



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

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Statement of
MIKE MCCARTNEY
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON GOVERNMENT OPERATIONS

Thursday, February 11, 2021
3:00 PM
State Capitol, Conference Room 016

In consideration of
SB851
RELATING TO WIRELESS BROADBAND NETWORKS.

Chair Moriwaki, Vice Chair Dela Cruz and members of the Committee. The Department of Business, Economic Development and Tourism (DBEDT) **supports** SB851 that clarifies that certain small wireless facilities and associated modified or replaced utility poles shall be classified as permitted uses and shall not be subject to zoning review or zoning approval if they are deployed in an underserved area or unserved area.

The COVID-19 pandemic has spotlighted the need for broadband infrastructure and digital equity across all of Hawaii's residents especially those in rural unserved and underserved communities

It is important that we build the foundation for Hawaii to thrive in the digital economy and to eliminate digital inequity. Enabling the further deployment of broad infrastructure allows all Hawaii residents to seamlessly connect to the digital resources needed to be successful in our modern society.

Thank you for the opportunity to testify.

DAVID Y. IGE
GOVERNOR



TESTIMONY BY:

JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 11, 2021
3:00 P.M.
State Capitol, Teleconference

S.B. 851
RELATING TO WIRELESS BROADBAND NETWORKS

SENATE COMMITTEE ON GOVERNMENT OPERATIONS

The Department of Transportation (DOT) **supports** S.B. 851 which defines the terms "underserved area" and "unserved area" of existing broadband coverage. Furthermore, the bill classifies small wireless facilities and associated utility poles as permitted uses that shall not be subject to zoning review or zoning approval if they are deployed in unserved or underserved areas

Thank you for the opportunity to provide testimony.



**Testimony of Michael Bagley
Director of Public Policy for Verizon
Before the Senate Committee on Government Operations
On S.B. 851
February 11, 2021**

The Honorable Sharon Y Moriwaki
Chair
Committee on Government Operations
Hawaii Senate
State Capitol, Room 223
Honolulu, HI 96813

Re: SB. 851 – Permitted Use for Siting in Unserved and Underserved Communities

Chairman Moriwaki and Members of the Committee:

On behalf of Verizon, I wanted to express our support for Senate Bill 851, legislation which seeks to provide incentive through the site permitting process to help with the deployment of small wireless facilities, to better position the technology to reach broader communities and more easily allow for its benefits to be available to all Hawaiians.

Specifically, SB 851 calls for classifying small wireless facilities, commonly referred to as small cells, and associated utility poles as: “permitted uses that shall not be subject to zoning review or zoning approval if they are deployed in unserved or underserved areas.” While we cannot guarantee where we will specifically deploy our wireless infrastructure, Verizon seeks to reach as many of our customers as possible, and ensure the highest quality of service that is technically feasible. In this regard, an expedited permitting process is very important to ensuring that the network is viable and accessible. We believe that this legislation will serve as a positive catalyst that will help advance deployment objectives.

We note that earlier, in 2018 the Legislature passed HR 2651, relating to the activities of a communications service provider to deploy small wireless facilities and to modify or replace state or county utility poles associated with small wireless facilities. That legislation which became law, allows for the deployment of small cells as a permitted use inside and outside a Right-of-Way, except for conservation areas.

SB 851 seeks to build upon existing law, and provide additional incentives for communications providers to work with various jurisdictions to increase opportunities to address the needs of unserved and underserved communities, and Verizon urges the Committee to pass the bill.

Sincerely,

Michael Bagley
Director of Government Affairs

SB-851

Submitted on: 2/9/2021 8:45:57 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Debra Greene	Testifying for Keep Your Power Hawaii	Oppose	No

Comments:

This bill ***seeks to bypass local zoning review or approval for small cell wireless facilities***. This would **take away home rule** and is a very bad idea for Hawaii. **Each island is different** and the **unique needs of each island** can best be met by **honoring local jurisdictions** and allowing them to make decisions on small cell wireless facilities that would **use public rights of way**. Please **respect home rule** and do not impose the one-size-fits-all approach.

SB-851

Submitted on: 2/9/2021 7:34:34 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Maha Conyers	Testifying for Mahana Weddings Maui	Oppose	No

Comments:

This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/10/2021 2:09:47 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kathy Matara	Testifying for Keep Your Power, Kauai	Oppose	No

Comments:

Local approval is vital. Loss of local control is always dangerous and unethical. This Bill is in direct violation of, and would completely overturn Home Rule, which allows each Island to determine what is appropriate and safe for their County to institute. Each Island is different and unique. The people who live on each Island are the only ones who should either accept or reject incoming technologies. And this technology generates levels of radiation that have been shown in thousands of research studies to be harmful to human, animal and insect health. The National Institute of Health (NIH) completed and published a 10 year animal study in Novemeber of 2018, that showed conclusively that Electro-Magnetic frequencies cause Brain and Heart tumors in Lab Rats. This study was replicated in Italy with the same results. We are opposed to this Bill, please vote no.

SB-851

Submitted on: 2/8/2021 2:36:01 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gerard Silva	Individual	Oppose	No

Comments:

THERE ARE LAWS FOR A REASON. THEY SHOULD NOT BE ALLOWED TO CUT SHORE AND GET AWAY WITH NOT GOING THROUGH THE PROSES. WE WANT TO MAKE SURE THINGS ARE DONE THE RIGHT WAY. NO CROOKS ALLOWED!

SB-851

Submitted on: 2/8/2021 10:10:36 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Teresa O	Individual	Oppose	No

Comments:

I oppose this bill.

The real purpose of this bill is to avoid local zoning reviews or receive approval for small cell wireless facilities while claiming that its purpose is to help the underseved in our communities. Hawaii has many underserved communities, however when big companies along with government interests begin to supercede regulatory protections, no one is protected from anything and harm is always denied.

Local communities should be allowed to decide for themselves whether or not they want these dangerous broadband networks so close to their homes. Any zoning requirements or regulatory approval must be required before any work is begun.

SB-851

Submitted on: 2/9/2021 8:45:00 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Katharine Morgan	Individual	Oppose	No

Comments:

Maintain home rule.

SB-851

Submitted on: 2/9/2021 8:48:33 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Maria Maitino	Individual	Oppose	No

Comments:

To Legislators,

I oppose SB 851. Do not take away the rights of individual islands to make their own rules and laws. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

Thank you,

Maria Maitino

Kauai

SB-851

Submitted on: 2/9/2021 8:54:32 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
brett sherwood	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and **seeks to bypass local zoning review or approval for small cell wireless facilities.*** This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule.** Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 8:59:58 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Marichris Diga-Lazo	Individual	Oppose	No

Comments:

I OPPOSE THIS BILL!

SB-851

Submitted on: 2/9/2021 8:56:27 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lucy Bell	Individual	Oppose	No

Comments:

I strongly oppose this. I am still waiting for fiber optics in my area.

SB-851

Submitted on: 2/9/2021 9:04:02 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Zoe Alexander	Individual	Oppose	No

Comments:

Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

February 9, 2021

SB947 (Comments)

SB1390 (Oppose)

SB851 (Oppose)

Aloha,

Please allow me to introduce myself. My name is Cece Doucette. I graduated from Waialua High and Intermediate School on Oahu, then moved to Boston for college where I eventually married the boy next door. We have stayed and raised our ohana here but I care deeply about what happens to Hawaii and my loved ones there.

You may wish to grab a cup of coffee or tea and settle in for a few minutes to read the following, it's really important.

