

**Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Parts 1, 22, 24, 27, 74, 80, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services)	WT Docket No. 10-112

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Partitioning and Spectrum Disaggregation Rules and)	
Policies for Certain Wireless Radio Services)	

COMMENTS OF CTIA

CTIA¹ respectfully submits these comments in response to the Further Notice of Proposed Rulemaking (“*Further Notice*”) released by the Federal Communications Commission (“Commission”) seeking comment on proposals to modify the Commission’s Wireless Radio Service (“WRS”) rules to advance the goal of increasing the availability of wireless communications services, particularly in rural areas.² CTIA firmly supports the Commission’s commitment to extending wireless services across rural America and believes that creating incentives for rural buildout is the best way to meet the Commission’s goals in this proceeding.

I. INTRODUCTION AND SUMMARY.

Wireless providers continue to make progress toward deploying advanced mobile wireless services to rural areas. In the Commission’s just-released Mobile Competition Report,

¹ CTIA® (www.ctia.org) represents the U.S. wireless communications industry and the companies throughout the mobile ecosystem that enable Americans to lead a 21st- century connected life. The association’s members include wireless carriers, device manufacturers, suppliers as well as apps and content companies. CTIA vigorously advocates at all levels of government for policies that foster continued wireless innovation and investment. The association also coordinates the industry’s voluntary best practices, hosts educational events that promote the wireless industry, and co-produces the industry’s leading wireless tradeshow. CTIA was founded in 1984 and is based in Washington, D.C.

² *Amendment of Parts 1, 22, 24, 27, 74, 80, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services*, Second Report and Order and Further Notice of Proposed Rulemaking, WT Docket No. 10-112, FCC 17-105 (Aug. 3, 2017) (“*Second Report and Order*” and “*Further Notice*”).

the percentage of rural Americans who can choose between three or more 4G LTE providers grew to more than 84 percent—a nearly 30 percent increase during the most recently reported 18-month period. For the many flexible-use licenses still in their initial terms (such as most 700 MHz, AWS-3, and 600 MHz licenses), current buildout requirements continue to apply and deployments will continue to extend into rural areas. For rural areas that are the most economically challenging, the Commission’s Mobility Fund will provide \$4.53 billion in subsidies to support 4G LTE buildout in many unserved rural areas. The Commission’s proceedings to lower regulatory barriers to infrastructure deployment will further encourage rural deployment. Given these developments, new regulatory mandates are unwarranted, or at a minimum are premature.

However, the *Further Notice* does not take these developments into account, nor does it acknowledge how these developments will continue to drive additional deployment to rural areas. Importantly, it does not demonstrate how the benefits of the proposal to escalate renewal-based buildout mandates outweigh their costs, the litmus test the Commission should apply before imposing new regulation. To the contrary, imposing new, heightened buildout mandates on licensees as a condition of license renewal would not necessarily benefit rural consumers because those mandates would not (unlike the Mobility Fund) directly target unserved rural areas, but could force uneconomic buildouts, distort investment decisions, and depress spectrum valuations – all of which could harm rural consumers by discouraging investment in sparsely populated areas.

Additional buildout requirements or new penalties are not the best tools for encouraging expanded coverage in rural areas. Instead, the Commission can facilitate the expansion of wireless broadband to unserved rural areas by creating incentives for rural buildout—such as

longer license terms for surpassing existing buildout requirements—and lowering barriers to investment and deployment. Like the Mobility Fund, incentives can be tailored to foster rural deployment by making buildout economically feasible. The Commission should also refrain from imposing unnecessary affordability and accessibility reporting obligations on renewal applicants, which would create additional burdens for both the Commission and applicants and undermine this proceeding’s objective to simplify and streamline the renewal process. This course of action will best facilitate the Commission’s goal of enabling the efficient and economical deployment of wireless services to rural Americans.

