## REVISED STAFF REPORT

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| **Agenda Item:** |  | **Name:** | Lise Kaye |
| **Proposed No**.: | 2016—0123.2 | **Date:** | March 8, 2016 |

**COMMITTEE ACTION**

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| ***Proposed Motion 2016-0123.2, which would request that the executive develop and transmit a report that reviews the potential impacts of the upcoming auction of federally licensed broadcasting frequencies on King County taxpayers, residents and businesses, passed out of committee on March 8, 2016, with a “Do Pass” recommendation. The motion was amended in committee with Amendment 1 to establish March 25, 2016 as the due date for the report.*** |

**SUBJECT**

A motion requesting that the executive develop and transmit a report that reviews the potential impacts of the upcoming auction of federally licensed broadcasting frequencies on King County taxpayers, residents and businesses.

**SUMMARY**

The growth of commercial wireless broadband services, including smart phones and tablet computers, coupled with increases in government use of radio frequency spectrum has greatly increased the demand for that spectrum. The FCC, with direction from Congress, has developed a first-of-its-kind voluntary auction of broadcast spectrum slated for March 29, 2016, as a means of providing additional capacity while at the same time raising revenue for a national public safety broadband network (“FirstNet”) and deficit reduction.

The auction has been controversial, with television providers opposing the concept and telecommunications and wireless providers supporting it. Proceeds from the auction would be divided between the licensees and the federal government. On February 29, 2016, a group of low-power television stations filed an emergency motion with the FCC to stay the March 29 start of the incentive auction. Proposed Motion 2016-0123 would request that the executive develop and transmit a report that reviews the potential impacts of the upcoming auction on King County taxpayers, residents and businesses.

**BACKGROUND**

What is Spectrum?

Electromagnetic spectrum, commonly referred to as radio frequency spectrum or wireless spectrum, refers to the properties in air that transmit electric signals and, with applied technology, can deliver voice, text, and video communications.[[1]](#footnote-1) Radio frequency spectrum enables an array of wireless communications services critical to the U.S. economy and government functions, such as scientific research, national defense, homeland security, and other vital public safety activities. However, nearly all usable spectrum has been allocated either by the National Telecommunications and Information Administration (NTIA) for federal use or by the Federal Communications Commission (FCC) for commercial and nonfederal government use.

Current spectrum policy is based on managing channels of radio frequencies to avoid interference.[[2]](#footnote-2) Multiple wireless service providers cannot use the same piece of spectrum in the same geographic area at the same time. Spectrum is allocated for a type of use, such as television broadcasting, wireless microphones, satellite communications, ship-to-shore radios or advance wireless services, and assigned as licenses to specific users.[[3]](#footnote-3) Most licenses are issued on a geographic basis, serving a specific area (license coverage).

Options to Address Spectrum Needs

According to the United States Government Accountability Office (US GAO) there are a number of approaches that might help address spectrum needs[[4]](#footnote-4), including:

* Repurpose spectrum to high-value uses – Historical allocations can leave spectrum tied to outmoded and less valuable services. To accommodate new uses, FCC often changes its rules to move spectrum from an existing use, a process known as repurposing. In making these decisions, FCC considers uses that best serve the public interest, including factors such as economic and social value.
* Increase spectrum sharing – At any given time or place, spectrum lies fallow or is only intermittently used. Some federal advisors, agency officials, and experts have advocated greater incentives and opportunities for sharing spectrum by federal and nonfederal users.
* Improve receiver performance - To manage spectrum, FCC and NTIA have historically focused on transmitters—the equipment that emits signals. But improved receivers can also help promote more efficient use of spectrum.

National Broadband Plan

In early 2009, Congress directed the Federal Communications Commission (FCC) to develop a National Broadband Plan[[5]](#footnote-5) to ensure every American has “access to broadband capability.” The FCC issued the National Broadband Plan in 2010, which included recommendations to reform spectrum policy.

The Plan states that the FCC’s current inventory of 50 megahertz of broadband is a fraction of the amount that will be necessary to match growing demand. It also notes that more efficient allocation and assignment of spectrum will reduce deployment costs, drive investment and benefit consumers through better performance and lower prices. The plan makes the following recommendations on spectrum policy:

* Make 500 megahertz of spectrum newly available for broadband within 10 years, of which 300 megahertz should be made available for mobile use within five years.
* Enable incentives and mechanisms to repurpose spectrum to more flexible uses. Mechanisms include incentive auctions, which allow auction proceeds to be shared in an equitable manner with current licensees as market demands change.
* Ensure greater transparency of spectrum allocation, assignment and use through an FCC-created spectrum dashboard to foster an efficient secondary market.
* Expand opportunities for innovative spectrum access models by creating new avenues for opportunistic and unlicensed use of spectrum and increasing research into new spectrum technologies.

