



Wireless
Infrastructure
Association

October 11, 2016

VIA EMAIL

National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW, Room 4887
Attn: National Broadband Research Agenda
Washington, D.C. 20230

Re: Notice, Request for Comment on the National Broadband Research Agenda

The Wireless Infrastructure Association (“WIA”)¹ welcomes the opportunity to provide comment on the National Telecommunications and Information Administration (“NTIA”) and National Science Foundation (“NSF”) effort to “improve data collection, analysis and research on broadband” through the development of a National Broadband Research Agenda (“Research Agenda”).² WIA especially applauds the agencies’ intent to “improve data collection, analysis, research, and their applications for the benefit of broadband policy development, program implementation, and program evaluation.” Research without subsequent action is a quixotic endeavor. The wireless infrastructure industry continues to face hurdles that burden the deployment of wireless infrastructure throughout the country. Therefore, the Research Agenda should not only seek to align and coordinate across federal and external stakeholders³, but also encourage coordination with state, local, and Tribal governments to streamline wireless infrastructure siting processes.

¹ The Wireless Infrastructure Association, formerly PCIA, is the principal organization representing the companies that build, design, own and manage telecommunications facilities throughout the world. Its over 230 members include carriers, infrastructure providers, and professional services firms.

² National Broadband Research Agenda, Docket No. 160831803-6803-01, 81 Fed. Reg. 62479 (Sep. 9, 2016).

³ Id. at 62480.

Broadband technology

Question 1. What are the critical data and research needs in the areas of broadband technology and innovation?

As demand for data continues to increase, wireless service and infrastructure providers are investing in innovative technology that will support growing network requirements. The Research Agenda should compile data and research around the types of infrastructure solutions, such as small cells, being developed to support the next generation of wireless capabilities and how those solutions are being brought to market to meet these data demands. Research on the effects the regulatory environment has on development and deployment of these innovative broadband technologies would also be helpful.

Broadband Deployment, Adoption, and Utilization by Individual, Business, and Institutional Users

Question 4. What are the critical data and research needs in the areas of broadband deployment and access?

Broadband deployment depends greatly on the regulatory landscape on the state, local, Tribal, and federal landholding agency levels. Consequently, data and research on local zoning, permitting, access to rights-of-way, siting application fees, taxes, and siting application approval timelines are critical for identifying exactly what and where barriers to broadband infrastructure exist. Gathering information on these data points from states, municipalities, Tribes, and federal landholding agencies will help stakeholders better understand the systems which either enable or hinder broadband infrastructure deployment.

WIA members face states and localities that continue to erect barriers to deployment and in some cases contravene federal law. The Research Agenda should explore the types of ordinances, standards, staffing, time for application review, and budgets localities use to address broadband infrastructure projects. Specifically,

ordinance research should include review of policies related to access to rights-of-way, conduits, and poles.

Similarly, when applying to site facilities on federal lands, WIA members have encountered applications that are either never accepted, due to lack of understanding or resources at the field office level; or stall for months at a time, providing few meaningful status updates to the applicant. Accordingly, data and research on the way federal landholding agencies staff and process wireless facilities siting applications would be helpful for identifying opportunities to improve efficiency. Additionally, data and research on the location of federal lands and property and which areas have broadband coverage would be very beneficial to advancing broadband deployment.

Agencies should provide a regular report to identify coverage gaps and deficiencies with respect to the current status of broadband deployment on federal lands. Regular publication of information about areas designated by agencies as “telecom areas,” where agencies wish to encourage deployment, would also be helpful. Such reporting will enable agencies to better assess broadband deployment and set quantifiable goals for broadband deployment on federal lands. Information sharing can also reveal the challenges to providing service on federal lands at an economically feasible cost and afford a platform to discuss solutions to these challenges.

Question 6. What are specific areas for federally-supported research as related to key market trends that impact broadband deployment, including business models, public-private partnerships, sustainability drivers, the removal of regulatory barriers?

WIA encourages NTIA and NSF to include in the Research Agenda an in-depth study on trends related to the removal of regulatory barriers to broadband deployment on the federal, state, and local levels and on Tribal lands. Collecting data on what regulatory efforts various government bodies have taken to streamline broadband deployment can inform decisions being considered by entities in the future. The Research Agenda should explore the types of laws—such as zoning, permitting, access to rights-of-way, fees, and taxes—that impact local siting and what trends have emerged over the last few years towards removing barriers to deployment. This research on trends in local

infrastructure siting regulation will help identify what policies are working and what policies are stifling broadband deployment.

One avenue to collect this data may be through NTIA's current Community Connectivity Initiative, Self-Assessment tool.⁴ The most recent draft of the tool has a mobile broadband access component, which notes the importance of local policies.⁵ The Self-Assessment tool may be useful for the Research Agenda objectives if NTIA can enhance it by requesting that localities provide full disclosure of their broadband deployment policies and application review data points, such as the time it takes to review applications and associated fees, as requested in WIA's previous recommendations.

