Testimony of

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on

The Broadcast Incentive Auction:
Update on Repacking Opportunities and Challenges

before the

U.S. House Committee on Energy and Commerce
Subcommittee on Communications and Technology

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Chairman Blackburn, Ranking Member Doyle, and members of the Subcommittee on Communications and Technology, on behalf of CTIA®, thank you for the opportunity to participate on today's panel, "The Broadcast Incentive Auction: Update on Repacking Opportunities and Challenges." This is an important and timely hearing.

Thanks to the strong leadership of this Committee and of the FCC, the broadcast incentive auction was a tremendous success – the second largest FCC spectrum auction both in terms of revenue generated and amount of spectrum reallocated. It has created a win for broadcasters, a win for wireless providers and, most importantly, a win for American consumers. The framework that this Committee developed and that Congress adopted in the 2012 Middle Class Tax Relief and Job Creation Act ("Spectrum Act")[i] will generate billions of dollars in new wireless investment, creating more U.S. jobs and advancing consumer welfare.

But that investment, job creation, economic growth, and consumer benefit are dependent on the timely availability of the spectrum purchased in the incentive auction. We will only realize those benefits when the broadcast station repack is completed. It is therefore imperative that this process be accomplished smoothly, efficiently, and within the 39-month transition window.

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CTIA and its members strongly support the FCC's Transition Plan, which presents a detailed and flexible roadmap for implementing the requirements of the Spectrum Act. We are committed to being constructive partners with the broadcast industry as the station repacking occurs and recognize that some in the broadcast industry are arguing that broadcasters need more money and more time to complete this undertaking.

As this Committee continues its oversight of the transition and considers measures, such as the Viewer Protection Act introduced by Ranking Member Pallone, to provide additional financial support for repacking, I want to emphasize that the wireless industry supports a fully-funded repack that ensures broadcasters are made whole for reasonable costs associated with acquiring comparable facilities in the post-auction transition. But neither Congress in the Spectrum Act nor the Commission intended that the Broadcaster Relocation Fund would be used to cover the costs of a technology upgrade, such as the transition to ATSC 3.0. While CTIA has no objection to broadcasters acquiring improved equipment as part of the repacking, broadcasters should be responsible for covering the costs in excess of those needed to acquire comparable facilities.

With respect to timing, we strongly urge the members of this Committee to maintain the 39-month deadline, which will preserve the integrity of the auction

and speed deployment of wireless broadband services to rural America. CTIA and its members are concerned that cascading consequences will result were Congress to step in now and overhaul or delay the FCC's multi-phase Transition Plan. It would delay deployment of cutting edge mobile wireless services – especially in rural areas – and undermine future spectrum auctions, which are critical to economic growth, job creation, and wireless leadership. We believe the FCC already has the authority needed to address potential timing problems, making any legislative changes unnecessary.

It is also essential that this Committee and the Commission ensure that the ATSC 3.0 transition is not used to delay the 39-month transition. Efforts to link the repacking process to the ATSC 3.0 transition would conflict with the statute and Commission rules, and would delay the Commission's orderly repacking schedule.

The Broadcast Incentive Auction and What It Means for the Nation. Thanks to this Committee's leadership, this first-of-its-kind, two-sided spectrum auction has revolutionized the way our nation can efficiently repurpose airwaves to best meet the nation's growing spectrum needs. With today's unprecedented demand for wireless services, finding additional ways to dedicate more spectrum for mobile broadband is critical.

