

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

In the Matter of)
)
Innovation in the Broadcast Television Bands:) ET Docket No. 10-235
Allocations, Channel Sharing and Improvements)
to VHF)

REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®

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I. INTRODUCTION AND SUMMARY

CTIA – The Wireless Association® (“CTIA”) respectfully submits these reply comments in response to the Commission’s Notice of Proposed Rulemaking (“*TV Spectrum Innovation NPRM*”) seeking comment on several proposals aimed at facilitating wireless broadband uses in portions of the UHF and VHF frequency bands currently used for broadcast television.¹ CTIA and its members are committed to promoting continued innovation in the wireless space, and CTIA believes that the proposals set forth by the Commission in the *TV Spectrum Innovation NPRM* represent a crucial first step toward addressing the United States’ looming spectrum crunch and promoting continued innovation in wireless. As shown in these comments, the record in this proceeding demonstrates that the Commission should:

- Continue its efforts to develop a comprehensive framework for reallocation of broadcast television spectrum for mobile broadband use via incentive auctions;
- Adopt its proposal to add fixed and mobile wireless allocations for the UHF band;

¹ *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, FCC 10-196 (2010) (“*TV Spectrum Innovation NPRM*”).

- Adopt its proposal to permit voluntary channel sharing which would help to “preserve over-the-air television as a healthy, viable medium going forward, in a way that would benefit consumers overall;”²
- Continue to explore its proposals to increase the utility of the VHF TV spectrum; and
- Undertake a careful examination of the benefits of moving to cellularized broadcast systems.

CTIA has long been an advocate of efforts to deploy additional spectrum for wireless service, and has witnessed firsthand both the ever-increasing benefits associated with mobile broadband adoption and the impact of increased mobile broadband usage on wireless networks. It is critical that the Commission act now to ensure that wireless broadband networks can continue to provide innovative and beneficial services to consumers. The proposals outlined in the *TV Spectrum Innovation NPRM* represent a “win-win” for broadcasters, consumers, and the wireless industry. CTIA encourages the Commission to adopt these proposals and reject calls by certain members of the broadcast industry to inhibit broadcaster flexibility and undermine the incentive auction process.

II. IT IS CRITICAL THAT ADDITIONAL SPECTRUM BE IDENTIFIED AND ALLOCATED FOR WIRELESS BROADBAND SERVICES.

“[F]ew sectors of our economy offer greater opportunities for economic growth and improvements to our quality of life” than mobile broadband.³ It is in recognition of this fact that the Commission and Administration have prioritized the allocation of 500 MHz of additional

² TV Spectrum Innovation NPRM at ¶ 18.

³ FCC Chairman Julius Genachowski, “The Clock Is Ticking,” Remarks on Broadband at the Mobile Future Forum, at 4 (Mar. 16, 2011) (“Genachowski Mobile Future Remarks”), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0316/DOC-305225A1.pdf.

spectrum for wireless broadband, including the reallocation of 120 MHz of broadcast television spectrum. While opponents of the proposals in the *TV Spectrum Innovation NPRM* attempt to understate the looming spectrum crisis or devalue the significant benefits of mobile broadband, the record is clear that mobile broadband plays a crucial role in the U.S. economy and that these benefits will be threatened if additional spectrum is not allocated to wireless broadband.

The tremendous growth of wireless technologies is well-established. The Nielsen Company has reported that 31 percent of mobile consumers in the United States owned smartphones as of December 2010,⁴ and predicts that there will be more smartphones in the U.S. market than feature phones by the end of 2011.⁵ Tablets have also soared in popularity over the past year, and it has been estimated that 24.1 million tablets will be sold in the United States in 2011, with 82.1 million tablet PC users in the U.S. by 2015.⁶ Indeed, wireless connectivity has become a hallmark of the consumer electronics industry generally. Chairman Genachowski recently observed that at this year's Consumer Electronics Show, "[v]irtually every product on the [show] floor was connected to the Internet, and overwhelmingly through wireless connections. If you had shut down wireless Internet access, pretty much nothing there would have worked."⁷

⁴ Nielsen Wire, "Among Mobile Phone Users, Hispanics, Asians are Most-Likely Smartphone Owners in the U.S." (Feb. 1, 2011), at <http://blog.nielsen.com/nielsenwire/consumer/among-mobile-phone-users-hispanics-asians-are-most-likely-smartphone-owners-in-the-u-s/>.