Why I Care

When our daughters were in school, we kept hearing about the 21st century classroom. Our school district did not have the budget to afford all the new technology we were being told they would need to succeed.

So, some of us parents did fundraising to bring in wireless infrastructure, iPads, Chromebooks, smartboards, etc. Then an electrical engineer friend tipped me off there could be harm.

That's where my journey began. I did a cursory search and found studies showing no harm. But I dug just a little deeper, and found literally, thousands of studies, peer-reviewed, published all over the world showing a myriad of serious biological effects. Links provided below.

The Science

What these studies taught me was astounding. The electromagnetic fields (EMFs) of radiofrequency microwave radiation (RF) pulsed from wireless infrastructure and our own devices is linked to child and adult cancers, DNA damage, infertility, autism, ADD/ADHD, Alzheimer's and more in the long-term.

It hits the central nervous system and immune system especially hard so children and fetuses, whose systems are still under development, are especially vulnerable. The elderly, whose systems are on the decline, are heavily impacted too, as is anyone whose body is already trying to cope with an existing health condition.

In the short-term, many of us are experiencing the symptoms of microwave sickness but would never know to connect them to the constant pulses of microwave radiation coming at us all day every day from multiple sources. Most of our doctors have yet to be trained on microwave sicknesses and are increasingly frustrated that they can't help their patients.

Microwave sickness symptoms often include one or more of the following: sleep problems, headaches, nosebleeds, nausea, pain, skin abnormalities, ringing in the ears, cognitive impairment, learning disabilities, digital addiction, behavioral issues, anger, anxiety, depression, suicidal ideation and more.

This constant barrage of microwave pulses never gives our bodies a break to do proper cell repair and regeneration. The impacts are cumulative, and so over time we see a general decline in our health and that of the [planet's ecosystem](#) too. This radiation affects every living cell and was never safety tested before coming to market.

Please examine [Dr. Martin Pall's paper](#) which provides the science and mechanisms of harm, and refutes industry claims that there is no harm. It is a good summary to quickly come up to speed and includes the specific scientific studies showing each area of harm. The [Physicians for Safe Technology](#) website is also a good site to see the science by biological effect.

The Industry

As I did my due diligence, I kept thinking, "Surely, if this is as bad as the science indicates, someone must have our backs on this." Then Harvard published the report "[Captured Agency: How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates](#)." In Captured Agency we learn the wireless industry is basically using the tobacco playbook.

The [World Health Organization](#) even recognizes the tobacco playbook and the relentless tactics used to suppress credible science, design their own science to show no harm, lobby to put laws in place to protect their interests, commandeer the media, and run highly successful campaigns to keep the public buying their toxic products.

Notice how when the industry speaks, they don't point to where the truth lies, in the actual scientific studies. They point to organizations, captured agencies which they control or whose words they twist to give the public and our public servants a false sense of security. When challenged with the scientific findings, they go into denial mode.

The CTIA's Letter to Hawaii County's Planning Committee

When the 5G ban was before the Hawaii County Planning Committee, Bethanne Cooley, from CTIA -- The Wireless Industry, submitted [this letter](#) and I suspect she or others may be submitting similar disinformation to you. All sources of radiofrequency microwave radiation emissions – be they utility “smart” meters, cell towers, small cells, routers and every personal wireless device – are toxic but there are safe alternatives already available.

Please know there is much more to the story with the authoritative quotes Ms. Cooley submitted to Hawaii County. She wrote includes:

- *“... there is no convincing scientific evidence that the weak RF signals from base stations [cell towers] and wireless networks cause adverse health effects.” – World Health Organization⁵*

Note: That is an out-of-date citation. The U.S. National Toxicology Program's \$30M study has concluded "clear evidence" radiofrequency radiation causes cancerous tumors and DNA damage. "Clear evidence" is the highest public warning they can give. The industry tried to spin it that you need more than one study to prove an outcome. Then Italy's Ramazzini Institute completed another large study corroborating the U.S. findings. You can examine both yourself [here](#).

Further, the World Health Organization in 2011 classified RF as a Group 2B Possible Human Carcinogen. We should have invoked the Precautionary Principle then but again, heavy industry influence at all levels, [even at the WHO](#), prevented science and common sense from prevailing. Since the evidence now shows it [should be reclassified as Group 1: Carcinogenic to Humans](#), the [WHO is reopening their investigation in 2020](#).

- *“Based on our ongoing evaluation of this issue, the totality of the available scientific evidence continues to not support adverse health effects in humans caused by exposures at or under the current radiofrequency energy exposure limits.” – The Food and Drug Administration (FDA)⁶*

Note: The FDA, nearly 20 years ago, commissioned the U.S. National Toxicology Program cancer study. There is new FDA leadership today. Dr. Jeffrey Shuren, who is now in charge of radiofrequency, should have taken the "clear evidence" of cancer and DNA damage finding and translated that into policy to protect the public. Instead, he told the FCC to continue with business as usual. It turns out [Dr. Shuren's wife is a partner in a law firm that represents the wireless industry](#) so he has a very serious conflict of interest.

- *“... although many studies have examined the potential health effects of non-ionizing radiation from radar, microwave ovens, cell phones, and other sources, there is currently no consistent evidence that non-ionizing radiation increases cancer risk in humans.”—National Cancer Institute⁷*

Note: There will never be "consistent" evidence because the industry funds its own studies designed to show no harm. Bear in mind that one study showing no harm does not cancel out another that shows harm, although the industry would like you to believe that. The studies that show harm, still show harm. And there are, literally, [thousands of them](#).

Cancer aside, it was the sperm studies that got me on my feet when I first started reading the [scientific literature on reproduction](#). They have taken male human sperm and exposed it to a laptop with the antennas on, and it changed the DNA, slowed the motility of the sperm, and caused far fewer sperm to be viable -- in just four hours of exposure. There are other studies on women's reproductive outcomes too, including fertility issues and higher rates of miscarriage with exposure to wireless radiation.

I have two daughters, and we had given them laptops when they went to high school. Each had bought their own cell phones too, and there was wireless infrastructure all around them at home, in school and in the community. I realized we had immersed our children and ourselves in unrelenting 24x7x365 toxic electrosmog and that's when I began working to fix this issue.

Energy Consumption & Sustainability

Did you know wireless technology consumes [10x the amount of energy](#) than the better hard-wired solutions? A Greenpeace analyst indicated if the wireless industry were a country, it would be the fifth or sixth largest consumer of energy in the world.

A word on sustainability: being in Hawaii, we know natural disasters happen like tsunamis. What happens to wireless infrastructure in a tsunami? Look at Hurricane Maria where the cell towers all went down and Puerto Rico was incommunicado for months. Look at the wildfires in California. Any telecommunications equipment above ground, like cell towers and small cells, are gone and the public is stranded.

Fiber-optics, high speed cable and advanced copper underground are much more sustainable solutions. It was the industry that convinced our municipalities to let them get out of maintaining the reliable copper landlines. Here in Boston, when we lost power in blizzards, we still could call for emergency services on our copper landlines. But not anymore. We need electricity now for our phones, even our landlines, to work because they've bundled them into the wireless

infrastructure. When the power goes out, once our batteries run out, we now have no way to even call for emergency services anymore.

Legal Recourse

The industry charged us all on our phone bills for years to build out the right solution: hard-wired fiber-optics or high-speed cable/copper to the premises where we can pick up the signal and connect indoors via Ethernet cables and [adapters](#) to our devices.

