



Vermonters for a Clean Environment

May 26, 2020

Dear Department Service Department,

Vermonters for a Clean Environment offers these comments on the May 2020 Broadband Action Plan, which is primarily focused on federal funding for coronavirus-related needs, comes with numerous constraints, and must be spent by the end of this year.

VCE's comments are also relevant to future federal funding that is likely to come to Vermont for broadband expansion. The state of Vermont has not adopted the statutorily required 10 year Telecommunications Plan, which would presumably be most relevant at this time in strategically planning for statewide broadband service.

We are aware that the Commissioner of Public Service would prefer that the Emergency Broadband Plan be "technology neutral." We strongly object to that approach. The Telecom Industry is building out more towers and placing more antennas, focusing on wireless technologies that are poorer quality and less secure than fiber optic cable. The industry has placed its focus on technologies that require constant upgrade and purchases of new, expensive devices, which are projected to make trillions of dollars for the wireless telecom industry.

Fiber to the Premises -- FTTP

VCE supports all state of Vermont moneys be spent on high quality, secure fiber optic cable to the premises. Vermontel.com deployed buried fiber optic cable throughout its service territory. With the amount of money projected to be coming to Vermont, building out the fiber optic cable network to unserved areas should be the sole focus of a coordinated effort with utilities, CUDs, and fiber optic providers.

Wireless Technologies & Children's Health

In 2019, the Senate Finance Committee required the Vermont Department of Health to report on The Possible Health Consequences from Exposure to Radio Frequency Fields Produced by Wireless Technologies...

<https://legislature.vermont.gov/assets/Legislative-Reports/RFR-Report-12.23.19.pdf>

While the report is inadequate in that it looks only at ionizing radiation (heating) and does not address non-ionizing radiation, it does recommend minimizing "the dose to RFR, especially to children."

Meeting the "distance learning" needs of Vermont's school children is of special concern to our members, as it is being done with "wifi hotspots" which include the Microsoft Airband initiative. Antennas are being placed on schools, apparently

outside of the regulatory process.

This report, “On the Clear Evidence of the Risks to Children from Smartphone and Wifi Radio Frequency Regulation” https://e9a5d5c6.stackpathcdn.com/wp-content/uploads/2019/02/On-the-Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation_Final.pdf supports the recommendation of the VDH Report to the Legislature, and provides greater support for protecting children’s health. In part it concludes:

..there is only one realistic course of action. Children and adolescents should not be using smartphones, or WiFi-enabled tablet devices, and their expose to RFR sources should be minimized. This might seem impractical in the digital world, but in our real analogue world, children and teenagers are no longer permitted legal access to cigarettes, nor is it socially acceptable for adults to smoke in their presence. Given the current scientific evidence, the pathophysiological properties of RFR appear to be no different than cigarette smoke or similar carcinogens.

VCE is not aware of any discussions taking place in Vermont, whether at legislative committee hearings or with input from the Vermont Department of Health, regarding the potential for harm to children due to increased dose of Radio Frequency Radiation. The health of our state’s children must be a consideration in meeting the needs of Vermont school children.

This industry-sourced article

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9016183> discusses the issues with Cellular, Wifi and Bluetooth Technologies, and concludes:

IX. CONCLUSION

People should be made aware that the EMR from using day to day cellular, Wi-Fi and Bluetooth devices are harmful to human health. The levels of radiation observed in most cases such as phone calls, internet browsing on laptops and smartphones, using wireless routers and hotspots, Bluetooth smartwatches and smartphones are unsafe when compared with radiations limits determined by medical bodies. According to the current medical literature, various adverse health effects from exposure to RF EMR have been well documented. For now, wireless technologies must be avoided as much as possible. New and innovative wired solutions which provide the same level of user-friendliness should be encouraged.

Intervention of government and medical bodies with the main purpose of protecting human health is of utmost necessity to ensure good economic development without compromising the health of the population. Countries must adopt the guidelines suggested by medical bodies which take into account both thermal and non-thermal effects of EMR. At present, all individuals must take preventive and protective measures to protect themselves from harmful EMR exposure.

5G

The draft plan has 20 references to 5G. It is very disturbing to read about the FCC Fund's potential to serve 85% of Vermont with 5G. This experimental, untested technology is favored by the telecom industry, which, as noted above, stands to make trillions of dollars deploying 5G and selling new devices to the public.

