

STAFF SUMMARY:
INCENTIVE AUCTION REPORT AND ORDER

May 15, 2014

600 MHz Band Plan

The Commission adopted a 600 MHz Band Plan with specific paired uplink and downlink bands, comprised of five megahertz “building blocks.” The Commission found that specific uplink and downlink bands that support Frequency Division Duplex (FDD) technologies are best suited for the new 600 MHz Band at the present time in light of current technology, the Band’s propagation characteristics, and potential interference issues present in the Band; and that offering paired spectrum blocks will best facilitate the rapid deployment of networks, including by smaller carriers and new entrants. The uplink portion of the Band will begin at channel 51 (698 MHz) and expand downward, followed by a duplex gap and then the downlink portion of the Band. The Band Plan can accommodate variation in the amount of spectrum recovered in different geographic areas in order to prevent the “least common denominator market” from limiting the quantity of spectrum the Commission can offer generally across the nation.

In addition, the Band Plan incorporates technically reasonable guard bands, including the duplex gap, to prevent harmful interference between licensed services. The Commission adopted Partial Economic Areas (“PEAs”) as the service area for the 600 MHz Band, finding that PEAs permit entry by providers that contemplate offering wireless broadband service on a localized basis, yet may be easily aggregated by carriers that plan to provide service on a larger geographic scale. Consistent with the Spectrum Act’s directives, the Commission also adopted “flexible use” service rules for the 600 MHz Band.

Repacking the Broadcast Television Bands

In reorganizing the television bands to make spectrum available to carry out the forward auction, the FCC must “make all reasonable efforts to preserve, as of [February 22, 2012], the coverage area and population served of each broadcast television licensee, as determined using the methodology described in OET Bulletin 69 of the Commission’s Office of Engineering and Technology” (“OET-69”). The Commission interprets this mandate to require that the Agency strive to preserve full power and Class A stations’ existing service as of that date without sacrificing the objectives of the incentive auction. The methodology described in OET-69 will be used to determine the coverage area and population served of each station, the computer software and input values used to implement that methodology must be updated. Among other things, doing so will ensure that the auction software is capable of the rapid, complex calculations necessary to support the reverse auction and the repacking process, and that the most accurate population and other data available is being used. Full power stations’ coverage areas will be protected based on their “service areas,” as well as the coverage areas of Class A stations, which do not have “service areas” under FCC rules or OET-69, based on their “protected contours. Rather than merely attempting to preserve the same total population served by each station, all reasonable efforts will be made to preserve the same specific viewers it served as of February 22, 2012. Channel assignments that, considered on a station-to-station basis, would reduce a station’s population served by more than a *de minimis* (0.5 percent) amount will not be allowed.

Television Facilities to Be Protected in the Repacking Process

As Congress required, the Commission will protect full power and Class A facilities that already were operating pursuant to a license (or a pending application for a license to cover a construction permit) on February 22, 2012.

The Commission also exercises its discretion to protect facilities in addition to those the statute requires us to protect, based on consideration of the potential impact on flexibility in the repacking process and the auction goals, whether failing to protect would strand investment by broadcasters licensed on a primary basis, the loss of service to existing viewers, and the potential impact on the Class A service's digital transition. In particular, the following stations will be protected:

- the small number of new full power television stations that were authorized, but not constructed or licensed, as of February 22, 2012;
- full power facilities authorized in construction permits issued to effectuate a channel substitution for a licensed station;
- modified facilities of full power and Class A stations that were authorized by construction permits granted on or before April 5, 2013, the date the Media Bureau issued a freeze on the processing of certain applications; and
- minor change facilities authorized to implement Class A stations' mandated transition to digital operations.

Except in very limited circumstances, discretionary protections will be limited to the above categories. The Commission concluded that protecting other categories of facilities, including low power television ("LTPV") stations and television translator ("TV translator") stations, which are secondary in nature and are not entitled to protection from primary services under current rules, would unduly constrain flexibility in the repacking process and undermine the likelihood of meeting the objectives for the incentive auction. To help preserve the important services provided by LPTV and TV translator stations, the Commission will open a special filing window for such stations that are displaced to select a new channel and will amend the rules to expedite the process for displaced stations to relocate. The Commission also intends to initiate a rulemaking proceeding after the release of this Order to consider additional means to mitigate the potential impact of the incentive auction and the repacking process on LPTV and TV translator stations.