II. WIRELESS PROVIDERS’ ONGOING DEPLOYMENTS AND COMMISSION POLICIES ARE CONTINUING TO NARROW THE RURAL DIGITAL DIVIDE.

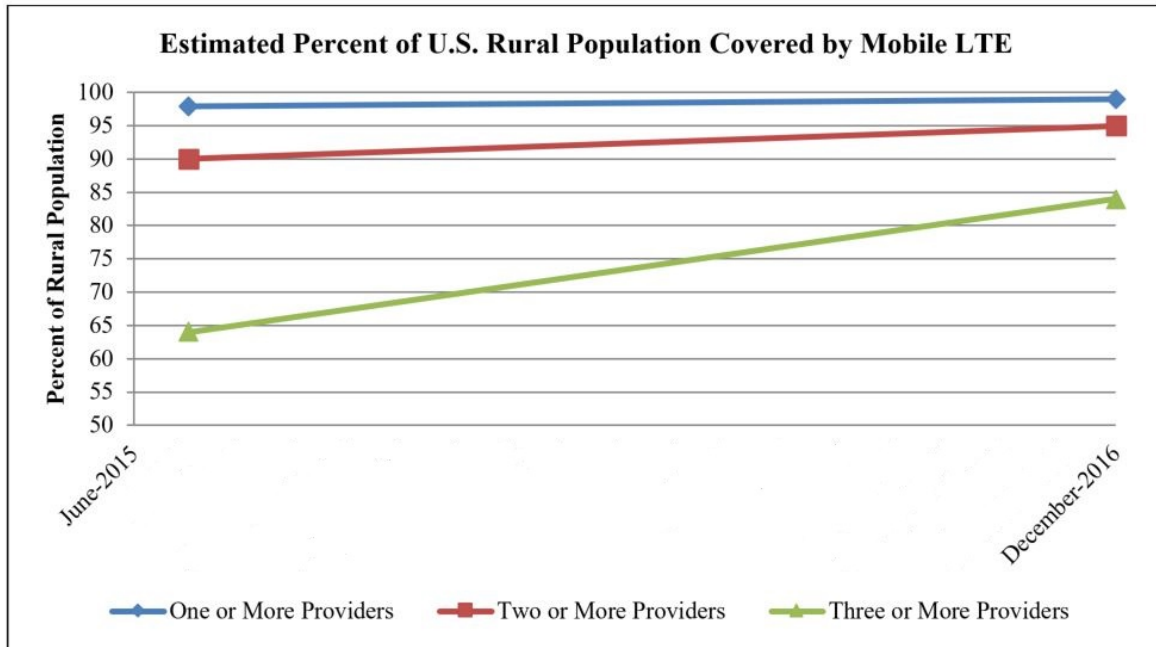
A. Wireless Coverage Continues to Expand to Rural Areas.

Wireless providers have continued to expand mobile broadband to rural areas over the past several years. As shown below in Figure 1 below, the just-released 20th Mobile Wireless Competition Report shows that the percentage of the U.S. rural population with access to one or more LTE providers continues to increase each year.³ As of year-end 2016, nearly 99 percent of the rural population had access to at least one mobile LTE provider, more than 95 percent had access to at least two mobile LTE providers, and at least 84 percent had access to three or more

³ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Twentieth Report, WT Docket No. 17-69, at Chart III.D.12 (rel. Sept. 27, 2017) (“20th Mobile Competition Report”); *see also Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Nineteenth Report, 31 FCC Rcd 10534, Chart III.A.6 (2016) (“19th Mobile Competition Report”); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Eighteenth Report, 30 FCC Rcd 14515, Chart III.A.5 (2015) (“18th Mobile Competition Report”).

mobile LTE providers.⁴ The figure for three or more LTE providers has increased 30 percent in just the most recently reported 18 months.⁵

Figure 1



Sources: 20th Mobile Competition Report at Chart III.D.12; 18th Mobile Competition Report at Chart III.A.5.

⁴ 20th Mobile Competition Report at Charts III.D.11, III.D.12. In most instances, the mobile coverage data in the 20th Mobile Competition Report—and discussed herein—is presented as both a centroid analysis and an actual area coverage analysis of FCC Form 477 data. The Commission is currently working to enhance the Form 477 data collections. See *Modernizing the FCC Form 477 Data Program*, Further Notice of Proposed Rulemaking, 32 FCC Rcd 6329 (2017). CTIA supports this effort and looks forward to engaging with the Commission in that proceeding, as it will result in even more accurate data about current U.S. broadband coverage moving forward and will provide the Commission with valuable insight into the state of mobile broadband deployment and competition.

⁵ Compare 20th Mobile Competition Report at Chart III.D.11 (showing that 84.2 percent of the U.S. rural population was covered by three or more LTE providers at the end of 2016, based on a centroid analysis of Form 477 data) and Chart III.D.12 (showing that 84 percent of the U.S. rural population was covered by three or more LTE providers at the end of 2016, based on an actual area analysis of Form 477 data), with 18th Mobile Competition Report at Chart.III.A.5 (showing that 64.8 percent of the U.S. rural population was covered by three or more LTE providers as of July 2015, based on July 2015 Mosaik Solutions data).

As Commissioner O’Rielly noted, “[w]hile urban consumers still have more choice than their rural counterparts, these numbers are impressive because rural and remote areas, with far fewer consumers, cannot support the same number of competitors as Washington, D.C., Los Angeles, or even Buffalo, New York.”⁶ Indeed, this recognition informed the Commission’s decision to fund only one mobile wireless provider in a given geographic area through the Mobility Fund Phase II (“MF-II”). The Commission reasoned that “providing universal service support to multiple providers in a given area leads to duplicative investment by multiple [competitive eligible telecommunications carriers] in certain areas at the expense of investment that could be directed elsewhere, including areas that are not currently served.”⁷

The percentage of U.S. road miles covered by at least one mobile LTE provider has also continued to increase steadily.⁸ Figure 2 shows that as of year-end 2016, nearly 93 percent of U.S. road miles were covered by at least one mobile LTE provider, roughly 84 percent of U.S. road miles were covered by two or more mobile LTE providers, and nearly 70 percent were covered by three or more⁹ – an increase in the latter figure of more than 35 percent in a year and a half.¹⁰

⁶ 20th Mobile Competition Report (Statement of Commissioner Michael O’Rielly), https://apps.fcc.gov/edocs_public/attachmatch/DOC-346898A4.pdf.