Then they failed to deliver the safe and sustainable solution, and instead took those funds and started spinning up wireless because it's cheaper to install and highly profitable. Thankfully, the [IRREGULATORS vs. FCC](#) lawsuit has freed up our states to recoup those funds so we can transition to safe hard-wired technology.

The FCC was asked to revisit their RF exposure limits and completely ignored the scientific evidence submitted showing harm. The Environmental Health Trust and Children's Health Defense are now [suing the FCC for dereliction of duty and negligence](#). This is a groundbreaking lawsuit, and [oral arguments](#) were held on January 25th. The judges were not impressed with the FCC's failure to protect the public and we await their ruling.

Legislative Action

Massachusetts led the nation last session with [20 bills addressing man-made radiation](#), and even with the pandemic and racial justice priorities, our legislators saw fit to report several of these bills out of committee favorably. We move like molasses in Massachusetts though and are, perhaps unwittingly, deep in bed with industry.

New Hampshire and Oregon, however, are operating like we thought our democracy should.

Once citizens informed Oregon Senator Anderson of the wireless radiation issue, she took action. She is a retired public health nurse who quickly understood the science and risks, and passed an [emergency law](#) to require the Oregon Health Authority to investigate the non-industry funded science.

In New Hampshire, a citizen who became very ill from wireless radiation exposures spoke with her State Representative about this issue. Rep. Patrick Abrami is an engineer and had only been taught you have to have heat from a wireless antenna before you can have harm. But he listened, and then he investigated. When he read the science showing extreme harm at non-thermal levels of RF exposure, he had a major WOW moment.

Then he wrote a bill which he asked me to review. Next, he drove down from NH to MA and we spent the afternoon at my kitchen table helping him to connect the dots further. Then he beefed up his [bill with very pointed questions](#) that demand answers, including why the [insurance industry](#) has long recognized RF as a leading risk and put exclusions in their policies. They don't cover damages, and that leaves our towns liable. He also calls out the FCC for ignoring the science and allowing radiation limits that are 100 times higher than in other countries

The retired President of Microsoft Canada, Frank Clegg, is a whistleblower on the wireless issue, see his [8-minute PSA](#) on 5G here. I introduced him to Rep. Abrami, and Mr. Clegg flew in to testify, along with leading scientist [Dr. Paul Heroux](#) from McGill University. I came up from MA to testify too along with several well-informed NH residents. We got that bill passed by the Senate, the House and the Governor in just seven months, and last fall NH formed a Commission to investigate the health and environmental impact of EMFs.

So, for the first time in U.S. history, this issue is being truly addressed with open dialogue as expert scientists, doctors, engineers and industry representatives testify before the Commission. The CTIA has a seat on the Commission so all stakeholders are present, and it is filled by Bethanne Cooley, the same woman who has sent a letter(s) to Hawaii County. So, she knows full well there are very serious health risks. Dr. Paul Heroux is also on the Commission, along with bill co-sponsor Senator Tom Sherman who is a medical doctor who is seeing the fallout in his practice. There are members from academia, public health, environmental health, business, and the attorney general's office too.

The groundbreaking Commission's findings were reported out on November 1, 2020, including a preference for fiber-optics to the premises and informing the public about the risks of wireless radiation. They also expose the conflicts of interest between the wireless industry and our federal agencies. That is why it is so critical for Hawaii and other state legislatures to do everything in your power to ensure safe, responsible technology.

Recommendation for Hawaii

When you get overwhelmed by all of the mixed messages you will hear, remember to redirect your focus to the non-industry funded [science](#). That is the only true source of facts, and the independent science is very clear that wireless is a toxin, regardless of what the industry tries to convince us of otherwise through the media or legal pressure.

Nobody in Hawaii should be exposed to the radiation from utility “smart” meters, cell towers, small cells, super highways or any other wireless device. Not you, nor the ratepayers.

The Good News

The good news is there are many solutions available right now to help us transition to safe, fast, reliable technology:

- **For Our Towns:** The policy book [Reinventing Wires: The Future of Landlines and Networks](#) provides a roadmap for our municipalities to understand the issues and begin plans for better technology. The award-winning film [Generation Zapped](#) is an excellent 74-minute documentary that beautifully illustrates the issue and solutions. We have shown it at the Massachusetts State House, the National Institutes of Health, many community libraries, and it was selected as part of the United Nations Film Festival. It would be a great way to quickly educate your team and community to start a meaningful conversation. 5GCrisis.com has a terrific [tool kit](#) with a sample municipal ordinance you may wish to consider adopting in the short-term.
- **For the Public:** The non-profit [Wireless Education](#) has already built quick affordable on-line training to bring the public up to speed. The [Schools & Families Course](#) and the [Corporate Course](#) only take about a half-hour on-line to complete. Each distills the science, risks, what other countries are already doing to protect their public, and medically recommended best practices for safer technology use. A handy tip sheet with device-specific reminders is provided at the end. Folks could do this on their lunch hour today and have a good understanding of the issue and how to protect their families. I helped to build the courses and would be honored to grant you access to review the content. Please just let me know.
- **For Public Health:** I helped the Massachusetts Department of Public Health write EMF fact sheets which can be updated and adapted for Hawaii. We created a [general](#) one, and one for [schools](#). We were told the public would be informed in three months. That was four years ago, and likely due to conflicts of interest with industry, they have [yet to be released](#).
- **For Health Care Professionals:** We convened the first major U.S. medical continuing education [EMF Conference](#) in November in California. We brought together leading experts from around the world to teach doctors, nurses, first responders and others to recognize, diagnose, treat and prevent microwave illnesses. We just completed the [2021 conference](#) on Sunday, and videos will soon be available so now all health care professionals have the opportunity to be professionally trained.
- **For Academia:** Dr. Paul Heroux at McGill University and other experts already have curriculum built to train engineers, physicists, technologists

and others on the non-thermal effects so they can begin designing technology that is biologically safe. Swisscomm, for example, has long held a patent for eco-mode wi-fi, which keeps everything in sleep mode and no RF signals are emitted unless called upon for a connection. Here in the U.S. right now, our technology beacons wireless signals at billions of cycles per second all the time non-stop whether anyone's using a device or not. Our engineers have simply not been tasked with creating safe technology. It's not rocket science, it can be done if we give the industry the nudge to produce it.

- **For Legislators:** Please take emergency action to adopt the NH bill to put public and environmental health over corporate interests. NH is doing the hard work right now so others will quickly be able to follow in their footsteps.

In Closing

Time and again, I hear from people with whom I've spent an hour sharing information, that they decided to turn off all of the antennas in their wireless devices at night and turn off their router too. They're grateful they can still use their clocks, alarms, camera and any downloaded books, music, etc., in airplane mode.

They come back and say they had the best sleep they've had in years, finally sleeping all the way through the night again! Children's behavior issues often go way down too when their bodies can properly rest and repair during sleep if there are no microwaves pulsing at them all night long. Headaches, nosebleeds, anxiety, depression, fatigue, brain fog, pain frequently begin to resolve too but if there are utility "smart" meters pulsing at them near their beds, or if the RF from the utility meters has hopped onto the house's wiring or pipes, then they can get no relief.

Martin Luther King, Jr., taught us that meaningful change happens through three channels: the public wakes up and speaks up, the courts hold the guilty accountable, and public policy is brought current.

You are addressing the wireless radiation issue at a terrific point in time, as critical mass is now happening in all three areas. The proverbial wheels are coming off the bus for the wireless industry and they know it.

