

# **Repealing Colorado HB 17-1193**

## **Reclaiming Local Control over Cellular Wireless Facilities**

**HB 17-1193 Undermines Local Control:** This bill cedes local control of small cell installations to the telecom companies, with negative consequences for our communities. Since being passed in 2017, HB 17-1193 has preempted local codes in order to fast-track the permitting process. It has given the telecoms the right to install small cells on our public rights-of-way with limited input from the public or local government, bypassing community objections. It has capped the fees paid to our communities, so that local taxpayers are essentially subsidizing the telecom industry.

**HB 17-1193 Must be Repealed:** Colorado has a long tradition of local control, which has been violated by HB 17-1193. The people's right to democratic self-rule guaranteed by the state constitution is undermined by this bill. Local communities must regain control over all aspects of small cell installations, including 5G. Optical fiber networks offer faster and more efficient and reliable service, and state government policy should prioritize municipal fiber networks in communities around the state.

### **Background:**

- HB 17-1193 was patterned after model legislation from the American Legislative Exchange Council (ALEC) with the support of the telecoms.
- It was represented as “enhancing wired and wireless telecom services” and passed quietly without full understanding by legislators of its actual purpose or consequences.
- Other states have pushed back against preemptive small cell laws. California Governor Brown vetoed CA Senate Bill 649, and as of July 2019, 22 states had no small cell legislation.
- The Federal Communications Commission (FCC) Small Cell Order #18-133 (2018) also overrides local control over small cell installations, and aligns with HB 17-1193. This FCC order is currently being broadly challenged in the federal courts (see below).

### **Provisions of HB 17-1193:**

- States, “THE SITING, MOUNTING, PLACEMENT, CONSTRUCTION, AND OPERATION OF A SMALL CELL FACILITY OR A SMALL CELL NETWORK IS A PERMITTED USE BY RIGHT IN ANY ZONE” Pg. 4, Section 4 (3).
- Gives telecom providers the right to locate wireless facilities on public streets, light poles, traffic signals, and in public rights-of-way.
- Limits public hearings and full administrative review or approval by local government planning commissions, city councils and county governments.
- Limits taxes, fees, and charges local governments can impose to only those “reasonably related to the costs directly incurred” for the granting and administration of small cell permits.
- Disallows communities from charging market rates for leasing public rights-of-way.
- Establishes “shot clocks” for limiting the time to process applications; 150 days for new facilities and 90 days for modifications on existing facilities.

**Concerns about Small Cell Installations, Including 5G:** The telecom industry heavily promotes 5G as a means to provide faster wireless internet service, autonomous vehicles, Internet-of-Things (IoT), virtual reality, and Artificial Intelligence (AI). However, there are serious concerns about the deployment of 5G technology and small cells, as follows:

## **1) Privacy and Security**

- The primary motivating force behind the push for 5G is data collection and advertising. Pioneered by Google, Facebook, Amazon, Microsoft and others, the economy of “surveillance capitalism” now exists to monetize our personal information and predict and shape our behavior.
- Wireless networks, smartphones, and other wireless devices are proprietary and complex, and can gather surveillance data to a far greater extent than can be done on wired networks.
- Wired networks are open and simple and therefore more private and less vulnerable to hacking.

## **2) 5G and Small Cell Antenna Densification**

- The FCC has stated that approximately 800,000 antenna sites will be required to fully deploy 5G in the United States (<https://docs.fcc.gov/public/attachments/doc-354323a1.pdf>).
- 5G technology is still being developed and defined. Some 5G facilities use millimeter waves with a limited range, requiring antennas every few hundred feet. Since 5G only carries data, it must be used in conjunction with 4G, which provides voice service.
- Under the guise of needing to install antennas close together for 5G, telecoms are installing networks of 4G small cells in many cities and neighborhoods. These facilities can later be upgraded to include 5G.
- In addition to large cell towers in industrial and commercial zones, telecoms are now placing small cells antennas closer to people’s homes and businesses, greatly increasing the public’s exposure to wireless radiation.
- Small cell densification will have a significant impact on the aesthetics of our communities.

## **3) Energy Efficiency and Superiority of Wired Access**

- Wired connections (DSL, cable, fiber) are the most energy-efficient way to access the internet. Wired networks consume at least 10 times less energy than wireless networks.
- Given the perils of climate change caused by increasing greenhouse gases in the atmosphere, it is imperative that energy-efficient communication technologies be prioritized and supported.
- The call quality provided by wired access will always be superior to wireless, and optical fiber offers speeds that equal or exceed those promised by 5G.
- Wireless is an adjunct service, while wired service is basic. Wired access will likely serve all our communication needs, other than mobility, well into the future.
- The best way to provide affordable, fast, safe, cyber-secure internet is through an optical fiber-to-the-premises (FTTP) network such as NextLight™, run by a public utility in Longmont, CO and the FTTP network in Chattanooga, TN.

## **4) Financial Issues**

- Colorado communities are being deprived of reasonable revenue from the use of their rights-of-way because of the caps placed on fees they can charge the telecoms.
- Insurance companies will not sell risk and liability insurance to wireless technology companies because they recognize the enormous settlements that could result from dangers related to the technology.
- Local governments could be held liable for harm caused by cellular wireless radiation, equipment failure or accidents, despite having little control over the number, quality or location of cellular installations.
- Property values of homes decrease by an average of 20% when cell towers are installed nearby.

