



***H.P. 466 Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Population and the Effects of Long-term Exposure on Children***

March 2, 2023

Dear Energy, Utilities and Technology Chair Lawrence and Esteemed Members,

Thank you for your careful consideration of this bill to investigate the biological effects of 5G technology on our environment and our children.

Like some of you, perhaps, I had no idea there was anything to be concerned with until an electrical engineer friend of mine tipped me off there were harmful effects.

I am a technical and professional writer by trade, so I wondered if there was any science to back up that claim. I was astounded to find, literally, thousands of peer-reviewed studies all across the world showing serious damage to children, adults, flora and fauna – all biological cells are impacted.

In 2014 I helped Ashland, MA public schools become the [first in the nation](#) to begin taking precautionary measures. I then worked with Massachusetts Senate President Karen Spilka to introduce legislation to investigate. I helped NH pass the first law in the nation to do a truly independent investigation and they have issued a [groundbreaking report](#) documenting conflicts of interest with the wireless industry, the FCC and the FDA.

NH makes 15 recommendations to educate the public and begin transitioning our communities away from wireless radiation emissions to far superior connectivity via fiber-optics to and through the premises (FTTP). This will be a good roadmap for Maine to follow, provide you do not let corruption seep in like it did in Oregon.

I have also helped to establish the international non-profit [Wireless Education](#) where we can literally train Maine constituents, schools and workforces on wireless risks and medically recommended best practices for safer technology use – in about a half hour on-line. Please let me know if I can grant you complimentary access to the Schools & Families Course.

**A Quick Skim of the Facts**

I had a hard time keeping the data straight when I first started investigating so I created a very simple research repository that I called Understanding EMFs because I did not understand what these invisible electromagnetic fields (EMFs) of microwave radiofrequency radiation could be doing to us and our planet.

In the following pages I will include my findings that pertain directly to this bill and you will be able to quickly skim the facts and drill down into those that interest you:

- Planetary Impact

- Impact on Children
- Wi-Fi in Schools

Please know, the wireless industry and their parent companies own much of today's major broadcast networks, print media and other mainstream outlets. So the general public, local public servants and most legislators are only given their messaging and do not have a balance of information to be able to make safe and responsible choices on how they connect to technology.

### **Be Careful Where You Get Your Information**

As a [Harvard Law School Center for Ethics report](#) confirms, the Federal Communications Commission is dominated by the industries it presumably regulates.

Many states are already taking action and so at the end of this document I will also provide you with a sampling of bills introduced around the country.

Having participated in legislative hearings on this issue, we have seen time and again industry lobbyists deny the science and harm, and provide disinformation to the legislators.

Please, as the [Italian courts](#) did, look only at the non-industry funded peer-reviewed science and the truth will be crystal clear: wireless radiation from any source is a neurotoxin, immunosuppressant, carcinogen and a genotoxin and it is steadily ruining our children, birds, bees and other flora and fauna. Fiber-to-and-through-the-premises (FTTTP) is the answer.

### **Let's Learn Together**

I invite you, your colleagues, loved ones and constituents to join us for two free webinars I am co-hosting each month to teach the basics of the science, risks, legal actions, public policy inroads and most importantly, steps we can all take TODAY to greatly reduce our radiation exposures while enjoying excellent connectivity: <https://www.ma4safetech.org/events>.

I would be honored to help you connect the dots further on this critical public and environmental health issue. The Maryland State Children's Environmental Health and Protection Advisory Council (CEHPAC) in December 2022 released an informational factsheet on how to reduce children's wireless exposures entitled "[Guidelines to Reduce Electromagnetic Field Radiation](#)".

I sincerely hope you will bypass industry persuasions and resolve to protect the children of Maine too. Here's a challenge: can you find the legal fine print disclaimer in your phone that has been in there all along telling you to keep it away from your body? I'd be honored to walk you through where to find it.

Respectfully,

Cecelia Doucette

Director, [Massachusetts for Safe Technology](#)

Education Services Director, [Wireless Education](#)

## **Understanding EMFs: Cecelia Doucette's Research Repository**

### **Planetary Impact**

- The following link provides a visual depiction of **what wi-fi would look like** if we could see it:  
<https://www.businessinsider.com/heres-what-wi-fi-would-look-like-if-we-could-see-it-2013-7#:~:text=But%20few%20of%20us%20have,visible%20to%20the%20human%20eye.>

- See this seminal 2021 three-part series of articles by B. Blake Levitt, Dr. Henry Lai and Dr. Albert Manville detailing the **effects of EMFs on the environment**:

*Effects of non-ionizing electromagnetic fields on flora and fauna, part 1. **Rising ambient EMF levels in the environment:***

<https://pubmed.ncbi.nlm.nih.gov/34047144/>

*Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts: **How species interact with natural and man-made EMF:***

<https://pubmed.ncbi.nlm.nih.gov/34243228/>

*Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3. **Exposure standards, public policy, laws, and future directions:***

<https://pubmed.ncbi.nlm.nih.gov/34563106/>

- See this presentation by EMF experts for environmental health leaders on the health effects of wireless radiation titled "**Wireless Radiation What Environmental Leaders Should Know .**" [www.youtube.com/watch?v=e5ABKmLP0rE&t=8s](http://www.youtube.com/watch?v=e5ABKmLP0rE&t=8s)
- See Alfonso Balmori's 2021 study, "**Electromagnetic radiation as an emerging driver factor for the decline of insects**":  
<https://www.sciencedirect.com/science/article/pii/S0048969720384461?dgcid=author>
- 2022 study finds RF radiation has negative effects on tomato plants; recommends cell towers be prohibited on agricultural lands:  
[www.sciencedirect.com/science/article/pii/S168785072200125X](http://www.sciencedirect.com/science/article/pii/S168785072200125X)
- See **Dr. Cindy Russell's** 2018 article, Wireless Silent Spring:  
[https://mdsafetech.files.wordpress.com/2018/11/wireless-silentspring\\_sccma-oct-](https://mdsafetech.files.wordpress.com/2018/11/wireless-silentspring_sccma-oct-)

[2-2018.pdf](#)

- See the article *Global Wi-Fi and 5G: What is the Environmental Price Tag to Earth and Life?* to understand the impact of 5G **satellites** and other components:  
<https://blog.sfgate.com/storystudio/2020/11/17/global-wifi-and-5g-what-is-the-environmental-price-tag-to-the-earth-and-life/>
- See the **Environmental Health Trust** for research on Electromagnetic Fields and the Environment:  
<https://ehtrust.org/science/bees-butterflies-wildlife-research-electromagnetic-fields-environment/>
- An internet search on "**bee colony collapse radiation**" returns many findings.
- **Bees, Birds and Mankind** Destroying Nature by 'Electrosmog' by Ulrich Warnke:  
<https://ecfsapi.fcc.gov/file/7521097894.pdf>
- **EMR and birds**: published papers in peer-reviewed scientific journals, that show (possible) EMR effect:  
<http://www.livingplanet.be/emrbirds.htm>
- **Mobile phone-induced honeybee worker piping**:  
<https://link.springer.com/article/10.1007/s13592-011-0016-x>
- **India** is taking a proactive stance:  
<http://tech2.in.com/news/general/india-among-nations-with-toughest-emf-radiation-standards/749632>
- See an observational study by Diana Kordas, *Birds and Trees of Northern Greece: Population Declines Since the Advent of 4G Wireless*:  
<https://einarflydal.files.wordpress.com/2017/08/kordas-birds-and-trees-of-northern-greece-2017-final.pdf>
- Terpenes induced by electromagnetic radiation can cause **forest fires**:  
[www.naturalblaze.com/2021/09/5g-emf-rf-whats-causing-all-the-terrible-forest-fires.html?fbclid=IwAR3BSljC5YufOAW7dmBrYt-6BLeGtQtznxxULk2yaEKQ3zGYISf9-Xm3pV0](http://www.naturalblaze.com/2021/09/5g-emf-rf-whats-causing-all-the-terrible-forest-fires.html?fbclid=IwAR3BSljC5YufOAW7dmBrYt-6BLeGtQtznxxULk2yaEKQ3zGYISf9-Xm3pV0)
- **French farmers** are suing the state over mystery cow deaths they blame on electromagnetic fields:  
<https://www.telegraph.co.uk/news/2019/04/26/french-farmers-sue-state-mystery-cow-deaths-blame-electromagnetic/>

- Although an older document, ***Microwaving Our Planet: The Environmental Impact of the Wireless Revolution***, provides an overview of some of the EMF environmental issues we face. The author, a wi-fi activist considered a fanatic by some, made predictions years ago about the future that we are unfortunately seeing come true today. He includes a large list of studies done up to that point:  
<http://www.whale.to/b/firstenberg2.html>

## Climate Change

- With gratitude to the **Environmental Health Trust**, the following reference sources explain how our electronic devices, wireless systems and data centers are contributing to climate change:

- [E-lephants in Our Hands: How Electronics Impact Climate Change](#)

*A Radio Talk By Katie Singer (a transcript is also provided for those who prefer written form); March 4, 2016, The University of Oregon/Eugene, Environmental Law Conference*

- [The Center for Energy Efficient Telecommunications Report, "The Power of Wireless Cloud"](#)

*This Australian study found that **wireless networking infrastructure worldwide accounts for significantly more power consumption than data centers**. They calculated that wireless cloud access will generate as much planet-harming CO2 as 4.9 million cars by 2015. It consumes far more energy to keep streaming or downloading and uploading files wirelessly than it does to carry the same files around and access them from the local device.*

- **Greenpeace** indicates if the wireless industry were a country, it would be the fifth largest energy consumer in the world:

[www.greenpeace.org/international/publication/6986/how-clean-is-your-cloud/](http://www.greenpeace.org/international/publication/6986/how-clean-is-your-cloud/)

- [The energy and greenhouse-gas implications of internet video streaming in the United States](#)

*A study on the growing energy impact of Internet video streaming found data transmission is the most energy-intensive part of streaming movies. This report was published in Environmental Research Letters. The authors state that results from this study indicate that designers and policy makers should focus on the efficiency of end-user devices and network transmission energy to curb future increases in energy use from the proliferation of video streaming.*

- [More Data, Less Energy Making Network Standby More Efficient in Billions of Connected Devices](#)

*In July 2014, the International Energy Agency released their Report calling for better standards on the energy devices use when they are on standby. This report details the problem of electronic devices drawing as much power in standby mode as they do when activated. Consumers who own these devices often only use them for a short time every day, but they continue to use power so they can boot up an internet connection in a few seconds.*

- This article from the Institute for Electrical and Electronics Engineers (IEEE) indicates, "Wireless technologies will continue to **consume at least 10 times more power** than wired technologies when providing comparable access rates and traffic volumes." See page 7 of 8, just above Conclusions, which indicate hard wiring with fiber-optics to the premises is the most energy efficient solution.

<https://people.eng.unimelb.edu.au/rtucker/publications/files/energy-wired-wireless.pdf>

- See additional articles on **smart phone and climate impact**:  
<https://theconversation.com/how-smartphones-are-heating-up-the-planet-92793>  
<http://www.dailymail.co.uk/sciencetech/article-5547227/Experts-warn-smartphones-contribute-125-MEGATONS-emissions-2020.html>  
<https://www.fastcodesign.com/90165365/smartphones-are-wrecking-the-planet-faster-than-anyone-expected>
- **Carbon emission are rising**...(despite all those smart meters)  
<https://www.carbonbrief.org/analysis-global-co2-emissions-set-to-rise-2-percent-in-2017-following-three-year-plateau>
- The ecological impacts of **online meetings**: [www.ourweb.tech/letter-44/](http://www.ourweb.tech/letter-44/)
- See the following research and **solutions-focused climate change** discussion on Twitter among leading EMF scientists:  
<https://twitter.com/ahosmikko/status/970654660741730304>

## **Impacts on Children**

- Professor Tom Butler summarizes the impact on children in his paper, ***On the Clear Evidence of the Risks to Children from Smartphone and WiFi Radio Frequency Radiation***:  
[http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/On-the-Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation\\_Final.pdf](http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/On-the-Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation_Final.pdf)
- Bioelectromagnetics expert **Dr. Om Ghandi published in IEEE Access**, "Yes the **Children Are More Exposed** to Radiofrequency Energy From Mobile Telephones

Than Adults":

<http://ieeexplore.ieee.org/document/7131429/?reload=true&arnumber=7131429&contentType=Journals%20%26%20Magazines>

- The **American Academy of Environmental Medicine** has issued an *Open Letter to the Superintendents* imploring them to protect our children.
- The **American Academy of Pediatrics (AAP)**, representing 60,000 pediatricians, in December 2012 urged Congress to protect children from the dangers of wi-fi. "It is essential that any new standards for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded through their lifetimes." The full letter is published here:

<http://www.electrosmogprevention.org/cell-phone-safety-campaign/american-academy-of-pediatrics-supports-rf-protection/>

The AAP has also issued policies for **Media and Young Minds (ages 0 to 5)** and **Media Use in School-Aged Children and Adolescents**:

<http://pediatrics.aappublications.org/content/pediatrics/early/2016/10/19/peds.2016-2591.full.pdf>

<http://pediatrics.aappublications.org/content/pediatrics/138/5/e20162592.full.pdf>

- The **World Health Organization (WHO)** acknowledges radiation as a factor in children's environmental health:  
[www.who.int/health-topics/children-environmental-health#tab=tab\\_1](http://www.who.int/health-topics/children-environmental-health#tab=tab_1)

In 2019 WHO published guidelines on physical activity, sedentary behavior and sleep for children under 5 years of age, including specific **screen time limitations**:

<https://www.who.int/news-room/detail/24-04-2019-to-grow-up-healthy-children-need-to-sit-less-and-play-more>

- The **EMF Points of Confusion vs. Fact** sheet helps to dispel common misconceptions that parents, teachers and medical teams often have about wireless radiation when first joining the conversation:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbX1bmRlcnNOYW5kaW5nZW1mc3xneDo3ZmM1NWVjNjQyNTc0NzNI>

- Martha Herbert, PhD, MD of Harvard Medical School, a leading **neuroscientist and autism expert**, cautioned Los Angeles Unified School District (LAUSD) on the use of WiFi in schools: <http://electromagnetichealth.org/electromagnetic-health-blog/herbert-laUSD/>

- See Dr. Herbert's Findings in **Autism** (ASD) Consistent with Electromagnetic Fields (EMF) and Radiofrequency Radiation (RFR): [https://bioinitiative.org/wp-content/uploads/pdfs/sec20\\_2012\\_Findings\\_in\\_Autism.pdf](https://bioinitiative.org/wp-content/uploads/pdfs/sec20_2012_Findings_in_Autism.pdf)
- **Hugh Taylor, MD, Yale University discusses ADHD symptoms** seen in mice exposed to cell phone radiation: <http://vimeo.com/73806192>
- Studies have found **adverse effects on offspring** from prenatal exposure to wireless radiation: <http://www.saferemr.com/2014/06/joint-statement-on-pregnancy-and.html>
- Peter Sullivan offers **EMF reduction strategies for families with autism**: <http://www.clearlightventures.com/blog/2014/07/emf-reduction-for-autism.html>
- **India** is reporting an **increase in brain tumors**, including among children: <http://www.asianage.com/metros/delhi/100717/brain-tumour-among-children-on-the-rise-in-india.html>
- **LAUSD reduced their EMF exposure** to students and staff, making it 10,000 less than what the FCC's thermal limits allow for public exposure (though it still may be an unsafe biological level when cumulative and simultaneous exposures are considered): [http://www.lausd-oehs.org/docs/Misc/Radiofrequency\\_Safety\\_Fact\\_Sheet\\_021113a.pdf](http://www.lausd-oehs.org/docs/Misc/Radiofrequency_Safety_Fact_Sheet_021113a.pdf)
- CBS News did a six-minute story on the radiation coming from **baby monitors**: [https://www.youtube.com/watch?v=j0FoP6-\\_NQc](https://www.youtube.com/watch?v=j0FoP6-_NQc)

#### **Reported health effects from exposure to electromagnetic radiation EMR**

- Dizziness, headaches, nausea
- Fatigue, weakness
- Anxiety, depression
- Insomnia
- Numbness, tingling, joint pain
- Muscle spasms
- Skin rashes, allergies, asthma
- Blurred vision, impaired vision
- Nose bleeds, impaired sense of smell
- Shortness of breath
- Concentration problems, memory loss
- Behavioural problems, learning problems, ADHD
- Hyperactivity, heart palpitation