The results of this auction are significant:[ii]

- The auction grossed $19.8 billion, making it the second largest revenue auction in FCC history. $7.3 billion of auction proceeds went for federal deficit reduction.
- The auction freed up 84 megahertz of flexible-use spectrum, the second most spectrum repurposed in an FCC auction, including 70 megahertz of exclusive-use licensed spectrum and 14 megahertz of unlicensed spectrum.
- 50 different stakeholders won new wireless licenses, including non-traditional players and 23 winning bidders seeking rural bidding credits.
- 175 winning broadcast stations will either share a channel, exit the market, or relocate frequencies, and will receive $10.05 billion in total (36 stations will receive more than $100 million).
- The FCC will administer a ten-phase repacking process with the first phase beginning one year and one week from today, September 14, 2018, and the entire transition concluding July 3, 2020.[iii]

Repurposing the 600 MHz spectrum for wireless broadband will generate substantial economic benefits for the nation. It will create jobs and stimulate economic growth. It will enhance Americans' mobile-first lifestyle across the nation, including in hard-to-reach, underserved rural areas. Indeed, wireless providers have already started to build out this new spectrum, and the first services were offered in Cheyenne, Wyoming. And it will help the United States compete more aggressively in the global race to 5G.

First, a recent study demonstrates that 10 megahertz of new spectrum leads directly to 105,000 new jobs and $3.1 billion in new GDP.[iv] Making the 70 megahertz of spectrum repurposed for licensed use in the incentive auction will boost the U.S. economy, adding more than 700,000 new jobs and as much as $22

billion to the GDP. This is in addition to the more than 4.6 million existing American jobs that depend directly or indirectly on the wireless industry.[v]

Second, this spectrum is critical to accommodating the ever-increasing amount of mobile data traffic and advancing 5G in the United States. Wireless data demand has grown 35 times since 2010 and is expected to grow another five times from 2016 to 2021.[vi] 5G promises networks that are faster than 4G networks, can connect more devices, and respond more quickly.[vii] Further, 5G will support the new devices and functionalities that will change entire industries, from agriculture to transportation. And the 600 MHz band is already a key component in the race to 5G.[viii]

Third, this low-band, 600 MHz spectrum with expansive propagation qualities is particularly well suited for rural deployments, and extending the 39-month timeframe will delay broadband buildout in rural America. Winners of the spectrum include many small carriers who claimed the rural bidding credit during the auction and are committed to building out 600 MHz networks in their communities. These bidders include: Pioneer Cellular in Oklahoma and Kansas; NEIT Services and Iowa RSA 2 Limited Partnership in Iowa; SI Wireless and Bluegrass Consortium in Kentucky; Agri-Valley Communications in Michigan; Chariton Valley Telephone Corporation in Missouri; CWW Consortium in North Carolina;

Sagebrush Cellular in North Dakota; Pine Cellular Phones and CT Cube in Texas; and Smith Bagley in Arizona, Colorado, New Mexico, Utah, and American Samoa. Other regional providers, including Nsight, DoCoMo Pacific, and GCI also won licenses in their communities. Rural communities, moreover, are well situated to benefit from 5G. Among other things, 5G promises improved healthcare access via telemedicine and remote surgery, improved education through remote classes and virtual learning, and improved agriculture through new ways of monitoring crops and increasing outputs.[ix]

And finally, winning bidders are eager to deploy the 600 MHz spectrum made available in the auction – and that spectrum is already being put to use. The 600 MHz band's favorable propagation characteristics also lower infrastructure costs for wireless providers, strengthening competition in wireless markets. T-Mobile already announced that its new 600 MHz LTE network began operations in some markets using spectrum acquired in the auction, less than two months after having been issued licenses by the FCC.[x] This year alone, the carrier will add hundreds of 600 MHz network sites in Wyoming, Oregon, Texas, Kansas, Oklahoma, Maine, New Mexico, North Dakota, North Carolina, Pennsylvania, Virginia, and Washington, expanding its total LTE coverage from 315 million Americans to 321 million.[xi] Other winning bidders have also begun discussing how they plan to use their spectrum to facilitate network expansion.[xii] The rapid

deployment of 600 MHz is the clearest evidence of the demand to put this spectrum to use as soon as broadcasters can successfully relocate.

