

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Analysis of the State of Mobile Wireless) WT Docket No. 18-203
Competition)
)

COMMENTS OF MOBILE FUTURE

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EXECUTIVE SUMMARY

The Commission should again declare that the mobile wireless market is competitive. Americans continue to enjoy an ample choice of carriers, devices and pricing plans (including unlimited plans). Competition among carriers has predictably yielded higher connection speeds, broader network coverage and falling prices. Consumer demand for smartphones and mobile data service has reached unprecedented levels and demand from enterprises in virtually every market segment is on the rise as Internet of Things devices and services proliferate. Having led the world in 4G, U.S. carriers are committing significant resources and competing fiercely with one another and their global counterparts in order to win the race to 5G. According to one estimate, the deployment of 5G in the U.S. will equate to \$275 billion in new investments, \$500 billion in economic growth and the creation of 3 million new jobs.

As always, Commission leadership plays a crucial role in ensuring the success of the wireless industry. The Commission must continue to take actions to promote investment in next-generation networks, eliminate barriers to deployment and avoid counterproductive regulation. In particular, we commend the Commission for its efforts to make more spectrum available via its *Spectrum Frontiers* and “*Mid-Band*” proceedings, and urge it to move aggressively towards finalizing rules and auctioning new spectrum. The Commission also should continue using its *Wireless Infrastructure* proceeding to eliminate harmful barriers to deployment at the state and local level.

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Mobile Future submits these comments in response to the Federal Communications Commission’s (“FCC” or “Commission”) Public Notice in the above-captioned docket, in which the Commission seeks input on the state of competition in the mobile wireless industry.¹

I. INTRODUCTION.

In last year’s *Twentieth Mobile Competition Report*, the Commission correctly concluded that “there is effective competition in the mobile wireless services marketplace.”² It was the right decision as it reflects what millions of American mobile consumers experience every day: A highly competitive U.S. wireless market that leads the world in 4G deployment and is poised to maintain leadership in next-generation 5G services. Indeed, current data reaffirms that the U.S. wireless market remains equally competitive today. This competition continues to benefit mobile consumers in a variety of ways. Mobile consumers have the freedom to switch providers at any time, pick from an array of devices, choose among a range of new competitive plans

¹ *Wireless Telecommunications Bureau Seeks Comment on the State of Mobile Wireless Competition*, Public Notice, DA 18-663, WT Docket No. 18-203 (WTB rel. June 26, 2018) (“*Public Notice*”).

² *In the Matter of 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, 32 FCC Rcd 8968, 8970 ¶ 2 (2017) (“*Twentieth Report*”).

(including unlimited data plans), enjoy higher connection speeds and tap into millions of applications and services. Further, the ongoing progress of the Internet of Things (“IoT”) is connecting even more consumer and industrial devices and will offer connectivity across virtually every aspect of life. U.S. mobile providers are making substantial investments in creating innovative and differentiated services and are aggressively competing for customers, deploying new services at a breakneck pace in competition with each other and global challengers. The Commission must therefore continue to advance policies that promote the United States’ global leadership in wireless, including making more spectrum available for 5G and streamlining the infrastructure deployment process.

II. CONSUMERS CONTINUE TO BENEFIT FROM A HIGHLY COMPETITIVE WIRELESS MARKETPLACE IN THE FORM OF QUALITY SERVICES, FASTER NETWORKS AND FALLING PRICES.

Wireless service remains indispensable to millions of American consumers. There are more than 273 million mobile devices in service in the U.S. today, which represents a 56 percent increase over the last ten years.³ The vast majority of Americans – 95 percent – now own a cellphone,⁴ and 77 percent of Americans now own a smartphone, up from 35 percent in 2011.⁵ One-third of Americans live in households with three or more smartphones.⁶ By the end of 2017, 132 million U.S. consumers had chosen wireless-only voice service, nearly 20 million

³ CTIA *State of Wireless 2018*, at 5, https://api.ctia.org/wp-content/uploads/2018/07/CTIA_State-of-Wireless-2018_0710.pdf (“*State of Wireless 2018*”).