⁵ Nielsen Wire, "Smartphones to Overtake Feature Phones in U.S. by 2011" (Mar. 26, 2010), at <http://blog.nielsen.com/nielsenwire/consumer/smartphones-to-overtake-feature-phones-in-u-s-by-2011/>.

⁶ Sarah Rotman Epps, "U.S. Tablet Sales Will More Than Double This Year," Forrester.com (Jan. 4, 2011), at http://blogs.forrester.com/sarah_rotman_epps/11-01-04-us_tablet_sales_will_more_than_double_this_year.

⁷ FCC Chairman Julius Genachowski, Remarks at CTIA Wireless 2011, at 1 (Mar. 22, 2011) ("Genachowski CTIA Show Remarks"), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0322/DOC-305309A1.pdf. See also

With broadband-enabled wireless devices growing in popularity, it is no surprise that wireless data use continues to skyrocket. Rysavy Research projects smartphone data consumption increasing from approximately 0.3 gigabytes per month per user to almost 10 times this amount by 2016.⁸ More generally, Cisco's most recent forecast of wireless data traffic concluded that mobile data traffic will grow at a compound annual growth rate of 92 percent from 2010 to 2015, reaching 6.3 exabytes per month by 2015.⁹ AT&T has reported that mobile data traffic on its network has grown by 8,000 percent over the past four years,¹⁰ while T-Mobile has reported that the volume of data traffic on its network has doubled every seven months.¹¹ And last year, the number of Americans watching mobile video grew by more than 40 percent,¹² further emphasizing the growth of mobile broadband and the bandwidth-intensive nature of today's innovative devices and applications.

Rysavy Research, *The Spectrum Imperative: Mobile Broadband Spectrum and its Impacts for U.S. Consumers and the Economy, An Engineering Analysis*, at 4 (March 16, 2011) (“*The Spectrum Imperative*”) (“Already, there are vehicle accident recovery applications, mobile payment and online banking applications, remote health monitoring devices, smart utility meters, refrigerators, picture frames, pill bottle caps, traffic lights, and parking meters that use mobile technology.”).

⁸ *The Spectrum Imperative* at 11-12.

⁹ Telecommunications Industry Association, *Broadband Spectrum: The Engine for Innovation, Job Growth, and Advancement of Social Priorities* at 2 (March 2011) (“TIA White Paper”), available at http://www.tiaonline.org/gov_affairs/issues/spectrum/documents/TIASpectrumWhitePaperFINAL.pdf.

¹⁰ John Donovan, AT&T, “Driving Innovation and Investment in Our Network” (Mar. 2, 2011), at <http://www.attinnovationspace.com/2011/03/02/driving-innovation-and-investment-in-our-network/>.

¹¹ Comments of T-Mobile USA, Inc., ET Docket No. 10-235, at 4 (Mar. 18, 2011) (“T-Mobile Comments”).

¹² Nielsen Wire, “Number of Americans Watching Mobile Video Grows More than 40% in Last Year (Mar. 30, 2011), at http://blog.nielsen.com/nielsenwire/online_mobile/number-of-americans-watching-mobile-video-grows-more-than-40-in-last-year/.

The growth of mobile broadband has brought with it significant consumer and economic benefits. According to the High Tech Spectrum Coalition, investments in 4G wireless technologies will create 205,000 American jobs.¹³ And it “has been forecast that accelerated deployment of wireless broadband technologies and applications will generate productivity gains of almost \$860 billion by 2016.”¹⁴ Wireless broadband has also played a key role in public safety, improved healthcare management, and enabled educational opportunities, among many other societal benefits. Mobile broadband has also been cited as “the key” to “clos[ing] the digital divide.”¹⁵ It is clear, then, that wireless broadband is much more than a vehicle for “Internet gaming, pornography, and spam,” as some broadcasters would have the FCC conclude.¹⁶

Reflecting its utility, mobile broadband “is being adopted faster than any computing platform in history, and could surpass all prior platforms in their potential to drive economic growth of opportunity.”¹⁷ To accommodate mobile broadband’s projected growth and to ensure the continued positive effects of mobile broadband adoption, it is critical that more spectrum be made available. The *TV Spectrum Innovation NPRM*’s proposals to repurpose 120 MHz of spectrum from broadcast television to mobile broadband are essential components of the

¹³ FCC Chairman Julius Genachowski, “Spectrum: American Competitiveness, Opportunity, Dollars and the Cost of Delay” (Mar. 2011), *available at* http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0322/DOC-305309A2.pdf.