#### **Potential long term health effects from EMR as indicated in scientific studies**

- Brain cancers, acoustic neuromas and other tumours

- Leukaemia
- Lymphoma
- Melanoma
- Reduced production of Melatonin
- Impaired fertility
- DNA damage
- Pre-natal damage, miscarriages, birth defects
- Immune dysfunction, chronic allergic responses and inflammatory responses
- Neurological and behavioural effects
- Dementia and Alzheimer's Disease
- Epilepsy

Source: [Wi-Fi in Schools Australia](#) - [Safe Schools 2012](#) - [Joining the Dots Report](#) - [Dr Neil Cherry EMR ICNIRP critique](#) - [Freiburg Appeal 2012](#) - [BioInitiative Report 2012](#) - [Dr Magda Havas](#)

- **Dr. Toril Jelter, pediatrician** and general practitioner, discusses EMF, Autism and Child Behavior in an 8-minute video. She prescribes a **two-week trial with limited wi-fi exposure** and patients often have remarkable results in just a few days:  
<https://www.youtube.com/watch?v=O3iRrVQPDBk>

Dr. Jelter also provided this 20-minute lecture, **Health Effects of Non-Ionizing Radiation in Children**: <https://www.youtube.com/watch?v=D98K2zvjBWI>

- **Barrie Trower**, a former physicist with the British Royal Navy and expert in radiation, explains in the following two-part lecture the dangers of using wi-fi radiation. He is particularly concerned for the welfare of children and fetuses:  
<http://www.youtube.com/watch?v=5xgJmeQaQmc>

<http://www.youtube.com/watch?v=UhcuSEHVOSM>

- Retired President of **Microsoft Canada Frank Clegg** warns of Wi-Fi, smartphone, cell tower radiation:

<http://whatsyourtech.ca/2013/05/29/canadian-tech-leader-warns-of-wi-fi-smartphone-cell-tower-radiation/>

### Psychological and Mental Health Impact

The following studies indicate wireless radiation causes **neurological damage**:

- Pall, M. L. (2016). Microwave frequency electromagnetic fields (EMFs) produce **widespread neuropsychiatric effects including depression**. *Journal of Chemical Neuroanatomy*, 75(Pt B), 43–51. <https://doi.org/10.1016/j.jchemneu.2015.08.001>
- Warnke, U., & Hensinger, P. (2013). **Increasing incidence of burnout** due to magnetic and electromagnetic fields of cell phone networks and other wireless communication technologies. (Original: Steigende „Burn-out“-Inzidenz durch technisch erzeugte magnetische und elektromagnetische Felder des Mobil- und Kommunikationsfunks, *Umwelt-medizin-gesellschaft*, 26(1), 31-38.

[http://avaate.org/IMG/pdf/warnke\\_hensinger\\_umg\\_1\\_2013\\_engl\\_df.pdf](http://avaate.org/IMG/pdf/warnke_hensinger_umg_1_2013_engl_df.pdf)

Two **child psychologists** have written excellent books on what wi-fi and screen time are doing to our children and our families:

- **Dr. Catherine Steiner-Adair offers [The Big Disconnect](#)**, which takes one through technology’s impact at each stage of child development. Basically, the left side of the brain where math and science are housed is still developing on point. The right side, however, is not in many children. This is where a child’s ability to show empathy, employ coping strategies, make eye contact, and self-soothe are housed. In humans, we need regular human contact and deep meaningful interactions with loved ones and teachers to develop these properly. Children also need unstructured time for imaginative play to develop deep parts of our brains. Although well-intended parents think providing their children with technology will give them a leg up, the research is proving otherwise as we begin to see scores dropping after upping technology time, and behavioral and mental health issues are escalating.
- In [Reset Your Child’s Brain](#), **Dr. Victoria Dunkley** explains the myriad ways in which children can be harmed by electronic screen syndrome (ESS). Biologically, electronic screen exposure can cause a chronic fight or flight response, and hit the same opiate receptors in the brain as drugs and alcohol causing addiction. Children with attention issues and those with autism are at higher risk of addiction. If not given appropriate time to rest and regenerate, children begin to suffer chronically. Common symptoms are irritability, depression and mood swings. As ESS progresses, mood dysregulation may combine with aggression causing some to be diagnosed with bi-polar disease. Others may develop obsessive-compulsive behavior, nightmares, panic attacks, tics, seizures, etc., as the effects take hold on the brain. Dr. Dunkley demonstrates how freedom from electronic screens can change the brain and alleviate or significantly reduce many of these symptoms. She offers a four-week plan to reverse the effects of ESS. See also her article in [Psychology Today](#).

**Paula Healy** steps us through the **psychological and neurological impact of screentime** in this 37 minute talk, *How our Digital Obsession is Dumbing us Down*:

- [https://www.youtube.com/watch?v=OM\\_lFijB9rA&feature=youtu.be](https://www.youtube.com/watch?v=OM_lFijB9rA&feature=youtu.be)

Dr. Marilyn Wedge explains how screens are impairing development in “**Virtual Autism**” *May Explain Explosive Rise in ASD Diagnoses*:

- [https://www.madinamerica.com/2017/08/virtual-autism-explain-rising-asd-diagnoses/?fbclid=IwAR0K7A5j36mbGDKdNdafUBPG0TNdHcC9hj4Id\\_tKJZx6GSf\\_pcZExVlgJZs](https://www.madinamerica.com/2017/08/virtual-autism-explain-rising-asd-diagnoses/?fbclid=IwAR0K7A5j36mbGDKdNdafUBPG0TNdHcC9hj4Id_tKJZx6GSf_pcZExVlgJZs)

Dr. Delaney Rushton produced the documentary **Screenagers**, which is being shown in schools around the world to address raising children in the digital age:

- <https://www.screenagersmovie.com/>

The **New York Times** continues to investigate the effects:

- Apple's Steve Jobs and other **technology executives limited their own children's technology exposure**:

[http://www.nytimes.com/2014/09/11/fashion/steve-jobs-apple-was-a-low-tech-parent.html?smid=fb-share&\\_r=1](http://www.nytimes.com/2014/09/11/fashion/steve-jobs-apple-was-a-low-tech-parent.html?smid=fb-share&_r=1)

- *The Digital Gap Between Rich and Poor Kids Is Not What We Expected: America's public schools are still promoting devices with screens — even offering digital-only preschools. **The rich are banning screens from class altogether.***

<https://www.nytimes.com/2018/10/26/style/digital-divide-screens-schools.html?action=click&module=RelatedLinks&pgtype=Article>

- *A Dark Consensus About Screens and Kids Begins to Emerge in Silicon Valley: “**I am convinced the devil lives in our phones.**”*

[https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream\\_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnelli-e-bowles&version=latest](https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnelli-e-bowles&version=latest)

- *Silicon Valley Nannies Are Phone Police for Kids: Child care contracts now demand that nannies hide phones, tablets, computers and TVs from their charges.*
- <https://www.nytimes.com/2018/10/26/style/silicon-valley-nannies.html>

See the [\\_Solutions\\_](#) page for strategies to keep children safe.

## Wi-Fi in Schools

### Legal Action

- **The first Education Health Care Plan (EHCP)** was awarded in August 2022 for a UK child on the basis of Electromagnetic Hypersensitivity (EHS): [phiremedical.org/education-health-care-plan-ehcp-awarded-aug-2022-for-uk-child-on-the-basis-of-electromagnetic-hypersensitivity-ehs/](http://phiremedical.org/education-health-care-plan-ehcp-awarded-aug-2022-for-uk-child-on-the-basis-of-electromagnetic-hypersensitivity-ehs/)

## Overview

- **Urgency:** The **U.S. Department of Education's Office of Educational Technology** is piloting six [School District Wireless Network Models](#) that expose children and staff directly to close-range cell tower radiation and toxic radiation from wireless devices issued to students. The science below indicates great harm to children. Much better technology can be had by turning away the wireless industry and securing excellent technology with hard-wired fiber-optic connections to and through the premises.
- The **TechSafe Schools** project provides the following for you to share with your schools: [TechSafe Schools Webinars](#) on legal risks, science and pediatrician insights, and remediation measures for transitioning to safe technology
  - A [personal letter](#) addressed to school administrators
  - A [legal letter](#) from seven prominent attorneys with experience in wireless radiation and tort litigation
  - A short [Q&A brochure about RF radiation in schools](#)
  - [Click here](#) to watch the TechSafe Schools 3-minute video
- This **two-hour expert forum** explains the biological effects on our children from wireless radiation in our schools. Technology safety educator Cece Doucette moderates with physician and scientist **Dr. David Carpenter**, senior toxicologist **Dr. Ronald Melnick**, pediatric neurologist **Dr. Martha Herbert**, clinical child psychotherapist **Theodora Scarato** and retired Microsoft Canada president **Frank Clegg** (gratitude to Shrewsbury Media Connection): <https://www.youtube.com/watch?v=Rpa2XfYax8&list=PLMAz9ZRXjYmoFALTKtCDXwmB7L9Emigcc>
- You are welcome to share the **slide presentation** as well. Please provided appropriate credit to the speakers if you re-use any of the slides: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFPbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo0NTkwMGNiMzBiOWRjMTBi>
- Worcester News Tonight covered it with their **lead story**: <https://www.youtube.com/watch?v=8J868GkWEYw&feature=youtu.be&list=PLrErnc01o-ABctZ4-MweRbaAbjKastONd>
- Note, following the Shrewsbury forum above, "**engineering consultant to government and industry**" **Kenneth Foster** published the following article in Harvard's *Education Next* publication to create doubt: <https://www.educationnext.org/is-wi-fi-health-threat-schools-sorting-fact-fiction/>
- As the report from **Harvard Law School Center for Ethics** indicates, *Captured Agency: How the Federal Communications Commission is Dominated by the*

*Industries it Presumably Regulates*, this is a common big tobacco tactic used to confuse the public and give a false sense of security with wireless radiation: <https://ethics.harvard.edu/news/new-e-books-edmond-j-safra-research-lab>

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- One would do well to recognize industry-planted spin, and look to the non-industry funded independent microwave radiation scientists and doctors, including those who presented at the Shrewsbury forum, and protect our collective children from microwave radiation emitted by the industry's toxic wi-fi systems and devices. Hard-wired solutions are much safer, energy-efficient, faster and reliable: <https://www.youtube.com/watch?v=8z98xX7lddM>
- The Environmental Health Trust has prepared specific guidelines for **How to Reduce EMF Exposure in Schools and Classrooms**: <https://ehtrust.org/policy/how-to-reduce-emf-exposure-in-schools-and-classrooms/>
- Dr. Cindy Russell, co-founder of [Physicians for Safe Technology](#), and Environmental Health Trust Executive Director Theodora Scarato produced a **70-minute webinar** for the United Educators of San Francisco, which has passed a [Safe Technology Resolution](#). This is available for all schools to learn the biological risks and solutions for safe technology in our schools: [https://www.youtube.com/watch?time\\_continue=386&v=S7RUeC6zUjg](https://www.youtube.com/watch?time_continue=386&v=S7RUeC6zUjg)
- The **EMF Points of Confusion vs. Fact** sheet helps to dispel misconceptions that parents and school leaders often have about wireless radiation when first joining the conversation: [www.google.com/url?q=https%3A%2F%2Falpaca-chinchilla-x6xf.squarespace.com%2F%2FEMF-Points-of-Confusion-vs-Fact-stky.pdf&sa=D&sntz=1&usg=AOvVaw25bsCyEjc0ympJl2izwWP1](http://www.google.com/url?q=https%3A%2F%2Falpaca-chinchilla-x6xf.squarespace.com%2F%2FEMF-Points-of-Confusion-vs-Fact-stky.pdf&sa=D&sntz=1&usg=AOvVaw25bsCyEjc0ympJl2izwWP1)
- The **World Health Organization** in 2019 published guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age, including specific screen time limitations: <https://www.who.int/news-room/detail/24-04-2019-to-grow-up-healthy-children-need-to-sit-less-and-play-more>
- The **Palo Alto**, California, Parent Teacher Association issued a **Safe Use of Technology for Children During Distance Learning** fact sheet recommending hard-wired technology and other safety strategies any community can use: [ptac.paloaltopta.org/wp-content/uploads/Safer-Use-of-Technology-for-Children-During-Distance-Learning.pdf](http://ptac.paloaltopta.org/wp-content/uploads/Safer-Use-of-Technology-for-Children-During-Distance-Learning.pdf)

#### Exposure Measurements

- **Measurements of Radiofrequency Radiation with a Body-Borne Exposimeter in Swedish Schools with Wi-Fi** shows levels far higher than biologically based exposure limits: <https://www.frontiersin.org/articles/10.3389/fpubh.2017.00279/full>

- Lloyd Burrell took measurements in a classroom and found **radiation levels 3x higher than a cell tower's** emissions: <https://www.electricsense.com/wifi-in-schools-gives-off-3-times-as-much-radiation-as-cell-towers/>

### The Science

- Dr. Martin Pall's 2018 paper summarizes studies showing the biological harm from wi-fi, **Wi-Fi is an important threat to human health**, [Environmental Research, Volume 164](#), July 2018, Pages 405-416: <https://www.sciencedirect.com/science/article/pii/S0013935118300355>
- To understand the impact on **today's mental health crisis**, see Dr. Pall's, [Microwave frequency electromagnetic fields \(EMFs\) produce widespread neuropsychiatric effects including depression](#), J Chem Neuroanat. 2016 Sep;75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001. Epub 2015 Aug 21.
- With gratitude to the Environmental Health Trust, the following also provides **wi-fi research abstracts** indicating evidence of harm: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFPbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYWUwODIyMzQxMDRhZjVh>
- **Wi-Fi in Schools, U.K.**, also catalogs much of the scientific research finding adverse biological effects or damage to health from Wi-Fi signals, Wi-Fi-enabled devices or Wi-Fi frequencies (2.4 or 5 GHz): <http://www.wifiinschools.org.uk/index.html>
- This webinar presentation from the University of Michigan addresses growing **mental health issues** that stem from excessive screen time. *This is your brain online: The impact of Technology on Mental Health*: <http://spartanyouth.msu.edu/precollege/documents/ThisisyourbrainonlineforPre-CollegeFacultyandStaffMarch2015.pdf>
- **Dr. Barrie Trower**, Royal Navy microwave weapons expert from the U.K., explains how wi-fi in schools **damages DNA** of female students and staff, and their subsequent family lines: [https://www.youtube.com/watch?v=z99\\_SzoXZdY](https://www.youtube.com/watch?v=z99_SzoXZdY)
- Digital rights groups are calling on lawmakers to **ban facial recognition** in schools after a new study claimed the technology would have many negative implications affecting students: <https://www.nationofchange.org/2020/08/11/an-unethical-experimentation-on-children-digital-rights-groups-oppose-facial-recognition-in-schools-backed-by-new-study/>

### Expert Recommendations

- **Safety Recommendations for Children Who Use Digital Technologies to Study at Home** were released during COVID-19 to address age-appropriate screen time limits and necessary breaks, as well as the need to use hard-wired technology with the

wireless antennas turned off when possible:

<https://www.saferemr.com/2015/10/tips-to-reduce-your-wireless-radiation.html>

- In 2017, the International Conference on Children, Screen Time and Wireless Radiation was held at the capital of Iceland, Reykjavik. They produced the **Reykjavik Appeal on Wireless Technology in Schools** which is signed by medical doctors, microwave radiation experts, representatives of non-government organizations (NGOs) focused on technology safety, teachers and school personnel. It calls for using only hard-wired technology in schools, with no wi-fi radiation exposure, where possible:

<http://www.stralskyddsstiftelsen.se/wp-content/uploads/2017/03/Reykjavik-Appeal-170224-2.pdf>