⁴ *Mobile Fact Sheet*, Pew Research Center (Feb. 5, 2018), <http://www.pewinternet.org/fact-sheet/mobile/>.

⁵ *Id.*

⁶ Kenneth Olmstead, *A third of Americans live in a household with three or more smartphones*, Pew Research Center (May 25, 2017), <http://www.pewresearch.org/fact-tank/2017/05/25/a-third-of-americans-live-in-a-household-with-three-or-more-smartphones>.

more than in 2015.⁷ And minority households are leading the wireless revolution. Hispanic adults (65.6 percent), non-Hispanic black adults (52.3 percent) and non-Hispanic Asian adults (53.4 percent) were more likely than non-Hispanic white adults (50.2 percent) to be living in households with only wireless telephones.⁸

Demand for data consumed over these wireless devices continues to skyrocket. Mobile data usage in the United States has nearly quadrupled in the past three years, from 4.06 trillion megabytes in 2014 to 15.7 trillion megabytes (“MB”) in 2017.⁹ The average U.S. smartphone user uses 31.4 gigabytes of data per month, a 25 percent increase over 2016.¹⁰ By 2021, United States mobile data traffic will reach 5.6 exabytes per month, up from 1.3 exabytes per month in 2016.¹¹ Bandwidth-intensive applications like mobile video will continue to drive data

⁷ Internet Innovation Alliance, *Evolving Preferences – Consumer Preferences Tilting Towards Mobile Broadband*, White Paper, at 7 (July 17, 2018), https://internetinnovation.org/wp-content/uploads/IIA_ConsumerPreferences_Whitepaper.pdf (“IIA White Paper”). See also *id.* at 8 (“On a geographic level, the trend for more mobile service means that most adults in 33 states and the District of Columbia have chosen a wireless-only lifestyle. The choice for a *wireless-only lifestyle is even more prevalent among households with children* – in those households a majority are now wireless-only in 40 states and the District of Columbia.”).

⁸ Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July – December 2017, CDC, at 3 (June 2018), <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201806.pdf>.

⁹ CTIA, *CTIA annualized wireless industry survey results – 2001 to 2017*, at 3, https://api.ctia.org/wp-content/uploads/2018/07/CTIA_ToplineWirelessIndustrySurvey.pdf.

¹⁰ Alan Wolf, *Mobile Data Usage Up 25%, Twice* (Dec. 28, 2017), <https://www.twice.com/product/mobile-data-consumption-up-25-percent-to-31gb-per-month-mpd>.

¹¹ Cisco, *VNI Forecast Highlights Tool*, https://www.cisco.com/c/m/en_us/solutions/service-provider/vni-forecast-highlights.html# (last visited July 26, 2018).

consumption and growth, with video projected to account for 80 percent of total mobile data traffic by 2021 (up from 64 percent in 2016).¹²

In addition to consumer demand, wireless growth is also fueled by the proliferation of IoT devices, connected cars and other “smart” technologies. Verizon, for example, reported growth in IoT connections across multiple industry sectors from 2016-2017, including manufacturing (up 84 percent), energy/utilities (up 41 percent), transportation (up 40 percent) and smart cities/communities (up 19 percent).¹³ According to one estimate, IoT spending in the United States will total \$194 billion in 2018, led by manufacturing, transportation and the consumer segment.¹⁴ Mobile connections will be a key element of that growth. Indeed, by 2022, machine-to-machine mobile connections are predicted to increase by 220 percent to 1.3 billion worldwide,¹⁵ spurred by massive growth in smart city devices, precision agriculture technology, smart meters and connected vehicles.¹⁶ By 2023, a total of 3.5 billion cellular IoT

¹² *Id.*

¹³ See Verizon, *State of the Market: Internet of Things*, 4 (2017), <http://www.verizon.com/about/sites/default/files/Verizon-2017-State-of-the-Market-IoT-Report.pdf>.

¹⁴ Press Release, *IDC Forecasts Worldwide Spending on the Internet of Things to Reach \$772 Billion in 2018* (Dec. 7, 2017), <https://www.idc.com/getdoc.jsp?containerId=prUS43295217>.