¹⁴ TIA White Paper at 3.

¹⁵ Comments of the Minority Media and Telecommunications Council, ET 10-235, at 3 (Mar. 18, 2011) (“MMTC Comments”).

¹⁶ Comments of Block Communications, Inc. et al, ET Docket No. 10-235, at 5 (Mar. 18, 2011) (“Block Communications Comments”).

¹⁷ Genachowski CTIA Show Remarks at 5.

Administration's and Commission's broadband objectives. CTIA strongly agrees with Chairman Genachowski that "unleashing more spectrum must be a national priority."¹⁸

Even when confronted with staggering data regarding mobile spectrum demand, certain commenters suggest that the spectrum crunch does not exist, and ask the Commission to impose further delays and conduct an inventory of spectrum prior to adopting the *TV Spectrum Innovation NPRM's* proposals.¹⁹ The Commission should reject such calls to delay the allocation of additional spectrum and exacerbate the growing spectrum shortage. The Commission "has inventoried spectrum to an unprecedented degree,"²⁰ in the course of preparing and implementing the National Broadband Plan. It is obvious that rapid Commission action, including adopting the proposals outlined in the *TV Spectrum Innovation NPRM*, is necessary to ensure that consumers continue to reap the benefits of mobile broadband.

III. THE NPRM'S PROPOSALS, INCLUDING VOLUNTARY INCENTIVE AUCTIONS, ARE THE BEST MEANS TO ACHIEVE THE NATIONAL BROADBAND PLAN'S SPECTRUM ALLOCATION OBJECTIVES.

It is clear that "the FCC along with the Administration and Congress must take action now to ensure that spectrum resources needed to support [mobile data] demand are identified, auctioned, and allocated within the next five years."²¹ Commenters representing a cross-section of the wireless industry have joined CTIA in their support of voluntary incentive auctions and the proposals set forth by the Commission in the *TV Spectrum Innovation NPRM*. CTIA

¹⁸ *Id.* at 1.

¹⁹ *See, e.g.*, Comments and Petition for Rulemaking of Capitol Broadcasting Company, ET Docket No. 10-235, at 1-2 (Mar. 18, 2011).

²⁰ Bill Lake and Rebecca Hansen, FCC, "Incentive Auctions: New Options for Broadcasters," FCC State Broadcasters Association Webinar Series at 14 (March 14, 2011).

²¹ Comments of Qualcomm Incorporated, ET Docket No. 10-235, at 2 (Mar. 18, 2011) ("Qualcomm Comments").

continues to believe that by adopting this framework, the Commission will enable an efficient and highly productive reallocation of spectrum. Further, CTIA is highly encouraged by Ericsson's findings regarding the spectrum efficiency benefits of adopting a cellularized architecture for broadcast television, and believes that this proposal merits particular consideration by the Commission.

A. Voluntary Incentive Auctions Are a Clear “Win-Win” Proposition.

As CTIA noted in its opening comments, a White Paper filed by CTIA and the Consumer Electronics Association (“CEA”) conducts a thorough analysis projecting that an incentive auction could result in proceeds of \$36 billion. Such an auction would be a “win-win” proposition; 120 MHz of spectrum would be reallocated to mobile broadband, and broadcasters would receive an infusion of capital. Notably, CTIA and CEA estimated that outside of the Top-30 markets, no broadcasters would need to participate in an incentive auction for 120 MHz of spectrum to be repurposed. For broadcasters who do choose to participate in incentive auctions, participants could choose to surrender their channels, adopt a cellularized architecture, or share channels, and would be compensated accordingly. The Commission would then “repack” remaining broadcasters to a new television core at channels 7-30. CTIA and CEA believe that this proposal will “fulfill the National Broadband Plan’s vision of wireless innovation and U.S. global technology leadership.”²²

Numerous parties to this proceeding have voiced their support for voluntary incentive auctions.²³ As Qualcomm notes, voluntary incentive auctions are highly efficient means of

²² CTIA – The Wireless Association® and Consumer Electronics Association, Broadcast Spectrum Incentive Auctions White Paper at 2 (Feb. 15, 2011), *available at* http://www.cesweb.org/shared_files/edm/Press/Spectrum_Whitepaper_FINAL.pdf (“CTIA/CEA White Paper”).