I hope you will do everything in your power to stave off any further wireless buildout in Hawaii, including more cell towers, small cells and utility meters for electric, solar, gas and water. Might the industry challenge you? Yes, and other municipalities recognize there is legal risk too. It's all part of the process. But what's the alternative? Radiate our ohanas with a small cell at the curb outside our homes and smart meters pulsing 24x7? Allow [5G for the Internet of Things](#)

[\(IoT\)](#) which will put an RF antenna in just about every product you purchase so the industry can harvest our usage data to sell to others?

Burlington, Massachusetts pulled together a town-wide committee with members from all of their boards, and crafted a [small cell policy](#) that had Verizon withdrawing their small cell applications. There are ways around this and I can put you in touch with the municipal leaders in Burlington. Other municipalities have been contacting them too.

The largest water district in the nation, after much education by scientific experts, recently put their smart meter program on hold indefinitely. See [here](#) for details.

For today, choosing safe non-RF-emitting technology with utility metering is a good first start. Your opt-in program was a good step in the right direction, and was heralded as an example to emulate across the U.S. and internationally.

Prohibiting further buildout of wireless infrastructure for cell towers, small cells and other technologies would be another important step. Bringing safe, fast, reliable, sustainable fiber-optics to the premises is a much better fiscal and environmental solution.

Another good step is to provide education to the public right now via the above Generation Zapped screenings and Wireless Education courses so they can take control of their existing radiation emissions while you develop long-term plans for safe, sustainable community-level technology infrastructure.

You are the customer and if you ask for it, the industry will deliver safe, responsible hard-wired solutions. Engineers have already indicated they can, it's just that nobody has yet asked them to.

Thank you for your time and consideration. I know the wireless radiation issue comes out of left field for many and it's a lot to absorb so please don't hesitate to reach out if I can provide additional information, help conduct training sessions, and/or introduce you to leading scientific or medical experts in this field. We would all be eager to help with any questions you may have.

Mahalo nui loa,

Cecelia (Cece) Doucette, MTPW, BA
Technology Safety Educator
508-881-3878 Eastern Standard Time
Director, [Massachusetts for Safe Technology](#)
Founder, [Understanding EMFs](#)
Education Services Director, [Wireless Education](#)
[HiBR Conference @ NIH](#)
[Expert Forum on Wi-fi in Schools](#)

[Municipal Presentation on 5G & EMFs](#)
[Additional YouTube EMF Talks](#)
[*Generation Zapped* Award-Winning Film](#)
[EMF Conference for Health Practitioners](#)

SB-851

Submitted on: 2/9/2021 9:16:22 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cari Coetzee	Individual	Oppose	No

Comments:

I strongly Oppose SB851 - Relating to WIRELESS Broadband Networks. This bill would take away home rule. Each island is different and local jurisdictions are in the best position to determine what is best for their unique communities. Local zoning should NOT be bypassed when it comes to small cells in public right of way.

SB-851

Submitted on: 2/9/2021 9:22:02 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
April Petersom	Individual	Oppose	No

Comments:

Aloha,

Relating to WIRELESS Broadband Networks - OPPOSE

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

Sincerely,

April Peterson

SB-851

Submitted on: 2/9/2021 9:32:33 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Naomi Melamed	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and **seeks to bypass local zoning review or approval for small cell wireless facilities.*** This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule.** Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way. Why not offer more crucial needs to be met in this time? Mahalo, Naomi

SB-851

Submitted on: 2/9/2021 9:34:10 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Christina Magar	Individual	Oppose	No

Comments:

I know that you who have pledged to protect our health and safety have the best of intentions. I ask you please do some research on this matter. I offer you two links to articles that are informative and may be helpful to your decision-making. Please read them. I am not a hysterical activist but a very educated, caring citizen concerned for my health, human health, and the planet's health.

Please DO NOT allow for wireless antennae in neighborhoods! I do not want one in my residential or commercial neighborhood of Kohala, Big Island!

I am personally negatively affected by wireless technology and have everything hardwired via the ethernet in my home and office. This is a very comfortable and safe way of providing the internet to all kinds of devices. Wireless antennae threaten my health and safety.

Please do not vote yes on SB851 as it will directly damage my health and all Hawaii communities and the planet. I will not have control over my airwaves at my very own home and place of business. Allowing for these antennae will create an unsafe and unsafe environment. There are 1000s of studies in Europe that show the devastation that wireless can cause on a population's mental and physical health. There are SAFE ways to use EMF when considering Life Force. One example: Please see a case study in Hemberg, Switzerland, where the population was highly-negatively affected and then after mitigation, there were positive results. <https://biogeometryeurope.com/the-miracle-of-hemberg/>

OR If you used fiber optics as the way to transfer waves-- all waves, including the last mile, rather than via the air, we would have improved and safer internet. Fiber optics is known to provide the best means of data transfer. WiFi has damaging effects on our biology, it impairs the cell's mitochondria as studied by Dr Martin Pall. Please see Pall's paper on the threats of WiFi. https://www.researchgate.net/profile/Martin_Pall

If people want to use wifi, then let them choose to in their own homes and offices. In my home and place of business, please let me choose my health over the cheaper and health-threatening wifi.

SB-851

Submitted on: 2/9/2021 9:36:42 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Martins	Individual	Oppose	No

Comments:

Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

Thank you,

Sarah

SB-851

Submitted on: 2/9/2021 9:48:24 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John Blumer-Buell	Individual	Oppose	No

Comments:

Oppose. Mahalo for your consideration. John

SB-851

Submitted on: 2/9/2021 10:01:08 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Doug Bonney	Individual	Oppose	No

Comments:

Stop all and any plans to put devices any where in hawaii with out permits. 5G is not safe and needs much more testing before we completely ruin our immune systems.

SB-851

Submitted on: 2/9/2021 10:10:27 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
john kochiss	Individual	Oppose	No

Comments:

To whom it may concern; as a concerned citizen I oppose this bill as it takes away each area's sovereignty and choice to decide what is best for themselves. Wireless is being pushed by the big guys because it has a high profit return with less investment, leaving us citizens , and plants and bugs and trees and animals, with a toxic airway environment pulsing with emf's, the bees barely adapted to 4G, I question whether they will survive the leap to 5G. I hope and pray that theelected leaders make choices that protect us common folk citizenry with this bill being introduced, thank you for reading my comment, Aloha!

SB-851

Submitted on: 2/9/2021 10:16:30 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
George Chyz	Individual	Oppose	No

Comments:

Aloha,

The National Toxicology Program of the US Department of Health and Human Services completed cell phone studies in November 2018 finding evidence that 2G and 3G cellphone radiation causes heart, brain, and adrenal gland tumors in rats. Here's a link to the short and easy to read research overview page at the National Toxicology Program website:

https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html?utm_source=direct&utm_medium=prod&utm_campaign=ntpgolinks&utm_term=cellphone

Obviously the cell phone industry is lying when they claim their phones are safe.

The role out of more harmful electromagnetic radiation technology must stop.

Thank you for protecting the residents and visitors of these wonderful islands.

George

SB-851

Submitted on: 2/9/2021 10:37:26 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
DONNIE BECKER	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and **seeks to bypass local zoning review or approval for small cell wireless facilities***. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 10:39:31 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Cassandra Korte	Individual	Oppose	No

Comments:

Local zoning review or approval for small cell wireless facilities should not be bypassed when it comes to small cells in public rights of way. Not everyone wants to or can be surrounded by wireless internet.