- The country of **Cyprus in the Mediterranean** is removing wi-fi from schools: <https://ehtrust.org/cyprus-policy-recommendations-cell-phones-wireless-radiation-health/>
- The **American Academy of Environmental Medicine** has issued an *Open Letter to the Superintendents* imploring them to protect our children by using hard-wired technology with wi-fi turned off in schools: <https://www.aaemonline.org/wp-content/uploads/2020/12/WiredSchools.pdf>
- The **Maryland Department of Health and Mental Hygiene** is the first state agency in the United States to issue a report on Wi-Fi in Schools, and recommends using hard-wired internet connections over wireless: <http://phpa.dhmh.maryland.gov/OEHFP/EH/Pages/WiFiCEHPAC.aspx>
- The Environmental Health Trust maintains a record of **actions taken across the world** to protect students and staff from wireless radiation:

<http://ehtrust.org/policy/schools-unions-and-pta-actions/>

This includes a **Finnish school** that has installed kill switches and timers to reduce wireless radiation exposure to children and staff:

<https://ehtrust.org/wi-fi-off-switches-installed-finnish-school-reduce-wireless-radiation-exposure-children/>

#### Legislation to Protect Schools

- **Maryland** has introduced **House Bill 866: Primary and Secondary Education - Health and Safety Guidelines and Procedures - Digital Devices**: <http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&stab=01&id=hb0866&tab=subject3&ys=2017RS>

- **Massachusetts has introduced bills** to address wireless radiation and public exposure, including several for schools: <https://sites.google.com/site/understandingemfs/massachusetts-emf-bills-2021-22>
- These two documents can help to quickly **open the wi-fi health hazard conversation** with school, town, state and federal leaders:
  - [Executive Summary](#)
  - [EMF Points of Confusion vs. Fact](#)

### School Training

- The non-profit **Wireless Education** has worked with experts to distill the science and medical advisories into an easy-to-learn **30-minute on-line course** that will quickly bring schools and families up to speed on technology safety: <https://www.wirelesseducation.org/store/l2/>
- There is also a low-cost 30-minute e-learning **course for businesses** to educate and safeguard their employees in the work environment. This covers both the **health and legal risks** of today's wireless technology: <https://www.wirelesseducation.org/store/c2/>
- Both courses provide a tip sheet at the end with device-specific reminders, as well as a Certificate of Completion for compliance tracking. To support social responsibility, **Wireless Education enables those purchasing Corporate Safety Induction Course licenses to designate a local school and Wireless Education will donate the Schools & Families Course licenses** to help safeguard local students and staff. Please see: <http://www.wirelesseducation.org/>
- The **Massachusetts Breast Cancer Coalition** has developed curriculum modules for elementary, middle and high school teachers and students: [mbcc.org/lets-talk-prevention-actions-you-can-take-student-modules/](http://mbcc.org/lets-talk-prevention-actions-you-can-take-student-modules/)

### Additional Resources

- This 18 minute 2012 video from **Australia** provides an easy to understand overview of the issues surrounding wi-fi in schools, and how others around the world are responding:

<http://www.youtube.com/watch?v=kmcAXZ-o1K4>

*Please note, the United States' current **FCC standards** for EMFs are very similar to Australia's outdated standards and are currently under formal review. However, in the cases of smoking, asbestos and lead, it took many years for the our government to change our public health standards so we may not see change come from the top anytime soon. In the meantime, manufacturers will continue to sell us harmful products so it is up to concerned citizens to protect themselves and their loved ones.*

- This 24-minute video from Canada's **Dr. Magda Havas** also provides an in-depth overview of wi-fi in schools. It highlights the **scientific evidence** and offers alternative solutions:

<https://www.youtube.com/watch?v=6v75sKAUFdc>

#### **E-Rate Program Influence**

- The National Association for Children and Safe Technology offers a document to explain how the **FCC has implemented technology in our schools and the corruption that has come with it:**

<http://www.nacst.org/education-reform.html>

- This presentation by **Mikko Ahonen, Ph.D., Sweden/Finland, and Ph.D. candidate Tarmo Koppel**, discusses issues and solutions to protect children in schools in the face of government programs promoting wireless technology:

<http://www.slideshare.net/MAhonen/radiofrequency-radiation-and-cchildrens-health-sustainability-challenges-for-e-ggovernment-sweg-2017>

#### **Technology Can Hamper Learning**

Another issue is that technology was brought into the classroom under the industry's promise that it will enhance learning. Studies are now showing otherwise:

- This study from the Massachusetts Institute of Technology (**MIT**) indicates **student performance declined with technology** in the classroom: <https://seii.mit.edu/research/study/the-impact-of-computer-usage-on-academic-performance-evidence-from-a-randomized-trial-at-the-united-states-military-academy/>
- Princeton and UCLA researchers indicate **laptop use results in shallower processing** in, "The Pen is Mightier than the Keyboard: Advantages of Longhand Over Laptop Note Taking": <http://www.sciencedirect.com/science/article/pii/S0360131512002254>
- **Scientific America** also concludes, "Students are Better Off without a Laptop in the Classroom" because it is **too distracting** to the students, and those around them: <https://www.scientificamerican.com/article/students-are-better-off-without-a-laptop-in-the-classroom/>

#### **Privacy Issues**

- This New York Times article discusses, "**How Google Took Over the Classroom**": <https://mobile.nytimes.com/2017/05/13/technology/google-education-chromebooks->

[schools.html?emc=edit tu 20170908&nl=bits&nid=68490634&te=1&r=0&referer](https://www.nytimes.com/2018/10/26/style/digital-divide-screens-schools.html?emc=edit_tu_20170908&nl=bits&nid=68490634&te=1&r=0&referrer=)  
[≡](#)

- Children's Health Defense reports the technology industry is offering free software programs in order to **harvest student data** and sell it for a profit, among other privacy issues: [https://childrenshealthdefense.org/defender/big-tech-collects-profits-kids-data/?utm\\_source=salsa&eType=EmailBlastContent&eid=3e13b341-72a3-41ce-b4eb-34869d6d1af6](https://childrenshealthdefense.org/defender/big-tech-collects-profits-kids-data/?utm_source=salsa&eType=EmailBlastContent&eid=3e13b341-72a3-41ce-b4eb-34869d6d1af6)

### **Silicon Valley Executives Ban Technology from Their Children**

Meanwhile, the New York Times reports **Silicon Valley executives** are sending their children to schools with no technology and having their nannies sign contracts that there will be no screens around their children:

- *The Digital Gap Between Rich and Poor Kids Is Not What We Expected: America's public schools are still promoting devices with screens — even offering digital-only preschools. **The rich are banning screens from class altogether.***

<https://www.nytimes.com/2018/10/26/style/digital-divide-screens-schools.html?action=click&module=RelatedLinks&pgtype=Article>

- *A Dark Consensus About Screens and Kids Begins to Emerge in Silicon Valley: "I am convinced the devil lives in our phones."*

[https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream\\_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnelli-e-bowles&version=latest](https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html?action=click&contentCollection=undefined&contentPlacement=4&module=stream_unit&pgtype=collection&region=stream&rref=collection%2Fbyline%2Fnelli-e-bowles&version=latest)

- *Silicon Valley **Nannies Are Phone Police for Kids**: Child care contracts now demand that nannies hide phones, tablets, computers and TVs from their charges.*

<https://www.nytimes.com/2018/10/26/style/silicon-valley-nannies.html>

### **Students and Staff Suffering**

- **Rodney Palmer - Safety Code 6** - Presentation to the Royal Society of Canada: In this November 2, 2013 video, an experienced journalist presents concerns over an illness cluster with children in Ontario schools, leaving two children dead and two more with heart devices, among other effects: <http://www.youtube.com/watch?v=bsPBUuwCfal>
- Students and staff at a **Texas junior high** school suffered a "mystery illness" in 2017 with dizziness, headaches and nausea, all symptoms linked to microwave sickness: <https://www.nbcdfw.com/news/health/AISD-Jr-High-Plagued-by-Mystery-Illnesses-Reopens-with-Upgrades-and-Renovations-441326723.html>

- Twenty-six students and one adult at a **Catholic school in Florida** were hospitalized in 2018 after suffering seizures, dizziness, nausea, fainting and nosebleeds: <https://www.sun-sentinel.com/local/broward/fort-lauderdale/fl-ne-cardinal-gibbons-substance-exposure-20181119-story.html>
- In 2015, **Jenny Fry**, a teen in the U.K. committed suicide and her parents believe it was because of wireless radiation: <http://news.yahoo.com/teen-allergic-to-wifi-commits-suicide-parents-say-223912154.html>
- **... and in her Mother's own words:** <http://www.odwyerpr.com/story/public/6832/2016-05-04/mother-wi-fi-caused-suicide-victim-tells-tragic-story.html>
- In 2015, a family with a son **diagnosed with electrohypersensitivity (EHS)** filed a **lawsuit in the U.S. District Court** seeking protection under the **Americans with Disabilities Act** from The **Fay School** in Southborough, Massachusetts (law firm [Markham & Read](#)):

[www.networkworld.com/article/2975945/mobile-wireless/massachusetts-boarding-school-fay-southborough-sued-over-wi-fi-sickness.html](http://www.networkworld.com/article/2975945/mobile-wireless/massachusetts-boarding-school-fay-southborough-sued-over-wi-fi-sickness.html)

For the first time in American courts, **non-thermal effects are recognized:**

<https://www.leagle.com/decision/infdco20171006q74>

### **Educators Taking Action**

- The **Buxton School** in Massachusetts is banning the use of smartphones by students and staff:  
[buxtonschool.org/buxton-featured-in-the-boston-globe/](http://buxtonschool.org/buxton-featured-in-the-boston-globe/)  
Buxton Technology Philosophy: [buxtonschool.org/technology-philosophy/](http://buxtonschool.org/technology-philosophy/)
- A teacher became ill from wireless radiation and sued when accommodations were offered but not provided. JML Law won the Appeal in '**Unprecedented**' **Disability Case Against LAUSD** for Failure to Accommodate Teacher With Electromagnetic Hypersensitivity: Brown v. LAUSD establishes that symptoms of 'electromagnetic hypersensitivity' a.k.a. 'Microwave Sickness' could be deemed a 'physical disability' under the FEHA: [https://www.accesswire.com/viewarticle.aspx?id=637661&token=hzivngfkum\\_a2h2xz6rhu](https://www.accesswire.com/viewarticle.aspx?id=637661&token=hzivngfkum_a2h2xz6rhu)
- Australia's Sydney Morning Herald reports, '**Major distraction**': **school dumps iPads, returns to paper textbooks**: <https://www.smh.com.au/education/major-distraction-school-dumps-ipads-returns-to-paper-textbooks-20190329-p5191r.html>

- California's **Palo Alto school district** has begun to reduce wireless radiation exposures by reducing energy consumption and turning off obsolete systems that were found to be still transmitting radiofrequency signals: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo2ZjdiY2RhYjcwNWRIMDMw>
- The **United States Collaborative for High Performance Schools** indicates, "...it is important in school environments with children to apply the precautionary principle 'as low as reasonably achievable (ALARA)' by providing low-EMF classrooms, specifying low-EMF IT equipment and wired Internet access network technology, and establishing **low-EMF user practices**." Specific criteria for schools to adhere to are provided: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyMjhmYmI2NzJlZTQzNjc5>
- The **New Jersey Education Association** published a 2016 article that advises, "Minimize Health Risk From Electronic Devices": <http://www.njea.org/issues-and-political-action/health-and-safety/reporter-articles>
- **Teachers unions** are recognizing the risks of wi-fi in their work environment and are seeking protection:  
<https://www.nysut.org/resources/special-resources-sites/workplace-health-and-safety/webinars> <http://www.parentsforafetechnology.org/teacher-unions-parent-teacher-organizations.html>  
<https://www.youtube.com/watch?v=i2dcZefK0Mc>  
<https://ehtrust.org/san-francisco-unified-school-district-teacher-union-passes-resolution-on-reducing-exposure-to-radiofrequency-radiation/>  
[https://www.magdahavas.com/wp-content/uploads/2012/05/WiFiPositionpaper2\\_OECTA.pdf](https://www.magdahavas.com/wp-content/uploads/2012/05/WiFiPositionpaper2_OECTA.pdf)
- See also the **World Response** page to see what countries around the world are doing to protect their citizens.

### Parents Taking Action

- A parent interested in enrolling her children in the **City of Lakes Waldorf School in Minneapolis** educated the school on the hazards of wi-fi. After investigating, the school removed the wi-fi system as a precautionary measure to protect the students and staff:  
<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDo0ODFhY2UwNDcxN2NhMzA4>
- **Ashland Public Schools in Massachusetts**, US, is the first to begin putting precautionary measures in place with Best Practices for Mobile Devices:

[https://3a4786cd-a-62cb3a1a-s-sites.googlegroups.com/site/understandingemfs/ma-senate-bill-1222/file-cabinet/APS%20Best%20Practices%20for%20Mobile%20Devices%20Signs%208-27-14.pdf?attachauth=ANoY7cq\\_UgucU6WdJAUm\\_l2cj623vRZ6cQbhlzPjFUwpP2R\\_aH2F4zwhD-avc0SKlam2UOth-MFG7D4vGJxNGh8zXC1DQY8upVq0mIS1yPqBPmvBLX2uuGDctUaVk9NW3L4G6rjiB339rrCZWy6HBFwITMyuKO3kmJfBScNE8zkJ31-0Cr4SLGdX3SUi2Fo0w4c3ECZeoLMuMZEoCHkmzWGcf2SViHe3qH\\_oy-rVmR-R-y4QV4SaujIzn0dZ7WUuMwEHqL-L1FKHMmcnZh8ch2j3T-yxnYQCi5qe8dDEHlyB7aCK4B\\_O\\_WrrXhO3D559RS4t4RAk1mf&attredirects=0](https://3a4786cd-a-62cb3a1a-s-sites.googlegroups.com/site/understandingemfs/ma-senate-bill-1222/file-cabinet/APS%20Best%20Practices%20for%20Mobile%20Devices%20Signs%208-27-14.pdf?attachauth=ANoY7cq_UgucU6WdJAUm_l2cj623vRZ6cQbhlzPjFUwpP2R_aH2F4zwhD-avc0SKlam2UOth-MFG7D4vGJxNGh8zXC1DQY8upVq0mIS1yPqBPmvBLX2uuGDctUaVk9NW3L4G6rjiB339rrCZWy6HBFwITMyuKO3kmJfBScNE8zkJ31-0Cr4SLGdX3SUi2Fo0w4c3ECZeoLMuMZEoCHkmzWGcf2SViHe3qH_oy-rVmR-R-y4QV4SaujIzn0dZ7WUuMwEHqL-L1FKHMmcnZh8ch2j3T-yxnYQCi5qe8dDEHlyB7aCK4B_O_WrrXhO3D559RS4t4RAk1mf&attredirects=0)

- **Los Angeles Unified School District** has lowered its radiation exposure to 10,000 lower than the FCC limit, however, science indicates this is still not a biologically safe level and gives a false sense of security:

[http://www.lausd-oehs.org/docs/Misc/Radiofrequency\\_Safety\\_Fact\\_Sheet\\_021113a.pdf](http://www.lausd-oehs.org/docs/Misc/Radiofrequency_Safety_Fact_Sheet_021113a.pdf)

- Scientists from around the world submitted an [International Appeal to the World Health Organization and United Nations](#) in 2015 imploring them to protect especially our children and pregnant women, but to date, nothing has been done. The documentary, "[Microwaves, Science and Lies](#)," shows evidence that even the WHO may be influenced by manufacturers' profit agendas.
- Parents around the world are becoming educated and working with their school boards to remove and/or limit wi-fi exposure. Unfortunately, most schools boards and technology directors only know what the FCC tells them, which is that there is no evidence of biological harm at the non-thermal level. Science has long since proven this is not true. Please [see the Science page](#) for details.
- There is great potential harm at the non-thermal, non-ionizing level, but our [FCC](#) guidelines remain in place from 1996 and that is what those who are resistant to change will defer to. If you read the guidelines, you will see engineers, not biologists, set them. Among them were members of the Institute of Electrical and Electronics Engineers, Inc. ([IEEE](#)). There is hope though, as in March 2016, the IEEE acknowledged biological effects in the *IEEE Power Electronics Magazine* article, "[Some Effects of Weak Magnetic Fields on Biological Systems: RF fields can change radical concentrations and cancer cell growth rates.](#)"
- Until a higher authority tells our schools to remove the wi-fi and use hard-wired connections, most school boards may not feel empowered enough to make the change. Ultimately, technology should not be rolled out until it is proven biologically safe but that did not happen with wireless and cellular products. Harvard

University's [Captured Agency](#) report explains how the telecommunications industry rolled out products without proper safety testing.