²³ *See, e.g.*, Comments of the Telecommunications Industry Association, ET Docket No. 10-235, at 3-5 (Mar. 18, 2011) (“TIA Comments”); Letter from Tamara Priess, Verizon to

reallocating spectrum, as incentive auctions “will allow those parties who value spectrum most highly to deploy next generation wireless services, devices, and applications.”²⁴ CTIA agrees with the High Tech Spectrum Coalition that voluntary incentive auctions are “a critical tool” to fairly and effectively reallocate spectrum.²⁵ These incentive auctions will also reap considerable benefits for participating broadcasters. As the Telecommunications Industry Association observed, not only do these auctions have the potential to infuse broadcasters with needed capital, but the proceeds raised by broadcasters can also enable further innovation.²⁶ Voluntary incentive auctions are clearly a “win-win” that will ensure America’s continued technology leadership, further promote the benefits of wireless broadband, and generate substantial revenues for broadcasters and the Federal government. In fact, earlier this month 112 economists specializing in telecommunications, auction theory and design, and competition policy endorsed voluntary incentive auctions as “a valuable tool to increase the efficiency of spectrum use in the United States.”²⁷

Certain commenters in this proceeding have opposed voluntary incentive auctions in favor of private, secondary market transactions between broadcasters and prospective wireless

Marlene H. Dortch, Federal Communications Commission, ET Docket No. 10-235 (Dec. 6, 2010); Comments of Ericsson, ET Docket No. 10-235 at 2 (Mar. 18, 2011) (“Ericsson Comments”); Comments of the High Tech Spectrum Coalition, ET Docket No. 10-235, at 2 (Mar. 18, 2011) (“High Tech Spectrum Coalition Comments”); Comments of the Consumer Electronics Association, ET Docket No. 10-235, at 7-10 (Mar. 18, 2011) (“CEA Comments”).

²⁴ Qualcomm Comments at 3.

²⁵ High Tech Spectrum Coalition Comments at 4.

²⁶ TIA Comments at 5 (“For example, broadcasters could use the proceeds from participating in a voluntary incentive auction to enter into a sharing agreement with an existing broadcaster, invest in new content, and reach their service area using new platforms such as mobile TV and the Internet.”).

²⁷ Letter from Paul Milgrom, Gregory Rosston et al to President Barack Obama (April 6, 2011) (“112 Economists’ Letter”), *available at* http://siepr.stanford.edu/system/files/shared/Letter_to_obama.pdf.

licensees.²⁸ Such arrangements would not enable the deployment of spectrum for advanced wireless services as effectively or efficiently as incentive auctions would. In their letter to President Obama, the 112 economists noted the limitations of individual transactions²⁹ and observed how “a centralized auction that incorporates package bidding helps assure the buyer that it would not be saddled with an inefficiently small aggregation of licenses, and also allows a buyer to compare alternative acquisition strategies more systematically.”³⁰ Rather than allow a piecemeal approach that could preclude the creation of large, contiguous blocks of spectrum desired by providers of next generation services,³¹ the Commission should adopt a comprehensive framework for reallocation via incentive auctions.

B. The *TV Spectrum Innovation NPRM*'s Proposals Will Enable a Productive Repurposing of Spectrum.

In opening comments, participants in this proceeding have also voiced their support for the *TV Spectrum Innovation NPRM*'s proposals regarding fixed and mobile allocations in the TV

²⁸ See, e.g., Comments of ION Media Networks, Inc., ET Docket No. 10-235, at 5 (Mar. 18, 2010) (“ION Comments”); Comments of the Association of Public Television Stations, National Public Radio, The Public Broadcasting Service and the Corporation for Public Broadcasting, ET Docket No. 10-235, at 17-18 (Mar. 18, 2011) (“Public Broadcasting Comments”).

