EMBARGOED UNTIL 12:30 p.m. EST.

FACT SHEET: BROADCAST TELEVISION SPECTRUM INCENTIVE AUCTION REPORT & ORDER

SPECTRUM & THE INCENTIVE AUCTION

SPECTRUM: THE AIRWAVES THAT CARRY COMMUNICATION SERVICES

- Across the country, in both rural and urban areas, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago. This demand is part of the reason why your mobile Internet may sometimes be slow, or why you may not be able to get online using the Wi-Fi in an airport.
- "Spectrum," a finite public resource, refers to the airwaves that carry all forms of wireless communication Americans use every day; from cell phones in our pockets and Wi-Fi routers in our homes to over-the-air television and car radios. Think of it as the "invisible infrastructure" that supports our wireless networks.
- Not all spectrum frequencies are created equal. Spectrum below 1 GHz, including the spectrum to be auctioned in the incentive auction, is referred to as "low-band" spectrum. Low-band spectrum has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and "urban canyons."
- While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving wireless broadband service, particularly in rural areas where low-band spectrum is necessary if competitors are to fill in the empty spaces on the coverage maps we see in advertising.
- More spectrum – both licensed (think your wireless provider) and unlicensed (think Wi-Fi and Bluetooth) –can mean increased wireless network capacity, faster Internet speeds, and fewer dropped calls for more Americans in more parts of the country.

THE INCENTIVE AUCTION WILL FREE UP MORE SPECTRUM FOR MOBILE BROADBAND

- Congress recognized the revolutionary possibilities presented by the FCC's incentive auction proposal and, in passing the Spectrum Act in early 2012, authorized the FCC to conduct incentive auctions, with the first being that of broadcast television spectrum.
- Today, each television broadcaster uses 6 megahertz of spectrum to broadcast its over-the-air programming. Wireless providers today generally use multiples of 10 MHz spectrum "blocks" to provide two-way wireless services.
- The incentive auction is part of the FCC's efforts to meet the demand for spectrum. It will marry the economics of wireless carriers' demand for "low-band" spectrum with the economics of television broadcasters, the current holders of spectrum usage rights, and will use market forces to determine the highest and best use of spectrum.

INCENTIVE AUCTION OVERVIEW: AN OPPORTUNITY FOR BROADCASTERS

- The auction is a once-in–a-lifetime opportunity for broadcasters, but the decision whether or not to participate is entirely voluntary.
- Broadcasters that choose to participate in the auction (by going off the air, moving from a UHF to a VHF channel, or sharing their broadcast spectrum) will receive part of the proceeds from auctioning that spectrum to wireless providers to support mobile broadband needs.
- The FCC is engaging in outreach to broadcasters, which will accelerate following Commission action on these incentive auction rules.
- We do not know how many broadcast license holders intend to show up for the auction, but we can scale expectations by looking at the patterns of previous auctions. There have been six FCC auctions involving spectrum below 3GHz. All have been successful. The largest amount of spectrum sold in any auction was 90MHz. The average amount of spectrum was 45MHz.
- We are also mindful of Congress's directive that we make all reasonable efforts to preserve the coverage area and population served of broadcasters that remain on the air after the incentive auction.

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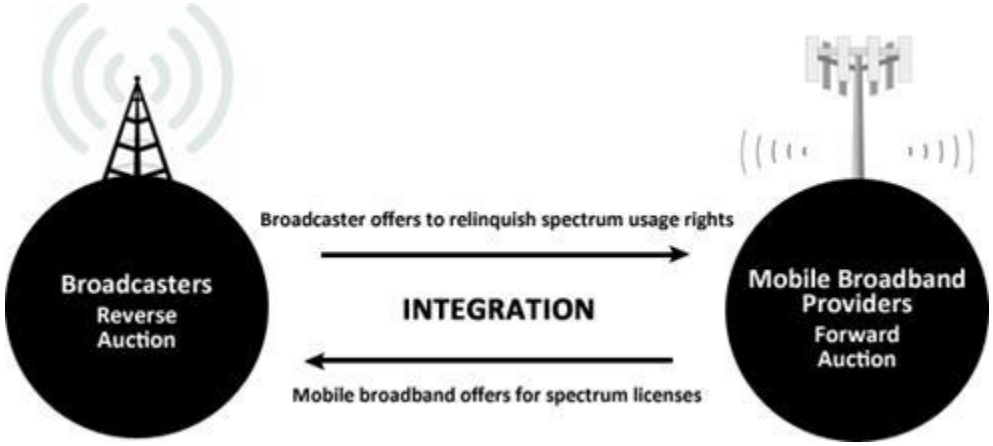
INCENTIVE AUCTION 101: REVERSE AUCTION, FORWARD AUCTION & REPACKING