*So, until actual safe technology can be brought to market, **it is up to the parents to become educated**, and then help educate our schools to protect our children and staff members.*

### Students Taking Action

- Two **eleventh-grade students in Canada** have started an organization to educate their schools and peers about environmental issues and technology safety. They are collaborating with the national organization, Canadians for Safe Technology ([C4ST](#)) to raise awareness and present solutions:

<https://www.youtube.com/watch?v=jSvqchS9IYo>

### Resources

The following links provide additional insights to help guide us. Please don't hesitate to reach out to any of these contacts, we are all eager to help you solve this problem in your community:

- Safe Living Technologies, Inc., provides a **three-minute video to show Microwave Radiation Exposure Produced by an iPad**: <https://www.youtube.com/watch?v=XLCi4UH6eKo>
- A group of parents in Petaluma, California has developed a two-page document that **details a solution to hard-wire iPads** in the classroom, see the bottom of page two for the components needed: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbm91bmRlcnNOYW5kaW5nZW1mc3xneDoxMjEzNGRmZWY1ZjUwZTk>
- Environmental Health Trust reports that **Ashland Public Schools in Massachusetts** was the first public school district in the U.S. to address wi-fi in schools, in 2014:

<http://ehtrust.org/first-us-public-school-district-limits-wi-fi-radiation-exposure-to-students-and-staff/>

The following 27-minute **WCCA-TV cable program** gives an overview of the journey to bring about Ashland's Best Practices for Mobile Devices (another guest speaks briefly about a utility "smart" meter program piloted in Worcester, MA):

<http://www.wccatv.com/video/soapbox/SOAPBOX1052>

We also received a local grant to purchase an **Acoustimeter** to put on loan through the Ashland Public Library so residents can measure and remediate wi-fi radiation in their spaces. WACA-TV helped to produce a 23-minute public service video to demonstrate how to use it in one's home, and offers suggestions to lower exposure:

<https://vimeo.com/159873631>

- The **Boston Parents Paper** chose as their 2015 back to school cover story, "Is Wi-Fi in Schools Safe? A Look at Potential Dangers":

[bostonparentspaper.com/is-wi-fi-in-schools-safe/](http://bostonparentspaper.com/is-wi-fi-in-schools-safe/)

- The **California Medical Association** adopted Resolution 107-14 to begin taking action with wireless technologies. **Dr. Cindy Russell** published the following article which is a good document for parents to use with other parents and school administrators to give them an overview of this issue. It is formatted well to print out and give a copy in meetings:

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmc3xneDoyYzc0N2YxMTQ2NTY4OWZh>

- Safe Tech for Schools Maryland reported on April 6, 2016, "**New York PTA Calls For Wi-Fi To Be Turned Off: Major Wi-fi Controversy as School District is Served With Legal Liability Notice:**"

[http://safetechforschoolsmaryland.blogspot.com/2016/04/new-york-pta-calls-for-wi-fi-to-be.html?utm\\_source=feedburner&utm\\_medium=email&utm\\_campaign=Feed%3A+SafeTechForSchoolsMaryland+%28Safe+Tech+for+Schools+Maryland%29](http://safetechforschoolsmaryland.blogspot.com/2016/04/new-york-pta-calls-for-wi-fi-to-be.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+SafeTechForSchoolsMaryland+%28Safe+Tech+for+Schools+Maryland%29)

- The following article includes a letter from a **Canadian teacher** who had to take early retirement because she became electrohypersensitive (EHS) from her school's wi-fi: <http://www.odwyerpr.com/story/public/6667/2016-04-07/canadian-teacher-forced-out-by-wi-fi-goes-warpath.html>

- **Portland Public Schools** Expert Testimony by **Dr. Martin Pall**, Professor Emeretus of Biochemistry and Basic Medical Sciences, and **Merry Callahan**, health advocate, present updated information on the health impacts from EMF radiation: <http://www.youtube.com/watch?v=HCAyPMVUjHY>

- The following is a letter from the **American Academy of Environmental Medicine** to the Los Angeles Unified School District regarding the proposal to install Wi-Fi in Los Angeles schools: <http://www.emfacts.com/2013/03/aaem-on-wifi-in-schools/>

- Wi-Fi Free Schools Australia has started a **country map indicating where parents can find a wi-fi-free school** for their children: <https://www.google.com/maps/d/u/0/viewer?mid=zOkxcDhxrUz8.k-liistVXZiU>
- **Magda Havas, PhD** is Associate Professor Emeritus of Environmental & Resource Studies at Trent University where she taught and researched the biological effects of environmental contaminants. In the following two videos, she outlines the issues with wi-fi in schools.

Dr. Magda Havas WiFi Schools May 9, 2013 Part 1: <http://www.youtube.com/watch?v=rddvfPucn3Y>

Dr. Magda Havas WiFi Schools May 9, 2013 Part 2: <http://www.youtube.com/watch?v=hDEF2MDPu60>

- **Dr. Joseph Mercola**, Osteopathic Physician, released this article September 21, 2013: <http://articles.mercola.com/sites/articles/archive/2013/09/21/cell-phone-wifi-radiation.aspx>
- This site is dedicated to understanding and remediating Wi-Fi in Schools, and has some **good graphics to help visualize the issues**: <http://wifiinschools.com/>
- For **facebook** users, **Campaign for Radiation Free Schools** seeks to educate parents and schools on the hazards of microwave radiation from cell phone towers and antennas on or near school property, and from wireless networks within school learning environments. Regular updates are posted to keep abreast of current wi-fi in school activity around the world: <https://www.facebook.com/groups/110896245588878/>
- Using a **crude AM radio**, this video allows you to hear the amount of radiation emitted from a hard-wired PC vs. a wireless laptop and iPad: <http://www.youtube.com/watch?v=POB40whyzcA&feature=youtu.be>
- Parents for Safe Technology share radiation **measurements taken in several U.S. schools**: <http://www.parentsfor safetechnology.org/wi-fi-radiation-levels-at-us-schools22222.html>
- This **NIH PubMed database study** concludes, "Parents, teachers, and school boards have the responsibility to protect children from unnecessary exposure." <http://www.ncbi.nlm.nih.gov/pubmed/26372109>
- The last line in this abstract from the NIH's PubMed database, on **harm from laptops**, is, "Laptop is paradoxically an improper site for the use of a LTC (laptop

computer), which consequently should be renamed to not induce customers towards an improper use." So, that is what industry subsequently did. They renamed "laptops" to "tablets" but didn't inform the public that they are unsafe to use in the lap, and should be used on a table instead (and, might I add, best used in airplane mode and/or hard-wired). <http://www.ncbi.nlm.nih.gov/pubmed/22315933>

- Concerned parents in the United States can also send notarized "**No-Consent to WiFi**" letters to their school boards. This an important step towards accountability. Please see examples below written by concerned parents. Citizensforsafetechnology.org offers a **Statement of Accountability** parents can use: [http://wifiinschools.com/uploads/3/4/3/4/34340185/statement\\_of\\_accountability.pdf](http://wifiinschools.com/uploads/3/4/3/4/34340185/statement_of_accountability.pdf)
- Jeromy Johnson of emfanalysis.com adds a **form letter from concerned students**: <https://www.emfanalysis.com/wp-content/uploads/2014/09/non-consent-form-and-sample-letter-to-school1.pdf>
- See the [Solutions](#) page for additional strategies to keep children and staff safe in schools.

## **Bills in the United States**

### **Alaska**

- In 2020 Alaska State Senator Tom Begich introduced **SB 142 "An Act Relating To Radiofrequency Radiation Exposure In Schools"** modeled after Oregon's emergency bill, SB 283 (listed further down the page):
- <http://www.akleg.gov/basis/Bill/Detail/?Root=SB%20142>
- See also article by Environmental Health Trust which includes a statement from Senator Begich as well as **safe technology solutions for schools to consider implementing**:
- <https://ehtrust.org/bill-on-wi-fi-in-school-health-effects-introduced-by-state-senator-of-alaska/>

### **Arizona**

- **State Representative Pamela Hannley** (LD-9) has a master's degree in public health and a strong health and medicine background. She worked on tobacco addiction at the University of Arizona School of Public Health. She voted against a telecom bill, and citizens have brought her current information on EMFs and 5G. She looked into this issue and posted this blog on her legislative website on 2/25/20, "Is 5G Risky Business?":

<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpowersforthepeople.net%2F2020%2F02%2F25%2Fis-5g-risky-business-video%2F&data=02%7C01%7C%7C96bab581e96a464282c408d7c2c3f55e%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637192019191260320&sdta=a=Dda9F6dHJW8DTF3nO1qLatc8gDkmwXPgi5UWu7P5zEg%3D&reserved=0>

- In October 2020 she hosted a 5G forum and wrote the article, "**5G Forum Reveals Risks, Concerns Regarding Widespread 4-5G Towers** (video)":
- [https://powersforthepeople.net/2020/10/03/5g-forum-reveals-risks-concerns-regarding-widespread-4-5g-towers-video/?fbclid=IwAR0wPBCeP6DKLCcaEVzwdKUxR-w4PuoJSkTOIOm-0N9IPSzr2R\\_a7ri1itl](https://powersforthepeople.net/2020/10/03/5g-forum-reveals-risks-concerns-regarding-widespread-4-5g-towers-video/?fbclid=IwAR0wPBCeP6DKLCcaEVzwdKUxR-w4PuoJSkTOIOm-0N9IPSzr2R_a7ri1itl)

### California

- Assembly Member Muratsuchi introduced AB 272 to require schools to adopt policies to limit or prohibit smartphone use by students at school except in emergencies or other noted exceptions:
- [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201920200AB272](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB272)

### Connecticut

- While CT does not yet have a safe technology bill, the town of Easton has become the first in the nation to pass a **cease and desist order on 5G small cells** until they are tested and proven biologically safe:
- <https://www.wtnh.com/news/technology/easton-bans-5g-technology-rollout-citing-lack-of-research-testing/>

### Hawaii

- Rep. Tina Wildberger proposed House Resolution 63 Requesting a Study of the Environmental and Health Effects of Fifth-Generation Technology:
- [https://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=HR&billnumber=63&year=2020](https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HR&billnumber=63&year=2020)
- ... and House Concurrent Resolution 80:
- [https://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=HCR&billnumber=80&year=2020](https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=HCR&billnumber=80&year=2020)
- HB.128 would also stop 5G deployment until studies show it's safe:
- [https://www.capitol.hawaii.gov/session2020/bills/HR128\\_.pdf](https://www.capitol.hawaii.gov/session2020/bills/HR128_.pdf)
- Although not a bill, it is noteworthy that 600+ people sent in a statement of support for a **5G ban in Hawaii County** on the Big Island, and dozens of citizens testified in person even during the pandemic. [Resolution 678-20](#) passed the [planning board](#), and then Hawaii County Council with an [8:1 vote](#) -- the latter indicating there should be more done to protect the public!
- <https://www.hawaii.tribune-herald.com/2020/07/23/hawaii-news/council-exercises-caution-in-regard-to-5g-development/>

- Senators Ruderman, Chang, Ikara and Wakai introduced B433 SD2 to appropriate funds for the Department of Health to create a **social marketing campaign targeting children and their families to inform them of proven interventions to reduce child and teen screen time**:
- [https://www.capitol.hawaii.gov/measure\\_indiv.aspx?billtype=SB&billnumber=433&year=2019](https://www.capitol.hawaii.gov/measure_indiv.aspx?billtype=SB&billnumber=433&year=2019)
- Deborah Green, PhD, was the driving force behind the Hawaii County 5G Resolution, and also an opt-in bill for smart meters (rather than opt-out). She just shared another health report Hawaii did in 2019 that was heavily influenced by industry and is mobilizing citizens to call for it to be retracted:
- [https://clicks.aweber.com/y/ct/?l=PaxHj&m=i5sNwSizID\\_oKc.&b=tXc2c2XS7QXEOKv8bHKdg](https://clicks.aweber.com/y/ct/?l=PaxHj&m=i5sNwSizID_oKc.&b=tXc2c2XS7QXEOKv8bHKdg)

### Illinois

- Introduced by Rep. Deanne Mazzochi, House Bill 5818, aims to restore **transparency, local control and rights back to the local communities with regard to 4G/5G** small cell installations:
- <https://www.ilga.gov/legislation/fulltext.asp?DocName=&SessionId=108&GA=101&DocTypeId=HB&DocNum=5818&GAID=15&LegID=127162&SpecSess=&Session=>
- See press conference and additional information on EHT's website:
- <https://ehtrust.org/illinois-house-bill-protect-me-from-5g-gives-residents-more-decision-making-on-cell-antennas/>
- The Illinois legislature held a hearing on technology and 5G in September 2019. Testimony was given by industry representatives and scientists, as well independent scientist Dr. Pall Heroux from McGill University, and citizens:
- <https://www.youtube.com/watch?v=ylzo3OAO5z0&list=PLMAz9ZRxiYmq72gXgnZ83grAd5eCC2Oxz>
- The Chicago Tribune investigated radiation exposures from cell phones in 2019 and found many exceed FCC radiation limits. Class action lawsuits are taking place against Apple and Samsung:
- <https://www.chicagotribune.com/investigations/ct-cell-phone-radiation-lawsuit-apple-samsung-met-20190829-ye5h7fw6yvauxpo367vqeg7pju-story.html>
- Senator Glowiak Hilton is planning to introduce legislation in 2020 to form a task force to examine 5G health and environmental impacts:
- [https://www.chicagotribune.com/suburbs/hinsdale/ct-dhd-5g-legislators-response-tl-1114-20191112-2rgstdgjlzaf5gfcg4rm55borq-story.html?fbclid=IwAR287K7JPMB7L9V8u5MfKBl6mIMEUETVWWVi\\_41aFHE9wqn-TWQMBqrUL3A](https://www.chicagotribune.com/suburbs/hinsdale/ct-dhd-5g-legislators-response-tl-1114-20191112-2rgstdgjlzaf5gfcg4rm55borq-story.html?fbclid=IwAR287K7JPMB7L9V8u5MfKBl6mIMEUETVWWVi_41aFHE9wqn-TWQMBqrUL3A)

### Louisiana

- State Representative Neil Abramson introduced House Resolution 145 "ENVIRONMENT: Requests the Department of Environmental Quality in conjunction with the Louisiana Department of Health to study the effects of evolving 5G technology". This was unanimously passed:

- <https://www.legis.la.gov/legis/BillInfo.aspx?s=19RS&b=HR145&sbi=y>

### Maine

- In 2023 State Representative Tracy Quint, RN introduced bi-partisan bicameral (both chambers) [\*H.P. 466 Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children.\*](#)

### Maryland

- Under Md. Code Ann., Health-General §13–1506, the Maryland State Children’s Environmental Health and Protection Advisory Council (CEHPAC) in December 2022 released an informational factsheet on how to reduce children’s wireless exposures entitled “[\*Guidelines to Reduce Electromagnetic Field Radiation\*](#)”.
- For a more detailed analysis and policy recommendations please see the [\*2016 WiFi Radiation in Schools in Maryland Final Report.\*](#)

### Massachusetts

- Click [here](#) for the Massachusetts EMF bills.