SB-851

Submitted on: 2/9/2021 10:46:15 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Janice Goodnight	Individual	Oppose	No

Comments:

This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would take away home rule. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should NOT be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 11:06:43 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Renee Dieperink	Individual	Oppose	No

Comments:

I strongly **OPPOSE** SB851

This bill would bypass local zoning review, which should not happen. Each community on different islands are different, and the community should have input on how to do this and what is best for them.

SB-851

Submitted on: 2/9/2021 11:10:49 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michelle Melendez	Individual	Oppose	No

Comments:

This is Hawaii not the mainland. Keeping the environment healthy and strong is our Kuleana. Everything is energy. Please do not bring further high frequency radio waves than are already here! You will endanger the environment, bees, birds and other important life here on the islands. It will never be the same again. Do not make money more important than the **Āina**.

SB-851

Submitted on: 2/9/2021 12:00:50 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Madolin Wells	Individual	Oppose	No

Comments:

Local Zoning matters. Here in South Maui, far from being underserved regarding broadband wireless technology, we are overwhelmed, overcrowded, and bombarded by technology. Maui is very different from other neighbor islands. Each island is unique and needs to be respected and treated as such.

SB-851

Submitted on: 2/9/2021 12:15:16 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Donna Dufault	Individual	Oppose	No

Comments:

I oppose this Bill. Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 12:41:27 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Best	Individual	Oppose	No

Comments:

Bypassing local zoning review or approval for small cell wireless facilities is bad since it would remove home rule in this instance. Many in these unique communities oppose small cells and they should have an opportunity to make their own decisions. Please carefully consider this rush.

Mahalo

SB-851

Submitted on: 2/9/2021 12:58:11 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sulara James	Individual	Oppose	No

Comments:

I am against SB851.

SB-851

Submitted on: 2/9/2021 1:18:56 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Marsha Andreola	Individual	Oppose	No

Comments:

I am opposed to SB 851. This bill seeks to bypass local zoning review or approval for small cell wireless facilities, under the guise of bringing broadband to unserved and underserved areas,. This is a bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would take away home rule. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 3:05:01 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Levana Lomma	Individual	Oppose	No

Comments:

I oppose this bill because it seeks to bypass local zoning review or approval for small cell wireless facilities and takes away home rule removing the ability for each island community to decide what's best for their jurisdiction.

VOTE NO TO SB851

SB-851

Submitted on: 2/9/2021 3:52:40 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Tanja Miller	Individual	Oppose	No

Comments:

Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 3:39:43 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
KIMI KO KNIGHT	Individual	Oppose	No

Comments:

Local zoning of each island should not be bypassed, when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 4:32:21 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Paul Stanley	Individual	Oppose	No

Comments:

I OPPOSE this bill as the must be a differentiation between hard-wired (including fiber optic, etc.) and wireless broadband as there are sirious health risks in regards to microwave transmissions.

Electromagnetic Hypersensitivity (EHS) is a real condition which can be debilitating and can be caused by over exposure to microwaves/EMR.

I know this from personal experience as I was injured at my job as a technologist in educational TV due to EMR over exposure.

I lost my dream job and my home in 2005 because I could no longer work.

I've spent over \$60,000 trying to get better. I'm back to work as a classroom teacher, but I'm still in debt and have no money for my daughter's college education.

Hawaii needs to protect its citizens and reduce the use of wireless technology.

SB-851

Submitted on: 2/9/2021 5:26:07 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joli Johnston	Individual	Oppose	No

Comments:

This bill seeks to remove home rule by bypassing local zoning review or approval for small cell wireless facilities. Each of our islands and communities are different and the local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should never be bypassed when it comes to small cells in public rights of way.

Mahalo for your time.

SB-851

Submitted on: 2/9/2021 6:21:50 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Esther S Felix	Individual	Oppose	No

Comments:

I am already super sensitive to all these wireless, cellphone, etc. and have quite a bit health

issues because of that. So I am totally opposing of anything more. We need nature, quietness and

Life QUALITY!

SB-851

Submitted on: 2/9/2021 6:51:23 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Deborah Davis	Individual	Oppose	No

Comments:

PLEASE do not bypass HOME RULE!! Each district is so different. Our individual governance knows the best courses. Thank you!

SB-851

Submitted on: 2/9/2021 8:26:40 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Yolande keane	Individual	Oppose	No

Comments:

I oppose SB851 , this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 8:56:07 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Allison	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 9:06:46 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Estelle Cruse	Individual	Oppose	No

Comments:

NO, this is not good for the health of the keiki or kupuna! This is not good for the health of the plants or life on our precious islands. This is not what they people want, and more wireless radiation! Haven't you read the studies? This isn't good and We the People don't want this!

SB-851

Submitted on: 2/9/2021 9:09:50 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
gretchen cates	Individual	Oppose	No

Comments:

I strongly oppose this bill.
please do the same. Thank you.

SB-851

Submitted on: 2/9/2021 9:16:49 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Paula Schiebschick	Individual	Oppose	No

Comments:

As a resident of Maui I oppose Bill851 as I think that local zoning should not be bypassed when it comes to the installation of small cells in public spaces. This bill targets underserved areas and as those are most likely to be rural (and possibly on the neighbor islands) this bill would take away home rule which gives authority to exercise power of governance to constituent parts of the state. Each of the islands is different and I believe that local authorities are in the best position to decide what is best for their community.

Please leave the power and decision making to the locally elected jurisdiction and oppose Bill851.

Aloha

SB-851

Submitted on: 2/9/2021 9:24:13 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
soleil hawthorne	Individual	Oppose	No

Comments:

I oppose this bill,

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/9/2021 9:47:12 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ano Hanamana	Individual	Oppose	No

Comments:

5G is not safe. We don't need it. Wired internet is more than adequate and 4G is also. No 5G.

SB-851

Submitted on: 2/9/2021 10:56:43 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
sara	Individual	Oppose	No

Comments:

My family are against this bill. It puts our health and the health of our children and everyone on Maui in jepordy.

This bill *targets those areas and seeks to bypass local zoning review or approval for **small cell wireless facilities***. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

This is unacceptable, you are supposed to be speaking on our behalf and that of your own loved ones. please vote with aloha in your hearts for our children and future.

Mahalo,

Sara

SB-851

Submitted on: 2/9/2021 11:33:34 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ola Flage (Mr.)	Individual	Oppose	No

Comments:

Aloha Hawaii,

although I've never been there, I seem to carry your beautiful islands and you Hawaiians in my heart. Maybe it's the nice welcome greeting with your leis (I believe you call them), when people come to visit you. Maybe it's the impression of people clinging to a relatively small island out in a vast ocean. Probably both, I guess.

Anyway, I'd like to encourage you to stay away from any new type of new technologies, not knowing the effects they may have – and DO have – on your citizens and surroundings.

Look to Europe. Switzerland, France, Belgium, Holland (the Netherlands). People are waking up to this threat to human health and that of other living beings. Even Taiwan and Bangladesh in Asia are taking resolute steps.

Your people deserve only the best.

Responsible parties in my opinion ought to be leading the way in this important effort for humanity.

Go for it! Keep the future of your kids in mind as well and make wise decisions.

Wishing you the best of luck for your paradise.

From Bavaria, Germany,

yours in optimism

Ola Flage (Mr.)

SB-851

Submitted on: 2/10/2021 12:52:34 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
dale chappell	Individual	Oppose	No

Comments:

SB851 - Relating to WIRELESS Broadband Networks - I OPPOSE

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

Thank you.