- **The Reverse Auction**: The reverse auction is the part of the incentive auction in which broadcasters bid to relinquish some or all of their spectrum usage rights. The reverse auction will determine the prices at which broadcasters will voluntarily relinquish some or all of their spectrum usage rights, and the amount of spectrum that will be available in the forward auction. In economic terms, the reverse auction is the supply side of the market for repurposed broadcast television spectrum.

- In the reverse auction, broadcasters compete against one to be paid to give up some or all of their spectrum usage rights. Broadcasters would have at least three options: (1) participate and bid to give up all rights to a channel and go off the air; (2) participate and bid to give up all rights to their channel but share a channel with another broadcaster after the auction; or (3) participate and bid to give up all rights to their UHF channel but move to a VHF channel and remain on the air. If the broadcaster chooses to not participate in the auction, it will remain on the air, although its specific channel may change. Each of these options involves distinct business considerations and therefore may appeal to different broadcasters.

- **The Forward Auction**: The forward auction is the part of the incentive auction in which wireless carriers will bid to buy spectrum usage rights relinquished by broadcasters in the reverse auction. In economic terms, the forward auction defines the demand side of the market. The proceeds of the forward auction will be used to pay the broadcasters for relinquishing their spectrum rights. The FCC has conducted forward spectrum auctions for nearly two decades. However, the forward auction piece of the incentive auction will differ from the typical spectrum auction because unlike in typical spectrum auctions, the number and locations of licenses available in the forward auction will depend upon the results of the reverse auction.

- **Repacking:** Repacking involves assigning channels to the broadcast television stations that remain on the air after the incentive auction in order to clear nationwide, contiguous blocks of spectrum suitable for two-way wireless broadband use. This repacking is a critical component of the process, and can only be done efficiently on a nationwide basis by the FCC.



FACT SHEET: SUMMARY OF THE FCC'S PROPOSED INCENTIVE AUCTION RULES

- The R&O will establish many significant rules for the incentive auction. The FCC will then develop detailed, final auction procedures in the pre-auction process.
- This customarily includes the release of at least two Public Notices known as the Auction Comment and Procedures PNs.
- There will be discrete, outstanding issues that will be addressed well in advance of the auction itself through a process that ensures both Commission and public input.

Four parts to the rules: 1) reorganized 600 MHz Band, including repacking and unlicensed operations, 2) the incentive auction process and design, 3) the post-auction transition for all incumbents in the 600 MHz band, and 4) post-transition regulatory issues, including channel sharing.

I. 600 MHz Band Plan: A band plan maps out how a particular band of spectrum will be organized.

The recommended band plan maximizes the value of spectrum to potential bidders and provides both larger and smaller bidders a fair opportunity to acquire spectrum. Specifically, the draft R&O:

- Adopts a 600 MHz band plan with specific paired uplink and downlink bands (which enables two-way communications), comprised of five megahertz "building blocks," consistent with the wireless industry's technical standards;
- Accommodates variation in the amount of spectrum recovered from broadcasters in different geographic areas in order to prevent the "least common denominator market" from limiting the quantity of spectrum we can offer generally across the nation;
- Adopts Partial Economic Areas ("PEAs") as the licensing area for the 600 MHz band to permit entry by providers that contemplate offering wireless broadband service on a localized basis, yet permit providers that plan to provide service on a larger geographic scale to aggregate PEAs;
- Adopts technical and services rules similar to those governing adjacent 700 MHz band;
- Requires interoperability across the entire new 600 MHz band.

