

3/25/25

To Senator Lawrence, Representative Sachs, and Distinguished Members of the Committee on Energy, Utilities and Technology;

My name is Hillary Lister and I am a resident of Athens, Maine, where I serve as First Selectman. I am testifying in support of LD 878, Resolve, to Study the Effects of 5G and Other Non-ionizing Radio Frequency Radiation-emitting Technology on Bird, Bee, Insect and Other Wildlife Populations and the Effects of Long-term Exposure on Children.

I want to thank the sponsors of this bill who represent a bipartisan group of legislators from all across Maine. This is very timely legislation as the State is in the process of spending significant amounts of taxpayer dollars to fund an expansion of 5G systems.

The State has partnered with wireless carriers such as AT&T, Verizon, T-Mobile, US Cellular, and Starlink to accelerate the deployment of 5G systems in Maine towns and buildings, including schools. Currently the State is spending taxpayer dollars to fund 9,000 Starlink locations across Maine. The federally funded Broadband Equity, Access and Deployment (BEAD) program State grants that had prioritized fiber optic connections are now being revamped to prioritize funding wireless 5G and satellite communications technologies. Many of these systems use beamforming antenna array technologies combined with massive multiple-input multiple-output (MIMO) systems, which were originally developed for military and industrial uses, and have not been subject to adequate testing to determine whether they are safe for deployment across the countryside and into people's homes.

The Maine Connectivity Authority's Jumpstart program is funding rollouts of multiple experimental 5G-equipped towers in rural parts of the State. All of this is being done without adequate information provided to the public and municipalities regarding the potential negative impacts of uncontrolled expansion of these technologies on the animals, plants, people, and safety of the communities where the systems are operating.

Voters in the Town of Athens initiated a Moratorium on cell towers and transmitters last year, in part due to concern over a plan by US Cellular to build State-funded experimental 5G towers in town. Since that time the Town has adopted an Ordinance to regulate the siting of these facilities and to ensure that there are adequate fire safety provisions.

The study outlined in LD 878 would be a key step in helping to make sure that our communities aren't being placed in harms way by a rush to fund and expand technologies that utilize microwave radio signals. In addition to studying the impacts on birds, bees, wildlife, and children, it could be helpful to amend this bill to ensure that it assesses impacts on trees, forestry, and wildfire risks.

The State of Maine just budgeted \$2 million in taxpayer dollars to go toward efforts to stop spruce budworm populations from damaging Maine's woodlands and forestry operations. Spruce budworm damages fir and spruce trees by feeding on the trees' needles, which can lead to death of the tree after three years of defoliation. Lawmakers approved this funding to protect the forestry industry, woodlands, and to reduce the risk of wildfires fueled by dead dry trees. If protection of Maine's woodlands, forest products industry, and prevention of wildfires is truly valued, it will be equally important to support this legislation to ensure that 5G systems and related technologies do not damage woodlands and increase risk of forest fires.

In the State of New Hampshire Final Report on Commission to Study the Environmental and Health Effects of Evolving 5G Technology, Appendix N references multiple studies on the impacts of radio frequency transmissions on tree health. The studies include a nine year field study by Waldmann-Selsam in 2016 found significant impacts to trees near cell antennas, an investigation of 700 trees found damage starts on the side of the tree with highest RF, and a review on impacts to plants entitled, "Weak radiofrequency radiation exposure from mobile phone radiation on plants" which concluded, "a substantial amount of the studies on RF-EMFs from mobile phones show physiological and/or morphological effects." A study on aspen seedlings found ambient RF in a Colorado setting were high enough to cause necrotic lesions on the leaves, decrease leader length and leaf area, and suppress fall anthocyanin production (Haggarty, 2010). There are numerous studies showing that high frequency radio transmitters, including 4G and 5G transmitters, can cause significant defoliation and damage to trees.

Alfonso Balmori, in a statement to the FDA referenced in the NH study, explained, "The FDA review omits an evaluation of the science on wireless radiation impacts to trees and wildlife. Electromagnetic radiation is a form of environmental pollution which may hurt wildlife. I have co-published research entitled "Radiofrequency radiation injures trees around mobile phone base stations" finding harm to trees near base stations (cell antennas) in a long term field monitoring study in two cities." The study demonstrated that electromagnetic radiation from cell phone transmitters was harmful to the trees. The damage usually starts on one side of the tree, then extends to the whole tree over time.
[gc.nh.gov/statstudcomm/committees/1474/reports/5G%20final%20report.pdf]

Thank you for taking the time to work on this legislation. Maine people have had little to no input on the fact that our tax dollars are being used to subsidize a few companies rolling out rushed expansions of 5G systems. It is important that there be adequate studies on the risks of operating these systems and on actions needed to ensure the safety of the wildlife, woodlands, and people of Maine.

Sincerely,
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