Successfully Executing on a Rapid and Orderly Broadcast Station Repack. FCC Chairman Pai observed at the end of the incentive auction, "[i]t's now imperative that we move forward with equal zeal to ensure a successful post-auction transition, including a smooth and efficient repacking process."[xiii] CTIA agrees that a transparent, efficient, and expedited repacking process will be critical to ensuring the success of the broadcast incentive auction. The plan that the FCC adopted, and that courts have upheld, will facilitate that transition.[xiv] The 39-month transition period balances the interests of broadcasters and winning bidders in the forward auction. The Commission adopted this transition period after carefully considering the record evidence presented in the 2014 auction rulemaking proceeding. Evidence provided to the Commission more recently reaffirms that there will be sufficient tower crews and manufacturing capability for broadcasters to meet the deadline.[xv] Indeed, the D.C. Circuit Court affirmed the FCC's 39-month deadline after finding it was reasoned, based on record evidence, and was consistent with construction periods for wholly new stations.[xvi]

Within this 39-month period, the Commission adopted a *phased* Transition Plan, thereby eliminating the need for all stations to obtain their equipment or

schedule a tower crew at the same time.[xvii] The FCC assigned stations to one of 10 phases after reviewing an extensive record and considering a number of constraints and objectives.[xviii] In fact, the FCC used two computer-based tools to minimize the number of broadcasters that would need to move channels.[xix]

The FCC's carefully developed plan has also facilitated the efficient use of the limited resources available. The Post Incentive Auction Television Transition Data Files show that more than half of the non-participating broadcast stations are not required to move to a new television channel.[xx]

Notably, the Transition Plan is not static but instead establishes a process for broadcasters to extend their construction deadlines if necessary.[xxi] The FCC adopted a long list of scenarios in which broadcasters may seek an extension if they are unable to complete construction, including delays caused by the weather, unavailability of equipment or a tower crew, tower lease disputes, unusual technical challenges, difficulty in obtaining government approvals (e.g., zoning approvals), or exceptional financial hardship.[xxii]

But significant delays in the overall Transition Plan will needlessly delay 5G deployment and rural buildout, and be inequitable to the 50 forward auction winners that invested nearly $20 billion in this spectrum in reliance on gaining access to the spectrum they bought within the 39-month transition period.

Allowing the 39-month repacking period to slip would fundamentally change these investment-backed expectations. Delays could also have an impact on future auctions. If the government demonstrates a willingness to retroactively change the rules of this auction, bidders in future auctions will adjust for that risk by bidding less. Those lower bids, in turn, could lead to failed auctions.

The FCC's post-auction Transition Plan balances the need for a post-auction timetable that is flexible for broadcasters and minimizes disruption to viewers, with the need for a schedule that provides certainty to wireless providers and thereby enables U.S. consumers and businesses across the country to benefit from the next generation of mobile wireless services and the economic opportunity they facilitate. CTIA supports a seamless repacking process for remaining broadcasters and is committed to working collaboratively to achieve the 39-month transition.

CTIA's members have already engaged with broadcasters to develop creative, voluntary efforts to address repacking challenges, such as funding relocation costs for rural public television station transmitters and lower power television stations.[xxiii] Wireless operators have opened constructive dialog with many broadcasters through numerous, day-to-day contacts. The largest winner in the auction has established a dedicated and continuously monitored contact

e-mail, and has conducted outreach to members of the low power television, broadcast translator, and wireless microphone communities.[xxiv] In addition, wireless carriers have worked to ensure that necessary equipment will be made available; for example, T-Mobile has entered into a partnership with Electronics Research, Inc. to accelerate antenna production capacity in anticipation of the repack.[xxv] CTIA expects that the wireless industry will continue this close collaboration to facilitate a smooth transition.