The Plan identifies incentive auctions as a recommended tool to provide increased spectrum by repurposing spectrum to more flexible uses. In support of these auctions, the Plan claims that

“These [incentive auctions] would benefit both spectrum holders and the American public. The public could benefit from additional spectrum for high-demand uses and from new auction revenues. Incumbents, meanwhile, could recognize a portion of the value of enabling new uses of spectrum. For example, this would allow the FCC to share auction proceeds with broadcasters who voluntarily agree to use technology to continue traditional broadcast services with less spectrum.”

Spectrum Policy Provisions in the Middle Class Tax Relief and Job Creation Act of 2012

Congress signed the Middle Class Tax Relief and Job Creation Act of 2012 on February 22, 2012). Title VI of that Act, frequently referred to as the Public Safety and Spectrum Act, or Spectrum Act, authorized the FCC to conduct incentive auctions and directed the agency to conduct an incentive auction of broadcast television spectrum.[[6]](#footnote-6) The purpose of broadcast spectrum incentive auction would be to reward license-holders, such as television broadcasters, who repurpose their spectrum for a different use.[[7]](#footnote-7) Proceeds from the auction are prioritized first to benefit the “FirstNet” nationwide public safety broadband network and will also go toward public safety research, deficit reduction, and a 911 grant program. [[8]](#footnote-8)

Broadcast Television Spectrum Incentive Auction

The FCC issued its final rule on Broadcast Television Spectrum Incentive Auction on October 2, 2012.[[9]](#footnote-9) The rule defines an incentive auction as

a voluntary, market-based means of repurposing spectrum by encouraging licensees to voluntarily relinquish spectrum usage rights in exchange for a share of the proceeds from an auction of new licenses to use the repurposed spectrum

Initially anticipated to commence in mid-2014, the initial broadcast television spectrum auction has been rescheduled twice, once to test the operating systems and software necessary for the auction and most recently from mid-2015 to March 2016 following a legal challenge from the National Association of Broadcasters.

March 2016 Incentive Auction

The broadcast television spectrum incentive auction will be the first such auction ever attempted worldwide. As defined by the FCC’s rule 12-118A1, the incentive auction of broadcast television spectrum will have three major pieces:

1. a “reverse auction” in which broadcast television licensees submit bids to voluntarily relinquish spectrum usage rights in exchange for payments;

1. a reorganization or “repacking” of the broadcast television bands in order to free up a portion of the ultra high frequency (UHF) band for other uses; and
2. a “forward auction” of initial licenses for flexible use of the newly available spectrum.

Through the reverse auction process, the broadcasters would establish the amount of compensation they are willing to accept for the spectrum they voluntarily release for auction.

Broadcasters that do not voluntarily relinquish spectrum rights, but are required to relocate or incur certain other costs, may be compensated. In lieu of cash payments as compensation for relocation, broadcasters may choose to accept regulatory relief that would allow new uses for their spectrum.

Spectrum voluntarily released by TV broadcasters would be repurposed for commercial

broadband communications, with licenses sold through what the law refers to as a “forward auction.” At least one successful reverse auction is required to set minimum prices for a forward auction.[[10]](#footnote-10)

All three pieces are interdependent: the amount of spectrum available in the forward auction will depend on reverse auction bids and repacking, winning reverse auction bidders will be paid from the forward auction proceeds, and the repacking methodology will help to determine which reverse auction bids the FCC accepts and what channels the FCC assigns to the broadcast stations that remain on the air.

The auction is scheduled to begin on March 29, 2016. The Commission began accepting applications from broadcast stations on December 8, 2015, and is engaging in a variety of bidder education efforts designed to prepare participants for this auction.