### Minnesota

- Senator D. Scott Dibble's *SF 339 Small wireless facilities requirements modification and appropriation* includes Section 5, Study of Health Impacts of Deployment of Fifth Generation Technology: [www.revisor.mn.gov/bills/text.php?number=SF339&version=latest&session=ls92&session\\_year=2021&session\\_number=0](http://www.revisor.mn.gov/bills/text.php?number=SF339&version=latest&session=ls92&session_year=2021&session_number=0)

### Montana

- Representative David Dunn introduced House Joint Resolution No. 13: A joint resolution of the Senate and House of Representatives of the State of Montana urging Congress to amend the Federal Telecommunications Act to account for health effects of siting small cell network equipment in residential areas:

[http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P\\_SESS=20191&P\\_BL\\_TP\\_BILL\\_TYP\\_CD=HJ&P\\_BILL\\_NO=13&P\\_BILL\\_DFT\\_NO=&P\\_CHPT\\_NO=&Z\\_ACTION=F\\_ind&P\\_ENTY\\_ID\\_SEQ2=&P\\_SBJT\\_SBJ\\_CD=&P\\_ENTY\\_ID\\_SEQ=](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20191&P_BL_TP_BILL_TYP_CD=HJ&P_BILL_NO=13&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=F_ind&P_ENTY_ID_SEQ2=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=)

### New Hampshire

- Rep. Abrami lost his seat, and Rep. Lucius Parshall and Senator Denise Ricciardi introduced [\*HB.298 An Act relative to placement of personal wireless service facilities:\*](#) [gencourt.state.nh.us/bill\\_status/legacy/bs2016/bill\\_status.aspx?lsr=500&sy=2023&sortoption=&txtsessionyear=2023&txtbillnumber=HB298](http://gencourt.state.nh.us/bill_status/legacy/bs2016/bill_status.aspx?lsr=500&sy=2023&sortoption=&txtsessionyear=2023&txtbillnumber=HB298) See [information sheet](#) here.
- In 2022 Representative Patrick Abrami introduced **HB1644 to begin implementing the 5G Commission Report recommendations (see below) with a 1,640-foot/500 meter setback for new cell towers and antennas, and a statewide registry for**

**citizens to report wireless radiation harm:**

[https://www.gencourt.state.nh.us/bill\\_status/legacy/bs2016/bill\\_docket.aspx?lsrc=2632&sy=2022&sortoption=&txtsessionyear=2022&txtbillnumber=hb1644](https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/bill_docket.aspx?lsrc=2632&sy=2022&sortoption=&txtsessionyear=2022&txtbillnumber=hb1644)

- See Dr. Kent Chamberlin's 20-minute presentation of the scientific reasoning behind the setback:  
[www.youtube.com/watch?v=DWK74ie7krc&list=PLMAz9ZRjYmpsjY7soBpLn56MZH\\_Tvk1OP](http://www.youtube.com/watch?v=DWK74ie7krc&list=PLMAz9ZRjYmpsjY7soBpLn56MZH_Tvk1OP)
- See the **HB1644 public hearings** and sub-committee meetings:  
[www.youtube.com/playlist?list=PLMAz9ZRjYmpsjY7soBpLn56MZH\\_Tvk1OP](http://www.youtube.com/playlist?list=PLMAz9ZRjYmpsjY7soBpLn56MZH_Tvk1OP)
- In October 2022 the **House Science, Technology and Energy Committee voted 15:3** to recommend future legislation to inform the public on the pros and cons of wireless technology, and to provide municipalities with guidelines for zoning protections on the placement of wireless infrastructure
- In 2019 Representative Patrick Abrami, an engineer, introduced bi-partisan **HB 522 to address the health and environmental effects of 5G technology; it was passed by the House, Senate and signed into law by Governor Sununu:** [gencourt.state.nh.us/bill\\_status/legacy/bs2016/](http://gencourt.state.nh.us/bill_status/legacy/bs2016/)

Below is the **audio recording from the Senate hearing** on April 16, 2019:

[http://www.gencourt.state.nh.us/senateaudio/committees/2019/HHS/HB0522\\_04162019.asx](http://www.gencourt.state.nh.us/senateaudio/committees/2019/HHS/HB0522_04162019.asx)

- See **Rep. Abrami's article** in the local paper when he introduced the bill:  
<https://www.seacoastonline.com/news/20190404/legislative-update-on-abramis-three-house-bills>
- The following page tracked the **Commission's investigation** of wireless radiation impacts:  
<http://www.gencourt.state.nh.us/statstudcomm/committees/1474/default.html>
- New Hampshire formulated 15 recommendations to inform and protect the public in the groundbreaking ***Final Report of the Commission to Study the Environmental and Health Effects of Evolving 5G Technology*** (HB 522, Chapter 260, Laws of 2019, RSA 12-K:12–14). *Please note, the Majority report is contained in the first 17 pages, the bulk of the document contains supporting appendices and meeting minutes. A Minority report is included in pages 18-37. Commission members Ricciardi and Heroux counter several oft-repeated points of misinformation in the Minority report on pages 384-5 of the electronic copy, or pages 5 and 6 of 11 in the final meeting minutes of Appendix O:*  
<http://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf>
- As noted in the report's reference to the Harvard publication, [Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates](#), the wireless industry appears to be using the tobacco

playbook to create doubt among the public. It came as no surprise then that industry representative David Juvet who served on the Commission but rarely attended meetings, published a **disinformation opinion piece** with no factual backing in New Hampshire media outlets the week before the report was issued:

[https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article\\_651299ac-1a4c-5041-8422-1749c047723d.html](https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article_651299ac-1a4c-5041-8422-1749c047723d.html)

<https://www.businessnhmagazine.com/article/opinion-flying-below-the-radar>

- Likewise, the **[City Council of Keene, New Hampshire had voted 10:2 to put a temporary moratorium](#)** on all 4G/5G small cell applications until the legislative report was published. Another industry Commission member, Bethanne Cooley of CTIA -- The Wireless Industry, then threatened legal action and the Mayor of Keene directed the City Council take a re-vote and the ban was lifted, 8:7. Keene is, however, writing a wireless small cell ordinance to protect its citizens:

[https://www.sentinelsource.com/news/local/keene-council-panel-oks-5g-ordinance-despite-advice-it-may-violate-law/article\\_8d1aa0a3-3175-50d6-8394-05891d048256.html](https://www.sentinelsource.com/news/local/keene-council-panel-oks-5g-ordinance-despite-advice-it-may-violate-law/article_8d1aa0a3-3175-50d6-8394-05891d048256.html)

[https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article\\_651299ac-1a4c-5041-8422-1749c047723d.html](https://www.unionleader.com/news/business/columns/bia-business-perspective-thumbs-up-for-5g-thumbs-down-for-higher-power-fees/article_651299ac-1a4c-5041-8422-1749c047723d.html)

<https://www.businessnhmagazine.com/article/opinion-flying-below-the-radar>

- In this interview with NH Governor Sununu he indicates, "... **the role of government ... comes down to health and safety**" so we are hopeful he will protect NH citizens and environment over corporate profits: <https://www.washingtonexaminer.com/politics/live-free>
- In December 2020 the European Parliament began an [investigation into wireless radiation](#), especially 5G. The panel is a two-hour session with six representatives from industry and science. In the final minute the moderator recommends emulating the [NH commission's process](#) and [report](#).

## New York

- In 2022 Senator Pete Harckham introduced **Senate Bill S8765, Relates to consumer protection and utility meter choice**, to give ratepayers the right to choose a no-fee analog meter instead of a radiation emitting "smart" meter: [www.nysenate.gov/legislation/bills/2021/S8765](http://www.nysenate.gov/legislation/bills/2021/S8765)
- In 2021 New York State (NYS) Assemblyman Tom Abinanti (District 92), Assemblywoman Jo Anne Simon (District 52), Assemblyman Steve Englebright (District 4), and Senator Anna Kaplan (District 7) introduced identical Senate and Assembly bills calling for a **formal investigation into the health and environmental risks of 5G technologies**:

- S5926: <https://www.nysenate.gov/legislation/bills/2021/s5926>
- A06448: [https://assembly.state.ny.us/leg/?default\\_fld=&bn=A06448&term=2021&Summary=Y&Actions=Y&Text=Y&Committee=&nbsp;Votes=Y&Floor=&nbsp;Votes=Y#A06448](https://assembly.state.ny.us/leg/?default_fld=&bn=A06448&term=2021&Summary=Y&Actions=Y&Text=Y&Committee=&nbsp;Votes=Y&Floor=&nbsp;Votes=Y#A06448)
- In October 2019 Assemblyman Thomas Abinanti introduced a [bill](#) that would require the State to investigate the safety of 5G. It includes language similar to the New Hampshire bill that has been passed into law:
- [https://assembly.state.ny.us/leg/?default\\_fld=&bn=A08637&term=2019&Summary=Y&Actions=Y&Text=Y&Committee%26nbsp;Votes=Y&Floor%26nbsp;Votes=Y&fbclid=IwAR1Q1P0nRX-IM2Fm8dqG1QHWRqTIR4ET195XYj-o9CoDfrFFWY7C-8\\_QtBw](https://assembly.state.ny.us/leg/?default_fld=&bn=A08637&term=2019&Summary=Y&Actions=Y&Text=Y&Committee%26nbsp;Votes=Y&Floor%26nbsp;Votes=Y&fbclid=IwAR1Q1P0nRX-IM2Fm8dqG1QHWRqTIR4ET195XYj-o9CoDfrFFWY7C-8_QtBw)
- In March 2020 Senator Anna Kaplan introduced a bill directing the Department of Health and the Department of Environmental Conservation, in cooperation with the Office of Technology Services, to "...jointly study and evaluate the health and environmental impacts of the implementation of fifth generation (5G) and future generation wireless systems technology and small cell distribution antenna systems in the state."
- <https://www.nysenate.gov/legislation/bills/2019/s7922>

## Oregon

- Senate Bill 283 is an *emergency law* introduced by retired public health nurse Senator Laurie Monnes Anderson directing the Oregon Health Authority (OHA) to review the independent microwave radiation science and make recommendations. The Department of Education is then to make recommendations to reduce students' exposures in schools:

[gov.oregonlive.com/bill/2019/SB283/](http://gov.oregonlive.com/bill/2019/SB283/)

<https://news.streetroots.org/2019/02/08/do-we-need-warnings-wi-fi>

The Testimonies: <https://www.youtube.com/watch?v=7g5mZFDlic0>

Prof. Paul Heroux: <https://www.youtube.com/watch?v=7YdFz5vM0aY>

Child's Testimony: <https://www.youtube.com/watch?v=oQugpEcxDY>

Parents Across America

Testimony: <https://www.youtube.com/watch?v=ZjGSc1xXET4>

Parents Across America Write-up on the Oregon Bills, including additional testimonies:

<https://www.paaoregon.org/single-post/2019/08/07/Oregon-Legislature-Passes-SB-283-to-Study-Effects-of-WiFi-Radiation-on-Children-with-video?fbclid=IwAR3DPo2nsp3zmbL114Gv5qgG8KpN3XqFaaP8Nx2i-M--4ywyvvozYwbyA>

Unfortunately, the **report prepared by the Oregon Health Authority** did not do what the law mandated and ignored all but epidemiological scientific studies, some of which were industry funded:

[https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB\\_283\\_%20Wireless\\_Tech%20\\_Health\\_Risks\\_Report.pdf](https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB_283_%20Wireless_Tech%20_Health_Risks_Report.pdf)

Cece Doucette provided a **review of the report including seven areas where OHA missed the mark**, plus information showing harmful levels of EMF exposure in school:

<https://alpaca-chinchilla-x6xf.squarespace.com/s/Doucette-Gmail-Response-Availability-of-Oregon-Health-Authority-Senate-Bill-283-Report-Wireless-Netw.pdf>

OHA subsequently posted "**SB 283 Legislative Report Answers to Frequently Asked Questions**" in which they acknowledge they "did not include studies on animals due to limited resources and a lack of funding for the bill"; they omitted thousands of biological studies and their report recommendations do not protect the public; they offer recommendations to lower risk exposures:

[https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB\\_283\\_FAQ.pdf](https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RADIATIONPROTECTION/Documents/SB_283_FAQ.pdf)

**Washington Spectator** investigative reporter **Daniel Forbes** exposes corruption in OHA's report preparation:

[https://washingtonspectator.org/oregon-health-authority-forbes/?fbclid=IwAR0JCCNf1q88pyETbB3btY8vmEGb1muqkK95I-40\\_jPn6YYm\\_kqOtKxv1Jg](https://washingtonspectator.org/oregon-health-authority-forbes/?fbclid=IwAR0JCCNf1q88pyETbB3btY8vmEGb1muqkK95I-40_jPn6YYm_kqOtKxv1Jg)

The OHA **Policy Board** heard **2-minute public comments** on July 7, 2021 identifying the corruption in the final report:

[https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments\\_update\\_d.pdf](https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments_update_d.pdf)

**Written public comments** were also submitted by the Environmental Health Trust, Environmental Working Group, Physicians for Safe Technology and others document the science indicating biological harm:

[https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments\\_update\\_d.pdf](https://www.oregon.gov/oha/OHPB/MtgDocs/6.0%20Public%20Comments_update_d.pdf)

- Senate Bill 281 requires manufacturer of digital product to label product with information relating to health risks associated with use of product:

<https://gov.oregonlive.com/bill/2019/SB281/>

- Senate Bill 282 requires Department of Education, in cooperation with Oregon Health Authority, to conduct study to determine and recommend appropriate health standards to govern student use of computers, mobile digital devices and other electronic media in classrooms:

<https://gov.oregonlive.com/bill/2019/SB282/>

### Rhode Island

- House Bill 5992 Relating to Health and Safety - The Geoengineering Act 2019 was the first in the nation to compile all the hazardous emissions into one bill for comprehensive monitoring and prohibition. Page 4, line 27 addresses emissions from all generations of cell phone towers. See also electromagnetic references on page 1, line 11; page 6, line 13; page 7, line 24; page 8, line 1; page 10, line 16; page 13, line 28; page 14, lines 11 and 27:
- <http://webserver.rilin.state.ri.us/BillText/BillText19/HouseText19/H5992.pdf>
- Rhode Island introduced an updated 2021 Rhode Island Geoengineering and Hazardous Emissions Act
- <http://webserver.rilin.state.ri.us/BillText/BillText21/SenateText21/S0572.pdf>
- Rhode Islander Rachael McIntosh has studied geoengineering extensively. She provides a 12-minute history and details the biological and environmental harm for the Study Commission below:
- <http://ritv.devosvideo.com/show?video=cd83496e9f26&apg=ed687894>
- Residents are encouraged to ask the RI General Assembly to support H5922; see contact information below:
- <http://webserver.rilin.state.ri.us/Email/RepEmailListDistrict.asp>

### Vermont

- In 2023 Rep. Katherine "Kari" Dolan and Rep. Avram Patt introduced H.70 An act relating to the siting of telecommunications facilities:  
[legislature.vermont.gov/bill/status/2024/H.70](http://legislature.vermont.gov/bill/status/2024/H.70)
- H.513 An act relating to broadband deployment throughout Vermont, 2020, aimed to ensure internet access to all residents:  
<https://legislature.vermont.gov/bill/status/2020/H.513>
- Annette Smith presented an overview of the issues with 5G to the Senate Finance Committee on April 12, 2019. The Committee is investigating and has requested the testimony from NH 522:  
  
[https://www.youtube.com/watch?time\\_continue=10&v=8YzqrCXaN-4](https://www.youtube.com/watch?time_continue=10&v=8YzqrCXaN-4)
- Additional Citizens educated their legislators on April 18, 2019 at the Vermont State House:
- <https://mailchi.mp/612017206454/april-18-vermont-statehouse-meeting-huge-success?e=6b187a71ec>
- The following story ran on May 24, 2019:

