

**Improving Broadband Deployment: Solutions for Rural America**

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before the

United States House of Representatives Committee on Small Business  
Subcommittee on Agriculture, Energy, and Trade

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Chairman Blum, Ranking Member Schneider, and members of the Subcommittee, thank you for inviting me to testify about improving broadband deployment in rural and remote areas and its impact on small businesses throughout the United States.

I am testifying on behalf of Competitive Carriers Association (“CCA”), the nation’s leading association of competitive wireless carriers. CCA is made up of nearly 100 carrier members ranging from small, rural providers serving fewer than 5,000 customers to regional and national providers serving millions of customers. CCA also represents nearly 150 associate members – small businesses, vendors, and suppliers that serve carriers of all sizes. The vast majority of CCA’s members are small businesses.

Consumer demand for mobile broadband has increased exponentially, and studies show it will continue to grow at an astounding rate. For example, Ericsson’s latest Mobility Report forecasts a greater than five-time increase in mobile data consumption over the next five years. To meet these demands, Congress and the Federal Communications Commission (“FCC” or “Commission”) must tackle broadband deployment challenges today to meet needs of our connected economy.

A persistent digital divide continues to plague certain rural areas that remain less likely to have access to, or choices for, broadband, smartphones, and other devices. Pew Research Center reports that “[d]espite recent gains in digital technology adoption, rural adults remain less likely than urban and suburban adults to have and use these technologies. For example, rural Americans are 7 to 12 percentage points less likely than those in urban and suburban areas to say they have a smartphone, traditional computer or tablet computer.” As a result, while rural areas may be more connected today than in the past, substantial segments of rural America still lack the infrastructure needed for high-speed Internet, and the service deployed in these areas may be slower than that of their urban counterparts. Policymakers must therefore implement targeted policies to ensure that even the most remote Americans remain connected in today’s mobile world.

Last week, FCC Chairman Pai participated in the inaugural Rural Prosperity Task Force meeting, where he outlined the importance of policies that support broadband availability in rural areas. As he articulated, providing connectivity nationwide is at the core of why the FCC was created in 1934. Chairman Pai shared examples of economic growth powered by broadband with the task force, including remote monitoring in a meat processing plant in Nebraska, cattle feed lot monitoring in Kansas, connected combines in Maryland, and healthcare, education, and job creation advances all made possible by broadband.

These examples are not purely anecdotal. The Hudson Institute recently found that the investments and ongoing operations of small rural broadband businesses contribute \$24.1 billion annually to the nation's gross domestic product, with 66 percent (\$15.9 billion) of that amount benefiting urban areas. The same report also found that an estimated 70,000 jobs can be attributed directly to economic activity of small, rural broadband providers, underscoring how broadband is an important driver of job growth. A separate report found that when a county gains access to broadband, there is approximately a 1.8 percentage point increase in the employment rate, with larger effects in rural areas. In testimony before a Senate subcommittee last year, a Mississippi farmer estimated a minimum "10-15% loss of efficiency when connections are disrupted" for their machines alone. New telehealth services can save a rural hospital more than \$100,000 a year in healthcare and community costs. Secondary education, technical training, and even university degrees are available online, but only accessible for Americans with broadband services that support delivery of materials and facilitate interactive classes. It's clear: the future of rural economic and small business growth is directly tied to the availability of mobile broadband.

It is not just important for today's economy; mobile broadband is vital to tomorrow's economic development through next generation or 5G services and the Internet of Things ("IoT"). The majority of CCA's members live and work in the communities they serve, and therefore share in the potential

success of ubiquitous mobile broadband service and the deployment of next-generation technologies in their hometowns. As this Committee continues to focus on improving broadband deployment, particularly in rural areas and for small businesses, we urge you to ensure reasonably comparable services are available in urban and rural areas with sustained federal support in targeted areas, streamline policies to deploy, maintain, and upgrade mobile broadband networks, and provide all carriers with opportunities to access finite spectrum resources.

***Accurate Data is Necessary to Define Areas Where Federal Funding Can Preserve and Expand Mobile Broadband Deployment***

Congress created the USF high-cost program to provide Americans in rural areas with “reasonably comparable” services as those in urban areas with the help of sufficient and predictable support. Section 254(b) of the Communications Act provides that the FCC shall base policies on “statutory principles established by Congress,” including the provision of “advanced telecommunications and information services” to consumers “in all regions of the Nation,” at “just, reasonable, and affordable rates,” and of services that are “reasonably comparable” to those provided in urban areas. In today’s world, “reasonably comparable” service is synonymous with fast, affordable mobile broadband technology. Yet, to this day, numerous members of Congress attest to the unfortunate reality of insufficient and inaccessible wireless coverage throughout the United States, both as public servants responding to their constituents and as consumers in the mobile wireless ecosystem. Committee hearings recently held in both the House and Senate find members lamenting the consistent, uniform availability of mobile broadband throughout their districts.

