

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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MEMORANDUM

October 6, 2015

To: Subcommittee on Communications and Technology Democratic Members and Staff
Fr: Committee on Energy and Commerce Democratic Staff
Re: Subcommittee Hearing on “Improving Federal Spectrum Systems”

On Wednesday, October 7, 2015, at 10:15 a.m. in room 2322 of the Rayburn House Office Building, the Subcommittee on Communications and Technology will hold a hearing titled “Improving Federal Spectrum Systems.”

I. BACKGROUND

Skyrocketing consumer demand for wireless services continues to drive the wireless services and consumer electronics industries to deliver increasing numbers of smart and data-hungry wireless devices. Advances and trends in areas such as cloud computing, client and device authentication, network security, and wi-fi networking are paralleling consumer demand and helping further the marketability, flexibility, and usability of these services and devices. As they become more deeply integrated and embedded into our homes, transportation, and workplaces, these services and products will assuredly also become more prevalent in the lives of consumers and overall society moving into the next decade.¹

Earlier this year, the subcommittee held a hearing on March 24, 2015, at which witnesses testified unanimously about the pressing need for available commercial spectrum to meet consumer needs.² At this Wednesday’s legislative hearing, the subcommittee will hear

¹ Cisco, *VNI Mobile Forecast Highlights 2014-2019* (accessed Oct. 5, 2015) (online at www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/index.html#~Country) (projections that mobile data traffic will grow seven-fold from 2014 to 2019, in the U.S.).

² House Committee on Energy and Commerce, *Hearing on “Next Steps for Spectrum Policy,”* Subcommittee on Communications and Technology, 114th Cong. (Mar. 24, 2015).

additional testimony and perspectives from witnesses relating to spectrum demand, existing federal policy, and available legislative options.

The subcommittee will take up two bills at its hearing. The first measure, the Federal Spectrum Incentives Act (H.R. 1641), was introduced by Reps. Matsui (D-CA), Guthrie (R-KY), Eshoo (D-CA) and Walden (R-OR). As introduced, this measure incentivizes federal agency users to facilitate the reassignment of government-allocated spectrum. The bill contemplates that federal entities to whom these spectrum bands are assigned would be made eligible to receive a percentage of proceeds from the Federal Communications Commission (FCC) auctions at which non-federal and private entities could bid on the reassigned frequencies.

The second legislative measure that the subcommittee will examine, H.R. ____, the Spectrum Pipeline Act of 2015, is a discussion draft. This draft, offered by Reps. Clarke (D-NY) and Walden (R-OR), directs the FCC to submit a proposed plan to its jurisdictional committees (i.e., House Energy and Commerce and Senate Commerce, Science and Transportation) for auctioning “new flexible-use licenses” and a report to Congress that analyzes the effects of rule changes and plans for spectrum sharing.

II. FEDERAL GOVERNMENT ROLE IN SPECTRUM POLICY

The FCC is responsible for allocating and licensing spectrum for all non-federal users and uses, including commercial users and local public safety users. The National Telecommunications and Information Administration (NTIA) manages spectrum used by federal entities. Where appropriate, the FCC and NTIA work together to coordinate between their respective constituencies regarding spectrum use and any related issues.

Because spectrum is a finite resource, the communications sector has focused on identifying opportunities to make both commercial and federal spectrum use more efficient. Recent examples include:

- AWS-3 Auction. The FCC concluded the AWS-3 auction in February 2015, which generated record auction receipts of \$41.3 billion for 65 Megahertz (MHz) of spectrum.³ As a result of the auction, the FCC issued 1,611 new licensees for advanced wireless services (AWS) in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz bands.⁴ The FCC worked with NTIA to move federal users out of the 1755-1780 MHz band, but also provided for indefinite sharing with a limited number of federal systems.⁵

³ See Auction of Advanced Wireless Services (AWS-3) Licenses Closes Winning Bidders Announced for Auction 97, Public Notice, DA 15-13, at ¶ 1 (Jan. 30, 2015).

⁴ *Id.*

⁵ See NTIA, *Advanced Wireless Services in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz bands* (online at <http://www.ntia.doc.gov/category/aws-3-transition>) (accessed Oct. 2, 2015).