Dale Chappell

SB-851

Submitted on: 2/10/2021 1:10:36 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Brigitte Otto	Individual	Oppose	No

Comments:

Each island and region is unique. Therefore, local jurisdictions are better able to decide what is appropriate for their community. Home rule should apply especially when it comes to important issues like this. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/10/2021 8:01:53 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie Bogart	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and **seeks to bypass local zoning review or approval for small cell wireless facilities.*** This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule.** Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/10/2021 9:54:13 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Aline Huntly	Individual	Oppose	No

Comments:

I do not want control to be taken away from local jurisdictions through the bypassing of zoning review or approval for small cell wireless facilities. I live in Upcountry Maui and I want to have a say in the installation of small cells in my neighborhood. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way. Thank you for prioritizing our best interests, not the interests of the wireless industry.

SB-851

Submitted on: 2/10/2021 11:23:06 AM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Barry	Individual	Oppose	No

Comments:

Aloha,

Please oppose this Bill.

Mahalo,

Barbara Barry

SB-851

Submitted on: 2/10/2021 2:09:50 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Gala Lirette	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and **seeks to bypass local zoning review or approval for small cell wireless facilities***. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

SB-851

Submitted on: 2/10/2021 2:52:36 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Deborah Sevy	Individual	Oppose	No

Comments:

I am apposed to SB851. Wireless broadband networks are controversial and should be left to the individual county's to determine wether they want to risk the many adverse affects. thousands of studies to back up the problems. Please leave it to homerule.

Written Testimony for Senate Bill No. 851
"RELATING TO WIRELESS BROADBAND NETWORKS"

February 10, 2021

To: Senate Committee on Government Operations
From: Linda Laurence (née Wiig), M.A., M.L.I.S.
Mānoa, O'ahu

I am strongly opposed to SB851 classifying small wireless facilities and associated modified or replaced utility poles as not being subject to zoning review or approval if deployed in unserved and underserved areas; and adding new definitions based on "speed" of transmission in these areas.

Given recent research documenting evidence for adverse health effects of wireless RF radiation on humans, animals, and plants, a review of these health dangers should precede any laws permitting more wireless broadband devices or services in any areas, whether unserved, underserved, or served.

In brief, here is my position on broadband legislation:

- Require zoning review and approval for the building and deployment of all wireless broadband infrastructures and services? Yes, please!
- Build and develop safe, fast, wired (fixed), fiber optic infrastructures and technologies? Yes, please!
- Reduce "digital inequity" in our un- and under-served communities by means of safe, fast, wired infrastructures and technologies? Yes, please!
- Spread unsafe wireless infrastructures and technologies to any environments, whether urban, rural, agricultural, or natural, and communities? No!

Rushing to by-pass zoning review and approval to install small wireless facilities for deploying any type of wireless broadband, whether 3G, 4G, or 5G services, without first establishing a task force to investigate recent scientific research on the adverse health effects of exposure to wireless (electromagnetic, microwave, radio-frequency) radiation would be shortsighted and irresponsible. I base my opinion on what I have read and recently learned from the presentations by thirty-six scientists, physicians, public health epidemiologists, etc. at a virtual, international EMF Medical Conference, held via Zoom Jan. 28-31, 2021.

For the record, I am neither a scientist nor a medical professional. I am a professional librarian, testifying as an independent, concerned citizen. I do not represent any institution, group, or organization. I was born, raised, and educated (at Punahou) in Honolulu. I hold two master's degrees, one from the University of Pennsylvania and one from the University of Hawai'i at Mānoa. My father (deceased) was a prominent island physician, a Mayo Clinic fellow, former head of the Dept. of Health for Maui County, Chief of Surgery at St. Francis Hospital, and former president of the American Cancer Society in Hawaii. My mother (deceased) was an active community volunteer, including a founding member of the Honolulu Women's Medical Auxiliary, and was later a UH Mānoa art instructor for 26 years. Their second son, a brother I never met, died of cancer at the age of 3 years, 10 months old. My mother succumbed to breast cancer at age 90.

The very population whom SB851 especially aims to serve during this is, in fact, the foremost among those who are at highest risk of being harmed by wireless RF radiation -- namely children.

Here are five selected studies/sources about the adverse health effects associated with wireless technologies and devices:

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (WHO):

- **In 2011 the International Agency for Research on Cancer (IARC/WHO) classified low-level RF radiation as "possibly carcinogenic to humans."** Some scientists argued that a higher classification of "probably carcinogenic to humans" was warranted. Because the IARC has already classified this type of radiation as "carcinogenic to animals," common sense would suggest that it is carcinogenic to humans because we ourselves are, biologically speaking, animals. I personally see no reason to take more risks with this type of radiation while waiting for the IARC to apply its stringent methods for classifying it as "carcinogenic." (Please visit the IARC website for more details.)

NATIONAL TOXICOLOGY PROGRAM (NATIONAL INSTITUTES OF HEALTH):

- **In 2018 the National Toxicology Program (NIH) published the results of their ten-year study that found “clear evidence” that exposure to low-level RF radiation, at cell phone levels, caused significant increased incidence of cancer and DNA damage in rodents.** (Please visit the NTP website for more details.)

TWO NEUROSURGEON PRESENTERS AT EMF MEDICAL CONFERENCE 2021:

- I heard Dr. Hillel Baldwin, an American neurosurgeon in Tucson, Arizona, express grave concern about what he is seeing in his own practice and what he is reading and hearing from other physicians around the world, namely a shocking increase of brain cancer in children during the past decade. He referred to the exposure of increasing amounts of RF radiation to all of us, children and adults alike, worldwide, as **“the largest unethical experiment in human history.”** Think about it -- all of us are being exposed to increasing amounts of RF radiation voluntarily and involuntarily.
- I heard the internationally renowned Australian neurosurgeon and cancer cure researcher Dr. Charlie Teo call the proliferation of wireless technologies in our environment as **“a public safety catastrophe.”** Having observed an increased incidence of brain cancer in his patients (especially children) he decided he had the ethical obligation to speak out publicly about this and he is, very persuasively. Even given how skilled he is at brain surgery, he stated that the prognosis for glioma cancers is “very bad.” It is difficult to surgically remove them because they are now occurring in numerous regions of children’s brains, not just in the typical region above cell phone-preferred ears. When inoperable and untreatable these aggressive cancers result in “100% mortality.” He is extremely saddened by what he is witnessing in his practice. (Please google him and visit his websites for more details.)

ENVIRONMENTAL HEALTH TRUST ET AL. LAWSUIT AGAINST THE FCC:

- Right now, **in 2021, the Environmental Health Trust and Children’s Health Defense are suing the FCC** (Federal Communications Commission) in a landmark case in the U.S. Court of Appeals for the District of Columbia Circuit, for using obsolete research to evaluate and set safe exposure guidelines

for RF radiation. By failing to do so they are failing to protect the public from known health risks. (Please visit the EH Trust website for more details.)

What is important to us here in Hawaii is that local government agencies and utilities, including Hawaiian Electric and the State Dept. of Health, have been relying on obsolete research, from or similar to the FCC, to make their own claims of RF radiation "safety." (Please see attached copies of website pages from each below.)