²⁹ 112 Economists’ Letter at 2 (“For example, current broadcast licensees have many overlapping geographic areas; it might be difficult to come to satisfactory agreements in a timely manner with a sufficient number of incumbent licensees in any particular geographic area, or enough geographic areas across the country, to establish a viable wireless service.”).

³⁰ 112 Economists’ Letter at 2.

³¹ Bill Lake, Chief, Media Bureau, FCC “The FCC’s Incentive Auction Proposal: New Options for Broadcasters,” Remarks at the National Alliance of State Broadcaster Associations, at 8 (Feb. 28, 2011) (“Lake Remarks”), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0301/DOC-304900A1.pdf (“Realigning the band is the only practical way to produce the large, contiguous blocks of spectrum needed for wireless broadband use.”); Comments of AT&T Inc., ET Docket No. 10-235, at 3 (Mar. 18, 2011) (“AT&T Comments”) (“The potential for large contiguous swaths of spectrum and the excellent propagation characteristics of the UHF TV bands are well-suited to providing mobile broadband services.”).

bands, channel sharing, and improvements to VHF. CTIA joins these commenters in supporting the Commission's proposals.

The Commission's proposal to adopt fixed and mobile wireless allocations for the UHF/VHF bands represents a critical first step toward making this spectrum available for new licensed wireless broadband services. As AT&T observed, this step "would provide the Commission with the latitude to facilitate the types of flexible use rules that allow the UHF TV Bands to flow to their most productive use, as dictated by customer demand."³² Indeed, enhanced flexibility "would spur investment and innovation, thereby maximizing intensive use of spectrum and facilitating increased deployment of wireless broadband services."³³

Commenters also have recognized the potential of the Commission's channel sharing proposal to "provide strong incentives for current licensees to participate in voluntary incentive auctions, while enabling new business opportunities for broadcasters."³⁴ CTIA agrees with the Commission that voluntary channel sharing will help to "preserve over-the-air television as a healthy, viable medium going forward, in a way that would benefit consumers overall."³⁵ The Commission's proposal will enable broadcasters to enter into mutually beneficial business relationships that enable the preservation of each licensee's over-the-air programming. Indeed, commenters have stated that channel-sharing arrangements or subchannel services would be particularly beneficial to small and minority businesses.³⁶ CTIA has long supported Commission proposals that would grant licensees flexibility in the use of their spectrum, and echoes AT&T's

³² AT&T Comments at 3.

³³ T-Mobile Comments at 8.

³⁴ TIA Comments at 8.

³⁵ *TV Spectrum Innovation NPRM* at ¶ 18.

³⁶ MMTC Comments at 14.

warning that “the Commission should take extreme care to not develop prescriptive rules that overly limit the ability of broadcasters to design creative ways” of channel sharing.³⁷

Finally, commenters have voiced support for Commission efforts to increase the utility of the VHF TV spectrum. CTIA echoes the High Tech Spectrum Coalition’s statement that it is “sympathetic to the need for broadcasters in the VHF band to be able to overcome reception problems.”³⁸ As Media Bureau Chief William Lake has observed, the Commission’s efforts in this band are being taken with the hope “that some broadcasters will see it as a sound business decision to move to a VHF channel in exchange for compensation.”³⁹ CTIA encourages the Commission to take steps to improve the VHF spectrum and create incentives for broadcasters to relocate to these bands, and believes that doing so will further the Commission’s broader efforts with regard to the broadcast television spectrum. While some broadcasters have characterized the Commission’s efforts to improve the VHF spectrum as “doomed to fail,”⁴⁰ CTIA believes that the Commission’s proposals warrant further consideration, and that any proposal that could result in the allocation of additional spectrum for mobile broadband should not be so quickly dismissed.

Of note, there are significant differences between low VHF (TV channels 2-6) and high VHF (7-13). Low VHF typically requires larger antennas and experiences interfering effects from natural and manmade noise in these frequency ranges. In contrast, high VHF is one hundred MHz higher in the spectrum band – making the issues faced by low VHF somewhat

³⁷ AT&T Comments at 5.

