March 24, 2015

The Honorable Greg Walden
U.S. House of Representatives
2185 Rayburn House Office Building
Washington, DC 20515

The Honorable Anna Eshoo
U.S. House of Representatives
241 Cannon House Office Building
Washington, DC 20515

Dear Chairman Walden and Ranking Member Eshoo:

The Telecommunications Industry Association (TIA), the leading trade association for global manufacturers, vendors, and suppliers of information and communications technology (ICT), applauds you for holding a hearing this week to discuss next steps on spectrum policy. The FCC is making steady progress towards holding the voluntary incentive auction, even as further efforts are needed to make more spectrum – including federal spectrum – available for wireless broadband. We urge you to focus on the following areas during the hearing:

The Voluntary Incentive Auction

Interference from Unlicensed Devices. TIA is concerned that the FCC's proposed technical rules for unlicensed devices will result in significant harmful interference to 600 MHz band licensees, and eventually to consumers. In 2012, Congress explicitly prohibited any unlicensed use of re-purposed television spectrum that would cause harmful interference.[1] Unfortunately, even using the FCC's own (flawed) technical assumptions, the agency concedes that its proposed rules would allow unlicensed devices to cause interference to licensed devices seven meters (23 feet) away.[2] In an era of multiple wireless devices in the same home or office, avoiding interference would therefore be impossible without *leaving the room*. Moreover, recently-submitted test results show that operations would actually cause interference at distances of 20 meters or more.[3]

Such interference would greatly diminish the value of the spectrum to bidders, potentially costing the Treasury billions of dollars in lost revenue. Even worse, massive consumer frustration could result once devices are actually deployed after the incentive auction. As a possible compromise, TIA has urged the FCC to adopt a conservative approach by beginning at lower power levels and/or bandwidths.[4] Eventual increases might then be possible once field testing has shown that licensees will not be harmed. Regardless, Congress should ensure that the Commission abides by the 2012 Spectrum Act's command to avoid harmful interference.

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[1] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96, Title VI ("Spectrum Act") § 6407(e) [47 U.S.C. 1454(e)].

[2] *See* TIA Comments, filed Feb. 4, 2015 in ET Docket No. 14-165 (highlighting flaws in FCC assumptions and explaining impracticability of seven-meter interference distance); *see also* FCC Notice of Proposed Rulemaking at ¶ 84-85.

[3] *See* CTIA Comments at 4 (20 meters); Qualcomm Comments at 11 (29 meters).

[4] *See* TIA Reply Comments, filed Feb. 25, 2015.

Ensuring Prompt Action. TIA has generally supported the FCC's methodical approach to implementing the first-of-its-kind incentive auction, including its active outreach to broadcasters, since there is only one chance to "get this right." However, the auction has been repeatedly delayed for a myriad of reasons, including pending litigation that is challenging the FCC's treatment of re-packed broadcasters. More recently, with the 2012 Spectrum Act's budgetary targets having been met via the successful AWS-3 auction, some have suggested that the FCC should further delay the incentive auction.

Doing so would be a mistake that would harm taxpayers and consumers alike. The 600 MHz spectrum is essential simply to keep pace with the exploding demand for commercial wireless services. Congress clearly instructed the Commission to maximize licensed spectrum in the 600 MHz band, and the success of the incentive auction continues to hinge on the participation of all possible bidders in the forward auction. Congress should urge the FCC to continue moving with all deliberate speed towards an auction in early 2016.

Federal Spectrum Management

TIA urges Congress to enact or facilitate a number of actions towards improving federal spectrum management and encouraging more efficient use. These include:

Better Tracking. A better spectrum use tracking and management process can facilitate a greater understanding of uses of spectrum by all users, including government users. Such a process should include appropriate inventories of usage and transparency. NTIA has done commendable work in preparing reports on government spectrum uses, and we encourage further unclassified information to be provided publicly in easy-to-access formats. In cases of spectrum sharing, federal policy should support forums for all stakeholders to periodically exchange information to better ensure that the emerging sharing environment is and remains workable.