CCA applauds action on the FCC’s Mobility Fund II. The FCC adopted the Order in March of this year which to dedicate \$4.53 billion over the next decade to close “coverage gaps.” However, without coverage data that accurately reflects consumers’ on-the-ground experience, decisions that determine areas eligible for Mobility Fund II support will be misguided and scarce resources will be squandered. The underlying data that the FCC currently uses to make funding and other policy decisions, known as

the Form 477 data, relies on carrier-reported information lacking standardization. The FCC's own presentation of the data includes a disclaimer that "coverage calculations ... have certain limitations that likely result in an overstatement of the extent of mobile coverage." Prior to allocating Mobility Fund II support, the Commission must use standardized data including a challenge process that is efficient, eases burdens on smaller entities, and generates accurate determinations of where qualifying coverage exists and where Mobility Fund II must target support. The Commission is about to distribute \$4.53 billion in funds over the next ten years for mobile broadband deployment, and it must do so in a fiscally responsible way that accurately bridges the digital divide to preserve and expand mobile services.

The need for accurate data and analysis is an uncontroverted, bipartisan principle under current leadership at Congress and at the FCC. Specifically, on-the-ground experience, including coverage data obtained by driving across the country, makes clear that mobile wireless service is not yet available everywhere, much less on a competitive basis as required by statute. Congress stands in bipartisan agreement on this point, and has continuously noted that a strong foundation based on data that accurately reflects consumers' on-the-ground experience is critical to advancing economic decisions. CCA applauds this Congressional support, including letters to the FCC and recent legislation that recognize that Form 477 mobile coverage provides an inherently unreliable account of mobile broadband coverage, particularly in rural areas. We must begin with concrete, factual data to adequately address gaps in effective competition across the mobile wireless market.

CCA supports current legislation before the House of Representatives, H.R. 1546, The Rural Wireless Act of 2017, introduced by Congressman Dave Loebsack (D-IA) which would direct the FCC to establish a methodology for mobile wireless coverage data that reflects actual consumer connectivity experience. Additionally, Congressmen David McKinley (R-WV) and Peter Welch (D-VT) introduced the bipartisan H.R. 2903, the Rural Reasonable and Comparable Wireless Act of 2017, which would direct the FCC to implement regulations that establish a national standard to determine whether rural areas

have access to mobile broadband services comparable to their urban counterparts. CCA commends each piece of legislation seeking to identify remote and rural areas that are still unserved and underserved.

***Streamlined Infrastructure Siting Policies are Critical to Robust Mobile Broadband Networks***

Competitive carriers must be able to timely and efficiently deploy physical infrastructure. Carriers must increase the number of towers, base stations, antennas and wires, often within public rights-of-way, to support the advanced wireless services necessary to keep pace with consumer and network demands, yet carriers continue to face prohibitive delay and cost issues while working through the federal, state, and local siting process. Carriers must pass through a regulatory maze, as demonstrated in the attached chart, to gain approval to serve their communities, with potential costs and delays at each step. These longstanding obstacles are getting worse as industry moves towards deploying dense small cell networks and fiber. Most CCA members serve rural areas and have invested significant private capital, along with USF support, to deploy wireless services in some of the hardest to serve parts of our nation. However, expanding service to underserved and unserved rural areas depends on the ability to efficiently site facilities, including on federal lands.

Congress, the FCC, and industry have acknowledged that achieving true 5G connections will depend on government's ability to update the applicable regulatory frameworks, and make them more predictable. While critically important for 5G, these are not issues for future action – they also affect deploying today's technologies and policymakers must act immediately. CCA supports Chairman Pai's Broadband Deployment Advisory Committee ("BDAC"). The BDAC's recommendations on how to accelerate broadband deployment will directly support the Commission's statutory mandate to facilitate high-speed broadband for all Americans. Congressional efforts also are needed. Congress should pass legislation that improves the process for deploying facilities on federal lands, and streamlines state and local barriers to deployment. Strong national siting standards, including shot clocks, reasonable

restraints on state and local infrastructure-related fees, and modifications to current historic preservation and environmental compliance siting processes, will relieve carriers and state and local review offices from resource burdens, and will improve connectivity for consumers. In addition to reducing state and local barriers, Congress should work with the FCC to address in the short term its current framework for complying with the National Environmental Protection Act (“NEPA”) and the National Historic Protection Act (“NHPA”), including section 106 review.