³⁸ High Tech Spectrum Coalition Comments at 4.

³⁹ Lake Remarks at 9.

⁴⁰ Comments of Sinclair Broadcast Group, Inc., ET Docket No. 10-235, at 9 (Mar. 18, 2011) (“Sinclair Comments”); Comments of Local Television Broadcasters, ET Docket No. 10-235, at 25 (Mar. 18, 2011) (“Local Broadcasters Comments”).

alleviated. Moreover, receive antennas used by consumers are available that span both the UHF and high VHF frequency ranges. As such, it would appear that high VHF spectrum, while still facing many technical issues, is not as undesirable as low VHF spectrum.

C. Ericsson’s Comments Demonstrate the Significant Potential Benefits of a Cellularized Architecture, and Its Findings Warrant Particular Consideration by the Commission.

In its comments, Ericsson included a study examining the cellularization of television distribution.⁴¹ CTIA and CEA previously supported the adoption of a cellularized model for television broadcast, finding that by adopting a cellularized architecture, broadcast spectral efficiency could be greatly increased.⁴² CTIA supports and is greatly encouraged by Ericsson’s findings, and asks the Commission to give serious consideration to this proposal.

Ericsson’s cellularization study concludes that the same television services that would occupy 300 MHz of spectrum using the ATSC standard could be supported in 84 MHz of spectrum by using LTE Multimedia Broadcast/Multicast Service (“MBMS”).⁴³ Under the model tested by Ericsson, broadcasters would employ densely-placed low-power transmitters operating as a synchronized single-frequency network, with full frequency reuse at each site.⁴⁴ As Ericsson observed, under the current broadcast architecture, a channel can only be reused again by another television transmitter a “significant distance beyond the intended contour.”⁴⁵ As a

⁴¹ See Ericsson Comments.

⁴² Comments of CTIA – The Wireless Association® and the Consumer Electronics Association on NBP Public Notice #26, Uses of Spectrum, White Paper Proposal: Exploring a Path for Next Gen Television and Next Gen Wireless Broadband Spectrum, GN Docket No. 09-47 (Dec. 22, 2009).

⁴³ Ericsson Comments at 4.

⁴⁴ *Id.* at 3.

⁴⁵ *Id.* at 4.

result, channel reuse is limited. Under the Ericsson model, multiple transmitters broadcast identical signals in a manner such that the transmitters do not mutually interfere with each other – instead they amplify each other and improve signal quality.⁴⁶

In the *TV Spectrum Innovation NPRM*, Commissioner Baker stressed that “there needs to be a fulsome discussion on additional innovative proposals to address sharing of broadband and broadcast in the TV bands,” including the adoption of a more cellularized architecture or a transition from ATSC to OFDM technologies.⁴⁷ Ericsson’s findings validate Commissioner Baker’s push for expanded discussion of innovative technologies, and CTIA asks that the Commission undertake a careful examination of the benefits of cellularized broadcast systems. This model represents another way in which spectral efficiency can be increased and additional spectrum made available for mobile broadband, and warrants particular consideration by the Commission.

IV. THE COMMISSION SHOULD REJECT CALLS BY BROADCASTERS TO LIMIT LICENSEE FLEXIBILITY AND INHIBIT INCENTIVE AUCTIONS.

Numerous commenters representing the broadcast industry would have the Commission limit licensees’ flexibility by rejecting the proposals advanced in the *TV Spectrum Innovation NPRM*. Such arguments ignore the voluntary nature of incentive auctions and channel sharing, and would only inhibit the ability of broadcasters to take advantage of opportunities that they believe to be in their best interest. Rather than restrict broadcasters’ ability to choose from multiple alternatives, CTIA urges the Commission to reject these calls and offer maximum flexibility to licensees within the Commission’s incentive auction framework.

⁴⁶ *Id.* at 4-5.

⁴⁷ *TV Spectrum Innovation NPRM*, Separate Statement of Commissioner Meredith Attwell Baker.