- <http://truenorthreports.com/emf-expert-says-broadband-bill-on-governors-desk-piggybacks-controversial-5g-wireless-technology>
- **Vermont Department of Health** was tasked with investigating the health risks and submitted the following report in January 2020; it would seem they looked to capture federal agencies rather than investigating the non-industry funded peer-reviewed science as New Hampshire has done:
- [https://legislature.vermont.gov/assets/Legislative-Reports/RFR-Report-12.23.19.pdf?fbclid=IwAR3w1OBPrkY\\_FSLx85gA9rtzMrHr9WAMqtbmldeyW7kRZveSYBele7p6-E](https://legislature.vermont.gov/assets/Legislative-Reports/RFR-Report-12.23.19.pdf?fbclid=IwAR3w1OBPrkY_FSLx85gA9rtzMrHr9WAMqtbmldeyW7kRZveSYBele7p6-E)
- [House Committee on Energy and Technology](#) Chair Rep. Timothy Briglin was not satisfied with the health report given citizens had presented compelling evidence of harm. He asked **Dartmouth College's Rockefeller Center for Public Policy** to do an independent investigation. The following was completed by three undergraduate students but it does not appear they did an analysis of the independent peer-reviewed science:
- [https://rockefeller.dartmouth.edu/sites/rockefeller.drupalmulti-prod.dartmouth.edu/files/prs\\_5g\\_final.pdf](https://rockefeller.dartmouth.edu/sites/rockefeller.drupalmulti-prod.dartmouth.edu/files/prs_5g_final.pdf)
- Senator John Rogers introduced S.212 to place cell phones on par with tobacco and alcohol, asking that it be **declared a crime for those under age 21 to possess a cell phone** given the social, emotional and distracted driving impact on Vermont's children:
- <https://legislature.vermont.gov/bill/status/2020/S.212>
- As the following article notes, **Governor Phil Scott vetoed the bill**, which Rogers indicates he wouldn't have voted for himself but he filed it to make an important point about the impact cell phones are having on our children:
- <https://sharylattkisson.com/2020/01/vermont-lawmaker-proposed-banning-cell-phones-for-people-under-21/>
- Elsewhere in Vermont, citizens are organizing and informing their community and their legislators. See this letter to the editor from Iishana Artra, PhD, CPC, *5G -- Not in My Front Yard*:
- <https://www.reformer.com/stories/iishana-artra-5g-not-in-my-front-yard,570109>
- Emily Peyton writes *5G is a Horrible Plan* in the Brattleboro Reformer:
- <https://www.reformer.com/stories/letter-5g-is-a-horrible-plan,570113?>
- Vermonters have also held public screenings of the award-winning film [Generation Zapped](#), and [5G Apocalypse, the Extinction Event](#).
- See the article on page 7 of the following 2019 year-end newsletter from Vermonters for a Clean Environment (VCE) for an update on EMF legislative efforts:
- [https://issuu.com/vermoner/docs/vce\\_end-year\\_2019\\_newsletter](https://issuu.com/vermoner/docs/vce_end-year_2019_newsletter)

## **5G and the Internet of Things (IoT)**

### **Wireless Sunsetting**

- The U.S. Commerce Department and National Telecommunications and Information Administration are now positioning wireless as a secondary service with **fiber directly to the premises** as the best and most reliable service: [broadbandbreakfast.com/2022/05/commerce-departments-ntia-releases-details-for-funds-distributed-under-iiija/](https://broadbandbreakfast.com/2022/05/commerce-departments-ntia-releases-details-for-funds-distributed-under-iiija/)
- See testimony from retired **Microsoft Canada President Frank Clegg to the New Hampshire legislature**, including the statement, "Wireless technology is no longer the preferred technology for communications." [alpaca-chinchilla-x6xf.squarespace.com/s/Clegg-Comments-to-New-Hampshire-Science-Technology-and-Energy-Committee-7-Feb-2022.pdf](https://alpaca-chinchilla-x6xf.squarespace.com/s/Clegg-Comments-to-New-Hampshire-Science-Technology-and-Energy-Committee-7-Feb-2022.pdf)
- See **ordinances** from towns that have already put protections in place to prevent close-range cell antenna/small cell installations: [ehtrust.org/what-communities-have-strong-setbacks-for-cell-antennas-near-homes-and-schools/](https://ehtrust.org/what-communities-have-strong-setbacks-for-cell-antennas-near-homes-and-schools/)
- **Wikipedia** lists many communities across the U.S. that are already investing in fiber-to-the-premises (FTTP) sometimes called fiber-to-the-home (FTTH): [en.wikipedia.org/wiki/Fiber to the premises in the United States](https://en.wikipedia.org/wiki/Fiber_to_the_premises_in_the_United_States)

### **The Science**

- Case Report: The **Microwave Syndrome After Installation of 5G** Emphasizes the Need for Protection from Radiofrequency Radiation: [www.gavinpublishers.com/article/view/case-report-the-microwave-syndrome-after-installation-of-5g-emphasizes-the-need-for-protection-from-radiofrequency-radiation](https://www.gavinpublishers.com/article/view/case-report-the-microwave-syndrome-after-installation-of-5g-emphasizes-the-need-for-protection-from-radiofrequency-radiation)
- The 2022 study, "**Measurements of radiofrequency electromagnetic fields, including 5G**, in the city of Columbia, SC, USA" shows the blanketing of our cities in electrosmog, and calls for labeling of small cells so the public can avoid them at close range: [www.spandidos-publications.com/10.3892/wasj.2022.157](https://www.spandidos-publications.com/10.3892/wasj.2022.157)
- See 2021 **epidemiological study showing headaches, dizziness, insomnia, nightmares** and more from wireless radiation exposures, *What is the radiation before 5G? A correlation study between measurements in situ and in real time and epidemiological indicators in Vallecas, Madrid*: <https://pubmed.ncbi.nlm.nih.gov/33434609/>
- Martin Pall, PhD, 2021, Millimeter (MM) wave and microwave frequency radiation produce **deeply penetrating effects: the biology and the physics**: [www.degruyter.com/document/doi/10.1515/reveh-2020-0165/html](https://www.degruyter.com/document/doi/10.1515/reveh-2020-0165/html)
- See **5G Wireless Technology: Millimeter Wave Health Effects** by Joel Moskowitz, PhD: <https://www.saferemr.com/2017/08/5g-wireless-technology-millimeter-wave.html>
- **CIA Translations on USSR Science and Technology Biomedical Sciences, Effects of Nonionizing Electromagnetic Radiation, 1977**, includes, among other studies, Biological Effects of Millimeter Radiowaves on p. 61:

[alpaca-chinchilla-x6xf.squarespace.com/s/CIA-Declassified-USSR-Translation-Nonionizing-EMR-Effects-1977.pdf](https://alpaca-chinchilla-x6xf.squarespace.com/s/CIA-Declassified-USSR-Translation-Nonionizing-EMR-Effects-1977.pdf)

- In September 2017 over **180 scientists and doctors from 35 countries** sent a declaration to officials of the European Commission demanding a **moratorium** on the increase of cell antennas for planned 5G expansion. Experts have also signed on from the U.S. and other non-European countries: <https://www.emfcall.org/>
- In 2018, **Martin Pall, PhD**, Professor Emeritus of Biochemistry and Basic Medical Sciences wrote:  
[5G: Great risk for EU, U.S. and International Health: Compelling evidence for eight distinct types of great harm caused by electromagnetic field \(EMF\) exposures and the mechanism that causes them](#)
- Dr. Pall also contributed this information to the 5G Crisis: Awareness and Accountability Summit in the following .pdf document, "**5G Risk: The Scientific Perspective**": [http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/5G-Risk-The-Scientific-Perspicitve%20\(1\).pdf](http://www.gencourt.state.nh.us/statstudcomm/committees/1474/documents/5G-Risk-The-Scientific-Perspicitve%20(1).pdf)
- Others have found Dr. Pall's December 2019 lecture especially helpful, "**Massive Predicted Effects of 5G**": <http://coeursdehs.fr/pr-martin-pall-massive-predicted-effects-of-5g-in-the-context-of-safety-guideline-failures/>
- The Environmental Health Trust has put together **Peer Reviewed Published Science on Radiation from 4G/5G "Small" Cell Wireless Antennas**:  
[https://ehtrust.org/peer-reviewed-published-science-on-radiation-from-4g-5g-small-cell-wireless-antennas/?fbclid=IwAROX7MIRhfXZ2InrsgmDnUjwl0nMi\\_5vVj8fjiOcvVaTipz\\_ZoC-mOq74U](https://ehtrust.org/peer-reviewed-published-science-on-radiation-from-4g-5g-small-cell-wireless-antennas/?fbclid=IwAROX7MIRhfXZ2InrsgmDnUjwl0nMi_5vVj8fjiOcvVaTipz_ZoC-mOq74U)
- Ronald Kostoff, Ph.D. at Georgia Institute of Technology School of Public Policy issued a 2020 report called, "[The Largest Unethical Medical Experiment in Human History](#)". Appendix 5 shows the potential contribution of wireless radiation to exacerbation of the coronavirus pandemic (p. 651). He provides a bibliography on studies showing EMF effects on the immune system. **Wuhan, China, where the coronavirus broke out, is a 5G smart city**:  
[https://smartech.gatech.edu/bitstream/handle/1853/62452/LARGEST\\_UNETHICAL\\_MEDICAL\\_EXPERIMENT\\_FINAL.pdf?sequence=4&isAllowed=y](https://smartech.gatech.edu/bitstream/handle/1853/62452/LARGEST_UNETHICAL_MEDICAL_EXPERIMENT_FINAL.pdf?sequence=4&isAllowed=y)
- This is one of the studies by Doyon and Johansson cited in Dr. Kostoff's paper above that addresses the **impact on the immune system**:  
<https://www.sciencedirect.com/science/article/abs/pii/S0306987717301718>
- As evidenced below by the **IEEE, the millimeter waves** being incorporated into 4G/5G small cell and satellite technology have long been used in medicine to alter biological systems; we should not be exposing the public or planet to ubiquitous microwave or millimeter waves that can alter biology: <https://ieeexplore.ieee.org/document/6338252>
- Dr. Andrew Goldsworthy explains **what 5G radiation does at the cellular level**, and why it is likely exacerbating **COVID-19**: <https://www.emfsa.co.za/news/andrew-goldsworthy-biologist-responds-to-eric-van-rongens-icnirp-statements-about-5g/>
- Tom Cowan, M.D., contributed articles with information from Martin Pall, Ph.D. predicting **massive effects from 5G** and Arthur Firstenberg outlining **pandemics**

**following the rollout of new radiofrequency radiation technologies** since at least 1779: <https://fourfoldhealing.com/blogs/news/an-important-question-about-the-coronavirus-plus-immune-support-tips>

- Arthur Firstenberg explains “**phased array**”, the most dangerous aspect of 5G cellular antennas: <http://www.cellphonetaskforce.org/5g-from-blankets-to-bullets/>
- With gratitude to Lena Pu, the following **studies and articles** provide additional information:
  - <https://www.ncbi.nlm.nih.gov/pubmed/27087527?dopt=Abstract>
  - [https://www.researchgate.net/profile/Daniel\\_Fels/publication/281409607\\_Fields\\_of\\_the\\_cell/links/5615216108aed47facefb302/Fields-of-the-cell.pdf](https://www.researchgate.net/profile/Daniel_Fels/publication/281409607_Fields_of_the_cell/links/5615216108aed47facefb302/Fields-of-the-cell.pdf)
  - <http://jnlpw.defense.gov/About/Frequently-Asked-Questions/Active-Denial-System-FAQs/>
  - [http://preventdisease.com/news/09/110109\\_body\\_scanners\\_thz\\_waves.shtml](http://preventdisease.com/news/09/110109_body_scanners_thz_waves.shtml)
  - <http://aph.huji.ac.il/people/feldman/research.htm#Human%20Skin%20as%20Arrays%20of%20Helical%20Antennas%20in%20the%20Millimeter%20and%20Submillimeter%20Wave%20Range>
  - <https://jasonprall.com/blog/millimeter-wave-scanners-alter-dna/>
  - [Radio Frequency Technology damages Plant DNA in 48hrs and is carcinogenic, new research reveals | EmaxHealth](#)
  - [Radiofrequency radiation injures trees around mobile phone base stations](#)
  - [Anthropogenic Radio-Frequency Electromagnetic Fields Elicit Neuropathic Pain in an Amputation Model](#)
  - [https://www.researchgate.net/publication/51394628\\_Human\\_Skin\\_as\\_Arrays\\_of\\_Helical\\_Antennas\\_in\\_the\\_Millimeter\\_and\\_Submillimeter\\_Wave\\_Range](https://www.researchgate.net/publication/51394628_Human_Skin_as_Arrays_of_Helical_Antennas_in_the_Millimeter_and_Submillimeter_Wave_Range)
- **Professor Curtis Bennett**, Chief, International Science Advisory Board for IHF (14,000 members) and Adjunct Professor for Accredited Medical Education for CME Credits has been a Thermal Radiation Consultant for 38 Years. He is an Interprovincial Journeyman Electrician (Red Seal) and a Building Construction Engineering Technologist in Canada. He indicates the microwave pulses from 5G infrastructure will compromise the integrity of our buildings, causing them to fall out of code. "Your buildings, infrastructure, etc is not designed to be in microwave ovens. The oscillations of atoms and molecules 180 degrees 1.8 billion times per second, 86,400 times a day is one antenna, wi-fi was 4.9 billion times per second."

He states, "The US plan is to mass install 300,000 mini towers for the 5G grid. Killing your taxpayers, crops, economy and losing the tax base is a national and international security issue. President Trump doesn't know what the previous political interests did. Mr Obama legacy will include the first African American President to put all races in a mad made microwave oven; Trump is making the ovens bigger... The world shares one atmosphere, 300,000 mini towers affect every country. Heating the atmosphere from space has consequences like extreme weather unlike any seen, fires, floods, droughts, etc and it is already happening."

Contact: [www.thermoguy.com](http://www.thermoguy.com), [curtis@thermoguy.com](mailto:curtis@thermoguy.com)

- The study, "Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz" also shows **insects will be negatively impacted** by 5G radiation: <https://www.nature.com/articles/s41598-018-22271-3>
- See also the [Planetary Impact](#) page.

### Cell Tower & Small Cell Locations

- **AntennaSearch.com** enables one to enter an address in the U.S., and see a report showing the big macro cell antenna and cell tower installations within a three-mile radius; in some cases, like Boston, it will return only a one-mile radius because there are so many: <http://www.antennasearch.com/>
- See also **Ookla 5G Map** for small cell installations in your area, worldwide: <https://www.speedtest.net/ookla-5g-map>
- See **Verizon's coverage map**: <https://www.verizon.com/coverage-map/>

### The Issue

- **Retired President of Microsoft Canada, Frank Clegg** summarizes in this 8-minute public service announcement the urgency of halting 5G and instead choosing safe fiber to the premises: [https://www.youtube.com/watch?v=xW7BbztmuYg&feature=emb\\_logo](https://www.youtube.com/watch?v=xW7BbztmuYg&feature=emb_logo)
- The industry and FCC have changed the Over the Air Reception Device (**OTARD Rule**). Industry can now offer property owners perks to put small cell and other equipment on their rooftops/property with no municipal oversight. This will allow close-range radiation to be pulsed across the neighborhood: <https://www.federalregister.gov/documents/2021/02/25/2021-01304/fcc-modernizes-siting-rule-for-small-hub-and-relay-wireless-antennas>
- Wireless companies are already offering incentives in certain communities to **mount wireless antennas on one's property**: <https://patch.com/arizona/tucson/ep/1867139>
- We Link [www.welink.com](http://www.welink.com), came to a resident's door and offered her free internet access if she would put a hub antenna on her rooftop that would serve the neighboring homes.
- This eight-minute video from a gentleman in Rhode Island discusses **ten specific pitfalls with 5G** indicating in each instance that fiber optics is the much better solution; this, and Mr. Clegg's video above, are good to start the conversation with your municipalities: [https://www.youtube.com/watch?v=w0f7Oolgbkl&feature=emb\\_logo](https://www.youtube.com/watch?v=w0f7Oolgbkl&feature=emb_logo)
- State and federal preemption of local authority to regulate small cells is straining local governments at a time when they can ill afford it. This report from the **National Association of Telecommunications Officers and Advisors (NATOA)**, with assistance from the Communications Workers of America (CWA), draws on a survey of local governments and examines the effect of small cell preemption: [https://assets.noviams.com/novi-file-uploads/natoa/20210317\\_NATOA\\_CWAReport.pdf](https://assets.noviams.com/novi-file-uploads/natoa/20210317_NATOA_CWAReport.pdf)