Stronger Central Coordination. NTIA is currently tasked with coordinating spectrum use for the federal government.[5] However, as various spectrum-related efforts in recent years have demonstrated, a stronger level of coordination or management for federal spectrum usage may be required. Indeed, in some cases NTIA has had difficulties obtaining current information from other government agencies, making it difficult for NTIA to effectively respond to Congressional and Administration requests for more detailed information regarding federal use. It may be valuable to have government agencies' spectrum offices engage more closely and more often with NTIA to improve coordination.

Agency Incentives. Spectrum plays an essential role in fulfilling government missions, and this will continue despite any transition or sharing of particular bands with commercial users. For this reason, although political leadership by Congress and the Administration is necessary, agency-level incentives are also advisable to ensure that federal agencies continue to modernize their systems and programs, employing the latest, most spectrally efficient technologies to guarantee mission effectiveness in a similar manner to commercial operators.

[5] *See* NTIA, *Manual of Regulations and Procedures for Federal Radio Frequency Management (Redbook)*, available at http://www.ntia.doc.gov/page/2011/manual-regulations-and-procedures-federal-radio-frequency-management-redbook. Chapter 1.1 § 5 collects various statutory authorities delegated to NTIA.

The proposed Federal Spectrum Incentive Act introduced in the previous Congress by Reps. Guthrie and Matsui represents potentially important legislative progress towards this goal. This bi-partisan legislation is designed to provide agencies with voluntary budgetary incentives to transition spectrum to commercial uses, by simply allowing agencies to keep a portion of the proceeds of any auctioned spectrum for their own use. Congress should also explore ways to provide incentives and budget for deployment of even more spectrally efficient technologies and systems that enable government users to meet their own increasing demand for spectrum.

Flexible-Use Funding. The use of commercial auction proceeds has traditionally been an important and effective tool to migrate and upgrade federal systems to make way for commercial uses, and to support cost impacts on existing programs/contracts when changes are made. As future spectrum transitions or sharing between federal and commercial uses are contemplated, Congress should ensure that any spectrum transition funds can be used in a manner flexible enough to cover a wide range of costs, including the research and development needed to identify spectrum where sharing may prove feasible. Indeed, such flexibility may also help overcome any agency resistance to "unknowns" associated with any particular transition of spectrum.

Commercial Alternatives. For those telecommunications capabilities that can be provided equally well by commercial service providers, agencies should be considering commercial options in lieu of using their own legacy systems – options that may be more cost-effective while providing much greater flexibility in serving an agency's mission. For example, DoD has recently committed that it will seek to use commercial services and technologies to meet its requirements where possible.[6] In addition, the creation of FirstNet presents an opportunity for federal agencies to utilize this first-of-its-kind national LTE network for some data and voice communications.

Other Avenues for Legislative Action

5.9 GHz Testing. TIA supports the Wi-Fi Innovation Act (H.R. 821) introduced by Reps. Latta, Issa, Eshoo, Matsui, and DelBene. This bill identifies meaningful steps to help alleviate the spectrum crunch that threatens the advancement of global communications. TIA supports efforts to develop a workable spectrum sharing solution for the 5.9 GHz band, and agrees that sharing proposals need to be thoroughly tested, leading to the creation of a record that can be the basis for regulatory action.

Funding R&D with Auction Revenues. Most transitions of federal spectrum to commercial use involve the government incumbents upgrading their equipment to more spectrally-efficient technology, similar to what commercial providers do. However, spectrum sharing R&D is the "seed corn" that has enabled more efficient and effective uses of spectrum by federal and commercial users alike, resulting in macroeconomic benefits to the U.S. economy as well as direct benefits to the Treasury when more spectrum is made available for auction. To ensure that the pipeline of spectrum continues into the future, Congress should require re-investment of a

[6] Department of Defense, *Electromagnetic Spectrum Strategy*, Release No. NR-091-14 (Feb. 20, 2014) at 7.

[redacted]

[redacted] of possible
management. TIA's response is attached

legislative avenues to improve the nation's spectrum
for your reference.

TIA appreciates your continuing efforts to help plug to satisfy the demand for spectrum caused by the astronomical growth of mobile broadband services. We urge you to continue your efforts in 2015 to ensure that the incentive auction is successful and to improve federal spectrum management.

Thanks you again, and we look forward to working with you on these important issues. For more information, please contact Mark Uncapher at 703-907-7733 or by email at

Very best regards,

Scott Belcher
Chief Executive Officer
Telecommunications Industry Association