¹⁵ Maxwell Cooter, *Heady times for cellular M2M connections*, TechRadar (Jan. 23, 2018), <https://www.techradar.com/news/heady-times-for-cellular-m2m-connections>.

¹⁶ See *id.*; see also, Larry Downes, *5G: What is it good for?*, The Washington Post (June 5, 2018), https://www.washingtonpost.com/news/innovations/wp/2018/06/05/5g-what-is-it-good-for/?utm_term=.da6e3a37e9b7.

devices are projected to be connected worldwide.¹⁷ By 2030, industrial IoT could add as much as \$7.1 trillion to the U.S. economy.¹⁸

Further, just seven years after launching the first commercial 4G networks, America's wireless companies have blanketed the country in 4G LTE. Today, 99.8 percent of Americans have access to 4G LTE,¹⁹ and most Americans can choose from multiple providers: 96.6 percent of the population has a choice of three or more mobile providers offering LTE, and 88.6 percent has a choice of four or more providers offering LTE.²⁰ Regional and local providers, as well as new entrants, exert additional competitive pressure. U.S. Cellular, currently the fifth largest facilities-based carrier, offers service in 22 different states,²¹ with a network that delivers 4G LTE speeds to 99 percent of its customers.²² And, C Spire, a regional provider with a robust LTE network, recently announced a partnership to extend broadband internet access service through 5G fixed wireless.²³ As might be expected, the resulting competition among providers

¹⁷ Ericsson, *Ericsson Mobility Report*, at 16 (June 2018), <https://www.ericsson.com/en/mobility-report/reports/june-2018> (“*Ericsson Mobility Report*”).

¹⁸ Accenture, *Winning with the Industrial Internet of Things*, at 3 (2015), https://www.accenture.com/t20160909T042713Z_w_us-en/acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_11/Accenture-Industrial-Internet-of-Things-Positioning-Paper-Report-2015.pdf?lang=en.

¹⁹ See *Twentieth Report*, 32 FCC Rcd at 9022 Chart III.D.4.

²⁰ *Id.*

²¹ See United States Cellular Corp., 2017 SEC Form 10-K, at 1 (filed Feb. 26, 2018), <https://www.sec.gov/Archives/edgar/data/821130/000082113018000008/usm10k.htm>.

²² See Press Release, *J.D. Power: U.S. Cellular Ranks Highest In Network Quality Performance For The Fourth Time In A Row* (Mar. 5, 2018), <https://www.uscellular.com/about/press-room/2018/JDPOWER-USCELLULAR-RANKS-HIGHEST-IN-NETWORK-QUALITY-PERFORMANCE-FOR-THE-FOURTH-TIME-IN-A-ROW.html>.

²³ See, e.g., C Spire, *#1 Network: Now with twice the nationwide LTE*, <https://www.cspire.com/cms/wireless/no1network> (last visited July 26, 2018); Press Release, C

has improved network coverage and speeds and has lowered prices. According to one study, the mean mobile download speed in the U.S. rose by 20.4 percent over the last year, reaching 27.33 Mbps.²⁴ Since 2008, the wireless Consumer Price Index has fallen more than 25 percent,²⁵ with the cost per MB falling an astounding 96.6 percent since 2007.²⁶ In addition, all four major wireless carriers offer unlimited data plans, further increasing consumer choice.²⁷

III. INCREASED DEMAND FOR 5G SERVICES WILL FUEL NETWORK INVESTMENT AND INNOVATION.

By any measure, investment in the wireless industry has been substantial. Since 2008, more than \$270 billion of private risk capital has been invested in American wireless broadband facilities, with \$25.6 billion invested in 2017 alone.²⁸ AT&T and Verizon each invested more money in the United States than *any* other company in any industry in 2015.²⁹

SPIRE, Mimosa Partner on 5G Fixed Wireless Broadband Push Across Mississippi (July 26, 2018), http://www.cspire.com/company_info/about/news_detail.jsp?entryId=30400002.

