



**PHYSICIANS
FOR
SAFE
TECHNOLOGY**

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May 17, 2021

Honorable California State Assembly Appropriations Committee
State Capitol
Sacramento, CA 95814

RE: Oppose AB 537 (Quirk) Communications: wireless telecommunications and broadband facilities. (2020-2021)

Dear Members of the Assembly Appropriations Committee:

We respectfully ask that you oppose the following telecommunications bills- **AB 357** as well as AB 955

Thank you for your efforts to tackle difficult issues in the State of California. Telecommunications expansion is one important issue that needs to be carefully examined before further legislation is passed in California. 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. The suite of telecom bills in 2021 will undermine critical local authority by removing yet another part of the thoughtful permitting process and timeline for wireless facilities and infrastructure. They shift control from local governments to the state, the FCC and the telecommunications industry itself. They bring funding to areas that will not bridge the digital divide or help students learn. The rapid expansion of wireless technology and 5G pose risks to public health, the environment, cybersecurity of cities and citizens, as well as add to the massive increase in energy consumption that cannot be offset by efficiencies, as usage will skyrocket. In addition, there has been no consideration in these bills to adding requirements for wired or fiberoptic connections that is faster, safer, more secure and cheaper in the long run to equitably bring necessary broadband directly to homes, schools and businesses.

This will cost less in the long run considering liability alone.

Overreach of Authority

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 investigation of all “eligible facilities”, it conflicts with FCC regulations that specifically did NOT grant “deemed approved” of wireless facilities noting it was not warranted with a shortened timeframe to investigate safety or zoning issues, it removes the power of local municipalities on key land use issues and it does not require the wireless industry to expand broadband facilities or bridge the digital divide. AT&T sued the FCC for not granting “deemed approved” for 2018 FCC regulations to fast track 5G.

Feinstein (SB 2012) and Eshoo (HR 530) in 2018 showed their respect for and support of local government authority in these matters.



In addition-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.

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.

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.

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 Schoechle, 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 (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 state, *“insurers are treating the risk [of electromagnetic radiation] as cautiously as a downed power line after a storm.”*

Firefighters developed neurologic effects when cell towers were placed on their fire stations. 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 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.”* **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 is now 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 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? **Oppose AB 1560 (Daly) Distance learning- It does not work for children. We need teachers not technology, especially in younger grades.**



PHYSICIANS FOR SAFE TECHNOLOGY

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.

“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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