Unlicensed Operations

The Commission will make the 600 MHz Band guard bands available for unlicensed use, thereby making spectrum available for unlicensed devices nationwide. Depending on the amount of spectrum repurposed through the incentive auction, a total of 14 to 28 megahertz of guard band spectrum will be available for unlicensed use. In addition, the Commission will make an additional six megahertz of spectrum available by allowing unlicensed use of channel 37 at locations where it is not in use by channel 37 incumbents, subject to the development of the appropriate technical parameters to protect the incumbent Wireless Medical Telemetry Service ("WMTS") and Radio Astronomy Service ("RAS") from harmful interference. Following the incentive auction and the post-auction transition, TVWS devices may continue to operate on channels allocated and assigned for primary television services, consistent with our current rules. The Commission anticipates that there will be at least one channel not assigned to a television station in all areas at the end of the repacking process, and the Commission intends, after additional notice and opportunity for public input, to designate one such channel in each area for shared use by wireless microphones and TVWS devices. The Commission expects a significant amount of spectrum to be available for continued TVWS use, particularly outside of the central urban areas of the largest television markets. Any other unused television channels in a market following the incentive

auction will also be available for TVWS device as well as wireless microphone use. The Commission will initiate a rulemaking proceeding after the release of this Order to consider changes to its existing Part 15 rules to facilitate unlicensed use of the television bands, 600 MHz Band guard bands and channel 37.

Other Services

The Commission will not relocate the WMTS or the RAS from channel 37. To protect these incumbent services from harmful interference, in the 600 MHz Band Plan the Commission adopts guard bands between such services and any new wireless broadband services that may be deployed adjacent to channel 37. Furthermore, the Commission will require coordination with existing RAS facilities so that any new wireless systems can be deployed to cover the broadest area possible with minimal impact to RAS observatories. The Commission will continue to license fixed broadcast auxiliary service (“BAS”) operations on a secondary basis in the post-auction TV bands.

The Commission adopts measures to facilitate wireless microphone use of available spectrum in the reorganized UHF band. With regard to the 600 MHz Band guard bands, the Commission will allow broadcasters and cable programming networks to operate licensed wireless microphones in a portion of the duplex gap, and permit users generally to operate wireless microphones in the guard bands on an unlicensed basis. The Commission will initiate a proceeding to adopt technical standards to govern these uses. With regard to the remaining television spectrum, while there may no longer be two unused channels for wireless microphones in markets where those channels are currently used for that purpose, as noted above the Commission intends to designate one unused channel in each area following the auction for use by wireless microphones and TVWS devices. The Commission also revises its rules for co-channel operations in the post-auction television bands to expand the areas where wireless microphones may operate. The Commission will continue to permit wireless microphone users of unused television channels to register to obtain needed protection from unlicensed TVWS devices on such channels through the TV bands database registration system, which the Commission plans to improve to make protection more timely and effective. In a companion item that the Commission adopts today, it extends to certain unlicensed wireless microphone users the rights of licensed wireless microphone users. The Commission will also initiate a proceeding in the near future to find additional spectrum for wireless microphone users in other spectrum bands in order to help address their long-term needs.

Incentive Auction Process: Integration of the Reverse and Forward Auctions

The reverse and forward auctions will be integrated in a series of stages. Each stage will consist of a reverse auction and a forward auction bidding process, and additional stages will be run if necessary. Prior to the first stage, the initial spectrum clearing target will be determined. Broadcasters will indicate through the pre-auction application process their willingness to relinquish spectrum usage rights at the opening prices. Based on broadcasters’ collective willingness, the initial spectrum clearing target will be set. Then the reverse auction bidding process will be run to determine the total amount of incentive payments to broadcasters required to clear that amount of spectrum. The forward auction bidding process will follow the reverse auction bidding process. If the final stage rule is satisfied, the forward auction bidding will continue until there is no excess demand, and then the incentive auction will close. If the final stage rule is not satisfied, additional stages will be run, with progressively lower spectrum targets in the reverse auction and less spectrum available in the forward auction, until the rule is satisfied.