²⁴ Corinne Reichert, *T-Mobile takes fastest carrier crown: Ookla*, ZDNet (July 18, 2018), <https://www.zdnet.com/article/t-mobile-takes-fastest-carrier-crown-ookla>.

²⁵ United States Department of Labor, BLS Beta Labs, BLS Data Viewer, <https://beta.bls.gov/dataViewer/view/timeseries-/CUUR0000SEED03> (last visited July 26, 2018) (showing decrease from 64.272 in June 2008 to 47.874 in June 2018).

²⁶ *State of Wireless 2018* at 15.

²⁷ See, e.g., Patrick Holland, *Verizon, AT&T, T-Mobile and Sprint unlimited plans compared*, CNET (July 16, 2018), <https://www.cnet.com/news/verizon-att-sprint-t-mobile-unlimited-data-plan-compared-comparing-unlimited-data-offerings-by-the-four-nationwide-carriers>.

²⁸ See CTIA, *CTIA annualized wireless industry survey results – 2001 to 2017*, at 2, https://api.ctia.org/wp-content/uploads/2018/07/CTIA_ToplineWirelessIndustrySurvey.pdf; *State of Wireless 2018* at 12.

²⁹ Progressive Policy Institute, *Investment Heroes 2016: Fighting Short-termism*, at 5 (2016), http://www.progressivepolicy.org/wp-content/uploads/2016/10/InvestHeroes_2016.pdf (noting the top 25 nonfinancial companies by estimated U.S. capital expenditure).

Such investment is expected to ramp up even further as wireless providers begin to deploy 5G services to consumers. According to a recent report commissioned by CTIA, the deployment of 5G in the U.S. will equate to \$275 billion in new investments, \$500 billion in economic growth and the creation of 3 million new jobs.³⁰ AT&T and Verizon are on track to launch 5G services by the end of 2018, with AT&T set to provide 5G mobile services in a dozen cities including Dallas, Waco, Atlanta, Charlotte, Raleigh and Oklahoma City,³¹ and Verizon deploying fixed 5G in Los Angeles, Sacramento, Houston and another city in second half of 2018.³² Working with commercial partners, Verizon was the first carrier to make an over-the-air call using the 5G New Radio (NR) standard, and Verizon is working with universities, start-ups and other companies through its 5G incubator, Alley, to develop use cases that will run on 5G networks.³³ Verizon's imminent 5G rollout will include over 1,000 cell sites, with fixed wireless

³⁰ Sean Kinney, *How does the U.S. stack up in global 5G readiness?*, RCR Wireless News (July 13, 2018), <https://www.rcrwireless.com/20180713/5g/global-5g-readiness-tag17>.

³¹ See Press Release, *AT&T Bringing 5G to More U.S. Cities in 2018* (July 20, 2018), http://about.att.com/story/5g_to_launch_in_more_us_cities_in_2018.html; Mike Dano, *AT&T knocks T-Mobile by naming more midsized cities for 5G*, FierceWireless (July 20, 2018), <https://www.fiercewireless.com/5g/at-t-knocks-t-mobile-by-naming-more-mid-sized-cities-for-5g>.

³² See Press Release, *Verizon's Nicola Palmer: We set the 5G bar high with millimeter wave spectrum* (May 25, 2018), <https://www.verizon.com/about/news/verizons-nicola-palmer-we-set-5g-bar-high-millimeter-wave-spectrum>; Press Release, *Verizon will launch 5G in Houston in 2018* (July 24, 2018), <https://www.verizon.com/about/news/verizon-will-launch-5g-houston-2018>.