Many people, locally and worldwide, are not yet aware that recent scientific research is reporting serious adverse health effects, including cancer, attributable to invisible exposure to this type of radiation. Many people have become addicted to the convenience and fun of using wireless devices, trusting government agencies that their levels of exposure are safe. And, one of the insidious properties of RF radiation, whether 3G, 4G, and 5G, is that, unlike health-damaging smoke from cigarettes or air pollution, it can neither be seen nor smelled. Most people are unaware that we are becoming increasingly "blanketed" with polluting RF radiation "smog" in our homes, workplaces, schools, and recreational areas.

In closing I would like to say that we need laws to protect us from RF radiation, not laws to promote its increased deployment in our State. Other states and countries have set the example of passing laws and moratoriums to protect their citizens; please seriously consider doing the same.

Safe technologies exist; please promote them, not wireless.

Thank you for reading what I have written here and for giving consideration to it while you deliberate and vote on SB851.

With aloha and sincere appreciation for your service in the Legislature to act in the best interest of your constituents and all of the people of Hawai'i nei,

Linda Laurence

Attachments below.



In response to COVID-19, [disconnections are suspended through March 31, 2021](#) and [payment arrangement options are now available](#). [Read our latest COVID-19 updates.](#)



**Hawaiian
Electric**

Understanding Electric and Magnetic Fields

Hawaiian Electric considers the health and safety of our customers, employees and the general public our highest priorities. We will continue to monitor EMF research developments and remain committed to a policy of safely providing our customers with the electricity they need.

Like gravity, electric and magnetic fields (EMF) are fundamental forces of nature. They are invisible lines of force that exist wherever electricity is produced, transmitted, and used.

For over 25 years, scientists have been investigating whether EMF produce harmful effects. To date, there has been no conclusive evidence established by the scientific community confirming a causal link between EMF exposure and adverse health effects.

Stay informed by following updates and developments from trusted sources. Research into these issues is ongoing and more information will become available in the future.

EMF information packets are available to our customers and employees at no cost. In addition, Hawaiian Electric provides a free home survey of EMF to residential customers upon request. To request a hard copy of Hawaiian Electric's EMF information packet be delivered to your home, or to request a home survey, please call (808) 543-7511. Commercial customers who are interested in learning more about EMF at their business should contact Occupational Safety and Health Administration (OSHA) at (808) 586-9110.



[EMF Information Packet \(PDF\)](#)



[EMF Reviews \(PDF\)](#)



[Hawaii State Department of Health 5G Fact Sheet \(PDF\)](#)

Additional EMF Resources

- [Edison Electric Institute](#)
- [Electric Power Research Institute](#)
- [National Institute of Environmental Health Science](#)
- [International Agency for Research on Cancer - EMF Risk Assessment](#)
- [World Health Organizator](#)
- [Hawaii State Department of Health and Public Utilities Commission's EMF Policy Statements \(PD](#)



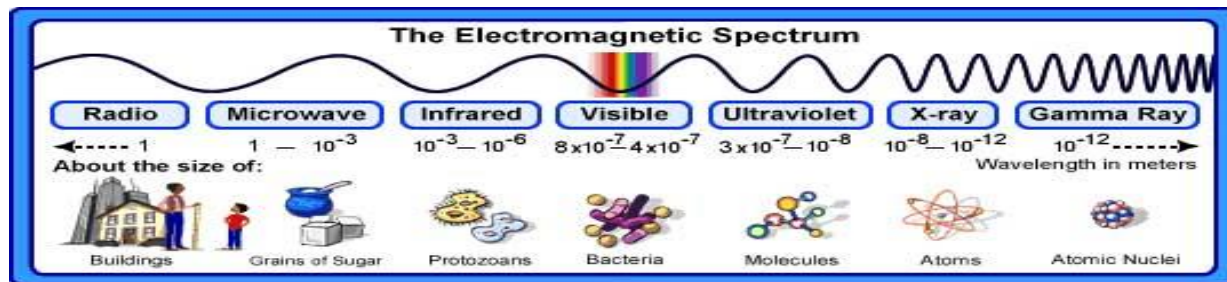
The **Hazard Evaluation and Emergency Response (HEER) Office** and the **Indoor and Radiological Health Branch (IRHB)** are part of the Hawai'i Department of Health's Environmental Health Administration whose mission is to protect human health and the environment.

What You Need to Know About Radiofrequency Energy and 5G cellular networks

This fact sheet provides an overview of radiofrequency (RF) energy and 5G cellular networks. Additionally, this fact sheet discusses issues surrounding exposure to radiofrequency energy, what's different about 5G cellular networks, potential human health concerns, and resources for further information.

What is Radiofrequency Energy?

RF energy is a form of non-ionizing electromagnetic radiation used in telecommunications such as radio, cell phones, television, satellite communications, microwaves, radar, and medical devices such as pacemakers. RF energy uses wavelengths that are longer than ionizing radiation such as x-rays and gamma rays. The longer wavelengths of RF energy lead to less impacts on the human body than the shorter wavelengths of ionizing radiation. RF energy decreases rapidly as you move away from the source. Because of the close proximity, the amount of RF energy people are exposed to from their cell phones is much higher than the exposure from living or working near a cell tower.



Is Radiofrequency Energy Dangerous to my Health?

For many years, there has been concern about health effects from RF energy related to cell phones, cell towers, and other environmental sources of RF energy. A large number of studies performed over the past two decades have not shown a direct health risk from short or long-term exposure to typical amounts of RF energy.

These studies looked at many types of health effects including cancer, cognitive function, memory, headaches, sleep, heart-rate, and other effects. While a few epidemiology studies did find a slight connection between



health effects and RF energy exposure, particularly cell phone usage, these studies were found to have flawed methods and the results were unable to be repeated.

Research to date has been done on 2G, 3G, and 4G cellular technologies, and while there is no evidence to suspect 5G networks will produce different health effects, more research is needed.

RF energy at very high levels can cause biological effects that result from heating of tissue (often referred to as “thermal” effects). In general, studies have shown that environmental levels of RF energy routinely encountered by the general public are typically far below levels necessary to produce significant heating and increased body temperature. However, there may be situations, particularly workplace environments near high-powered RF sources, where recommended limits for safe exposure of human beings to RF energy could be exceeded. In such cases, restrictive measures or actions may be necessary to ensure the safe use of RF energy.

Does Using Cell Phones or Living Near Cell Towers Cause Cancer?

The current body of scientific evidence does not show an association with cell phone use or living near cell towers and cancer. While studies specifically about living near towers are few, RF energy exposure from your personal cell phone is significantly higher than from living in close proximity to a cell tower and large studies do not show an association of heavy cell phone usage and cancer.

In 2011, the International Agency for Research on Cancer (IARC) designated RF energy as “2B-possibly cancer causing.” Other frequently used products in this same 2B category include coffee and talcum powder. More research is needed to further clarify this issue.

The strongest evidence that cell phone usage does not cause brain cancer is that cell phones have been very popular for two decades and there has not been an increase in the rates of brain cancer during that time.

How are 5G Networks Different from Current Cellular Networks?

5G networks use a higher frequency than 3G or 4G networks and are planned to be much faster and more reliable. The higher frequency uses shorter RF energy waves called millimeter waves. These millimeter waves are weaker than 3G or 4G at traveling long distances and cannot easily move through walls, buildings, and other physical obstacles. Because of this, to complete the 5G network and keep cell service strong and fast, many small antennae are required to provide adequate cellular coverage in an area. These antennae will likely be placed on homes, buildings, and other structures. It is expected that the addition of these 5G antennae will increase the environmental exposure to RF energy. However, these increased exposures are likely to be less than from your personal cell phone and RF energy levels are projected to generally stay below limits set by the Federal Communications Commission (FCC). This increased exposure to RF energy from 5G networks is not expected to cause direct health effects. More research is needed to further our understanding of the effects of 5G networks.