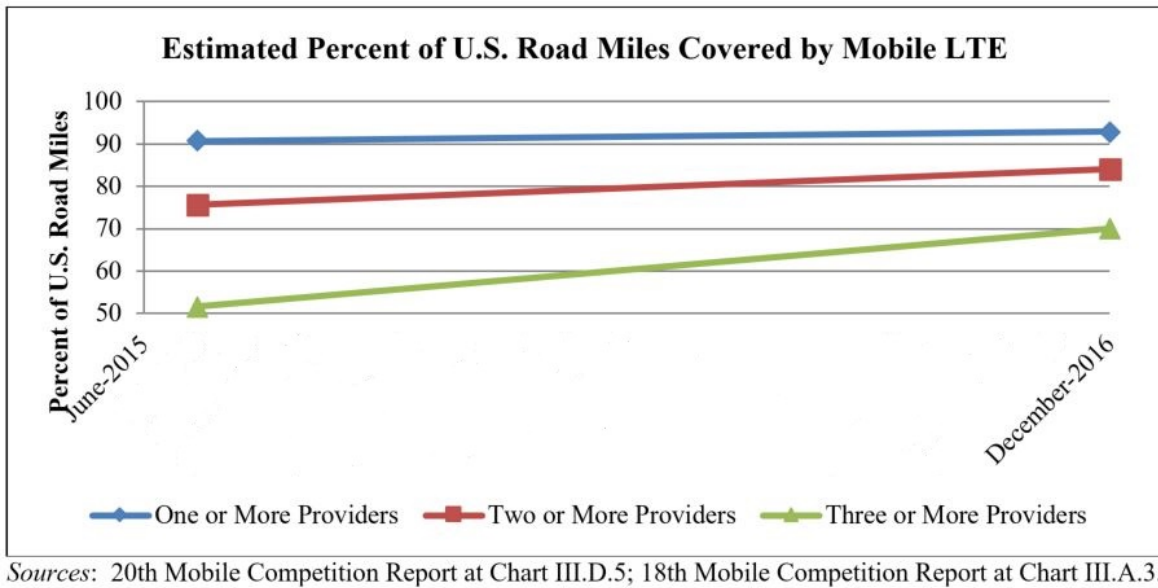
⁷ *Connect America Fund; Universal Service Reform – Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 2152 ¶ 83 (2017).

⁸ 20th Mobile Competition Report at Chart III.D.5; 19th Mobile Competition Report at Chart III.A.3; 18th Mobile Competition Report at Chart III.A.3.

⁹ 20th Mobile Competition Report at Charts III.D.4, III.D.5.

¹⁰ *Compare* 20th Mobile Competition Report at Chart III.D.4 (showing that 69.7 percent of U.S. road miles were covered by three or more LTE providers at the end of 2016, based on a centroid analysis of Form 477 data) and Chart III.D.5 (showing that 69.4 percent of U.S. road miles were covered by three or more LTE providers at the end of 2016, based on an actual area analysis of Form 477 data), *with* 18th Mobile Competition Report at Chart III.A.3 (showing that 51.7 percent of U.S. road miles were covered by three or more LTE providers as of July 2015, based on July 2015 Mosaik Solutions data).