³³ Press Release, *Another Step Toward Mobile 5G Service: Verizon, Nokia and Qualcomm Complete First Call Using 3GPP-Compliant 5G New Radio Technology* (Feb. 12, 2018), <https://globenewswire.com/news-release/2018/02/12/1339484/0/en/Another-step-toward-mobile5G-service-Verizon-Nokia-and-Qualcomm-complete-first-call-using-3GPP-compliant-5G-NewRadio-technology.html>.; Press Release, *Alley and Verizon: Bringing 5G Network Technology to Life* (July 12, 2018), <https://www.verizon.com/about/news/alley-and-verizon-bringing-5g-network-technology-life>.

to start and, as soon as the mobile devices become available, it will move into the mobile environment.³⁴

In addition, AT&T has launched 5G Evolution in over 140 markets to date, with plans to reach 400 markets in 2018, enabling peak wireless speeds of at least 400 megabits per second.³⁵ And in partnership with FOX Sports, Ericsson and Intel, AT&T recently demonstrated 4K video streaming over 5G at the U.S. Open golf tournament.³⁶ T-Mobile has committed to deploying a nationwide mobile 5G network by the end of the year and has announced plans to build out 5G in New York, Los Angeles, Dallas and Las Vegas, along with other as-of-yet unannounced cities.³⁷ Sprint is rolling out advanced network technology called Massive MIMO later this year that will provide 5G-like capabilities to customers in Chicago, Dallas, Los Angeles, Atlanta, Houston and Washington, D.C., and is preparing to deliver a 5G mobile network in the first half of 2019.³⁸ Ericsson continues to conduct 5G trials and achieve milestones towards 5G commercial reality.³⁹

³⁴ Jeremy Horwitz, *Verizon promises Fixed 5G for Los Angeles by Q4 2018, mobile 5G by Q1 2019*, VentureBeat (May 15, 2018), <https://venturebeat.com/2018/05/15/verizon-promises-fixed-5g-for-los-angeles-by-q4-2018-mobile-5g-by-q1-2019>.

³⁵ Press Release, *AT&T Bringing 5G to More U.S. Cities in 2018* (July 20, 2018), http://about.att.com/story/5g_to_launch_in_more_us_cities_in_2018.html.

³⁶ Press Release, *FOX Teams with Ericsson, Intel, AT&T to Deliver 4K Over 5G at 2018 U.S. Open* (May 15, 2018), <http://www.foxsports.com/presspass/latest-news/2018/05/15/fox-teams-ericsson-intel-att-deliver-4k-5g-2018-u-s-open>.

³⁷ Press Release, *T-Mobile Building Out 5G in 30 Cities This Year ...and That's Just the Start* (Feb. 26, 2018), <https://www.t-mobile.com/news/mwc-2018-5g>.

³⁸ Press Release, *Sprint Unveils Six 5G-Ready Cities; Significant Milestone Toward Launching First 5G Mobile Network in the U.S.* (Feb. 27, 2018), <http://newsroom.sprint.com/sprint-unveils-5g-ready-massive-mimo-markets.htm>.

³⁹ See e.g., Press Release, *Ericsson, Telstra and Intel Achieve First End-to-end Multi-vendor 5G Commercial Network Data Call Over Licensed 3.5 GHz Spectrum* (July 17, 2018), <https://www.marketwatch.com/press-release/ericsson-telstra-and-intel-achieve-first-end-to-end-multi-vendor-5g-commercial-network-data-call-over-licensed-35ghz-spectrum-2018-07-17>.

Earlier in the year, Qualcomm showed that 5G is capable of 1.4 Gbps speeds in simulated real world conditions.⁴⁰ By 2023, technologists predict that 48 percent of North American mobile subscriptions will be 5G, compared to only 34 percent in the Asia Pacific region and 21 percent in Western Europe.⁴¹

Based on the facts above the Commission has no choice but to again conclude that there is effective competition in the mobile wireless services marketplace. Such competition is the result of substantial private sector investment from an industry that is continually evolving and innovating to meet consumer and business demands. It is also the result of smart policy choices that have spurred such investment and innovation, a path the Commission must continue to follow if the U.S. is going to remain the world leader in mobile services.

IV. FURTHER COMMISSION LEADERSHIP IS NECESSARY TO ENSURE THAT THE U.S. REMAINS A GLOBAL LEADER IN WIRELESS SERVICES.

The Commission's leadership plays a substantial role in fostering the success of the wireless industry, and this will remain the case for the foreseeable future. It is critical that the Commission continue to take actions necessary to promote investment, eliminate longstanding barriers to deployment and avoid counterproductive regulation.⁴²

⁴⁰ Chaim Gartenberg, *Qualcomm's simulated 5G tests shows how fast real-world speeds could actually be*, The Verge (Feb. 25, 2018), <https://www.theverge.com/2018/2/25/17046346/qualcomm-simulated-5g-tests-san-francisco-frankfurt-mwc-2018>.