## **5) Health and Safety**

- While the 1996 Telecommunications Act prohibited local and state government objections to wireless technology based on environmental effects, it did not specifically prohibit objections based on health impacts. Considerations about health effects therefore can and should be raised.
- A mounting body of evidence shows health risks from non-ionizing radiation. Significantly, a 2018 National Toxicology Program study linked cancer in male rats to radio frequency radiation (RF) from 2G and 3G networks. The consensus view of scientists who have studied the issue is that RF causes cancer and has other harmful biological effects including genetic, reproductive, and brain damage.
- “High band” (millimeter) waves and beam-forming technology associated with 5G have never been tested and proven safe. Scientists and doctors world-wide are calling for a moratorium on 5G until potential hazards have been fully investigated by independent researchers.
- There are well-documented environmental effects from RF, including damage to plants, animals, insects and pollinators.
- Mining of rare earth minerals used in the production of cell phones and the disposal of cellular equipment pollute the environment and endanger public health.

## **6) Americans with Disabilities Act (ADA)**

- The U.S. Access Board, a federal agency promoting equality for people with disabilities, recognizes that electromagnetic sensitivity (EMS) may be considered a disability under the ADA if it so severely impairs the neurological, respiratory or other functions of an individual that it substantially limits one or more of the individual’s major life activities.
- Estimates of the prevalence of EMS vary. In 2019, Bevington reported that up to 1.5% of the general population has severe EMS (<https://mdsafetech.files.wordpress.com/2019/10/2018-prevalence-of-electromagnetic-sensitivity.pdf>), and the WHO states that about 10% of self-reported cases of EMS were considered severe. Studies show that up to 30% of people report some symptoms of EMS.
- As more small cell wireless antennas are installed, people with EMS are particularly impacted, as it is nearly impossible for them to avoid the increased RF exposure in their home or workplace.
- Antenna densification makes it that much more difficult for people disabled by EMS to obtain the ADA accommodations they would need to live a normal life.

## **7) The Federal Government Not Protecting the Public**

- According to the Harvard Ethics Center, the Federal Communications Commission (FCC), which regulates the telecommunications industry, is a “captured” agency that acts on behalf of the industry rather than protecting the public interest.
- FCC guidelines for RF exposure have not been updated since 1996, and only address the thermal effects of RF. Thousands of studies document that current FCC guidelines are inadequate to protect public safety.
- An EPA project on the safety of EMF exposure limits, begun in the 1970s, was defunded in 1996. The EPA had only released their research on thermal impacts of EMF; they were not allowed to continue researching non-thermal impacts of EMF.
- A 2012 GAO report stated, “The FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure” (<https://www.gao.gov/products/GAO-12-771>).

## **8) NASA, NOAA and the U.S. Military**

- NASA and NOAA are concerned that 5G network frequencies may interfere with meteorological water vapor data collection on an adjacent frequency band. This could risk public safety by impeding the ability to predict and monitor tornadoes, storms, floods, and fires.
- Military flight safety, navigation, and tactical capabilities could also be affected by adjacent frequency interference.

## **Social Equity Access to the Internet:**

- Internet service has become so essential that all municipalities should establish fiber optic networks operated as public utilities, comparable to water and sewer services.
- Affordable access to the internet is necessary for the success of K-12 education, college and universities, employment and businesses.
- The closing of schools during the pandemic has exposed considerable gaps in accessibility to the internet for low income students, English language learners, people of color and people outside of urban areas.
- Lack of access to the internet is a social equity issue and must be addressed by the state legislature.
- Accessibility issues are most equitably and economically addressed through the deployment of publicly owned and operated fiber-to-the-premises (FTTP) such as NextLight in Longmont, CO.
- Reversing HB 17-1193 would enable and empower local communities to provide safe, inexpensive wired internet access to all.

## **Legal Challenges against the FCC:**

- U.S. Congressional bills SB 2012, sponsored by U.S. Senator Blumenthal, and HR 530, sponsored by Congresswoman Eshoo, seek to overturn the 2018 FCC Order.
- On August 9, 2019 the D.C. Circuit Court of Appeals ruled against the FCC in favor of the National Resources Defense Council (NRDC) in Case 18-1129, regarding requiring environmental impact studies for small cells in compliance with the National Environmental Policy Act (NEPA).
- The Environmental Health Trust, Children's Health Defense and others have filed jointly against the FCC over its outdated guidelines for RF exposure.
- In 2019 the Irregulars challenged the FCC in the D.C. Circuit Court of Appeals over the FCC's cost accounting rules ([www.irregulars.org](http://www.irregulars.org)). On March 1, 2020 the Court ruled that cities and states can now seek to recover hundreds of millions of dollars from the companies that control public wired state-based telecommunications utilities: AT&T, Verizon and CenturyLink and the other phone, cable, ISPs, and broadband providers. These companies improperly diverted funds away from the development of wired networks to subsidize their wireless networks.

## **Conclusion:**

HB 17-1193 must be repealed to eliminate the State's preemption of local land use codes in the siting of wireless facilities on public rights-of-way. If HB 17-1193 is repealed and the 2018 FCC Order is invalidated, Colorado will be in a position to restructure statewide telecommunications regulatory policy to return control to local governments. Small cell wireless antenna densification, including 5G, creates serious problems for our communities. The focus of Colorado law should be to promote the establishment of fast, safe, secure, reliable, energy-saving, locally owned fiber networks.

***About us:** We are Coloradans for Safe Technology, a citizen group advocating for safe, state-of-the-art technology including fiber optic networks. For more information, go to <https://CO4safetech.com>*