



Wireless
Infrastructure
Association

Testimony of

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“The Evolution of Next-Generation Technologies: Implementing MOBILE NOW”

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Chairman Thune, Ranking Member Schatz, and members of the Subcommittee, thank you for holding this important hearing and for the opportunity to testify. I am President and CEO of the Wireless Infrastructure Association (WIA), the principal association representing the entire wireless infrastructure ecosystem.¹ WIA is focused on ensuring that the infrastructure is in place to make 5G a reality. WIA and our members are grateful for the leadership of this Subcommittee in clearing the path for the deployment of 5G wireless infrastructure, and for the focus today on the many effective measures enacted in the MOBILE NOW Act.

The United States has led the world in mobile communications, most significantly in 4G. It will take continued, dedicated efforts by both the wireless industry and the federal government, such as those undertaken by this Subcommittee, for the U.S. to remain in the lead for 5G. The wireless infrastructure industry is honored to work with this Subcommittee on sound policies to encourage the deployment of broadband. We must work together so that the U.S. can remain on the cutting edge of wireless deployment in order to maximize the growth it spurs in the broader economy. This Subcommittee has shown great leadership in promoting broadband deployment. Wireless consumers are reaping the rewards with more bandwidth at lower prices per megabit.

Today’s hearing is focused on the implementation of the landmark MOBILE NOW Act.² MOBILE NOW includes a number of important provisions that are helping maintain U.S. leadership in wireless innovation and propelling us towards victory in the global race to 5G.

¹ *Wireless Infrastructure Association* <https://wia.org/>.

² Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, Div. P, Tit. VI (Mar. 23, 2018) [hereinafter “MOBILE NOW”].

Critically, you have enabled the Federal Communications Commission (FCC) to make key swaths of prime spectrum, including millimeter wave and the 3 GHz band, available for wireless use, with some set aside for unlicensed use. We are eagerly waiting for the next report on mid-band spectrum which will evaluate the potential of commercial wireless services in the 3.1GHz – 3.55Ghz band.

MOBILE NOW has brought NTIA and the FCC together to determine the best ways to share spectrum between federal and non-federal users. This collaboration will help provide additional spectrum to public safety personnel in times of emergency. MOBILE NOW also encouraged NTIA to provide a national plan for unlicensed spectrum, and it helped bring wireless to those who need it most by encouraging the GAO to assess ways to deploy broadband to low-income neighborhoods. MOBILE NOW helped to shine a light on the need for broadband deployment across the country. NTIA released their broadband plan earlier this summer, which has demonstrated substantial progress towards MOBILE NOW's target of identifying 255 MHz of spectrum for mobile and fixed wireless broadband, well ahead of schedule.³

In addition, the RAY BAUM'S Act, which MOBILE NOW was rolled into, included an important provision that WIA supported to give communications tower owners and operators priority access to their sites during federally declared emergencies. Allowing this access is essential to ensuring the resiliency of our wireless networks so they are available when consumers need them most.

RAY BAUM'S also enabled the auctioning of key millimeter wave spectrum that will bolster 5G networks. This auction was made possible because the measure allowed deposits for spectrum bidding to go to the Department of Treasury. This provision, which WIA strongly supported, eliminated a persistent roadblock identified by Chairman Pai.⁴ The previous requirement of placing deposits in interest bearing accounts was preventing the FCC from proceeding with needed spectrum auctions because public institutions refused to set up special purpose accounts that the Communications Act required.

The spectrum provisions in MOBILE NOW are historic in their impact – we need as much spectrum as we can get, as fast as we can get it. But MOBILE NOW went even further. We have a saying at WIA that without infrastructure, spectrum is just theoretical. And MOBILE NOW also included several big steps forward to streamline and expedite wireless infrastructure siting

³ See Annual Report on the Status of Spectrum Repurposing, NTIA (Aug. 2019) (making 84 MHz of Low-Band spectrum available and identifying other potential channels). See also MOBILE NOW § 603 (setting target date for 255 MHz to be identified by December 2022).