⁴¹ *Ericsson Mobility Report* at 11.

⁴² *See, e.g.*, Statement of Commissioner Michael O'Rielly *attached to Promoting Investment in the 3550-3700 MHz Band*, Notice of Proposed Rulemaking and Order Terminating Petitions, 32 FCC Rcd 8071, 8110 (2017) ("Generally, the role of the Commission in executing spectrum policy is to ensure that investment and innovation is promoted, that flexible use is permitted, and that the spectrum is attractive to as many users as possible. If the Commission succeeds in this task, the marketplace – through our auctions process – will determine the best use for this spectrum.").

A. More Spectrum For 5G is Essential.

Chairman Pai recently put it best: “In order to bring 5G, the next generation of wireless connectivity, to American consumers, we have to make available the spectrum necessary for new services to flourish.”⁴³ Accelerating 5G deployment by even just one year is projected to add \$100 billion to the U.S. GDP within the next three years.⁴⁴ The Commission has shown great leadership in this regard and cannot take its foot off the gas.

Mobile Future applauds the Commission’s efforts to make additional spectrum available via its *Spectrum Frontiers* proceeding,⁴⁵ as well as its plan to auction spectrum in the 28 GHz band (27.5-28.35 GHz) in November followed shortly thereafter by an auction of the 24 GHz band (24.25-24.45 and 24.75-25.25 GHz).⁴⁶ Mobile Future urges the Commission to continue to proceed aggressively towards an auction of the remaining *Spectrum Frontiers* spectrum (*e.g.*, the

⁴³ Statement of Chairman Ajit Pai *attached to Use of Spectrum Bands Above 24 GHz For Mobile Radio Services; Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 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*, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, FCC 18-73, GN Docket No. 14-177, WT Docket No. 10-112 (rel. June 8, 2018) (“*Spectrum Frontiers Third R&O and Third FNPRM*”).

⁴⁴ Accenture, *Accelerating Future Economic Value From the Wireless Industry*, at 7 (July 2018), https://www.accenture.com/t20180718T222127Z_w_us-en/acnmedia/PDF-82/Accenture-Strategy-Accelerating-Future-Economic-Value-2018-POV.pdf.

⁴⁵ See *Spectrum Frontiers Third R&O and Third FNPRM, supra; Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd 10988 (2017); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016).

⁴⁶ See *Auctions of Upper Microwave Flexible Use Licenses for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auctions 101 (28 GHz) and 102 (24 GHz); Bidding in Auction 101 Scheduled to Begin November 14, 2018*, Public Notice, FCC 18-43, AU Docket No. 18-85 (rel. Apr. 17, 2018).

37, 39 and 47 GHz bands) and to take any necessary actions to accelerate deployment of services in that spectrum.⁴⁷

Likewise, Mobile Future commends the Commission for the recent adoption of its “*Mid-Band*” Order and Notice of Proposed Rulemaking, in which it takes key steps towards making the 3.7-4.2 GHz band available for terrestrial wireless broadband service.⁴⁸ As the Commission points out, “[m]id-band spectrum is well-suited for next-generation wireless broadband services due to the combination of favorable propagation characteristics (compared to high bands) and the opportunity for additional channel re-use (as compared to low bands).”⁴⁹ It is essential that the Commission move quickly to make this spectrum available, particularly now that other countries have auctioned, or will soon auction, mid-band spectrum for wireless service.⁵⁰ For similar reasons, the Commission should accelerate resolution of its outstanding Notice of Proposed Rulemaking on spectrum at 3550-3700 MHz (“3.5 GHz band”), which is already globally harmonized for mobile broadband. Making targeted changes to the licensing regime for Priority Access Licenses (“PALs”) by adopting license renewability, longer license terms and larger

⁴⁷ See Monica Allevan, *FCC chair tees up plan for single auction of 37, 39, 47 GHz bands in 2019*, FierceWireless (July 12, 2018), <https://www.fiercewireless.com/wireless/fcc-chair-tees-up-plan-for-single-auction-37-39-47-ghz-bands-2019>.