- In December 2020 the **European Parliament** began an [investigation into wireless radiation](https://multimedia.europarl.europa.eu/en/panel-for-future-of-science-and-technology-workshop-on-5g_20201207-1000-SPECIAL-STOA_vd), especially 5G. The panel is a two-hour session with six representatives from industry and science. In the final minutes the Parliamentarian discredits the industry's claims and calls for a moratorium on 5G. The moderator recommends emulating the [New Hampshire, USA, commission's investigative process](https://www.nh.gov/Newsroom/Releases/Release/Article/2376743/dod-announces-600-million-for-5g-experimentation-and-testing-at-five-installati/). See NH [report](https://www.nh.gov/Newsroom/Releases/Release/Article/2376743/dod-announces-600-million-for-5g-experimentation-and-testing-at-five-installati/) recommendations. [https://multimedia.europarl.europa.eu/en/panel-for-future-of-science-and-technology-workshop-on-5g\\_20201207-1000-SPECIAL-STOA\\_vd](https://multimedia.europarl.europa.eu/en/panel-for-future-of-science-and-technology-workshop-on-5g_20201207-1000-SPECIAL-STOA_vd)
- In July 2021 the Scientific Foresight Unit (STOA) of the **European Parliament** **completed their *Health Impact of 5G* report**, documenting biological harm from 7,886 studies and recommending reduction in exposure levels and limits, implementing fixed hard-wired fiber-optic solutions, educating the public on safe technology use, and determining long-term effects of 5G: [www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS\\_STU\(2021\)690012\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690012/EPRS_STU(2021)690012_EN.pdf)
- **Easton, Connecticut** unanimously banned 5G until proven safe for health and environment, and reaffirmed their ban in 2022: <https://ehtrust.org/easton-connecticut-usa-bans-5g/>; [www.ctinsider.com/fairfield/article/Easton-extends-ban-on-5G-infrastructure-17188173.php](https://www.ctinsider.com/fairfield/article/Easton-extends-ban-on-5G-infrastructure-17188173.php).
- **Keene, New Hampshire** put a moratorium on 4G/5G small cell infrastructure until the New Hampshire legislature issues their investigative report: [https://www.sentinel-source.com/news/local/city-council-approves-temporary-5g-ban-in-keene/article\\_1341857d-4c7c-5fb4-ab27-70d8e5b9d131.html](https://www.sentinel-source.com/news/local/city-council-approves-temporary-5g-ban-in-keene/article_1341857d-4c7c-5fb4-ab27-70d8e5b9d131.html).
- **Lille, France**, has put a moratorium on 5G noting health risks, questioning benefits vs. costs, and financial constraints during COVID-19: <https://www.lefigaro.fr/flash-eco/5g-le-conseil-municipal-de-lille-vote-un-moratoire-sur-le-deploiement-20201010>
- See the **Environmental Health Trust's compilation** of cities taking action across the U.S.: [https://ehtrust.org/usa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways/?utm\\_source=social&utm\\_medium=twitter&utm\\_campaign=ordinances](https://ehtrust.org/usa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways/?utm_source=social&utm_medium=twitter&utm_campaign=ordinances)
- **Katie Singer**, journalist and author of the book *Electronic Silent Spring*, puts into easy language what 5G is and why it is bad for our communities, our health and the environment; see her blog post, "Our Web of Inconvenient Truths": <http://www.electronicsilentspring.com/march-2019-blog/>
- See the article *Global Wi-Fi and 5G: What is the Environmental Price Tag to Earth and Life?* to understand the impact of 5G **satellites** and other components: <https://blog.sfgate.com/storystudio/2020/11/17/global-wifi-and-5g-what-is-the-environmental-price-tag-to-the-earth-and-life/>
- The military is developing **5G for warfare**: <https://www.defense.gov/Newsroom/Releases/Release/Article/2376743/dod-announces-600-million-for-5g-experimentation-and-testing-at-five-installati/>
- For those concerned with climate change, this article from the Institute for Electrical and Electronics Engineers (IEEE) indicates, "**Wireless technologies will continue to**

consume at least 10 times more power than wired technologies when providing comparable access rates and traffic volumes." See page 7 of 8, just above Conclusions, which indicate hard wiring with fiber-optics to the premises is the most energy efficient solution. <https://people.eng.unimelb.edu.au/rtucker/publications/files/energy-wired-wireless.pdf>

- Founder of Environmental Health Trust, Dr. Devra Davis, is a Nobel Peace Prize co-laureate on climate change, and offers a **two-page fact sheet** on the escalating impact of wireless on climate change with the push for 5G and the Internet of Things (IoT). This is a terrific resource to share with local, state and federal officials since most have climate change as a strategic priority at present: <https://ehtrust.org/climate-change-and-5g/>
- See also the EHT page, "**Reports on the Increasing Energy Consumption of Wireless Systems and Digital Ecosystem**": <https://ehtrust.org/science/reports-on-power-consumption-and-increasing-energy-use-of-wireless-systems-and-digital-ecosystem/>
- **Dr. Barrie Trower**, retired British Royal Navy physicist, gives an overview of what happens when we microwave our trees and planet; we are losing our trees, bees, plants, fish, and children. 5G is going to exacerbate the existing harm of current wi-fi frequencies: [https://www.youtube.com/watch?time\\_continue=6&v=TZ3t6n2SkUY&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=6&v=TZ3t6n2SkUY&feature=emb_logo)
- The policy paper, "**Re-Inventing Wires: The Future of Landlines and Networks**," details why the U.S. and our communities should instead invest in hard-wired telecommunications infrastructure to support economic growth, bridge the digital divide and diminish risks to security, privacy, public health and the environment.
- **Claire Edwards**, retired United Nations editor/trainer, has put together a chronology of 5G push-back happening all over the world, including the U.S.: <https://www.globalresearch.ca/telcos-losing-battle-impose-5g/5691065>
- In 2020 Dr. Lennart Hardell and Dr. Rainer Nyberg published an article in *Molecular and Clinical Oncology* on governments promoting industry profits to the detriment of human health and the environment. See "**Appeals that matter or not on a moratorium on the deployment of the fifth generation, 5G, for microwave radiation**": <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7016513/>
- Dr. Hardell also published a paper exemplifying how **so-called experts testify at government hearings** but have no real expertise in EMF science, may have industry conflicts of interest, and/or fail to do their due diligence in examining the non-industry funded scientific evidence of harm. Dr. Hardell corrects the record on many statements such representatives commonly make to public policy decision-makers: <https://www.spandidos-publications.com/10.3892/wasj.2019.28/download>
- This 98 page report was commissioned, coordinated and published in June 2020 by two Members of the European Parliament – Michèle Rivasi and Klaus Buchner, ***The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G***: <https://www.saferemr.com/2018/07/icnirps-exposure-guidelines-for-radio.html>

- Americans for Responsible Technology and 5G Crisis produced a **5G Space Wars** webinar to discuss with experts the planetary impact of thousands of 5G antennas pulsing toxic radiation from the sky: <https://www.youtube.com/watch?v=Qh8tIScM2a0&t=10s>
- Celestrak.com offers a real-time website tracking the **growing atmospheric pollution** from active satellites, dead equipment, rocket bodies, debris and more surrounding the earth; the items load after a few seconds; click on the three bars in the top left corner and select Satellite Catalog to see what each dot is and who owns it: <https://celestrak.com/cesium/orbit-viz.php?tle=/pub/TLE/catalog.txt&satcat=/pub/satcat.txt&referenceFrame=1>
- 5G antennas pose biological and legal risks to **workers caring for trees**: <https://tcimag.tcia.org/tree-care/beware-the-dangers-from-am-radio-and-5g-transmission-sites/?unapproved=1568&moderation-hash=180de4c4a6ed8f76bee757ff81fddede#comment-1568>
- This is also an **environmental justice issue** as noted by Hartford, Connecticut legislators and residents: <https://www.5gcrisis.com/post/hartford-ct-verizon-targets-minority-community-to-deploy-hazardous-5g-antennas>

### 5G Revenue Stream

- The wireless industry plans to **harvest data** from the Internet of Things infrastructure and products, to sell to others for a profit: <https://www.ericsson.com/en/blog/2020/10/enterprise-iot>
- They are also **buying up entertainment companies** as they promote faster streaming speeds: <https://www.cbsnews.com/news/disney-fox-entertainment-purchase-closes-71-billion-dollars-closes/>
- Industry incentivizes customers to adopt their new toxic technology by giving them **free devices**, thereby creating demand to put the new close range wireless infrastructure -- both small cells and the bigger macro cells needed to power the small cells -- in our neighborhoods to connect to the new devices. Protect your community, don't upgrade to 5G:
- Verizon started this on June 1, 2021 [Verizon will give you a free smartphone to upgrade to 5G \(yahoo.com\)](#)
- T-Mobile started this on April 7, 2021 [T-Mobile will give a free phone with 5G in all of 2021 - Android Authority](#)
- AT&T started this on Sep 3, 2020 [Samsung Smartphone Deals for New and Existing AT&T Customers \(att.com\)](#)

### 5G is Not Living Up To Industry Promises

- The industry promotes faster speeds, but the Washington Post reports, "**The 5G lie: The network of the future is still slow**": [https://www.washingtonpost.com/technology/2020/09/08/5g-speed/?utm\\_campaign=wp\\_evening\\_edition&utm\\_medium=email&utm\\_source=newsletter&wpisrc=nl\\_evening](https://www.washingtonpost.com/technology/2020/09/08/5g-speed/?utm_campaign=wp_evening_edition&utm_medium=email&utm_source=newsletter&wpisrc=nl_evening)

- **PC Magazine** also reports slow speeds: <https://arstechnica.com/information-technology/2020/09/atts-current-5g-is-slower-than-4g-in-nearly-every-city-tested-by-pcmag/>
- **Computer World** reports, At This Point "5G is a Big Joke": <https://www.computerworld.com/article/3575510/at-this-point-5g-is-a-bad-joke.html>
- "In fact, human societies do not have an urgent need for 5G," said **Huawei's founder and CEO, Ren Zhengfei**, "What people need now is broadband, and the main content of 5G is not broadband." <https://international.thenewslens.com/article/141712>
- This two-hour industry pitch illustrates how they convince our towns 5G is fine and desirable. **Webinar on Demand: Small Cell Deployments: The Critical Factors Involved in Achieving Swift Approval:** <https://www.youtube.com/watch?v=AITgZWJofU&authuser=0>

### Legal Issues

- In addition to the following information, see also the **Legal Issues page** in this repository: <https://sites.google.com/site/understandingemfs/legal-issues>
- **Dutch court** rules in favor of public health instead of 5G masts: <https://letstalkabouttech.nl/2021/01/nederlandse-rechter-mogelijk-verhoogde-gezondheidsrisicos-zendmast/?fbclid=IwAR1NowE4QkJrHNJDRBsTMOvRsDPJe3c-P6-gi0uK5X9B3xojEsyo4fJ37kQ>
- Michael Mansfield QC is leading a **legal team challenging the UK Government over its failure** to take notice of the health risks and public concern related to 5G: <https://actionagainst5g.org/legal-case/>
- **Montgomery County, Maryland**, is suing the FCC over unsafe 5G radiation: <https://bethesdamagazine.com/bethesda-beat/government/county-to-sue-fcc-over-radio-frequency-emission-standards-for-small-cell-antennas/>
- **Michigan Senator Patrick Colbeck** provides testimony to the legislature indicating 5G and IoT are biologically hazardous, and reminds his colleagues it is their primary duty to protect public health over technological convenience or economic growth: [https://www.youtube.com/watch?time\\_continue=1&v=hkDDQgDVsbk](https://www.youtube.com/watch?time_continue=1&v=hkDDQgDVsbk)
- See Senator Colbeck's website for additional actions he is taking to educate the legislature and the public: <https://www.senatorpatrickcolbeck.com/wireless-radiation/>
- **Massachusetts** is leading the U.S. with multiple bills to address man-made radiation that citizens can ask their legislators to emulate: [Massachusetts EMF Bills](#)
- The **City of Boston in June 2020 filed a formal complaint with the FCC** questioning the safety of their RF public exposure limits: [https://img1.wsimg.com/blobby/go/18add696-2410-4f74-a623-35ee3c12832d/downloads/FCC%2019-226%20COMMENTS\\_BostonMA.pdf?ver=1592952452329](https://img1.wsimg.com/blobby/go/18add696-2410-4f74-a623-35ee3c12832d/downloads/FCC%2019-226%20COMMENTS_BostonMA.pdf?ver=1592952452329)

- The **City of Boston in August 2020 filed a lawsuit** against the FCC for usurping local control, and it was combined with similar cases around the country. The FCC petitioned to have the case transferred from the DC Circuit Court to the 9th Circuit Court in California, which had already ruled in the FCC's favor in a similar case: [https://alpaca-chinchilla-x6xf.squarespace.com/s/CITY-OF-BOSTON-MA-et-al-v-FCC-petition No-20-1301 08102020.pdf](https://alpaca-chinchilla-x6xf.squarespace.com/s/CITY-OF-BOSTON-MA-et-al-v-FCC-petition-No-20-1301-08102020.pdf)
- **Other states** are also introducing legislation to regulate technology including 5G, wireless radiation, and excessive screen time for children. New Hampshire has passed a law to investigate the health and environmental impact of 5G, and Oregon has passed a law to have their health department investigate the non-industry funded science and advise their schools on safe technology: <https://sites.google.com/site/understandingemfs/massachusetts-emf-bills-2019-20/bills-in-other-states-2019-20>
- In October 2018 **FCC Commissioner Brendan Carr** indicated 5G is safe during a Souix Falls, SD hearing: <https://www.youtube.com/watch?v=0bb8sPOozso&t=1s>

In December 2018, **Connecticut Senator Richard Blumenthal and Congresswoman Anna Eshoo** formally asked Mr. Carr to provide the scientific proof of safety he claims: [https://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Felectromagnetichealth.org%2Fwp-content%2Fuploads%2F2018%2F12%2FIMG\\_20181203\\_0002.pdf&esheet=51908511&newsitemid=20181203006017&lan=en-US&anchor=for+pressing+FCC+Commissioner+Brendan+Carr%2C+Esq.&index=1&md5=8cb325acd3393fc87daf951ff39c39ac](https://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Felectromagnetichealth.org%2Fwp-content%2Fuploads%2F2018%2F12%2FIMG_20181203_0002.pdf&esheet=51908511&newsitemid=20181203006017&lan=en-US&anchor=for+pressing+FCC+Commissioner+Brendan+Carr%2C+Esq.&index=1&md5=8cb325acd3393fc87daf951ff39c39ac)

Senator Blumenthal held a **press conference** on 5G technology and his request that the FCC provide proof of safety: <http://ctn.com/ctnplayer.asp?odID=15794&jump=0:00:01>

Medical and science journalist and radiofrequency radiation expert **B. Blake Levitt** shared comments at the above press conference, including the Harvard report indicating the FCC is a "Captured Agency" dominated by the industry it presumably regulates. The transcript of her remarks are as follows:

<https://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Felectromagnetichealth.org%2Fwp-content%2Fuploads%2F2018%2F12%2FBlumenthals-FCC-Letter-Press-conference.pdf&esheet=51908511&newsitemid=20181203006017&lan=en-US&anchor=See+Levitt+Remarks.&index=4&md5=33047ab8a542ccc9933a6eae254e1f1f>

- **FCC Commissioner Brendan Carr** responded by continuing to deny health risks and quoted Jeffrey Shuren, M.D., J.D., Director of the FDA's Center for Devices and Radiological Health. The FDA appears to be another captured agency as it denies there is harm instead of recognizing the NTP study's "clear evidence" of cancer and DNA

damage: <https://www.blumenthal.senate.gov/imo/media/doc/2018.12.17%20FCC%20Carr%20to%20Blumenthal%20and%20Eshoo%20re%20RF%20Safety.pdf>

- **Congresswoman Eshoo** subsequently introduced federal legislation to restore local control in deployment of 5G: <https://eshoo.house.gov/news-stories/press-releases/eshoo-introduces-legislation-to-restore-local-control-in-deployment-of-5g/>  
<http://scientists4wiredtech.com/wp-content/uploads/2019/01/2019-0114-HR-530.pdf>
- In February 2019, **Senator Blumenthal called out the FCC** in a Senate Commerce, Science, and Transportation Committee hearing. Blumenthal also criticized the FCC & FDA for inadequate answers on outstanding public health questions, and the wireless carriers concede they are not aware of any independent scientific studies on safety of 5G technologies: <https://www.blumenthal.senate.gov/newsroom/press/release/at-senate-commerce-hearing-blumenthal-raises-concerns-on-5g-wireless-technologies-potential-health-risks>
- Thank you to the Environmental Health Trust for providing this **4-minute clip** of Blumenthal questioning the industry on safety research, whereupon he concludes we are "flying blind here so far as health and safety is concerned": <https://www.youtube.com/watch?v=ekNC0J3xx1w>
- April 15, 2019 Rep. **Peter A. DeFazio (D-OR), House Transportation and Infrastructure Committee Chairman**, also wrote a [letter](#) to FCC Chairman Pai and acting FDA Commissioner Sharpless: <https://ehtrust.org/another-congressperson-seeks-answers-from-the-fcc-and-fda-on-5g-radio-frequency-health-impacts/>
- Should the federal bills fail, the industry is already trying to get laws into place **state by state** that would take away local authority for 5G infrastructure:
- The National Conference of State Legislatures maintains a fairly current list of **state-level Mobile 5G and Small Cell 2019 Legislation**: <http://www.ncsl.org/research/telecommunications-and-information-technology/mobile-5g-and-small-cell-2019-legislation.aspx>
- Cleveland and 80 other towns are [suing the State of Ohio](#) over one such bill. One lawsuit has already **struck down the industry**, the Franklin County judge ruled for local governments in micro-wireless equipment dispute: <http://www.dispatch.com/news/20170602/franklin-county-judge-rules-for-local-governments-in-micro-wireless-equipment-dispute>
- **California's Governor Jerry Brown vetoed** a similar bill in October 2017, **SB.649**: <http://www.mercurynews.com/2017/10/16/california-gov-jerry-brown-vetoes-bill-easing-permits-on-cell-phone-towers/>
- The **California State Association of Counties** submitted an opposition letter: <http://blob.capitoltrack.com/17blobs/b4e0d108-b979-42a8-95d9-e0cd461d5a19>. The **League of California Cities** also opposed SB.649: <https://www.cacities.org/SB649>. You can see their **testimonies** [here](#), along with many others opposing this bill.
- The **California Alliance for Safer Technology** has produced a [two-page fact sheet](#) for their legislators that can be used by others.