Competing Interests

The controversy over the broadcast auction has been characterized as pitting television against telecommunications and wireless providers.[[11]](#footnote-11) In a report published in 2011[[12]](#footnote-12), the United States Government Accountability Office (GAO) found a consistent split relative to incentive auctions and reallocation of spectrum between “experts and stakeholders other than broadcasters” and “broadcasters.” Additional concerns have been cited about the rules of the auction, particularly with respect to enabling smaller wireless carriers to compete with the large carriers.[[13]](#footnote-13)

Arguments in favor of and opposing the auctions are summarized below:

*Arguments in Support of Incentive Auctions*

* Growing Demand: The FCC’s current inventory of 50 megahertz of broadband is a fraction of the amount that will be necessary to match growing demand[[14]](#footnote-14)
* Supply, Competition and Economic Growth: Any unnecessary delays in making spectrum available will exacerbate supply shortages while imperiling competition and economic growth[[15]](#footnote-15)
* Public Benefit: The public could benefit from additional spectrum for high-demand uses and from new auction revenues. [[16]](#footnote-16)
* Economics and Performance: More efficient allocation and assignment of spectrum will reduce deployment costs, drive investment and benefit consumers through better performance and lower prices.[[17]](#footnote-17)
* Higher Economic Value: Spectrum would have much higher economic value if it were allocated for wireless broadband.[[18]](#footnote-18)
* Declining Television Viewership: The percentage of households viewing television solely through over-the-air broadcasts declined from 24 percent in 1999 to 10 percent in 2010, and since 2005, broadcast television station revenues have declined 26 percent.[[19]](#footnote-19)
* Improved Wireless Coverage: The low-band spectrum (under 1MHz) available in this auction allows wireless carriers to cover larger areas by using less wireless infrastructure (e.g. cell towers)[[20]](#footnote-20)

*Arguments in Opposition to Incentive Auctions*

* Public Access to Local Broadcasts: Significant, negative impact on the public’s access to local television broadcasts[[21]](#footnote-21)
* Efficiency in Video Distribution: Broadcasters’ deployment of mobile digital television play a significant role in mobile broadband content delivery and should be encouraged to flourish as it is the most efficient way of distributing video.[[22]](#footnote-22)
* Allow Market Transactions: Preferable to allow broadcasters to sell or lease such spectrum to mobile carriers in a private market transaction. [[23]](#footnote-23)
* Incomplete Information: Action should be predicated on demonstrated need rather than on assertions of a looming spectrum crisis and after full investigation of whether less disruptive alternatives to reallocation of broadcast spectrum could address demonstrated needs.[[24]](#footnote-24)
* Financial Burden: Costs to reorganize or “repack” the broadcast television bands in order to free up a portion of the ultra high frequency (UHF) band for other uses could exceed the relocation fund set up by Congress[[25]](#footnote-25)
* Broadcast Coverage: Coverage for stations along the borders of Canada and Mexico will be reduced. [[26]](#footnote-26)
* Reliability during Disasters: Television may be able to provide information and alerts with respect to natural disasters when mobile networks fail.[[27]](#footnote-27)

Market Speculation

Observers have noted that private equity and investment firms are purchasing locally owned small stations, particularly the UHF channels, with the reported intent of selling them in the auction at a significant profit.[[28]](#footnote-28) This can be viewed as the spectrum being transferred to a higher value use or to speculation that adds cost but not value. Opponents of the auction have argued that, to the extent that bids based on motivations of foreclosure and speculation add to the steadily consolidation of spectrum holdings by large carriers, the auction undermines mobile market competition.[[29]](#footnote-29)

Ongoing Legal Challenges

On February 29, 2016, a group of low-power television stations, denied participation by the FCC in the auction or protection in the post-auction spectrum reallocation, filed an emergency motion with the FCC to stay the March 29 start of the incentive auction.[[30]](#footnote-30) The Group had been granted an expedited hearing by the U.S. Court of Appeals for the D.C. Circuit but the hearing date would not have accommodated a resolution prior to the March 29 auction date. Approval of the motion would delay the auction by months, since the court has scheduled oral argument in May.

**ANALYSIS**

Proposed Motion 2016-0123 identifies a number of concerns that have been raised with respect to the upcoming broadcast spectrum auction, including the potential closure of hundreds of local television stations as a result of the incentive auction, and windfall profits that may accrue to auction speculators.

The Proposed Motion requests that the executive develop and transmit a report by March 25, 2016 that reviews the potential impacts of the upcoming Broadcast Television Spectrum Incentive Auction on King County taxpayers, residents and businesses. The report is to include, at a minimum:

1. Analysis of the impact of the Incentive Auction on county residents, including the availability of public interest broadcasting;

2. Analysis of the fiscal impact of the Incentive Auction on county government and residents;

3. A potential strategy to ensure equitable distribution of benefits from the proceeds of the Incentive Auction; and

4. Recommended language for inclusion in the federal legislative agenda.

**AMENDMENTS**

Amendment 1 would require inclusion in the Executive’s report findings from the King County Office of Emergency Management as to the disaster-related risks and impacts of the potential loss of spectrum for local television use.