#### *Siting on Federal Lands*

CCA members often express frustration about the hurdles they face when filing an application to deploy or upgrade facilities on federal lands. These experiences include lost or missing applications, applications that languish for years, inconsistent or undisclosed rules across and within agencies, redundant historical or environmental reviews, and inconsistent denials. In other words, unnecessary bureaucratic red tape regularly prevents competitive carriers from providing high-quality mobile broadband service in rural America. In many cases, carriers stall and sometimes abandon plans to buildout in these areas. This is not an acceptable outcome. The BDAC includes a Working Group dedicated to streamlining the federal siting process; I encourage this Subcommittee to pay attention to the Working Group’s efforts as part of any effort to address federal lands siting issues.

#### *State and Local Barriers to Broadband Deployment*

CCA and its members are deeply engaged in policymakers’ ongoing work to address state and local barriers to broadband deployment. At the FCC, for example, CCA serves on the BDAC’s Removing State and Local Regulatory Barriers Working Group, alongside many other stakeholders, including municipal representatives. When it comes to state and local siting processes, imposing reasonable restraints on state and local infrastructure-related fees and making sure applications are timely reviewed under clear rules will allow competitive carriers to make a better business case for deployment. It also will reduce the need to lobby individual local authorities or States to adopt

broadband-favorable rules. Broadband deployment is an investment in the local economy, and while local authorities often resist a “one size fits all” solution, most industry requests for national standards are administrative and structural and can appropriately respect local issues.

*Congress Must Implement Durable Infrastructure Solutions*

The FCC can quickly move to address some of these infrastructure challenges, but Congress must act to provide long-term certainty. Congress should include support for mobile broadband deployment and services in any infrastructure bill. There is bipartisan support from House and Senate leadership to find solutions to bridge the digital divide. Democrats on the House Energy and Commerce Committee as well as Senate Democrats have proposed broad infrastructure plans that include designated funding for broadband infrastructure. House Energy and Commerce Subcommittee on Communications and Technology Chairman Marsha Blackburn has confirmed her commitment to include broadband in any infrastructure proposal, and Senate Commerce, Science and Transportation Committee Chairman John Thune has held numerous hearings on the importance of mobile broadband infrastructure. Similarly, the Administration’s Fiscal Year 2018 budget proposal prioritizes improvements in broadband deployment, and includes “\$200 billion in outlays related to the infrastructure initiative,” which could support broadband deployment. Policymakers must be mindful that small rural and regional providers have limited resources, and continue to face challenges securing adequate capital for wireless siting projects, an issue where this Committee plays a critical leadership role.

CCA also supports legislation like S. 19, Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless Act, or the MOBILE NOW Act. The MOBILE NOW Act would contribute to streamlining federal siting and deployment policies, as well as repurposing federal spectrum for commercial use. Combined with FCC efforts, Congress is poised to provide relief to carriers seeking to serve the most challenging areas of the United States. Sound, unified infrastructure



policies will create jobs and drive economic development. This will play a significant role in ensuring the United States leads the world in 5G.

***Access to a Myriad Spectrum of Resources is Critical to Deploying Ubiquitous Mobile Broadband Networks***

The wireless industry is on the brink of a tectonic technological shift. While many carriers in rural areas still maintain 2G networks, other wireless providers are currently transitioning from 3G to 4G networks and other providers are turning down their 2G and 3G networks altogether. Carriers are now looking forward to deploying 5G next-generation technologies. To make this important jump, competitive carriers must have access to low-, mid-, and high-band spectrum to deploy next-generation mobile broadband and, eventually, 5G networks. This will determine viability of smaller carriers as the demand for data increases.

Building on the trend to next-generation technologies, Congress should support efforts to allocate additional spectrum resources for mobile broadband use, including low-, medium-, and high-band spectrum, both licensed and unlicensed. Additionally, Congress should work alongside the Commission to prevent attempts to encroach on mobile carrier operational rights throughout the millimeter (“mmW”) spectrum. Competitive carriers already are using these licenses for point-to-point and critical backhaul services across rural and urban communities, enabling broadband connectivity for local municipalities, schools and businesses in these areas. Congress and the FCC should continue to facilitate carriers’ use of this spectrum to provide all consumers with the most advanced services.

A varied spectrum portfolio is necessary to meet consumers’ increasing demands, and the birth of unlimited plans and data services on a variety networks. The Commission’s first ever 600 MHz incentive auction closed successfully on March 30, 2017, with a gross revenue totaling nearly \$20 billion. Importantly for this Committee, based on Congressional direction, the FCC took many steps to support participation by smaller businesses, including building interoperability into the rules, providing

sufficiently small geographic license sizes, and ensuring all carriers had a fair and equitable opportunity to participate.