⁴ *Oversight of the Federal Communication Commission Before the H. Comm. on Energy And Commerce*, Testimony of FCC Chairman Ajit Pai at 5 - 6 (Oct. 25, 2017) <https://www.fcc.gov/document/chairman-pai-testimony-house-oversight-hearing-0> (describing the need for Congress to allow upfront deposits directly into the treasury as financial institutions would not set up accounts which would satisfy the Communications Act).

on federal lands. These steps are helping boost deployment of broadband networks, especially in rural areas.

Many of these provisions were included in the final report of the Streamlining Federal Siting Working Group, which is part of the FCC's Broadband Deployment Advisory Committee (BDAC). I was honored FCC Chairman Pai appointed me to chair that Working Group. The Working Group identified 10 challenges faced by network builders when it comes to deploying on federal lands,⁵ and MOBILE NOW addresses many of them. One of the toughest challenges in siting on federal land is the long and sometimes never-ending application review process. It can take anywhere from 18 months to never for a federal agency to act on an application. Among the most significant provisions, MOBILE NOW requires agencies to approve or deny applications within 270 days, and they would have to explain any denial in writing.

Another big obstacle is unharmonized application forms across different agencies. MOBILE NOW calls on General Service Administration (GSA) to develop a common application form for all agencies to use. Additionally, there is a lack of transparency in the application process overall, and it is exceedingly difficult to get status updates of applications that have already been submitted. MOBILE NOW addresses these challenges by requiring NTIA to develop recommendations to streamline the process for considering applications, including a procedure for tracking applications. NTIA is to work with several other departments, including Labor, Agriculture, Defense, Transportation and GSA to develop these recommendations. This report is to be submitted by March 2020.

And we are already seeing progress because of MOBILE NOW. The Navy is working to implement policies to streamline the process of siting on naval bases. The Air Force is following suit, and we hope to see progress on their siting procedures soon. Additionally, the Forest Service recently began a process, as required by the 2018 Farm Bill, to streamline their procedure for infrastructure siting. The proposed Forest Service rule included many of the same provisions that were part of MOBILE NOW, including the 270-day shot clock.⁶

While MOBILE NOW moved the federal government in the right direction, much work remains on making federal lands more attractive to broadband infrastructure investment. Hurdles still exist for applications to even progress to the point where the 270-day shot clock applies. Minor modifications to existing procedures could expedite the entire process. By implementing a Cost Recovery Agreement, applicants could provide a standardized estimate of the total cost up front. Agencies could then use this upfront application fee to begin evaluating the substance of an application, including environmental reviews, without drawing from their taxpayer-funded budget. This simple measure would incentivize faster initial reviews of an application.

⁵ See Broadband Deployment Advisory Comm.: Streamlining Fed. Siting Working Group, Final Report (Jan. 23, 2018) <https://www.fcc.gov/sites/default/files/bdac-federalsiting-report-012018-2.pdf>.

⁶ See *Land Use; Special Uses; Streamlining Processing of Communications Use Applications*, 87 FR 50703, Proposed Rule, FOREST SERVICE (Sept. 25, 2019) <https://www.regulations.gov/document?D=FS-2019-0019-0001>.

In addition, some mechanism, such as a deemed granted remedy, is needed to ensure that federal agencies meet their deadlines. WIA members are reporting to us that agencies are still blowing past the shot clocks because there is no real enforcement mechanism.

MOBILE NOW and RAY BAUM's Act have certainly put us on the right path. The spectrum and siting provisions are very positive, and I would like to commend this Subcommittee and the FCC for its work.

I have long noted three pillars of wireless broadband that increase capacity to meet growing demands for broadband data: making more spectrum available, streamlining infrastructure siting, and advancing technological efficiency. I would add a fourth pillar that is now needed to hold up the edifice: 5G workforce development. It deserves the attention of Congress that to win the race to 5G, we must develop a workforce properly trained to deploy these next generation networks. And currently, the U.S. does not have a workforce sufficiently large or properly trained to meet the challenges of 5G. We cannot build the advanced networks to serve our needs tomorrow without a properly skilled workforce today.