Wireless Commitment to Network Resiliency and Hurricane Harvey. Finally, I would like to take a moment to acknowledge the hardship that Hurricane Harvey has wrought and the hard work that the wireless industry has put in to maintaining service for the millions of Americans across Texas and parts of Louisiana impacted by this unprecedented event. First, let me acknowledge Rep. Olson, a member of the Subcommittee who saw devastation from Hurricane Harvey directly in his home district. Second, I want to assure you that the wireless industry has been working around the clock to preserve and maintain wireless service. The FCC's reports showed that, at the worst point of the storm, fully 95 percent of cell sites in the 55 "Texas-sized" counties in the "affected area" were up and working throughout the storm thanks to these ongoing efforts.[xxvi]

Even as traffic and call volume spiked, wireless service was there when people needed it most. More than 300 Wireless Emergency Alerts were sent by the National Weather Service and local alerting authorities to warn people about tornados, flooding, and other imminent threats; 96,000 calls to 9-1-1 were delivered to the Greater Harris County (Houston) 9-1-1 center during the initial phase of the storm, an eight-fold increase to calls the 9-1-1 center usually processes; and millions of people were using wireless to call, text, and communicate through social media with emergency response services and loved ones. [xxvii]

CTIA commends this Committee, in particular Ranking Member Pallone, who has been intensely focused on this topic since Superstorm Sandy came ashore five years ago, for its ongoing interest in improving wireless network resiliency. Last year, CTIA helped leading wireless carriers adopt a Wireless Network Resiliency Cooperative Framework to enhance network resiliency in the face of emergencies and natural disasters.[xxviii] Hurricane Harvey confirmed yet again that collaboration, information sharing, and flexibility are the best ways to prepare and respond to unique, unprecedented weather events. Wireless companies readied backup generators, pre-positioned fuel and other critical equipment, educated consumers about emergency preparedness, and brought in emergency response teams ahead of Harvey making landfall on the Gulf

Coast. CTIA and our member companies look forward to continuing to work with this Committee, the FCC, and local authorities to further ensure that wireless is there when we need it most.

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Thank you for the opportunity to testify today. If CTIA can provide any additional information you would find helpful, please let us know.

[i] *Incentive Auction Closing and Channel Reassignment Public Notice*, Public Notice, 32 FCC Rcd 2786 (2017) ("Channel Reassignment PN").

[ii] FCC, *Fact Sheet: The Incentive Auction By the Numbers* (Apr. 13, 2017), https://apps-.fcc.gov/edocs_public-/attachmatch/DOC-344398A1.pdf.

[iii] Channel Reassignment PN, 32 FCC Rcd at 2855-56.

[iv] CTIA, *Licensed Spectrum: The Key to Continuing America's Wireless Leadership and Growing Our Economy*, at 5 (Feb. 2017) ("Licensed Spectrum"), https://www.ctia.org-/docs/default-source/default-document-library/ctia-white-paper-licensed-spectrum.pdf.

[v] *Id*. at 5.

[vi] *See* CTIA, Annual Year-End 2016 Top-Line Survey Results, at 2 (2017), https://www.ctia-.org/docs/default-source/default-document-library/annual-year-end-2016-top-line-survey-results-final.pdf?sfvrsn=2; *see also* Cisco, Cisco VNI Forecast Highlights Tool, 2016-2021 North America Mobile Data Traffic, https://www.cisco.com/c/m/en_us/solutions/-service-provider/vni-forecast-highlights.html# (last visited Sept. 5, 2017).

[vii] Licensed Spectrum at 3.

[viii] *See* Neville Ray, *Maintaining US Leadership in 5G with Smart Spectrum Policy*, T-Mobile (June 30, 2017), https://newsroom.t-mobile.com/news-and-blogs/5g-mid-band-spectrum.htm.

[ix] *See Deloitte, Wireless Connectivity Fuels Industry Growth and Innovation in Energy, Health, Public Safety, and Transportation*, at 7 (Jan. 2017), https://www.ctia.org/docs/-default-source/default-document-library/deloitte_20170119.pdf (report sponsored by CTIA); *see also* David Sunding, et al., *The Farmer and the Data: How Wireless Technology is Transforming Water Use in Agriculture*, CTIA (Apr. 22, 2016), https://www.-ctia.org/docs/default-source/default-document-library/ctia-wireless-foundation-green-agriculture-final.pdf.