Figure 2

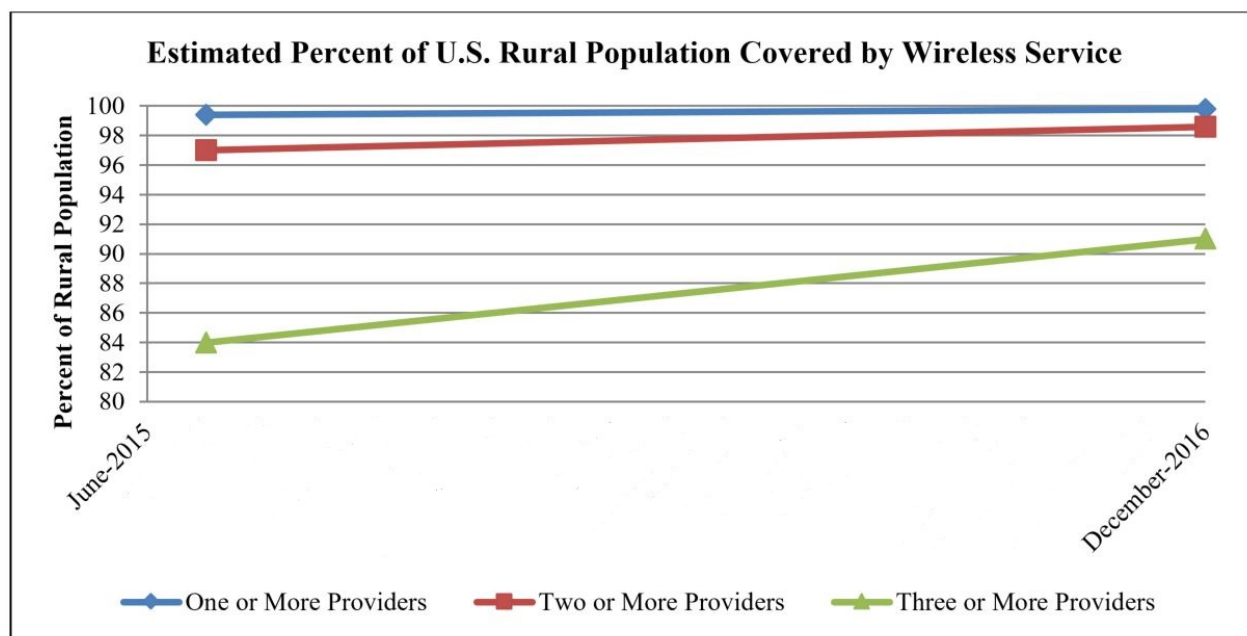


And wireless service today (not limited to LTE) is widely available. Figure 3 shows that the percentage of rural Americans covered by one wireless provider reached 99.8 percent as of year-end 2016.¹¹ Furthermore, 98.6 percent had access to two or more providers and 91 percent had access to three or more providers (compared to 97 percent and 84 percent, respectively, as of July 2015).¹²

¹¹ 20th Mobile Competition Report at Chart III.D.8 (based on a centroid analysis of Form 477 data).

¹² Compare *id.*, with 18th Mobile Competition Report at Chart III.A.4 (based on July 2015 Mosaik Solutions data).

Figure 3



Sources: 20th Mobile Competition Report at Chart III.D.8; 18th Mobile Competition Report at Chart III.A.4.

The recent Incentive Auction is unleashing a new round of mobile broadband deployment in rural areas, as the 600 MHz licenses' expansive propagation qualities are particularly well suited for rural coverage. Just two months after acquiring its 600 MHz licenses, T-Mobile has already deployed its 4G LTE network to rural areas it had not previously served.¹³ By the end of the year, T-Mobile expects to add hundreds of 600 MHz network sites in Wyoming, Oregon, Texas, Kansas, Oklahoma, Maine, New Mexico, North Dakota, North Carolina, Pennsylvania, Virginia, and Washington.¹⁴ It plans to extend its coverage from 314 million to 321 million Americans.¹⁵

¹³ Press Release, T-Mobile, T-Mobile Lights Up World's First 600 MHz LTE Network at Breakneck Pace (Aug. 16, 2017), <https://newsroom.t-mobile.com/news-and-blogs/cheyenne-600-mhz.htm>.

¹⁴ *Id.*

¹⁵ Press Release, T-Mobile, T-Mobile Separates Itself from the Competition for a Third Straight Year, Best Customer Growth and Revenue Growth in the Industry (Feb. 14, 2017), <https://newsroom.t-mobile.com/news-and-blogs/q4-2016-earnings.htm>.

Further, 23 of the 50 winning spectrum bidders in the Incentive Auction obtained rural bidding credits, another program the Commission adopted to foster the deployment of mobile broadband to rural areas.¹⁶ In order to qualify for those credits, these bidders must have less than 250,000 subscribers and serve predominantly rural areas.¹⁷ These winning bidders are committed to building out networks in their communities, and include providers from many states with significant rural areas including Oklahoma, Kansas, Iowa, Kentucky, Missouri, and North Dakota.¹⁸ As one rural carrier, Carolina West Wireless, announced, the spectrum it acquired at auction will enable it “to strengthen and expand existing LTE coverage and increase capacity to meet the growing business and consumer demand for more mobile data – as well as creating the network foundation for the next generation of wireless services.”¹⁹

In addition, nationwide providers are deploying and partnering with rural carriers to extend spectrum use and wireless broadband deployment deeper into rural areas. For example, Sprint’s Roaming Preferred Provider program features dozens of carriers, and has extended coverage over 565,000 square miles in 27 states, covering a population of more than 38 million people.²⁰ And AT&T has made fixed wireless Internet service available for rural and

¹⁶ FCC, The Incentive Auction By the Numbers, https://apps.fcc.gov/edocs_public/attachmatch/DOC-344398A1.pdf (last visited Sept. 20, 2017).

¹⁷ See *Incentive Auction Closing and Channel Reassignment*, Public Notice, 32 FCC Rcd 2786, Exhibit H (2017). Rural areas are defined as “counties with a population density of 100 or fewer persons per square mile.” *Id.*

¹⁸ See *supra*, note 16; see also *Incentive Auction Closing and Channel Reassignment*, Public Notice, 32 FCC Rcd 2786, at Appendix B (2017).