3G cellular tower



5G cellular antenna on a street light.



How are Cellular Networks and Cell Phones Regulated?

In the U.S., responsibility for regulating cellular networks and cell phones is shared by the Federal Communications Commission (FCC) and the U.S Food and Drug Administration (FDA). The FCC certifies wireless devices and sets limits on the amount of RF energy that a cell phone can emit. The FCC also regulates cell phone base stations (cell towers) and provides exposure guidelines that must be met. The FDA has the authority to take action if cell phones are shown to emit RF energy at levels considered hazardous to users.

What can I do if I remain worried about exposure to RF energy and 5G networks?

Stay informed by following updates and developments from trusted sources. Research into these issues is ongoing and more information will become available in the future. There are things you can do to reduce your exposure to RF energy including reducing the amount of time spent on your cell phone and using a hands-free device such as a headset or speaker-mode. Studies of specialized cell phone accessories claiming to shield the head from RF energy have not shown them to be any better at reducing RF energy exposure than hands-free devices.

Further Information

For questions related to radiofrequency radiation and 5G networks contact:

Hawai'i Department of Health
Indoor and Radiological Health Branch
99-945 Halawa Valley Street
Aiea, Hawai'i 96701

Telephone: (808) 586-4700
Website: <http://health.hawaii.gov/irhb/>

For questions related to environmental health:

Hawai'i Department of Health
Hazard Evaluation and Emergency Response Office
2385 Waimano Home Road
Pearl City, Hawai'i 96782

Telephone: (808) 586-4249
Website: <http://health.hawaii.gov/heer>

Other resources for information about radiofrequency radiation and 5G networks:

Federal Communications Commission (FCC) RF Safety Program: email: rfsafety@fcc.gov phone: (888) 225-5322

www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q5

World Health Organization (WHO): www.who.int/en/news-room/fact-sheets/detail/electromagnetic-fields-and-public-health-mobile-phones

National Institute of Environmental Health Sciences (NIEHS): www.niehs.nih.gov/health/topics/agents/cellphones/index.cfm

U.S. Food & Drug Administration (FDA): www.fda.gov/radiation-emitting-products/cell-phones/health-issues

National Cancer Institute (NCI): www.cancer.gov/about-cancer/causes-prevention/risk/radiation/electromagnetic-fields-fact-sheet?redirect=true

American Cancer Society (ACS): www.cancer.org/cancer/cancer-causes/radiation-exposure/cellular-phone-towers.html

International Agency for Research on Cancer (IARC): www.iarc.fr/wp-content/uploads/2018/07/pr208_E.pdf

International Commission on Non-ionizing Radiation Protection (ICNIRP): www.icnirp.org/en/frequencies/high-frequency/index.html

Health Canada: www.canada.ca/en/health-canada/services/environmental-workplace-health/radiation/consumer-radiation/radiofrequency-fields.html



LATE

SB-851

Submitted on: 2/10/2021 3:16:04 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
susan higa	Individual	Oppose	No

Comments:

It's not well understood how wireless technology is harmful or even toxic to health.

I quote verbatim what Dr. Tom Cowan states:

“It has been known since the 70’s that millimeter waves degrade the oxygen in the environment, AND interfere with the body’s ability to turn oxygen into fuel, AND cause an inflammatory response.

When you put coffee in a microwave oven, it heats up the water molecules which causes the coffee to heat up.

99.99% of our molecules are water. Our tissues are structured water, like a jello consistency. Our DNA is embedded in and protected by this structured water. If you heat up the body with microwaves, which is what millimeter waves are, we break down and fall apart. It’s called hypoxia and inflammatory or cytokine storm.”

The definition of hypoxia is oxygen deprivation.

I also quote Arthur Firstenberg, author of The Invisible Rainbow who has been researching on electromagnetic radiation and health for the last 40 years:

“Every wire has an electric field and a magnetic field if it has current running through it. Going from wired to wireless means the electricity that was confined within the wire

is being released to be broadcasted into the air, and the information too is broadcasted into the air.

The heart and the nervous system are electrical organs. We use electrocardiograms, electroencephalograms because we have electrical circuitry inside us. There is electrical activity going on inside every cell, and we are subject to electromagnetic interference just like any piece of electrical equipment.

The increased electromagnetic field increasingly disturb our metabolism, which is breaking down carbohydrates into simple sugars, fats into fatty acids and proteins into amino acids. The cells can no longer efficiently metabolize the sugars, fats and proteins. So sugars back up into our blood stream, get excreted into our urine and that's called diabetes. Fats back up into our blood stream and deposit into our arteries and when deposited into our coronary arteries, that's called heart disease. As for cancer, we can't combine with the oxygen we breathe efficiently so we are starved of oxygen, by virtue of being irradiated, and cancer thrives in an anaerobic environment."

Dr. Paul Barattiero:

Electromagnetic frequencies are low voltage radiation. That's why it's a negative to the body. That's why it affects the cognitive functions because radiation affects neurological systems and why it causes headaches. It affects the cellular function to cause them to increase in heat and inflammation."

Joel Moskowitz, PhD., Director of Public Health, UC Berkeley. His

electromagnetic radiation safety website - saferemr.com - has served as a resource for scientists, journalists, policy makers, and the public since 2013.

"studies done on cell tower sites show higher levels of pathogenic bacteria. Listeria is a benign bacteria and it's found everywhere including inside the body. Under conditions of low oxygen listeria morphs into listeria monocytogenes, a form that produces poisons, which makes you sick, not from the bacteria but the poison it produces in response to the lowered oxygen environment."

Lets return the transmission of both electricity and information through fiber optics to make them safer, faster, more secure.

Thank you for protecting our health and welfare by EXCLUDING wireless in this bill.

Gratefully,

Susan Higa

Wailuku

LATE

SB-851

Submitted on: 2/10/2021 5:18:25 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nykki Hardin	Individual	Oppose	No

Comments:

Under the guise of bringing broadband to unserved and underserved areas, this bill *targets those areas and seeks to bypass local zoning review or approval for small cell wireless facilities*. This is a very bad bill! Since most underserved areas are rural, and located on the neighbor islands, this bill would **take away home rule**. Each of the islands is different and local jurisdictions are in the best position to determine what is best for their unique community. Local zoning should not be bypassed when it comes to small cells in public rights of way.

LATE

SB-851

Submitted on: 2/10/2021 9:13:49 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Klahr	Individual	Oppose	No

Comments:

We accept fiber optics but not 5G

you can not bypass local zoning laws

LATE

SB-851

Submitted on: 2/10/2021 9:33:44 PM

Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Heidi Hirsh	Individual	Oppose	No

Comments:

Aloha,

I strogly oppose SB851 and contest smart meters and smart cities in Hawaii, and anywhere on this planet for that matter. They have scientifically been proven to be a severe health hazard and have no place in society. They are not needed and will cripple the health of humanity, only so the rich and greedy can make more millions.

Mahalo,

Heidi Hirsh

3721 Kanaina Ave

Honolulu HI 96815

LATE

SB-851

Submitted on: 2/10/2021 9:47:27 PM
Testimony for GVO on 2/11/2021 3:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Yuki Klahr	Individual	Oppose	No

Comments:

I oppose SB851.

Local zoning requirement should not be bypassed to ensure local jurisdictions to determine what is the best position for their unique community.