[x] Press Release, T-Mobile, *T-Mobile Ready to Rock New Spectrum With First 600 MHz LTE Smartphone & 5G-Ready Network Gear*, (Aug. 31, 2017), https://newsroom.t-mobile.-com/news-and-blogs/tmobile-600mhz.htm.

[xi] 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.

[xii] Colin Gibbs, *Mapping T-Mobile, Dish, Comcast and AT&T: Who got how much 600 MHz spectrum and where?*, FierceWireless (Apr. 18, 2017), http://www.fiercewireless-.com/wireless/mapping-t-mobile-dish-comcast-and-at-t-who-got-how-much-600-mhz-spectrum-and-where.

[xiii] Ajit Pai, Chairman, FCC, Statement on the Completion of the Incentive Auction and the Start of the Post-Auction Transition Period (Apr. 13, 2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344399A1.pdf.

[xiv] *Nat'l Ass'n of Broadcasters v. FCC*, 789 F.3d 165 (D.C. Cir. 2015) (upholding the FCC's 39-month transition period).

[xv] *See On Time and On Budget: A Response to Digital Tech Consulting, Inc.'s March 2016 Presentation on the State of Broadcaster Relocation Resources*, T-Mobile, Broadcast Tower Technologies, Inc., and Hammett & Edison, Inc. (May 11, 2016).

[xvi] *Id.* at 182.

[xvii] FCC, Broadcast Incentive Auction and Post-Auction Transition, https://www.fcc.gov/about-fcc/fcc-initiatives/incentive-auctions (last visited Sept. 5, 2017).

[xviii] *Incentive Auction Task Force and Media Bureau Adopt a Post-Incentive Auction Transition Scheduling Plan*, Public Notice, 32 FCC Rcd 890 (2017).

[xix] *Incentive Auction Task Force and Media Bureau Announce Procedures for the Post-Incentive Auction Broadcast Transition*, Public Notice, 32 FCC Rcd 858, 859-60 ¶¶ 3-9, 866 ¶ 25 (2017) ("*Incentive Auction Public Notice*").

[xx] FCC, Post Incentive Auction Television Transition Data Files, http://data.fcc.gov/download/incentive-auctions/Transition_Files/ (last visited Sept. 5, 2017).

[xxi] *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, 6800 ¶ 569 (2014).

[xxii] *Incentive Auction Public Notice*, 32 FCC Rcd at 871 ¶ 41.

[xxiii] Alex Wagner, *T-Mobile Will Cover Costs For Rural PBS Broadcasters To Relocate Following 600mhz Auction*, TmoNews Blog (June 29, 2017), http://www.tmonews.com/2017/06/t-mobile-rural-pbs-stations-relocate-600mhz-auction/; John Eggerton, *T-Mobile to Pay for Some LPTV Repack Moves*, Broadcasting & Cable (July 17, 2017), http://www.broadcastingcable.com/news/washington/t-mobile-pay-some-lptv-repack-moves/167217.

[xxiv] Letter from T-Mobile USA, Inc. to FCC, ET Docket No. 12-268 (June 1, 2017).

[xxv] *ERI and T-Mobile deal for crews and facilities puts 39-month repack deadline closer to being met*, Wireless Estimator (Apr. 21, 2016), http://wirelessestimator.com/articles/2016/eri-and-t-mobile-deal-for-crews-and-facilities-puts-39-month-repack-deadline-closer-to-being-met/.

[xxvi] *See, e.g.*, FCC, *Communications Status Report for Areas Impacted by Tropical Storm Harvey* (Aug. 28, 2017), http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0828/DOC-346381A1.pdf.

[xxvii] *Inside Houston's Frenzied 911 Call Center*, NEW YORK POST, Aug. 31, 2017, http://nypost.com/2017/08/31/inside-houstons-frenzied-911-call-center/amp/.

[xxviii] Letter from CTIA, AT&T, Verizon, T-Mobile, Sprint, and U.S. Cellular to FCC, PS Docket Nos. 13-239 & 11-60 (Apr. 27, 2016).