⁴⁸ See generally *Expanding Flexible Use of the 3.7 to 4.2 GHz Band, et al.*, Order and Notice of Proposed Rulemaking, FCC 18-91, GN Docket Nos. 18-122 and 17-183, RM-11791, RM-11778 (rel. July 13, 2018).

⁴⁹ *Id.* at ¶ 5.

⁵⁰ *Id.* at ¶ 6 (observing that the Austrian and Australian governments will be moving ahead with auctions in the 3.4-3.8 GHz and 3.6-3.8 GHz bands, respectively, in 2018).

geographic areas for PALs will promote long-term investment in the band and accelerate deployment.⁵¹

B. The Commission Should Continue to Lower Barriers to Investment in Next-Generation Mobile Networks.

The *Public Notice* asks for comment on “whether laws, regulations, regulatory practices or demonstrated marketplace practices pose a barrier to competitive entry into the mobile wireless marketplace.” Mobile Future has previously highlighted that “many existing infrastructure siting processes and regulations are based on outdated and inaccurate assumptions regarding size and disturbance associated with macro cell deployments.”⁵² The Commission has now taken a significant step towards addressing this problem, declaring that “the deployment of small wireless facilities by non-Federal entities does not constitute either a ‘federal undertaking’ within the meaning of the NHPA or a ‘major federal action under NEPA and thus . . . certain federal historic preservation and environmental reviews are not required.”⁵³ This decision, which will shorten deployment timelines and reduce deployment costs, is precisely the sort of regulatory relief that is necessary to eliminate barriers to investment in 5G networks.

As the Commission has recognized, however, more must be done. In a draft Declaratory Ruling scheduled for consideration at its August 2, 2018 open meeting, the Commission is poised to declare that Section 253(a) of the Communications Act prohibits state and local

⁵¹ See *Promoting Investment in the 3550-3700 MHz Band*, Notice of Proposed Rulemaking and Order Terminating Petitions, 32 FCC Rcd 8071 (2017); see also Diana Goovaerts, *Verizon expects CBRS deployments in 2018*, Mobile World Live (Apr. 5, 2018), <https://www.mobileworldlive.com/featured-content/top-three/verizon-expects-cbrs-deployments-in-2018>.

⁵² Comments of Mobile Future, WT Docket No. 17-79, at 5 (June 15, 2017).

⁵³ *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Second Report and Order, FCC 18-30, WT Docket No. 17-79, at ¶ 36 (rel. Mar. 30, 2018).

moratoria – whether express or *de facto* – on telecommunications services and facilities deployment (wireline or wireless), because they “prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.”⁵⁴ Mobile Future agrees and urges the Commission to adopt the Declaratory Ruling. Moreover, the Commission should continue using its *Wireless Infrastructure* proceeding as a vehicle for exploring additional ways to eliminate wireless deployment barriers at the state and local level. For example, the Commission should address other practices that violate Sections 253 and 332(c)(7) by prohibiting or having the effect of prohibiting entities from providing service, such as fees for processing applications and accessing the rights of way that are in excess of localities’ actual costs for reviewing applications and providing access, and requirements to locate facilities underground.

V. CONCLUSION.

Given the evidence, the FCC should once again clearly and unequivocally declare the American mobile wireless marketplace to be competitive. Further, the Commission should continue to make more spectrum available for 5G and adopt policies that lower barriers to investment in next-generation networks. By recognizing that the U.S. wireless market is competitive and creating a pro-investment regulatory framework, the FCC will strengthen America’s role as the world leader in wireless.

⁵⁴ *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment; Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Third Report and Order and Declaratory Ruling, FCC-CIRC1808-03, WC Docket No. 17-84, WT Docket No. 17-79, at ¶ 4 (rel. July 12, 2018).

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