



**PHYSICIANS  
FOR  
SAFE  
TECHNOLOGY**

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September 12, 2021

The Honorable Gavin Newsom  
Governor, State of California  
State Capitol  
Sacramento, CA 95814

**RE: Oppose SB 556 (Dodd), SB 378 (Gonzales), AB 537 (Quirk), AB 955 (Quirk)**

Dear Governor Newsom:

Thank you for your service to the residents of California in these challenging times.

We urge you to oppose the overreaching California telecom bills SB 556, SB 378 AB 357 as well as AB 955. Despite amendments, this suite of bills still undermine critical local authority, while making no meaningful progress towards closing the digital divide.

Governor Brown vetoed an almost identical telecom bill, SB 649, in 2018. SB 556 (Dodd 2021) is a reincarnation of SB 649 (2018) with the other bills supporting industry efforts to rapidly deploy wireless for their profit margin, over real threats to public and environmental health, climate change, privacy, cybersecurity and the sustainability of local governments. Instead of being consumers of technology we are now consumed by it.

While we appreciate the benefits of wireless technology, we also recognize significant downsides to this technology that have been ignored in the rush to deploy broadband to all areas of the globe and in space

We have every indication from 6 decades of scientific research and military studies that non-ionizing radiation from wireless devices and cell towers is harmful to the broad swath of living organisms. There are no credible assurances that this technology is safe for us in the short or long term. The 1996 Telecommunications Act says, however, cities cannot decline cell towers on the basis of health or environmental effects. If they do decline the cities are sued. Other draconian policies have been put in place by the FCC in the last 10 years, buttressed by heavy advertising for 5G, exaggerating the need for and downplaying any risk from 5G with typical industry spin-similar to other toxic exposures and climate change.

A new lawsuit against the FCC was recently won by Environmental Health Trust et al. The DC Circuit Court of Appeals states, "*The Commission failed to provide a reasoned explanation for its determination that its guidelines adequately protect against the harmful effects of exposure to radiofrequency radiation unrelated to cancer.*"

Telecommunications expansion is one important issue that needs to be carefully examined before further legislation is passed in California. An all stakeholder Commission should be appointed to look at this issue, as New Hampshire has done.

In addition, there has been no consideration in these bills to adding requirements for wired or fiberoptic connections that is faster, safer, more energy efficient and more secure and cheaper in the long run to equitably bring necessary broadband directly to homes, schools and businesses.



**SB-556 (Dodd)** will effectively put a cell tower on every utility pole undermining local authority for placement and fees, does NOT require the wireless industry to expand broadband facilities or bridge the digital divide, is a takeover of the public right of way, it conflicts with FCC regulation and increases fire risk.

**SB-378 (Gonzalez)** This bill would remove local control over the placement of microtrenching for fiberoptic cable in cities, Micro-trenching disturbs the structural matrix of roads that have been aged over decades and is likely to cause problems in the long run unless the city determines the placement of Fiberoptic.

**AB-537 (Quirk and Crown Castle) Deemed Approved- collocation of cell antenna “eligible facilities”**, is an overreach of authority to remove the exemption for the safe

**AB-955 (Quirk) Deemed Approved** – will remove local authority for permits for cell towers on highways, is an overreach of authority of the department of transportation and removes CEQA (environmental impact) reviews from the hands of local governments.

### **Why Wired Networks are Better**

Networks that dedicate capacity to each customer, as most landline copper and fiber technologies do, have better quality and reliability than wireless networks that share capacity among many users. Wired networks are not affected by weather and are much less vulnerable to fire. 5G will not work for rural broadband. 4G communications that span long distances will still be needed. Wired networks simply work better in rural areas. A wired/cabled approach is more equitable and improves broadband for all sectors of society. A wired cable is hidden and does not mar the beautiful rural California landscape. We already have abundant fiberoptic up and down the state already placed. As Timothy Schoechele, PhD., stated in his excellent summary Reinventing Wires, *“the public needs publicly-owned and controlled wired infrastructure that is inherently more future-proof, more reliable, more sustainable, more energy efficient, safer, and more essential to many other services. Wireless networks and services, compared to wired access, are inherently more complex, more costly, more unstable (subject to frequent revision and “upgrades”), and more constrained in what they can deliver.”*

### **Fire Risk**

Electrical equipment and batteries are known to be a fire risk. The more cell towers the more accessory electrical and battery equipment and the higher the risk. The more small cells installed, the more macro towers needed, and the higher the fire risk. **In electrical fires you have to turn the power off first before applying water to prevent electrocution.** Firefighters have to wait. The Malibu Canyon fire in 2007 was due to 3 poles overloaded with telecom equipment. Susan Foster, a utility and fire safety consultant, notes in her letter to Assemblyman Santiago that she has worked on policy to prevent placement of cell towers in the most fire prone areas of Encinitas.. [Susan Foster Letter AB 537 Cell Tower Fire Risks 4-26-21](#). California is drought prone and fire prone. Cell towers cause increased risk for fire.