Winning the global race to 5G means the U.S. will continue to benefit from many innovative new businesses beyond the wireless industry that will develop from it: 3 million jobs and \$500 billion in economic growth.⁷ We need to repeat the success of winning the 4G race, which spurred millions of new jobs and the creation of entirely new industries, like the app economy. But as wireless technology evolves, the workforce needs to evolve along with it. The skills of yesterday no longer suffice for the demands of today's wireless jobs.

WIA has led efforts to expand wireless workforce training and development. WIA is the national sponsor of the Telecommunications Industry Registered Apprenticeship Program (TIRAP), a multi-employer, nationwide apprenticeship program credentialed by the Department of Labor to support wireless workforce development.⁸ TIRAP brought apprenticeships into the wireless industry for the first time and it is helping telecommunications workers create sustainable careers and supporting 5G infrastructure build-out and deployment needs.

Apprenticeship, as Congress has recognized, is a time-tested, industry-driven, career pathway through which employers can develop and prepare their future workforce, and workers can obtain paid work experience, classroom instruction, and a nationally recognized credential. It is gaining in popularity here in the U.S., and I would like to think that we were a little ahead of the times when we helped to create TIRAP for our relatively new industry with the Department of Labor, the FCC, and a consortium of employers back in 2014. WIA became the national sponsor in 2017.

⁷ See, e.g., *The Global Race to 5G*, at 2, CTIA (Apr. 2018) <https://api.ctia.org/wp-content/uploads/2018/04/Race-to-5G-Report.pdf>.

⁸ See *About*, Telecommunications Industry Registered Apprenticeship Program <https://www.tirap.org/> (last visited Dec. 3, 2019).

TIRAP is seeing tremendous success. More than 2,000 apprentices have enrolled, with 28 participating employers. TIRAP provides apprentices in-the-field experience and classroom instruction, all while getting paid. That's why 94 percent of apprentices remain with the employers after completing their programs.

TIRAP is collaborating to develop curricula that can be implemented into community and technical colleges to provide academic support to apprentices. WIA and the Power and Communication Contractors Association (PCCA) are partnering to expand training initiatives into these colleges. PCCA has developed successful utility technician training programs that WIA will enhance with wireless curricula, including those we developed through our innovative Technology and Education Center (TEC), to teach workers skills they need for 5G deployment.

Developing the workforce through training and apprenticeships require long lead times. Now, however, as we look to deploy 5G across the country, we are in danger of falling behind if we do not move with enough speed. Congress and the Administration, especially the Department of Labor, can expand on partnerships with industry to develop the 5G workforce. The stakes are high. Without a properly trained 5G workforce, China, which has centralized authority to quickly bring massive labor resources to bear through government intervention in the markets, will beat us to the finish line.

5G could prove one of the most transformational standards in the history of technology. The wireless industry stands ready to make the investments needed to build the most advanced networks in the world – estimated at \$275 billion – to build out 5G.⁹ It's estimated that one out of every 100 Americans will benefit from a new 5G job.¹⁰

Wireless networks are like highways – more traffic means we need new roads and more lanes. 5G will be 100 times faster, be able to connect 100 times more devices, and will be 5 times more responsive. This means its speed, bandwidth and low latency will lead to numerous technological breakthroughs in healthcare, transportation, smart cities and education. Fully realizing the potential of 5G depends on how the infrastructure gets deployed. MOBILE NOW is a great step forward. This Subcommittee has shown decisive, bipartisan leadership, and the wireless infrastructure industry applauds your efforts. We stand ready to build upon it to deliver to consumers the networks they will rely upon to keep our economy and job base growing.

Thank you again for holding this hearing and for inviting me. I look forward to working with you all on these vital issues and answering any questions you have.

⁹ See *The Global Race to 5G*, at 2, CTIA (Apr. 2018) <https://api.ctia.org/wp-content/uploads/2018/04/Race-to-5G-Report.pdf>.

¹⁰ See *The Race to 5G*, section 4, CTIA (last visited Dec. 2, 2019) ctia.org/the-wireless-industry/the-race-to-5g#section-4.