**ATTACHMENT**

1. Proposed Amendment 1
1. Congressional Research Service: Spectrum Policy: Provisions in the 2012 Spectrum Act, Linda K. Moore, March12, 2014 [↑](#footnote-ref-1)
2. ibid [↑](#footnote-ref-2)
3. Ibid. For purposes of allocation and assignment, spectrum is segmented into bands of radio frequencies measured in cycles per second, or hertz. Standard abbreviations for measuring frequencies include kHz—kilohertz or thousands of hertz; MHz—megahertz, or millions of hertz; and GHz—gigahertz, or billions of hertz. The designation can refer to an entire band, such as the 700 MHz band, or to specific frequencies within a band. [↑](#footnote-ref-3)
4. <http://www.gao.gov/key_issues/wireless_broadband_spectrum_management/issue_summary> [↑](#footnote-ref-4)
5. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-5)
6. See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §§ 6402, 6403, 125 Stat. 156 (2012) (Spectrum Act). [↑](#footnote-ref-6)
7. Congressional Research Service, op. cit. [↑](#footnote-ref-7)
8. See Spectrum Act, op. cit. [↑](#footnote-ref-8)
9. http://www.ntia.doc.gov/federal-register-notice/2013/spectrum-relocation-final-rule-technicalpanel-

and-dispute-resolution-b. [↑](#footnote-ref-9)
10. For the results of a forward auction to be valid, auction proceeds must at a minimum cover (1) payments to broadcasters that relinquished spectrum for auction, (2) the costs to the FCC of conducting the auctions, and (3) the estimated costs for relocation of other broadcasters, which are not to exceed $1,750 million, deposited in a TV Broadcaster Relocation Fund for relocation costs. If auction revenues do not cover costs as specified in the act, the FCC may not assign new licenses and planned reassignments and reallocations may not occur. If the reverse

auction and forward auction conditions are met, the FCC may “make such reassignments of televisions channels” as appropriate in its consideration, subject to certain conditions. [↑](#footnote-ref-10)
11. Johnson, Ted, Senior Editor, “It’s Big TV vs. Bit Telecom Over Broadcast Spectrum,” Variety, March 26, 2013. <http://variety.com/2013/biz/news/its-big-tv-vs-big-telecom-over-broadcast-spectrum-1200329490/> [↑](#footnote-ref-11)
12. United States Government Accountability Office Report to Congressional Committees, Commercial Spectrum: Plans and Actions to Meet Future Needs, Including Continued Use of Auctions. November 2011. <http://www.gao.gov/products/GAO-12-118> [↑](#footnote-ref-12)
13. http://eshoo.house.gov/issues/economy/eshoo-markey-urge-fcc-to-ensure-spectrum-auction-rules-promote-competition-and-access/ [↑](#footnote-ref-13)
14. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-14)
15. https://www.newamerica.org/oti/public-interest-groups-urge-fcc-to-support-competition-in-tv-spectrum-auctions/ [↑](#footnote-ref-15)
16. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-16)
17. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-17)
18. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-18)
19. https://www.fcc.gov/general/national-broadband-plan [↑](#footnote-ref-19)
20. http://www.forbes.com/sites/greatspeculations/2015/10/01/is-sprint-making-a-mistake-bowing-out-of-the-600-mhz-spectrum-auction/#c9cf50e27614 [↑](#footnote-ref-20)
21. United States Government Accountability Office Report to Congressional Committees, Commercial Spectrum: Plans and Actions to Meet Future Needs, Including Continued Use of Auctions. November 2011. <http://www.gao.gov/products/GAO-12-118> [↑](#footnote-ref-21)
22. ibid [↑](#footnote-ref-22)
23. ibid [↑](#footnote-ref-23)
24. ibid [↑](#footnote-ref-24)
25. ibid [↑](#footnote-ref-25)
26. ibid [↑](#footnote-ref-26)
27. Ibid. The National Association of Broadcasters noted that during Hurricane Sandy, some mobile networks went dark, but broadcasters were uninterrupted. [↑](#footnote-ref-27)
28. Ibid. [↑](#footnote-ref-28)
29. https://www.newamerica.org/oti/public-interest-groups-urge-fcc-to-support-competition-in-tv-spectrum-auctions/ [↑](#footnote-ref-29)
30. <http://www.broadcastingcable.com/news/washington/lptvs-ask-fcc-delay-spectrum-auction/154235> [↑](#footnote-ref-30)