¹⁹ Press Release, Carolina West Wireless, Carolina West Wireless Announces Successful Results in FCC Low Band Spectrum Auction (May 9, 2017), <https://www.carolinawest.com/press-releases>.

²⁰ Fierce Wireless, Sprint: 16 of 30 Rural LTE Roaming Partners Have Now Launched LTE Service (May 20, 2015), <http://www.fiercewireless.com/wireless/sprint-16-30-rural-lte-roaming-partners-have-now-launched-lte-service>.

underserved areas in a total of 18 states, and plans to provide access to over 400,000 locations by the end of 2017 and 1.1 million locations by 2020.²¹

B. The Current Buildout Rules Already Promote Deployment in Rural Areas.

As the data above demonstrate, the current buildout rules are having their intended effect of expanding wireless service in rural areas. Chairman Pai has emphasized that rules should be adopted only when there is evidence of an existing problem and the regulatory solution is both needed, and narrowly tailored, to correct that problem.²² He has also urged the use of fact-based cost-benefit analysis.²³ Commissioner O’Rielly has also underscored the importance of evidence-based rulemaking.²⁴

In this case, it is premature at best to impose substantial new buildout requirements on wireless providers. Many licenses are still in their initial terms, and licensees have not had to meet buildout requirements that will spur more deployment. For example, in 2019, 700 MHz licensees must meet their final population-based or geographic-based coverage mandates, which are significantly higher than the interim coverage minimums they were required to meet. AWS-3 licensees must achieve interim coverage benchmarks in 2021 and substantially higher

²¹ Press Release, AT&T, AT&T Launches Fixed Wireless Internet in Rural and Underserved Areas in 9 New States (Sept. 27, 2017), http://about.att.com/story/fixed_wireless_internet_in_9_new_states.html.

²² See, e.g., Statement of Ajit Pai Before the United States House of Representatives Committee on the Judiciary, Washington, D.C. (Mar. 25, 2015), <https://judiciary.house.gov/wp-content/uploads/2016/02/Pai-Testimony.pdf>.

²³ Remarks of FCC Chairman Ajit Pai at the American Enterprise Institute, *The First 100 Days; Bringing the Benefits of the Digital Age to all Americans* (May 5, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344733A1.pdf; FCC Chairman Ajit Pai at the Hudson Institute, *The Importance of Economic Analysis at the FCC*, at 3-4 (Apr. 5, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344248A1.pdf.

²⁴ See, e.g., *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services*, Report and Order, 31 FCC Rcd 13911 (2016) (Dissenting Statement of Commissioner O’Rielly), https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-148A6.pdf.

benchmarks in 2027. The initial and final buildout periods for 600 MHz licensees are in 2023 and 2029. Thus, existing buildout rules will generate more deployment over the next few years across multiple spectrum bands. Moreover, the new rules adopted in the *Report and Order* will further continued operations and deployment in rural areas. As the Commission concluded, the revised license renewal framework it just adopted in this proceeding “enhances competition and facilitates robust use of the nation’s scarce spectrum resources.”²⁵ New requirements are thus not necessary at this time to meet the Commission’s objective of encouraging further buildout.

C. Commission Policies are Tailored to Promote Rural Deployment.

CTIA recognizes that, even as carriers extend deployments to cover more of rural America, there are still areas that remain economically challenging to serve because the costs of deploying and operating networks in these areas outweigh projected revenues. As Commissioner Rosenworcel noted last year, there are real challenges in serving rural areas: “Financing, constructing, and operating these facilities in remote areas is not easy. Tough terrain, trying weather, and limited populations make deployment harder than in more populated locales.”²⁶ And just last week, Commissioners O’Rielly and Carr observed that, although the mobile wireless marketplace is competitive, the Commission can and should continue to work to promote investment and innovation in these areas.²⁷ Two currently pending Commission actions will do just that by directly tackling the economics of rural buildout.

²⁵ *Report and Order* ¶ 1.

²⁶ Statement of Commissioner Jessica Rosenworcel, Bringing the Connected Future to All Americans, at 5 (Dec. 30, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-342844A1.pdf.

²⁷ 20th Mobile Competition Report (Statement of Commissioner Michael O’Rielly), https://apps.fcc.gov/edocs_public/attachmatch/DOC-346898A4.pdf (stating “Just because a report finds there is competition or that industry participants are doing a good job does not mean we all get to go home. ... [W]e will be right back at it to improve the situation even further.”); 20th Mobile Competition Report (Statement of Commissioner Brendan Carr),

The Commission’s MF-II auction will award \$4.53 billion for the deployment of 4G LTE in areas with no coverage or that lack 5 Mbps download speeds.²⁸ Chairman Pai recently noted that the new Mobility Fund is designed “to spur network deployment in sparsely populated areas where the economic incentives for private investment don’t exist.”²⁹ As Commissioner Clyburn recognized, it is a “carefully calibrated” approach that is “expressly designed” to reach uneconomic areas.³⁰ CTIA supports the Mobility Fund’s goals – “to advance the deployment of 4G LTE service to areas that are so costly that the private sector has not yet deployed there and to preserve such service where it might not otherwise exist”³¹ – and encourages the Commission to move forward with the auction as soon as possible.