The final stage rule is a reserve price with two components, both of which must be satisfied. The first

component requires that the average price per MHz-pop for licenses in the forward auction meets or exceeds a certain price per MHz-pop benchmark. Alternatively, if the spectrum clearing target at a particular stage is greater than a spectrum clearing benchmark, then the first component will be met if the total proceeds of the forward auction exceed the product of the same price benchmark, the spectrum clearing benchmark, and the total number of pops for those licenses. This alternative formulation will allow the auction to close if the incentive auction repurposes a relatively large amount of spectrum for wireless uses, even if the price per-MHz-pop is less than the benchmark price. The price and spectrum clearing benchmarks will be established by the Commission in the *Procedures PN*, after an opportunity for additional comment. The second component of the final stage rule requires that the proceeds of the forward auction be sufficient to meet mandatory expenses set forth in the Spectrum Act and any Public Safety Trust Fund amounts needed in connection with FirstNet. If the requirements of both components of the reserve price are met, then the final stage rule is satisfied.

Reverse Auction Eligibility and Bid Options

Full power and Class A station licensees will be eligible to participate in the reverse auction. They may bid to voluntarily relinquish the spectrum usage rights associated with station facilities that are eligible for protection in the repacking process. Licensees with pending enforcement matters whose bids may result in their holding no broadcast licenses may participate under a streamlined escrow approach that is consistent with current practice in the sales context. Bidders will have the three bid options specified by the Spectrum Act: (1) license relinquishment; (2) reassignment from a UHF to a VHF channel; and (3) channel sharing. UHF-to-VHF bidders may limit their bids to a high (channels 7 to 13) or low (channels 2 to 6) VHF channel. Post-auction waiver requests involving winning UHF-to-VHF and high-VHF-to-low-VHF bidders' technical operations will be favorably considered. Bidders will have the additional option to bid for reassignment from a high VHF channel to a low VHF channel. Channel sharing bidders may propose licensed community changes if they cannot satisfy signal coverage requirements from their new transmitter sites, provided that the new communities meet the same allotment priorities as the current ones and are located in the same Designated Market Areas (DMAs).

Reverse Auction Pre-Auction Process

Potential bidders will have to submit certified applications. Consistent with the Spectrum Act, the Commission will protect the identity of licensees that apply to participate in the reverse auction. Specifically, the Commission will maintain the confidentiality of information submitted by all licensees that apply to participate until the results of the reverse auction and the repacking process are announced. The Commission will maintain the confidentiality of information from applicants that do not become winning bidders for an additional two years. Confidential information will include licensees' names, channels, call signs, facility identification numbers, network affiliations, and any other information necessary to protect licensees' identities.

Between the short-form application filing deadline and the announcement of the results of the reverse auction and the repacking process, all full power and Class A licensees will be prohibited from communicating directly or indirectly any reverse or forward auction applicant's bids or bidding strategies to any other full power or Class A licensee or forward auction applicant. Recognizing that many broadcasters are not familiar with auction processes, the Commission intends to make education regarding the pre-auction application process, including the scope of the prohibition of certain communications, an important part of broadcaster outreach efforts.

Reverse Auction Bidding Process

The Commission adopted a descending clock format for the reverse auction. In each bidding round, stations will be offered prices for one or more bid options and will indicate their choices at these prices. The prices offered to each station for options will be adjusted downward as the rounds progress in a way that accounts for the availability of television channels in different bands in the repacking process. “Intra-round bidding” will enable bidders to indicate price levels (between the opening- and closing prices in a round) at which they would like to either choose different bid options or drop out of the auction and remain in their home bands. A station will continue to be offered prices for bid options until the station’s voluntary relinquishment of rights becomes needed to meet the current spectrum clearing target. When all remaining active bidders are needed in this way, the reverse auction for the stage will end. If the final stage rule is satisfied in that stage, then the active bidders are winning bidders, and the price paid to each will be at least as high as the last price it agreed to accept.

Forward Auction Pre-Auction Process

The Commission adopted the same size-based bidding credits for the forward auction as were applied in auctioning 700 MHz band spectrum: 15 percent for small businesses (defined as entities with average annual gross revenues for the preceding three years not exceeding \$40 million) and 25 percent for very small businesses (defined as entities with average annual gross revenues for the preceding three years not exceeding \$15 million). The Commission intends to initiate a separate proceeding to review the Part 1 designated entity rules. As part of that proceeding, the Commission will consider whether any revisions made to the rules should apply to the incentive auction. Forward auction applicants will be subject to the existing Part 1 competitive bidding rules, with modifications adopted in the Report and Order that, among other things, provide for the selection of generic licenses and prohibit communications with full power and Class A licensees during the auction process.