- See the **SMALL WIRELESS FACILITIES MODEL ORDINANCE - MASSACHUSETTS** below. This is a by-law Verizon is trying to persuade municipalities to adopt. It would pass the legal risk liability on to the towns, and place restrictions on local control: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnNOYW5kaW5nZW1mc3xneDoyYjc2MTMzYTNIMTM0YjFj>
- In 2017 the **Pennsylvania Public Utilities Commission** "voted, 4-1, to reaffirm an earlier vote to no longer designate the distributed-antenna companies as utilities." This preserves local control: <https://www.philly.com/philly/business/comcast/philly-and-suburbs-brace-for-attack-of-the-small-cells-20170601.html?arc404=true>
- **Lancaster, PA also adopted its own ordinance** to protect local authority and public health: <http://www.cityoflancasterpa.com/sites/default/files/documents/Ord0916%20-%20Wireless%20Tower%20regulation.pdf>
- **Grassroots Environmental Education** has collected the best ideas from cities and towns all over the country that are pushing back against the FCC and the unfettered roll-out of small cell wireless facilities.
- If your town is receiving requests from wireless carriers or antenna construction companies for permission to construct small cell facilities in public rights-of-way, or if industry is trying to pass themselves off as a public utility, this document is **what towns need to get started with code** to protect property values, privacy, safety and public health. You'll find other helpful tools here as well, including a state law template: <https://www.5gcrisis.com/toolkit>
- **The U.S. Conference of Mayors** issued a formal statement opposing the usurping of local property rights: <https://www.usmayors.org/2018/09/10/statement-by-u-s-conference-of-mayors-ceo-executive-director-tom-cochran-on-fccs-order-proposing-to-usurp-local-property-rights/>
- **Native American tribes** are suing to prevent the industry from circumventing permitting processes and forcing 5G infrastructure onto their lands: <http://www.insidesources.com/more-tribes-signing-on-to-lawsuit-fighting-fcc-rule-change-for-5g-installation-permits/>
- The **insurance industry has identified EMF/RF as a leading risk**. Lloyds of London, Swiss RE and others have already put exclusions in their policies. See the [Legal Issues](#) page.
- The Environmental Health Trust is tracking **activity in each state**: <https://ehtrust.org/list-us-state-bills-streamlining-wireless-small-cells-as-nodes-rights-way/>.
- The **Town of Burlington, Massachusetts** proactively adopted a [small cell policy](#) in October 2018 and when they included a fee assessed on the telecom vendors for an annual recertification, the Verizon lawyer withdrew their applications for seven small cell systems:
- Burlington Cable Access Television reported, "Verizon Drops Small Cell Wireless Booster Application in Face of Fees": <http://www.bcattv.org/bnews/top-stories/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees>
- See more Burlington details on the [Cell Towers](#) page.

- The Village of **Western Springs, Illinois** in December 2019 successfully stalled a Crown Castle 4G/5G small cell application under the National Environmental Policy Act (NEPA) which requires an environmental impact review: <https://americansforresponsibletech.us8.list-manage.com/track/click?u=c3128cbc75b5968aacd624e4b&id=d2f6cf3ddc&e=1210d13921>

### Cost Analysis

- This article compares the **costs of fixed wireless vs. fiber to the premises, and concludes the latter is a far better broadband solution:** [isemag.com/2021/09/telecom-2021-broadband-access-economic-comparison/?fbclid=IwAR0RI0wa9TjK\\_hVxUk1-x6aUTjuVKPWsLRYj8LL3cJ7hvAIZhwGf5b5BqFg](http://isemag.com/2021/09/telecom-2021-broadband-access-economic-comparison/?fbclid=IwAR0RI0wa9TjK_hVxUk1-x6aUTjuVKPWsLRYj8LL3cJ7hvAIZhwGf5b5BqFg)
- **IEEE** has done the cost analysis and concluded Fiber "Optical access networks are the most energy efficient of the available access technologies." **Wireless consumes much more energy than hard-wired fiber optics:** <https://ieeexplore.ieee.org/document/5783987/>
- The **California Department of Finance** opposed the 5G S. 649 bill for the following fiscal reasons:

<http://wireless.blog.law/wp-content/uploads/2017/08/SB-649-20170823084049AM-SB006491.pdf>

- The following letter from the Law Offices of Harry V. Lehmann PC addresses the **liability shifting** aspect which implies possible billions in losses at the state level since the industry has no liability insurance: <http://scientists4wiredtech.com/wp-content/uploads/2017/10/2017-0719-SB649-CA-Liability-Lehmann-to-Galehouse.pdf>
- Lloyd's discusses the **security risks of smart cities:** [https://cityriskindex.lloyds.com/2019/02/05/smart-cities-wake-up-to-cyber-threat/?fbclid=IwAR2T3jrTbUHjaLFQ-TnmCdlvOh\\_9Ufb4D4s3kSr3-S7bxV4mci8pJCr92Q](https://cityriskindex.lloyds.com/2019/02/05/smart-cities-wake-up-to-cyber-threat/?fbclid=IwAR2T3jrTbUHjaLFQ-TnmCdlvOh_9Ufb4D4s3kSr3-S7bxV4mci8pJCr92Q)
- **Russia's** largest telecommunications company, MTS, **does not see the business case for 5G** and is instead continuing to invest in fiber-optics to carry data signals:

[https://www.theregister.co.uk/2017/03/30/russian\\_megatelco\\_mts\\_exec\\_no\\_business\\_case\\_for\\_5g/](https://www.theregister.co.uk/2017/03/30/russian_megatelco_mts_exec_no_business_case_for_5g/)

- **Root Cause in the Dramatic Rise of Chronic Disease** links chronic illness to peroxynitrite from environmental toxins, at a conservatively estimated cost of \$2.5 trillion per year in the U.S. In this 16-minute lecture, **Dr. Martin Pall** explains how EMF/RF creates peroxynitrite:

<https://www.youtube.com/watch?v=3kQQyU8NHv8>

- **Bloomberg** indicates, "Upgrade to 5G Costs \$200 Billion a Year, May Not Be Worth It": <https://www.bloomberg.com/news/articles/2017-12-18/upgrade-to-5g-costs-200-billion-a-year-and-may-not-be-worth-it>

- Although fiber-optics is better for the country, the industry is trying to block it at the state and municipal level. **Millions of Americans have been priced out of, or entirely excluded from, the reach of modern internet networks.** [Maria Smith](#), an affiliate of the Berkman Klein Center for Internet & Society and Harvard Law School, created the four-part documentary series Dividing Lines to highlight these stark divides, uncover the complex web of political and economic forces behind them, and challenge audiences to imagine a future in which quality internet access is as ubiquitous as electricity: <https://www.dividinglines.org/>

### Medical Perspective

- **Dr. Cindy Russell's** article overviews 5G, the Internet of Things (IoT), scientific findings, and what we can do to protect our citizens: <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyYjc5ZTk4OOWM2ODA0YmNI>
- **Dr. Russell** also published the following 5G article in **Environmental Research August 2018**, "5G wireless telecommunications expansion: Public health and environmental implications": <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDoyOTE0NGQxYjNhYzYyZGZh>
- 5G Technology: Potential Risks To Human Health: Excerpts From **Scientific Conference**: <https://www.youtube.com/watch?v=QvPg1AyQ43I>
- The following **ADA Accommodations Request Packet** provided by the non-profit Center for Electromog Prevention may be used by those with ES (electrosensitivity) or certain medical conditions who must avoid increased radiofrequency radiation in the United States to apply for reasonable accommodations to help avoid RF radiation from “small cells” and wi-fi in public government areas, related to accessibility or any other [Title II](#) application.

<http://www.electrosmogprevention.org/ada-accommodations-for-rf-exposures/ada-for-es-to-avoid-small-cells-and-wifi/>

- One hundred and thirty five **Chilean doctors** have written an open letter to the Minister of Health, calling for a halt on the rollout of 5G technology until it can be demonstrated that it doesn't harm human health or the environment. <https://uxtr.org/wp-content/uploads/2020/10/Carta-Abierta-Dr.-Enrique-Paris-UXTR-VersionFinal-.pdf> ( in Spanish)

### Reports of Injury

- **Sacramento** children and adults injured: <https://www.facebook.com/EHTrust/videos/358490488124924/>
- Sacramento **property value** risk: <https://sacramento.cbslocal.com/video/4113246-cbs13-investigates-could-a-new-cell-tower-hurt-you-financially/>
- **Geneva** citizens injured: <https://www.globalresearch.ca/swiss-magazine-reports-first-5g-injuries-geneva/568423>

<https://www.altermedicine.org/sideeffects-of-living-near-5g-towers-in-geneva-switzerland-testimonial/>

- Idahoans for Safe Technology have built a registry of harm for those experiencing heart trouble after small cells went in: [idahoansforsafetechnology.org/could-cell-towers-be-the-cause-of-your-rapid-heart-rate-a-fib-a-flutter-or-tachycardia/](http://idahoansforsafetechnology.org/could-cell-towers-be-the-cause-of-your-rapid-heart-rate-a-fib-a-flutter-or-tachycardia/)

### Detrimental Flight Impacts

- Boeing and Airbus warn **US over 5G safety concerns**: <https://www.bbc.co.uk/news/business-59737194>
- Concerns about 5G wireless technology affect both **fixed-wing and vertical-lift business aircraft operations**: [www.propilotmag.com/5gwireless/](http://www.propilotmag.com/5gwireless/)
- **Professional Pilot Magazine** reports it is not just the altimeters that need protecting, but the pilots and crew too from cognitive impairment and other biological effects of radiofrequency radiation: [www.propilotmag.com/5g/](http://www.propilotmag.com/5g/)

### The Digital Divide

Neither 5G nor any wireless service will close the digital divide. What is needed is hard-wired technology to every home and affordable rates plus devices and training for the underserved. Thank you to Environmental Health Trust for providing the following:

- Theodora Scarato [Montgomery County needs affordable broadband, not 5G cell towers, to bridge the digital divide](#), Montgomery Sentinel, July 10, 2021
- [Exploring Racial Equity and Social Justice Impacts of Cell Towers and ZTA 19-07](#) - Tech Wise - Montgomery County, MD
- [Myth Fact on 5G TESTIMONY OF ANGELA SIEFER Executive Director of the National Digital Inclusion Alliance to the United States House of Representatives](#)
- [Verizon's 5G Promise Rings Hollow in Sacramento](#) and [Next Generation Wireless That Works for All of Us](#), by the Communications Workers of America
- Sacramento Bee, [To end digital discrimination, California can't let big telecom companies call the shots](#), July 28, 2021
- CNET, [The broadband gap's dirty secret: Redlining still exists in digital form](#), June 28, 2021
- [US Government Accountability Office 2020 Report](#) "FCC Needs Comprehensive Strategic Planning to Guide Its Efforts:" "The experts GAO convened also stated that **5G deployment would likely exacerbate** disparities in access to telecommunications services, known as the "digital divide." (page 3)[June 2020 Report: "FCC Lacks Comprehensive Strategic Planning to Guide Spectrum Policy for 5G Deployment"](#)
- ["The drive to widen the digital divide,"](#) published in California Matters by Larry Ortega, founder of Community Union Inc., a nonprofit corporation that trains consumers living in the digital divide.

### Additional Resources

- The **Environmental Health Trust** continually updates information on 5G, and ordinances being put in place by proactive communities: <http://ehtrust.org/?s=5G+https://ehtrust.org/usa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways/?fbclid=IwAR0irnkuNUOpOI6VPMK-DDvvCyVrOvG8quimzQcY7nJSsOZ9sdqgnJNEqDw>
- **Building Biologist Oram Miller** has written a comprehensive 5G article that he periodically updates, *5G Fifth Generation Cellular Technology*: [createhealthyhomes.com/education/5g/?pdf=1084](http://createhealthyhomes.com/education/5g/?pdf=1084)
- The Institute for Local Self-Reliance provides a Community Network Map of **communities investing in their own Internet infrastructure** to promote economic prosperity and improve quality of life: <https://muninetworks.org/communitymap>
- **Montgomery County, Maryland, USA**, put together a presentation that provides guidance on what local municipalities can do to offer some protections for their citizens from 5G pole installations in their community: [https://docs.google.com/presentation/d/1AluFrpBNIKrKAXFNwGO-b5r2ZL\\_RM-y2VHGCAMHEE5s/edit?ts=58b35a8a#slide=id.p](https://docs.google.com/presentation/d/1AluFrpBNIKrKAXFNwGO-b5r2ZL_RM-y2VHGCAMHEE5s/edit?ts=58b35a8a#slide=id.p)
- This **website** offers insights on what 5G is: <http://whatis5g.info/>
- San Francisco City Planner Omar Masry wrote this very helpful article for those in California seeking to improve **wireless facility zoning ordinances** -- this also may help educate/inform other local governments on how to manage these installations and keep up with the latest changes in law: <https://medium.com/@omarmasry/a-brave-new-world-for-cell-antennas-in-california-39d864a876d4>
- The **Huffington Post** discusses how **AT&T** has been manipulating the accounting of its mostly copper-based, state-based, utility networks to force-march customers into wireless service for the home instead of maintaining and upgrading the networks to fiber for residential and business customers—because it makes them more money: <http://www.huffingtonpost.com/entry/59adac5de4b0bef3378cda83>
- Citizens in **Huntington, NY** demonstrate what the 5G exposures are in their community:

*Resident's home:* <https://www.youtube.com/watch?v=shOhGH01Z2Y>

*Local playground:* <https://www.youtube.com/watch?v=TqLqE8r7bnI>

*Huntington:* [https://www.youtube.com/watch?v=082sA\\_w5U20](https://www.youtube.com/watch?v=082sA_w5U20)

*Cold Spring Harbor:* <https://www.youtube.com/watch?v=VJdr93RHcC8>

*Their Facebook page.* <https://www.facebook.com/groups/151072495506584/>

- Cece Doucette presented "**5G Wireless: Considerations for Public Health and Municipal Installations**" to a four-town Selectman committee in Massachusetts. These towns are now actively looking to put by-laws in place to protect the public. The follow-up document contains links to all of the resources referenced in the

presentation. Please feel free to share with your own

towns: <https://www.youtube.com/watch?v=OYzUyWPHc20&feature=youtu.be>

- <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnx1bmRlcnN0YW5kaW5nZW1mc3xneDozNmFIN2Y4MjFmYjJlOTVj>
- Some have asked when a **5G radiation detection meter** will be on the market. Existing meters will pick up some of the 5G signals. The manufacturer Gigahertz Solutions offers some insights: <https://www.gigahertz-solutions.de/en/5g/frequencies-and-meters/>

*Note: The information provided here is publicly available on the Internet.*

*It is intended to provide a starting point to inform you of EMF dangers.*

*Please do your own research, draw your own conclusions, and act accordingly to protect those you love.*

<http://tinyurl.com/Understanding-EMFs>