5G frequencies have not shown to be safe for human health or the natural world. Citizens worldwide are asking for 5G deployment to be stayed. Canada is one example: <https://www.appel5gappeal.ca/>. In part, it notes:

RF radiation is scientifically demonstrated to cause or contribute to numerous health effects, including cancers, sperm damage, reproductive harms, learning and memory deficits, and neurodegenerative, cellular and genetic damage.

The FCC's regulation of frequencies for public health is being done entirely in the interests of the telecom industry, not the public or the environment. The FCC is not a health agency and has no doctors or health experts on staff. Numerous legal challenges are currently in the court system challenging the FCC's already-inadequate standards for 4G and the deployment of 5G. In a Congressional hearing in 2019, the head of the FCC admitted that no health studies have been done on 5G.

2G, 3G and 4G have been studied and shown to present risks to human health. The Environmental Working Group recently filed comments to the FCC https://cdn.ewg.org/sites/default/files/testimony/EWG_comments_to_FCC_May2020.pdf in which they discuss the FCC's outdated exposure limits that are now being applied to 5G and emissions above 6 GHz. In part, EWG states:

EWG's research on the human health impacts of RF emissions draws on the latest studies by U.S. and international scientists, our thorough knowledge of previous research, and our close monitoring of regulatory approaches and recommendations on RF radiation made by government agencies around the world. Based on this analysis, EWG finds that the overall body of science on RF radiation raises justifiable concerns and deserves extensive additional toxicological and epidemiological study and a precautionary attitude.

Regardless of whether or not decision-makers believe that 5G poses risks to the public and the environment (birds and bees in particular), VCE is aware that many Vermonters are deeply concerned about 5G.

Vermont has already been down this path with wind turbine noise. Despite no testing prior to exposing humans and wildlife to industrial wind turbines' acoustic emissions, the technology was rolled out worldwide, just as 5G is now being deployed. Vermonters have been harmed by industrial wind turbines, as was expected based on available information. After the fact, people have had to abandon their homes, been forced into litigation, and lost the peaceful enjoyment of their homes and properties through the failure of decision-makers to make sure that it was safe, prior to deployment. Please do not make the same mistake again, this time

with 5G. As we learned with industrial wind turbines, even the threat of them has been enough to seriously disrupt people's lives, cause them to lose sleep, and dramatically increase their stress. We are now hearing similar reactions from Vermonters to the deployment of 5G.

5G has been experienced in certain areas, and the reports are that it robs the body of oxygen and damages the immune system. That Vermont's DPS has produced a report referencing 5G that gives zero consideration to the potential for harm to human health and the environment is most disturbing.

Meanwhile, the national media has gone on a discrediting, disinformation campaign. The NY Times reported that anyone who is concerned about 5G is victim of a Russian conspiracy theory. Atlantic Magazine has recently published an article debunking all concerns about 5G. It should be noted that the NY Times has a 5G lab with Verizon and was bailed out in 2008 by a Mexican telecom billionaire (Tracfone) who is still a major owner of the newspaper. Atlantic Magazine is now owned by the wife of the late Steve Jobs of Apple Computers. It is not difficult to recognize media bias on the topic of 5G, all it takes is a little searching.