Forward Auction Bidding Process

The Commission adopted an ascending clock auction format for the forward auction. Bidders will be able to bid for generic licenses in one or more categories. Intra-round bidding will be allowed. There will be a separate clock price for each category in each geographic area, and bidders will indicate the number of licenses that they demand at the current prices. The prices generally will rise from round to round, as long as the demand for licenses exceeds their availability. Bidders still demanding licenses when the clock prices stop rising in every license category in every area will become winners of those licenses, provided the final stage rule is satisfied. If the rule is not satisfied, those bidders will have an opportunity to make additional bids in an extended bidding round. Once the rule is satisfied, winners may indicate their preferences for frequency-specific licenses in an assignment round or a series of separate bidding rounds. Final license prices will reflect the winning bid amounts from the clock bidding rounds as well as any adjustments from the extended bidding and assignment rounds.

Completion and Effective Dates/Processing of Bid Payments

Reverse and forward auction “completion,” required for the repacking process to become effective, will occur when the Commission publicly announces that the incentive auction has ended. The repacking process will be “effective,” triggering Commission authority to borrow up to \$1 billion from the U.S. Treasury to use toward the payment of relocation costs, when the results of the reverse and forward auctions and the repacking process are announced. The Commission anticipates that the completion and effectiveness announcements will occur simultaneously. As soon as the auction is complete and the repacking process effective, the Commission anticipates borrowing some or all of the available \$1 billion from the Treasury for reimbursement of relocation costs. The Commission will share forward auction

proceeds with licensees that relinquish rights in the reverse auction as soon as practicable following the successful conclusion of the incentive auction.

Post-Auction Transition

A public notice will mark the effective date of channel reassignments based on the repacking process and specify any specific channel assignments for television stations that will continue to broadcast. Reassigned stations will have three months to file construction permit applications for any minor changes to their facilities necessary to operate on their new channels. Stations also may request alternate channels or expanded facilities on their new channels. Following the three-month application filing deadline, stations will have up to 36 months to transition to their new channels. Stations will be assigned deadlines within that period tailored to their individual circumstances. Stations may request extensions of time to construct their new facilities, but no station will be allowed to continue operating on a reassigned or reallocated channel more than 39 months after the repacking process becomes effective. Licensees that successfully bid to turn in their licenses or to share a channel will have three months from their receipt of auction proceeds to cease operations on their pre-auction channels. The Commission also adopts transition requirements for LPTV and TV translator stations, BAS operations, wireless microphones and related services.

Reimbursement of Relocation Costs

The Commission adopted procedures to reimburse costs reasonably incurred by television stations that are reassigned to new channels in the repacking process, as well as by MVPDs to continue to carry such stations, from the \$1.75 billion Reimbursement Fund established by Congress for that purpose. Under these procedures, the Commission intends to issue eligible stations and MVPDs an initial allocation of funds, in designated individual accounts in the United States Treasury, to cover the majority of their estimated costs. The funds will be available for draw down as expenses are incurred. Additional funds will be allocated as necessary prior to the three-year statutory deadline for all reimbursements. The Commission delegated authority to the Media Bureau to establish a list of eligible expenses and estimated costs, and to calculate the amount of the allocations to eligible entities. The Commission adopted measures to minimize administrative burdens and to prevent waste, fraud, and abuse in the reimbursement process.

Post-Auction Broadcast Regulatory Issues

The Commission grandfathered existing broadcast station combinations that otherwise would no longer comply with the media ownership rules as a result of the reverse auction. In addition, the Commission concurred with commenters that it should conduct extensive outreach to broadcasters, including minority- and female-owned broadcasters, to ensure that they are fully informed about the incentive auction. The Commission already has made significant efforts to inform broadcasters about the process, and it intends to continue and expand those efforts. To provide guidance to licensees interested in channel sharing and to promote certainty regarding channel sharing relationships following the incentive auction, the Commission will require that channel sharing agreements include certain key provisions regarding licensee rights and responsibilities.

600 MHz Band Technical and Service Rules

The Commission adopted for new 600 MHz Band licensees flexible use service rules under Part 27 of the rules, and technical rules similar to those governing the adjacent 700 MHz Band in order to speed

deployment while protecting incumbent 700 MHz Band licensees from harmful interference. The Commission will require mobile devices to be interoperable across the entire 600 MHz Band. The Commission will require new 600 MHz Band licensees to build out to 40 percent of the population in their service areas within six years and to 75 percent of the population by the end of their initial license terms of 12 years. Subsequent license terms will be 10 years.

***Note**

This is a high level staff summary of the Incentive Auction Report and Order. Should this summary vary from the Incentive Auction Report and Order as released, the complete document governs.