As CTIA noted above, voluntary incentive auctions overseen by the Commission will help to promote an organized, effective reallocation of spectrum. For broadcasters who choose to participate, the mechanism will allow spectrum to be moved to a higher economic purpose in an efficient manner. For broadcasters who wish to continue broadcasting, the incentive auction means only that they may be required to change channels at no cost to them. In short, incentive auctions present the exact kind of “win-win” proposition that should be welcomed by all affected parties, including NAB members. By adopting this framework, the Commission will ensure the reallocation of a large contiguous block of spectrum. Within this framework, the proposals advanced by the Commission will play an important role in enabling incentive auctions to take place.

CTIA strongly disagrees with commenters that argue that rule changes such as adopting fixed and mobile allocations and permitting channel sharing are premature.⁴⁸ As the Commission itself stated in the *TV Spectrum Innovation NPRM*, these proposals help set the stage for further implementation of incentive auctions and constitute a necessary first step in the process.⁴⁹ Rather than balk at potentially beneficial changes to the existing regulatory structure, broadcasters should embrace the benefits associated with the voluntary framework proposed in the *TV Spectrum Innovation NPRM*. The Commission has outlined the expected structure of incentive auctions, and the proposals in the *TV Spectrum Innovation NPRM* only seek to codify

⁴⁸ See, e.g., Public Broadcasting Comments at 3 (“If allocation changes do not themselves lead to wireless licensing in the bands, they are not yet necessary and therefore premature. . . . Public Broadcasting believes that rule changes relating to channel sharing may also be premature. . . .”); Sinclair Comments at 4-10 (arguing that the actions proposed by the Commission in the *TV Spectrum Innovation NPRM* are premature and unlikely to succeed).

⁴⁹ *TV Spectrum Innovation NPRM* at ¶ 3 (“By taking these important steps to facilitate wireless broadband uses of the U/V Bands, this Notice is the first in a series of actions that will allow us to make progress toward our goal of improving efficient use of the bands and enable ongoing innovation and investment through flexible use.”).

parameters that would enable incentive auctions to proceed. As Bureau Chief Lake observed, the Commission's proposals are aimed at giving broadcasters the opportunity to stay on the air while receiving an infusion of capital that they can invest further in future operations.⁵⁰

As the Commission has repeatedly stressed, the *TV Spectrum Innovation NPRM's* proposal regarding channel sharing is voluntary.⁵¹ Some commenters dismiss the Commission's channel sharing proposal on the basis that it may not be desirable or technically feasible for all broadcasters⁵² or that few broadcasters are likely to opt into such a regime.⁵³ However, the fact that channel sharing is voluntary presumes that any broadcaster that chooses to share a channel has determined that doing so is feasible and in its best interest. While some broadcasters may be opposed to using this mechanism themselves, there is no reason for the Commission to restrict those parties that may wish to take advantage of this option. Indeed, for those broadcasters who are able and willing to share channels, this approach "offers not only enhanced spectral efficiency, but also lower operational expenses for the broadcasters involved."⁵⁴ By adopting its channel sharing proposal, the Commission will provide broadcasters with highly beneficial flexibility while promoting the allocation of spectrum for wireless broadband.

⁵⁰ Lake Remarks at 6.

⁵¹ See, e.g., Lake Remarks at 5, 7; *TV Spectrum Innovation NPRM* at ¶ 18.

⁵² See, e.g., Comments of the University of North Carolina, ET Docket No. 10-235, at 7 (Mar. 18, 2011) ("UNC-TV cannot and does not embrace the shared channel proposal because none of its facilities has any 'extra' bandwidth to share."); Comments of the Trinity Broadcasting Network, ET Docket No. 10-235, at 4 (Mar. 18, 2011) ("Trinity's experience with the development and implementation of these additional channels leads it to conclude that it needs and uses all of the 6 MHz (19.4 mbps) of spectrum entrusted with at each of its stations, making any shared use with another licensee impossible.").

⁵³ Local Television Broadcasters at 25 (asserting that few stations are likely to choose channel sharing as an option).

⁵⁴ AT&T Comments at 5.

V. CONCLUSION

The proposals outlined in the *TV Spectrum Innovation NPRM* represent a critical first step in the Commission's efforts to promote the continued benefits of wireless broadband. CTIA urges the Commission to adopt them and to promptly commence its process of reallocating 120 MHz of broadcast spectrum for wireless services.

Respectfully submitted,

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