The Commission is also targeting the economics of rural buildout in its proceedings to lower federal, state, local, and Tribal regulatory costs and barriers to mobile broadband deployment.³² Those impediments can be particularly significant in those rural areas where providers are challenged to secure a positive rate of return on new infrastructure. For that reason, modernizing the Commission’s infrastructure policies will be particularly beneficial for

http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0926/DOC-346898A5.pdf (stating “this is not to say there is no additional progress to be made.”).

²⁸ *Connect America Fund; Universal Service Reform – Mobility Fund*, Order on Reconsideration and Second Report and Order, 32 FCC Rcd 6282, 6289 ¶ 14 (2017) (“MF-II Order on Recon and Second R&O”).

²⁹ Remarks of Chairman Ajit Pai at the Kansas Broadband Conference, Wichita, KS, at 3 (Sept. 21, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0921/DOC-346838A1.pdf (“Chairman Pai Kansas Broadband Conference Remarks”).

³⁰ *Connect America Fund; Universal Service Reform – Mobility Fund*, Order on Reconsideration and Second Report and Order, 32 FCC Rcd 6282 (2017) (Statement of Commissioner Mignon L. Clyburn), https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-11A3.pdf.

³¹ *Connect America Fund; Universal Service Reform – Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 2152 ¶¶ 2, 14-15 (2017) (“MF-II R&O and FNPRM”).

³² *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Deployment*, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 3330 (2017).

rural deployment. Chairman Pai’s remarks about why action in these proceedings will spur broadband deployment are particularly relevant to rural areas: “We also want to modernize our regulations to give companies a stronger business case to build and expand high-speed network. The plain truth is that bureaucratic red tape at all levels of government can slow the pace and increase the cost of network deployment.”³³

Today’s existing buildout rules – together with deployments that are expanding, the Mobility Fund, and other Commission actions – will drive rural broadband deployment. Given all these facts and developments, imposing heightened buildout requirements on all geographic wireless licenses is unwarranted and, at best, is premature.

III. THE FORCED-BUILD RENEWAL PROPOSALS ARE INFLEXIBLE, WILL DISTORT INVESTMENT, AND DO NOT EFFECTIVELY TARGET LACK OF RURAL BROADBAND AND COVERAGE.

Despite the fact that mobile broadband deployment is expanding in rural areas and Commission policies and open proceedings are tackling obstacles to deployment, the *Further Notice* would apply a blunt mandate to all geographic areas and all geographic licenses, both in areas where broadband is available and in areas where it makes no economic sense to build out, let alone build multiple overlapping networks. CTIA urges the Commission to instead take a more tailored approach to effectuating its goal of closing the rural digital divide.

A. The Commission Has A Longstanding Policy of Avoiding Forced Uneconomic Deployment.

The Commission under Chairman Powell recognized that licensees should not be expected to build out where it would be “economically unsustainable” to do so.³⁴ In the 2004

³³ Chairman Pai Kansas Broadband Conference Remarks at 3.

³⁴ *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services; 2000 Biennial Regulatory Review Spectrum Aggregation Limits For Commercial Mobile Radio Services; Increasing Flexibility To Promote*

Rural Wireless Report and Order, the Commission stated, “[b]ecause the economics of providing service can be significantly different in rural areas as compared to urban areas, our market-based policy acknowledges that market characteristics, especially demographics, will affect the optimal provision of service in rural areas.”³⁵ Later, under Chairman Genachowski, the Commission recognized that “in some areas of the country with very low population densities, it is simply uneconomic for several carriers to build out.”³⁶

The Commission has consistently adopted buildout requirements that balance the objectives of putting spectrum to productive use with not forcing uneconomic buildout. For example, its buildout rules for the 600 MHz band were designed to “ensure that the 600 MHz band spectrum is put to use expeditiously while providing 600 MHz Band licensees with flexibility to deploy services according to their business plans.”³⁷ And in adopting the rules for the AWS-4 spectrum, the Commission held: “Because of the substantial capital investment and logistical challenges associated with a licensee building-out its terrestrial network to a significant percentage of the Nation’s population within four and seven years, we conclude that the performance requirements we adopt are an appropriate balance.”³⁸ The *Further Notice* does not

Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation, 19 FCC Rcd 19078, 19122 ¶ 77 (2004); see also *id.* ¶ 39, n.111.

³⁵ *Id.*

³⁶ *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, Order on Reconsideration and Second Further Notice of Proposed Rulemaking, 25 FCC Rcd 4181, 4192 ¶ 23 (2010).

³⁷ *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, 6877 ¶ 764 (2014).