Question 9. What specific research and data are needed to understand how rural residents and other population groups that have traditionally under-utilized broadband technology (e.g., seniors, low-income families, persons with disabilities) can better adopt and use broadband?

WIA recommends that the Research Agenda contain research and data on current and potential uses for broadband in rural parts of the country. Specifically, the Research Agenda should explore where government funds for underserved communities are awarded and whether this allocation best maximizes economic benefits. That is, is the government awarding funds to regions of the country where economically beneficial technologies, such as precision agriculture, are being used and have the potential for significant expansion? Additionally, the Research Agenda should investigate the rural-specific barriers to broadband infrastructure deployment.

⁴ NTIA, Community Connectivity Initiative, <http://www2.ntia.doc.gov/CCI> (last visited Oct. 11, 2016).

⁵ See BroadbandUSA, Community Connectivity Assessment: Review Copy (Sep. 1, 2016) (on file with author).

Assessment of Economic and Social Impacts

Question 10. What are the critical data and research needs in the area of broadband and its economic and social impact?

The Research Agenda should include research depicting the specific economic impact of increased broadband infrastructure deployment. Explaining the direct correlation between infrastructure deployment and economic benefits will help communities better understand the importance of streamlining the infrastructure siting process. Such a study performed by the federal government may have more meaningful impact on local governments than those conducted by private entities.

Opportunities for Federal Leadership in Data Collection, Research, and Overall Coordination

Question 13. What opportunities exist to improve the sharing of research from federal research programs with external stakeholders (e.g., industry, academia)? Likewise, how can external stakeholders better share their research with federal agencies?

WIA supports the Broadband Opportunity Council (“BOC”) recommendation to “provide a one-stop portal to access information about Federal broadband programs,” which will “include a list of Council committed Agency actions with status on implementation; links to Agency policies and grant guidance related to broadband; best practice guides; technical assistance briefs; Agency and program points-of-contact; and a list of Frequently Asked Questions.”⁶ As an added efficiency to efforts to streamline broadband infrastructure deployment, WIA recommends that federal broadband-related research be accessible through this portal. Industry has great use for the research the federal government conducts, and having it all in one place improves efficiencies of information sharing. This portal should also include a feature that allows

⁶ BROADBAND OPPORTUNITY COUNCIL, REPORT AND RECOMMENDATIONS, at 17 (Aug. 20, 2015), https://www.whitehouse.gov/sites/default/files/broadband_opportunity_council_report_final.pdf.

external stakeholders to share their research with federal agencies widely as opposed to relying solely on individual outreach. Federal agencies should be able to go to one place to find research categorized by broadband issue-sets.

Additionally, WIA recommends that the Research Agenda contain regular check-ins with federal and local governments on the development of their research efforts and to update research as changes are implemented or new data manifests. This will help ensure that U.S. broadband research keeps pace with the dynamic nature of technological development.

Question 14. What are suggestions for enhancing cross-disciplinary collaboration in broadband research?

Once NTIA and NSF establish what research and data they need from industry, the federal government should incentivize industry to conduct and share this research.⁷ Industry-driven research is costly and often contains sensitive business data. Incentives for providing this information may enhance the speed and quality of the research. WIA also encourages the federal government to work with industry, academia, and other stakeholders to establish, or strengthen an already existing, broadband research symposium that promotes wide participation across various disciplines.

⁷ The development, research and findings of the Obama Administration \$400 million Advanced Wireless Research Initiative led by NSF may inform the creation of the National Broadband Research Agenda. The White House, Fact Sheet: Administration Announces an Advanced Wireless Research Initiative, Building on President's Legacy of Forward-Leaning Broadband Policy (July 15, 2016), <https://www.whitehouse.gov/the-press-office/2016/07/15/fact-sheet-administration-announces-advanced-wireless-research> (last visited Oct. 11, 2016).

Question 15. Given limited federal budgets and existing research efforts led by industry, academia, and other external groups, what specific role should the federal government play in the area of broadband research (e.g., funding, data gathering, coordination)?

As discussed above, the federal government should serve as a clearinghouse for broadband research data through a vehicle such as the BOC-recommended one-stop portal. Additionally, the federal government should act as a convener of various stakeholders that play a role in broadband deployment and adoption. Lastly, the federal government should provide incentive programs and funding for broadband research initiatives identified in the Research Agenda.

Research and data surrounding wireless broadband infrastructure deployment practices and benefits will bring our country closer to standardizing and accelerating the wireless siting application process. This streamlining is integral to meeting “one of the great infrastructure challenges of our time”—increasing broadband deployment throughout the nation.⁸ The National Broadband Research Agenda has the opportunity to propel broadband deployment by adopting WIA’s aforementioned recommendations.

Sincerely,

A handwritten signature in black ink, appearing to read "Sade Oshinubi". The signature is fluid and cursive, with the first name "Sade" and the last name "Oshinubi" clearly distinguishable.

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⁸ Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, Notice of Inquiry, 26 FCC Rcd 5384 (2011).