### **Cybersecurity and 5G**

The 2021 California Telecom bills confirm you are investing in 5G technology, massive deployment of 5G cell towers and the internet of things, with promises of limitless interconnectivity. 5G however is not as efficient, reliable, cheap or fast as industry claims it to be. Landlines, cable and fiberoptic networks are far superior and have the added advantage of cybersecurity. That is why most health systems wire protected patient information.

**Experts at Brookings (2019) have noted the increased vulnerabilities of 5G to cyberattacks.** There are 5 ways 5G networks are more vulnerable.



- 1) The network has moved away from centralized hardware-based systems with hardware choke points where cyber hygiene can be practiced.
- 2) 5G uses primarily software functions i.e. standardized Internet Protocol, which are more vulnerable
- 3) The network is managed by software which again is more vulnerable
- 4) The expansion of bandwidth and multiple small cells which wirelessly transmit makes 5G more vulnerable
- 5) Multiple small IoT devices (mini computers) are each uniquely vulnerable

### **Health Issues**

Wireless technology for broadband uses electromagnetic radiation to transmit data through the air that we cannot see feel or hear, unless we develop electromagnetic injury. Pulsed radiofrequency radiation emitted continuously from cell towers, Wi Fi routers, cell phones or any other wireless device is biologically active, and can have adverse effects on all living organisms, depending on distance, time, peak pulsation, wavelength, frequency, and health of the organism. The mechanism is similar to other toxic exposures – oxidation of fragile cellular structures including DNA, lipids and proteins. Peer reviewed scientific studies link cell phone and Wi Fi radiation to sperm damage, ovarian damage, embryo damage, neurotoxicity, opening of the blood brain barrier, clumping of red blood cells in the bloodstream, cardiac effects and immune system effects. There are no studies showing 5G is safe for humans or the environment.

**Insurance companies** typically exclude coverage for long term illness from long term exposure to EMR. They cite wireless electromagnetic radiation as similar to asbestos in risk and cost. An article in Business Insurance stated, *“insurers are treating the risk [of electromagnetic radiation] as cautiously as a downed power line after a storm.”*

**Firefighters developed neurologic effects (headaches, fatigue, memory impairment, insomnia)** when cell towers were placed on their fire stations thus exemptions in California bills on cell towers. After passing a 2004 IAFF Resolution, firefighters lobbied California legislators and **received health exemptions to prevent cell towers on fire stations in AB 57 (Quirk 2015 which passed). AB 537 (Quirk 2021) also gives a similar exemption for firefighters**, in order to prevent cell towers on their fire stations for health reasons. Quirk’s new bill, **AB 537 (Quirk 2021)** reads, *“Due to the unique duties and infrastructure requirements for the swift and effective deployment of firefighters, this section does not apply to a collocation or siting application for a wireless telecommunications facility where the project is proposed for placement on fire department facilities.”* **Please Oppose AB 537 (Quirk)**

**What makes firefighters different than schoolchildren or pregnant women or the elderly or those with a medical condition, let alone any other individual as healthy and strong as a firefighter? Should they not all get equal protection from harm from cell towers adjacent their homes?**

### **Too much Technology Harms Children**

Adults and Children have become so psychologically and socially dependent on cell phones and other wireless devices, that it is harming their health and well-being. Too much technology is also having a negative impact on our society, culture and education. Electronic addiction shrinks children’s grey matter. The science is clear. The advantages of our youth streaming videos anytime with constant electronic connection are now being academically challenged. Problems identified are language delay, depression, eye damage, obesity, impacts on learning and reduction in social interactions. COVID has underscored these effects that are obvious to teachers and parents



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alike. Distanced learning has not been effective. Children are in what has been deemed, “The largest epidemiologic experiment ever” with technology. Why should we be further deploying cell towers near schools and homes, underserved or not, with known health risks as well?

We believe you need to rethink the best strategy for broadband connection in all communities that is fairly distributed, safe, cybersecure, energy wise and economically viable. Subsidizing fiberoptic/cabled broadband for underserved communities and giving local governments control will help them economically in the long run as well as provide safe broadband to insure the health and well-being of their communities, citizens and the environment. Keeping the power in local communities will help them flourish and not fail under the weight of shortsighted industry invented goals.

*“Once communities at all levels... assume local responsibility for creating safe and economical high-speed Internet access for all of their citizens, this renaissance will unfold. A sturdy, wired communication infrastructure, using wireless only as an adjunctive technology, has vast potential to become the electronic commons essential to commerce, education, jobs, the economy, social cohesion, communications and international competitiveness.”* Frank Clegg, Past President Microsoft Canada

Thank you again for reading this and considering carefully the long-term consequences of your decisions.

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