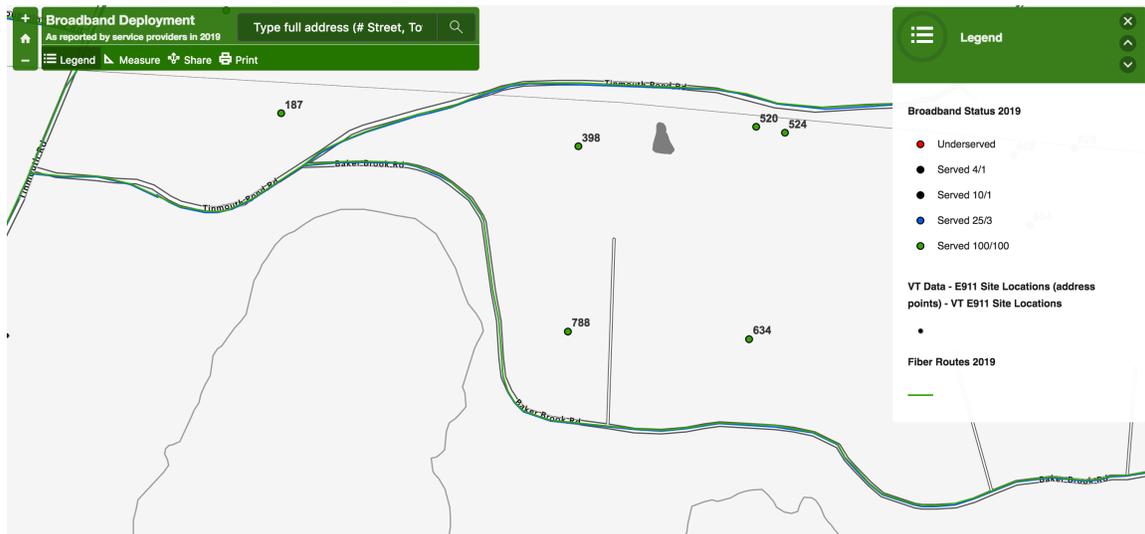
Deploying FTTP in Vermont

VCE has studied some of the maps made available by DPS.

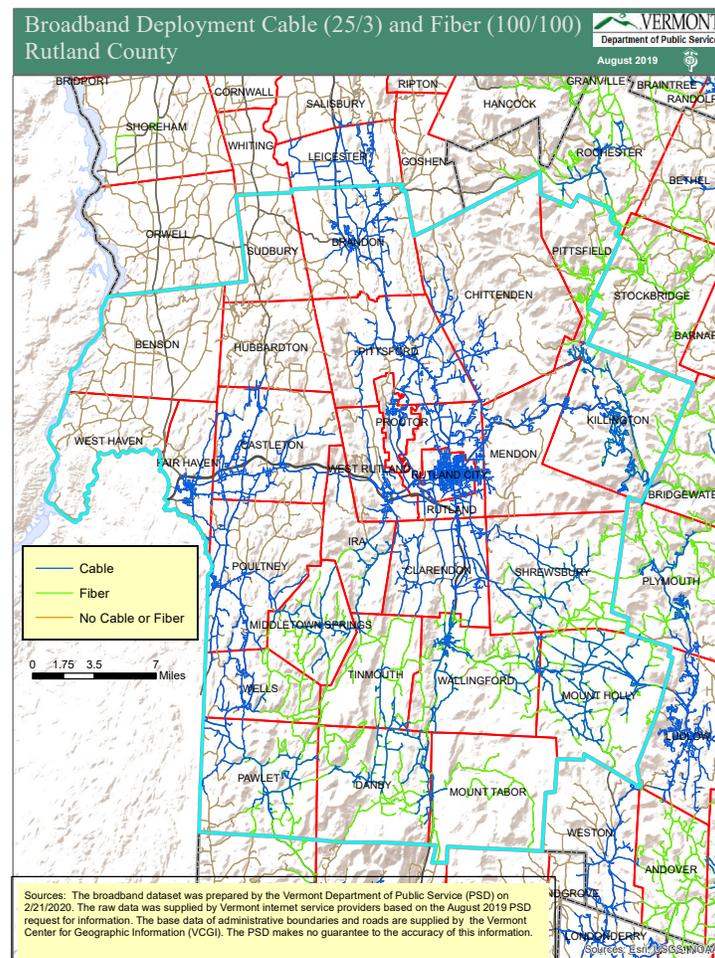
This map appears to be most accurate in showing fiber and cable, and accurately shows redundant service. However, it only works at a very zoomed in scale.

<https://vtpsd.maps.arcgis.com/apps/View/index.html?appid=c47f156cef4a4db0b407333fc5dab63f>

For example, see this image. This area has both cable and fiber optic, but it is barely visible even at this zoomed in scale.



The image below shows the same area as served only by cable. It does not show dual service or that fiber optic cable also exists where the cable exists.



Given the mapping capabilities that exist in Vermont, DPS does seem to have the information to show all the unserved structures in Vermont. What would it cost to expand fiber optic cable to those unserved structures? Answering that question would seem to be the starting place to determine how to spend federal dollars coming to Vermont to deploy broadband via fiber optic cable statewide.

Thank you for considering these comments.

Sincerely,

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