With respect to other incumbent services in the television band, including low power television, translators, and wireless microphones, which may be displaced, the draft R&O:

- Adopts a transition allowing for continued operation until new license holders become operational.
- Anticipates the Commission considering issues surrounding these displaced services in separate proceedings contemporaneous or shortly following the adoption of the R&O.

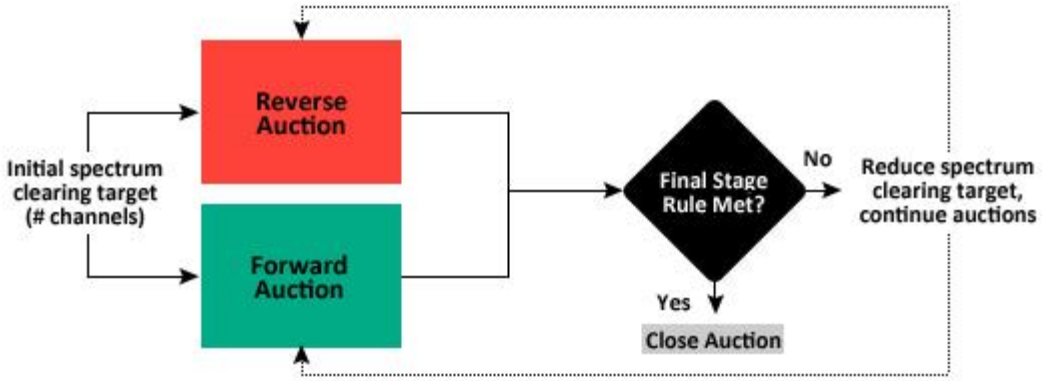
Unlicensed Spectrum: Unlicensed spectrum refers to spectrum that is not licensed to an individual private user, such as the spectrum used for Wi-Fi and Bluetooth. The draft R&O:

- Makes the 600 MHz guard band and channel 37 available for unlicensed use, thereby making spectrum available for unlicensed devices nationwide.
- Anticipates initiating a separate rulemaking proceeding shortly following the adoption of the R&O to consider changes to existing technical rules to govern the use of unlicensed devices in the 600 MHz band and channel 37 while protecting other users on the same or adjacent frequencies.

II. INCENTIVE AUCTION PROCESS: The design process integrates the reverse and forward auctions.

The draft R&O:

- Integrates the reverse and forward auctions in a series of stages. Each stage will consist of a reverse auction and a forward auction bidding process aimed at a specific spectrum clearing goal.
- For the reverse auction, adopts a descending clock format in which the price offered to each station for the participation options they select (go off the air, channel share, move from UHF to VHF,) will be adjusted downward as the rounds progress. Simply put, the price offered to broadcasters will drop with each successive round of bidding.
- For the forward auction, adopts a multiple round ascending clock format in which the prices will generally rise from round to round as long as the demand for licenses exceeds the amount available. When the clock price stops rising, the bidders who are still demanding the licenses become the winners.
- Determines that the auction will close when a stage meets the "final stage rule" -- namely, when the auction proceeds meet a specific reserve that will be determined by the Commission.
- If the final stage rule is not satisfied, we will reduce the clearing goal and begin another stage of the auction



III. Repacking Methodology: Repacking is the term used to describe the process of assigning new channels to broadcasters who remain on the air following the incentive auction.

The draft R&O:

- Adopts a repacking methodology that makes all reasonable efforts to preserve the coverage area and population served by broadcasters as of February 22, 2012 (the date of the enactment of the Spectrum Act).
- As required by Congress, adopts the methodology described in OET 69 to determine the coverage area and population served by each station, using updated computer software and current, accurate data.

IV. Post-Auction Broadcaster Transition: This transition involves stations that remain on the air after the auction moving to their new channel assignments and vacating the channels they had used before.

The draft R&O:

- Commits to making the transition as smooth as possible.
- Requires repurposed spectrum to be cleared no later than 39 months after the repacking process becomes effective.
- Requires broadcasters that successfully bid to give up their licenses or to share channels to cease operations on their pre-auction channels three months from the receipt of their auction proceeds.
- Provides broadcasters remaining on the air after the auction up to 39 months to transition to their new channels. Because repacking will not impact every broadcaster the same way, each station will be assigned a transition deadline within that period tailored to its individual circumstances.