³⁸ *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 218-2200 MHz Bands*, 27 FCC Rcd 16102 ¶ 199 (2012); see also *Service Rules for Advanced Wireless Services H Block*, Report and Order, 33 FCC Rcd 9483 ¶ 202 (2013) (“[B]ecause of the substantial capital investment and logistical challenges associated with a licensee building out a network, we believe that measuring benchmarks within an EA according to population is more appropriate.”).

grapple with the Commission's longstanding policy of relying on a balanced approach to performance requirements that ensures spectrum is put to use while recognizing the high costs of deployment and thus allowing licensees flexibility on where and how to deploy.

B. Additional Renewal-Based Buildout Requirements Would Force Providers to Deploy Uneconomic Overbuilds in Sparsely Populated Areas.

The escalating buildout requirements proposed in the *Further Notice* would force *multiple*, overlapping uneconomic buildouts in those areas. There are at least 37 cellular, PCS, AWS, 600 MHz and 700 MHz geographic licenses covering each county across the nation (not counting disaggregated or partitioned licenses or the many other licenses that can cover the same service areas).³⁹ Because the forced build proposals would apply to all geographic area licenses, the proposals could compel many licensees to deploy duplicative, overlapping infrastructure in the same market only to obtain license renewal. But many areas do not have enough subscribers or traffic to support multiple wireless networks.

A command and control policy of ever-increasing forced buildout mandates would distort investment, potentially harming some customers. Each wireless provider has a finite capital budget. Additional buildout requirements would divert that limited capital away from areas that have proven need. For example, the demand for expanded wireless infrastructure is rapidly increasing in urban areas where customer demand is exploding. By 2021, mobile data traffic in the U.S. is expected to reach 6.1 exabytes (over 6 billion gigabytes) per month.⁴⁰ If every

³⁹ The proposals would apply to at least two cellular licenses; six broadband PCS licenses; six AWS-1, six AWS-3, and two AWS-4 licenses; eight 700 MHz band licenses; and seven 600 MHz licenses. Additional licenses would include the licenses granted in the Enhanced Specialized Mobile Radio Service, the Upper Microwave Flexible Use Service, and the Citizens Broadband Radio Service.

⁴⁰ Cisco, VNI Mobile Forecast Highlights, 2016-2021, United States – 2021 Forecast Highlights, https://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/#~Country (last visited Sept. 21, 2017).

licensee is required to divert capital to sparsely populated areas to meet additional requirements, those areas may be overbuilt, while more congested areas with exploding customer demand will have to make do. Further, carriers would have to subsidize the deployment of networks in higher-cost areas with revenues from services provided in lower-cost areas. And more stringent buildout requirements would disproportionately disadvantage rural carriers because they have a smaller customer base to spread these costs across.

C. Retroactively Changing Buildout Requirements Undermines Licensees' Investment-Backed Expectations and Could Adversely Impact the Spectrum Marketplace.

Finally, changing the buildout requirements now for previously awarded licenses creates uncertainty that can adversely impact the spectrum market. When a provider makes the initial decision to purchase spectrum, it accounts for the cost of compliance with the Commission's rules, including the performance requirements that call for particular levels of coverage at set points in time. Changing the rules after that decision is made undermines licensees' expectations where they determined what licenses to acquire, either at auction or in the secondary market, and at what price. The new rules could thus have a chilling effect on spectrum auctions and the secondary spectrum market by deterring licensees from acquiring additional spectrum.

IV. THE COMMISSION SHOULD INSTEAD ADOPT AN INCENTIVE-BASED APPROACH TO ENCOURAGE WIRELESS PROVIDERS TO EXCEED THEIR CURRENT BUILDOUT REQUIREMENTS.

CTIA commends the Commission for the alternative approach proposed in the *Further Notice*: seeking comment on what incentives it could add to encourage additional construction beyond licensees' initial term obligations.⁴¹ An incentive-based license renewal approach is a far better, more market-oriented course of action than forced-build renewal proposals.

⁴¹ *Further Notice* ¶¶ 121-22.

Under this alternative proposal, licensees that achieve buildout beyond performance requirement benchmarks could obtain some type of benefit. For example, CTIA agrees with the proposal that, if providers exceed their initial term buildout requirements by a certain coverage percentage set by the Commission, or provide service to areas that are not served by other providers, they would be eligible for longer license terms upon renewal, such as an additional five years beyond the standard license term for the band in which they operate.⁴²

The Commission has determined that granting extended license terms “give[s] licensees sufficient certainty to invest in their systems,”⁴³ and this can be particularly relevant in the context of rural deployment. Longer license terms provide greater assurance to licensees that they will be able to secure a sufficient return on their investment. In rural areas, with fewer subscribers and less network traffic, a longer renewal license term could alter that return on investment analysis by extending out the term for return by, for example, 50 percent with a 15-year renewal term on an initial 10-year license. In addition, longer license terms provide licensees with greater certainty and thus additional incentive to make investments in expanded wireless service that otherwise may not be made.⁴⁴

The Commission could also consider sunseting certain service-specific rules at renewal as an incentive for exceeding initial buildout requirements, absent an affirmative finding that

⁴² *Id.* ¶ 122.

