission report has become a guidepost not only in the U.S., but here in Canada and Europe as well.

The 1,640 foot setback will protect NH citizens from any new wireless infrastructure in the short-term. As your Commission report indicates though, the ultimate goal is to install superior fiber to and through the premises.

Please know:

- Wireless technology is no longer the preferred technology for communications. There are an insignificant number of applications that truly require a wireless connection. The majority of communications' applications can benefit from the advantages of a wired connection.
- Wired connectivity eliminates harmful radiofrequency (RF) radiation.
- Wired broadband is at least 100 times faster², more reliable and resilient³ and is far more protective of privacy^{4,5} than wireless connectivity⁶.
- According to the IEEE, wireless technologies "*consume at least 10 times more power than wired technologies.*"⁷ A 5G base station is expected to consume roughly three times as much power as a 4G base station.⁸
- Greenpeace reports, if the "cloud" were a country, it would be the fifth largest consumer of energy in the world.⁹
- Former FCC Chair Tom Wheeler is now backing fiber to the premises.¹⁰

- AT&T is already moving there.¹¹
- In July, California passed legislation for fiber to the premises.¹²
- In Switzerland, the Romande energy company and the Swiss4net telecom company have already formed a new alliance for Fiber-to-the-Home as they call it.¹³
- Fiber to the premises solves the broadband equity issues, finally closing the digital divide.
- The cost is not prohibitive; wherever we run electricity lines, we can insert fiber-optics.
- Properly sited cell towers carry signal for miles and do not need to be located near the populace. The industry, however, has a history of installing where its convenient and less costly for them, right on top of neighborhoods where the electrical connections already exist.
- Once we install fiber to and through the premises, and educate the public to minimize toxic wireless connections, the capacity demands for wireless diminish and there is ample capacity for cell phone calls on the go.
- Investing in fiber-to-the-premises for primary connectivity will bring an economic boon to NH.
- The industry started as the Cellular Telecommunications Industry Association. Then they rebranded as CTIA--The Wireless Association. They are already preparing their next revenue stream by buying into the entertainment industry for streaming services.¹⁴
- The industry will grumble, but they will pivot to provide superior connectivity with fiber-to-and-through-the premises -- if they are incented to do so.

It is up to government to provide this motivation. HB1644 is an excellent start. By restricting placement of telecommunication antennae near homes, schools and other sensitive areas, industry will be forced to investigate safer alternatives.

Based on my experience, industry will create solutions that are not only safer but in most instances, cheaper in the long run.

I would be pleased to follow-up on these remarks with a telephone or video conversation.

Sincerely,



Frank Clegg
 CEO, Canadians for Safe Technology (C4ST)
frank@c4st.org

Canadians for Safe Technology (C4ST). C4ST is a national, not-for-profit organization that is concerned with the health and safety risks of unsafe wireless technology. We are a volunteer-based, national, coalition of parents, citizens and experts whose mission is to educate and inform Canadians and policy makers about the dangers of the exposures to unsafe levels of radiation from technology and to work with all levels of government to create healthier communities for children and families.

¹Harvard, Yale, Columbia, the University of Toronto, and I've met with an expert advisor for the World Health Organization and one of the lead scientific writers for Al Gore's team who won the Nobel Prize.

²Noam, E. (2011). Let them eat cellphones: why mobile wireless is no solution for broadband. In *Journal of Information Policy*, Vol. 1 (2011), pp. 470-485 (pp. 470–485). Penn State University Press. Retrieved from <https://www.jstor.org/stable/pdf/10.5325/jinfopoli.1.2011.0470.pdf>

³ Wired phones work during a power outage hence are more reliable. Wireless cell networks are constantly upgraded whereas cable or fibre is laid once.

⁴ Warzel, Charlie, & Thompson, Stuart A. (2019, December 19). Twelve Million Americans Were Tracked Through Their Phones. *New York Times*. Retrieved from <https://www.nytimes.com/2019/12/19/opinion/tracking-phone-data.html>

⁵ Zuboff, S. (2014, January). *The Age of Surveillance Capitalism* published by Public Affairs, Hachette Book Group https://en.wikipedia.org/wiki/The_Age_of_Surveillance_Capitalism - <https://youtu.be/hlXhnWUmMvw>

⁶ Schoechle, Timothy. (2018). Re-Inventing Wires: The Future of Landlines and Networks. *National Institute for Science, Law & Public Policy* Washington, DC, 156. <https://bit.ly/3crWnfV>

⁸ Ferreira, J. B., Almeida de Salles, Á. A., & Fernández-Rodríguez, C. E. (2015). SAR simulations of EMF exposure due to tablet operation close to the user's body. In *2015 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference (IMOC)* (pp. 1–5). <https://doi.org/10.1109/IMOC.2015.7369205>

⁹ <https://linustechtips.com/main/topic/1085930-5g-waveforms-are-potentially-power-vampires/>

¹⁰ <https://www.greenpeace.org/static/planet4-international-stateless/2012/04/e7c8ff21-howcleanisyourcloud.pdf>

¹⁰ Tom Wheeler Before the Congress of the United States, House of Representatives Committee on Energy & Commerce, [LIFT America: Revitalizing our Nation's Infrastructure and Economy](https://www.energycommerce.house.gov/recordings/recordings.aspx?id=123456), March 22, 2021

¹¹ <https://about.att.com/aboutus/pressrelease/2022/fastest-major-internet-provider.html>

¹² <https://arstechnica.com/tech-policy/2021/07/california-passes-historic-plan-for-statewide-open-access-fiber-network/>

¹³ <https://www.morges4net.ch/en/>

¹⁴ <https://www.cbsnews.com/news/disney-fox-entertainment-purchase-closes-71-billion-dollars-closes/>