CCA commends Congress for its critical role in authorizing the incentive auction, which is the second largest spectrum auction in FCC history with 84 MHz of reallocated spectrum, 70 MHz allocated for mobile broadband use, and \$7 billion provided to the Treasury for deficit reduction. Broadcasters won \$10.05 billion in revenue and eligible broadcasters will have access to \$1.75 billion in reimbursement payments for the repack. The auction itself topped the charts in FCC auction history – garnering a whopping \$19.8 billion in gross revenues, second only to the AWS-3 auction. And, the nearly \$20 billion in gross revenue from the 600 MHz incentive auction is the capstone for an estimated total of about \$66.5 billion in gross revenue generated by the 2012 Spectrum Act.

Once put to use, this 600 MHz spectrum will be vital to expanding mobile broadband coverage into unserved areas. What's more, the Congressionally based 39-month repack timeline also will provide an engine for economic stimulation and job opportunities across rural America. For these reasons, Congress and the FCC should promptly dismiss any attempts to introduce delay and uncertainty in the repack process, and instead, focus on completing the post-incentive auction transition within the statutorily-based timeline or sooner. Any delay would be a detriment to competition, the public interest, and the economy.

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CCA members are proud to serve rural and remote parts of the country, but there is a long way to go for ubiquitous connectivity. Indeed, the majority of CCA's members live and work in the communities they serve. As a result, competitive carriers share both a professional and personal stake in ensuring ubiquitous mobile broadband service is available to all consumers in their communities. The coming year will be a time of significant transition in the wireless market as regulatory and technological changes take hold, and as carriers move toward 5G and IoT technologies. During this transitional and

often uncertain time, Congress must continue to identify and remove structural barriers to mobile broadband deployment in rural and remote areas of the United States, providing greater opportunities and certainty for small business and the consumers they serve. Mobile broadband is a critical economic driver, and its role in economic development will be magnified following the evolutionary leap to 5G technologies. Consumers expect their service and devices to connect wherever they live, work or travel; yet competitive carriers struggle to access the resources required to build out robust mobile broadband networks. Policies established by Congress and implemented by the FCC will play a significant role in whether rural America has access to the latest services or languishes behind the modern economy. CCA looks forward to continued work with policymakers to ensure legislation and policies support ubiquitous mobile wireless service and innovation for all consumers.

Thank you for your attention to these issues and for holding today's important hearing. CCA looks forward to continuing to work with you, your colleagues, and the FCC to make these policies a reality, and I welcome any questions you may have.



Competitive Carriers Association  
Rural • Regional • Nationwide®

# Regulatory Steps to Siting Mobile Infrastructure



## Start Here

### FAA Compliance

Towers near airports or over 200 ft.

Form 7460-1  
(Notice of Proposed  
Construction or Alteration)

Hazard  
Determination

No Hazard  
Determination

Resolve

Antenna  
Structure  
Registration  
(ASR with FCC)

### NEPA Compliance

Categorical Exemption?

Residential  
Concerns

Wilderness  
& Wildlife  
Considerations

Floodplain

Tribal &  
Historical  
Sites

Structure  
over 450 ft.

Radiofrequency  
Exposure Limit

No

Yes

FCC Requires  
EA?

No

Yes

Conduct  
Environmental  
Assessment (EA)  
and Form 601

Antenna  
Registration  
Needed?

No

Yes

Submit  
EA

Public  
Notice  
(FCC-issued)

Petitions  
to Deny

FCC  
Additional  
Info Requests

No

Yes

FCC Issues  
an EIS

No

Yes

Mitigate  
Impacts

No

Yes

Move /  
Change  
Site

No  
Construction

### Section 106/NHPA

NHPA  
Compliance

Exempt Under NPA?

Yes

No

Notice to  
Tribes  
Still  
Needed?

Yes

No

Define APE

ID Historic  
Properties

Assess Impact

Consult  
with Tribes

PROBLEM  
AKA Adverse  
Effect

Negotiate

MOU

Yes

No

Negotiations  
Round 2:

ACHP Council  
Rules

Consulting,  
Reviews

Can't Resolve  
Problem

ACHP  
Comments

FCC  
Decides

No  
Construction

NO PROBLEM

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

### State/Local Authority

Moratorium?

No

Yes

Complete Local  
Application

Section 6409(a)  
Review

Yes

No

Section 332  
Review

Shot Clocks  
Collocation  
(90 Days)

and / or  
New Construction  
Applications  
(150 Days)

Incomplete  
Application?  
and / or  
Additional  
Negotiations?

Other Local  
Considerations  
(Public Hearing)

Application  
Approved!

Additional  
Fees

Application  
Denied

No  
Construction

Possible  
Litigation

Litigation Fees  
and  
Delays

No  
Construction

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

NO PROBLEM

PROBLEM  
Historic Artifact  
or Adverse Effect