- 3.5 GHz. The FCC voted on April 17, 2015, to permit commercial users to share 150 MHz of spectrum with the Department of Defense in the 3.5 GHz “innovation band.”⁶ NTIA had previously dedicated part of that band to the Department of Defense,⁷ but the FCC expects mobile broadband and other innovative services now to occupy the band as well.⁸ The new spectrum sharing techniques include a tiered approach in which the FCC will assign users one of three levels of access to the spectrum: incumbent access, priority access, or general authorized access.⁹
- Broadcast Incentive Auction. In the Middle Class Tax Relief and Job Creation Act of 2012 (the Public Safety and Spectrum Act),¹⁰ Congress authorized the FCC to conduct “incentive auctions” in which television broadcast spectrum holders can voluntarily relinquish their spectrum rights in exchange for a portion of the proceeds from the FCC’s sale of those rights to others. The Public Safety and Spectrum Act also permits the FCC to allow unlicensed spectrum users to operate within the “guard bands” between licensed frequencies in the 600 MHz band. The Commission has scheduled the broadcast incentive auction for March 2016.

III. THE FEDERAL SPECTRUM INCENTIVE ACT OF 2015 (H.R. 1641)

If enacted, the “Federal Spectrum Incentive Act” would create a new incentive auction for federal users to help encourage more efficient spectrum use. The bill would require the Office of Management and Budget to transfer a percentage of the proceeds from a given spectrum auction back to the federal user that relinquished that spectrum. The bill, nevertheless, would not amend the sequestration caps Congress has already imposed on these federal users, and consequently, these federal users would be limited in their ability to spend any auction proceeds. The bill would allow federal users to relinquish spectrum either by discontinuing operations on eligible frequencies entirely or by relocating operations to frequencies assigned to other federal users.

Under current law, federal spectrum holders are eligible for reimbursement for the costs of sharing frequencies with non-federal users or relocating to other frequencies. H.R. 1641 would offer federal entities new incentives in order to free up additional spectrum for commercial use.

⁶ *See Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550- 3650 MHz Band*, Report and Order and Second Further notice of Proposed Rulemaking, GN Docket No. 12-354, FCC 15-47, at ¶ 1-2 (Rel. Apr. 21, 2015).

⁷ *See id.* at ¶ 15-20.

⁸ *See id.* at ¶ 1-2.

⁹ *See id.* at ¶ 4.

¹⁰ P.L. 112-96.

A similar bill, H.R. 3674, was introduced in the 113th Congress and favorably reported out of the full Committee on December 10, 2013. The Congressional Budget Office estimated that enacting H.R. 3674 would have increased net direct spending by \$30 million over the 2015-2024 period. The full House of Representatives did not consider that bill.

IV. DISCUSSION DRAFT OF THE SPECTRUM PIPELINE ACT OF 2015

The discussion draft directs the FCC to develop a proposed plan for assigning “new flexible-use licenses” through competitive bidding or auctions. According to the legislative draft, the FCC’s proposed plan would require certain federal users to relocate their operations from spectrum bands that are currently assigned for federal use, to other frequencies, or to share frequencies in other bands with non-federal users. Under the draft, the FCC would be required to coordinate with NTIA and affected Federal entities, and to submit a separate report on the proposed plan for each spectrum band, to the full Committee and the Senate Commerce, Science, Transportation Committee. The draft also affords the FCC and NTIA some flexibility to report on alternate spectrum bands, if the specified bands are determined to be infeasible.

Importantly, the discussion draft recognizes the importance of unlicensed spectrum to meet consumer needs. The bill requires the agencies include in their reports a discussion of how to establish the appropriate balance of licensed and unlicensed spectrum. The draft further directs the FCC to submit a report to Congress that analyzes the effects of rule changes and plans for spectrum sharing between 3.55-3.65 MHz.

V. WITNESSES

The following witnesses have been invited to testify:

Phillip Berenbroick

Counsel, Government Affairs
Public Knowledge

Jeffrey H. Reed

Willis G. Worcester Professor in ECE
Virginia Polytechnic Institute and State University

Dennis A. Roberson

Vice Provost, Research Professor in Computer Science
Illinois Institute of Technology