⁴³ *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8077-78 ¶ 176 (2016).

⁴⁴ The Commission recognized in this proceeding the benefits that flow from regulatory certainty, concluding that adopting a clear renewal standard “will promote the efficient use of spectrum resources and will serve the public interest by providing licensees certainty regarding their renewal requirements.” *Report and Order* ¶ 9.

they are necessary and in the public interest.⁴⁵ This action would promote the Commission’s longstanding policy to apply symmetrical, consistent rules across wireless services and further Congress’ objective to “create a symmetrical regulatory framework for commercial mobile services.”⁴⁶ Certain band-specific rules that were imposed to address particular issues may have become outdated due to new technologies, increasing competition, and other developments. Service-specific rules that are not based on technical differences among spectrum bands skew competition by favoring some competitors over others. Offering an incentive to providers for exceeding their buildout requirements that would sunset certain provisions could thus further the overriding goal of this proceeding: “By ensuring that licensees in WRS bands operate under the same basic set of rules, we will promote investment in wireless networks and further our mandate to make spectrum ‘available, so far as possible, to all the people of the United States’ regardless of where they live.”⁴⁷

V. IF THE COMMISSION NEVERTHELESS MOVES FORWARD WITH ITS FORCED-BUILD PROPOSALS, IT SHOULD REFRAIN FROM IMPOSING REQUIREMENTS THAT WOULD UNDERMINE THE PROCEEDING’S OBJECTIVES.

A. Any New Buildout Requirements, If Adopted, Should Only be Imposed on Future Licenses.

If the Commission nonetheless decides to adopt additional renewal-based buildout requirements for successive license terms, it should apply them only to new geographic wireless licenses that are auctioned after the new rule takes effect. Applicants for new licenses would be aware of the new requirements and be able to price them into their decisions on whether and how

⁴⁵ *Further Notice* ¶ 123.

⁴⁶ *Implementation of Sections 3(n) and 332 of the Communications Act*, Third Report and Order, 9 FCC Rcd 7988 ¶¶ 4, 23 (1994).

⁴⁷ *Report and Order* ¶ 2 (quoting 47 U.S.C. § 151).

much to bid for spectrum. New regulations could still adversely impact the valuation of spectrum in future auctions, and deter secondary market transactions involving that spectrum, but they would at least be confined to new licenses and thus would not disrupt existing licensees' expectations when they acquired their spectrum as to what their performance obligations would be.

B. The Commission Should Decline to Adopt Forfeiture Penalties.

The Commission should also refrain from imposing license area forfeitures as a penalty for not meeting any increased buildout mandates.⁴⁸ Penalties that strip the licensee of part of its licensed service area would be punitive while doing nothing to make service available in forfeited areas; in fact those pockets of areas would most likely remain unserved. Moreover, the alternative approach the *Further Notice* mentions, forcing a licensee to surrender parts of the license where it *has* already deployed service, would accomplish nothing but punish customers and would, as the *Further Notice* acknowledges, “result in loss of longstanding service ... and the disruption of a network that satisfied the renewal standard at the end of its license term.”⁴⁹

C. The Commission Should Decline to Adopt Additional Reporting Requirements, Which Would Be Burdensome and Provide No Additional Benefit.

The Commission seeks comment on whether to incorporate broadband adoption and affordability reporting into the renewal process for WRS licenses or some subset of licenses.⁵⁰ CTIA urges the Commission to decline to impose these reporting proposals. Imposing renewal reporting requirements would complicate the renewal application process and impose additional

⁴⁸ *Further Notice* ¶ 114-17.

⁴⁹ *Id.* ¶ 116.

⁵⁰ *Id.* ¶ 112.

burdens on licensees, contrary to the purpose of this proceeding: to simplify the renewal process because “clearer and more certain renewal processes will benefit both licensees and the Commission.”⁵¹ The Commission would need to craft and adopt detailed procedures for what data renewal applicants must collect and how they should report it. Any new procedures would add to the burden on licensees to prepare renewal applications and on the Commission to review them. Moreover, tying such reporting to renewal applications would not yield useful data, because applicants would only be able to report on their own services and only in the market covered by the license being renewed. Those reports would not show what other licensees are doing in the licensed area. Further, different licensees have differently defined market areas (for example, Cellular Market Areas vs. Partial Economic Areas vs. Basic Trading Areas), precluding an apples-to-apples comparison of reported data. The Commission should therefore decline to adopt these additional reporting requirements as part of this proceeding.

⁵¹ *Report and Order* ¶ 16.

VI. CONCLUSION.

CTIA supports the Commission's efforts to promote the expansion of wireless broadband to unserved rural areas through the new Mobility Fund and through lowering costs and regulatory barriers to deployment. In this proceeding, it should adopt renewal-related incentives that encourage more deployment. In contrast, stricter buildout requirements are inconsistent with the Commission's market-based approach to wireless services, are not narrowly tailored to drive the expansion of mobile broadband to unserved areas, and should not be adopted.

Respectfully submitted,

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