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## TV Broadcast Incentive Auction: Results and Repacking

On April 13, 2017, the Federal Communications Commission (FCC) formally announced the close of the television (TV) broadcast incentive auction. Under this auction, some TV broadcast stations voluntarily relinquished their spectrum usage rights in the 600MHz band for financial payment. The radio frequency spectrum released by the TV broadcasters is to be repurposed for commercial broadband communications to meet the growing demand for new and expanded wireless services.

The major framework and requirements for this auction were established by Congress in Title VI (Spectrum Act) of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96). As required in the Spectrum Act, this auction (designated by the FCC as Auction 1000) consisted of two parts: Auction 1001 (reverse) followed by Auction 1002 (forward). TV broadcasters (restricted to full power and Class A licensees) voluntarily participated in Auction 1001, establishing the prices they were willing to accept for releasing the spectrum. In Auction 1002 wireless carriers and other commercial interests bid for licenses created from the release of the spectrum.

The proceeds of the auction are to be used for the following purposes: to pay TV broadcasters that relinquished their spectrum holdings; to cover the costs incurred by the FCC for conducting the auction; plus up to \$1.75 billion to cover costs associated with the relocation of other TV broadcast stations that did not participate in the auction but will be displaced by spectrum relocation. Any remaining funds will be deposited in the U.S. Treasury for deficit reduction.

### Auction Results

Bidding in the auction closed on March 30, 2017. The reverse auction cleared payments of \$10.05 billion to winning broadcast TV stations with 142 winning bidders and 175 winning TV stations. The gross proceeds from the forward auction totaled \$19.8 billion, with 50 bidders placing winning bids for a total of 2,776 of 2,912 licenses offered. T-Mobile was the largest winner in the forward auction, spending \$8 billion for 1,525 licenses, followed by Dish at \$6.2 billion for 486 licenses, Comcast at \$1.7 billion for 73 licenses, AT&T at \$910 million for 23 licenses, and U.S. Cellular at \$328.6 million for 188 licenses. (Verizon did not bid and Sprint did not participate.) Nearly 30 rural and regional carriers were also successful bidders. After all obligations are met more than \$7.3 billion of forward auction proceeds are to go to the U.S. Treasury for deficit reduction.

The spectrum that was auctioned is located in the 600 MHz band and is considered highly desirable due to its excellent propagation characteristics (i.e., the ability to both travel long distances and penetrate buildings). The auction has repurposed 84 MHz of low-band spectrum, including 70

MHz of licensed spectrum for wireless companies and 14 MHz for wireless microphones and unlicensed use. Licensed spectrum is sold to the highest bidder and used exclusively for services provided by the license-holder. Unlicensed spectrum is accessible to anyone using wireless equipment certified by the FCC for those frequencies.

### Post-Auction Transition—Repacking

TV stations will have to vacate the spectrum that was paid for by the winning bidders to enable its new use. This transition to post-auction channels involves not only those stations that voluntarily participated in the auction, but other non-participating broadcast stations that continue to operate their stations, which may incur costs or need to relocate as a result of the auction.

The post-auction transition requires the FCC to clear the airwaves won in the auction by relocating the TV broadcast signals in a process known as “repacking.” The FCC established both a repacking plan to clear the channels that wireless carriers acquired in the auction and a TV Broadcast Relocation Fund (Fund) to cover associated costs incurred by non-participating TV stations (restricted to full power and Class A licensees) that are involuntarily repacked during this transition. Reverse auction winning TV stations that choose to remain on the air must pay for their own relocation costs.

The repacking will occur over a 39-month period, and involves the relocation to new channels of nearly 1,000 broadcast TV stations that remain on the air and the coordination of hundreds of stations nationwide. This transition will occur using a phased approach with each station assigned to one of ten transition phases which will determine the order in which stations will move to their new channels. The repacking process, which commenced in April 2017, is scheduled to conclude in July 2020. Initial relocation moves will take place in November 2018.

This process includes modifying towers, moving radio transmitters, moving and manufacturing antennas, as well as hiring tower crews and engineering consultants. External factors, including weather conditions and local zoning and permitting processes, will also factor in to the repacking process.

After the transition these stations, in most cases, will not go off the air, but will share frequency with other stations (channel sharing) or relocate to a new channel. As a result multiple stations may relocate or new stations may enter a market. Viewers who rely on over-the-air antennas to receive their broadcast signals will need to direct their receivers to “scan” the area, in some cases multiple times, to find and view relocated local broadcast channels.

Viewers who receive their programming via a paid provider (e.g., cable TV or satellite) will not have to take any action.

Once the repacking is completed all stations reassigned to new channels are expected to be off their pre-auction channel and commence operation on their new channel. The auctioned spectrum is then to become available to the winning bidders to offer new wireless services. Winning TV stations that elected not to relocate but to go off the air have 90 days from the date they receive their reverse auction winnings to vacate their channel.

### Selected Issues for Consideration

As the repacking process proceeds some stakeholders have expressed concerns regarding certain aspects of the FCC-established repacking plan. Some of these concerns include the reimbursement funding level; the scheduled timeframe; and the impact on other broadcast entities such as Low-power TV (LPTV) stations, translator stations, public TV stations, and FM radio stations that did not participate in the auction, but that are involuntarily affected by repacking.

**Funding Level.** Concerns have been expressed that the \$1.75 billion funding level allocated by Congress to cover the reimbursement expenses for stations that are involuntarily repacked is inadequate. While still subject to review, some feel that action should be taken to ensure that any necessary additional funds will be available. Additional funding should be allocated, some assert, for broadcast stations that are currently not eligible for funding but, through no fault of their own, will incur costs due to station repacking, and for consumer education and outreach, related to scanning in particular.

Some stakeholders, while not objecting to the allocation of additional repacking funds if verified as necessary, caution the FCC to guard against potential misuse. For example, concern has been expressed that the FCC must ensure against funding broadcast station technology equipment upgrades that are not related to repacking needs and therefore not eligible for reimbursement.

**Repacking Timeframe.** Some have expressed concern that the 39-month repacking timeframe is inadequate or unrealistic, given the enormity of the repacking task. Concerns over the potential shortage of experienced broadcast tower crews needed to install necessary equipment, potential equipment shortages, and probable delays due to weather conditions have been cited as reasons to extend the schedule.

Other objections have been raised over the FCC's decision to require stations that do not meet repack deadlines to go dark (i.e., go off the air). The National Association of Broadcasters (NAB), while not currently proposing a modification to the 39-month timeframe, has urged the FCC to provide for a liberal waiver process to ensure that individual stations that do not meet repacking deadlines due to circumstances beyond their control are not forced off the air or subject to a significant reduction in service.

Some stakeholders, including those representing the wireless industry, see no need to expand the 39-month

timeframe at this point. They cite the growing need for new wireless spectrum to meet current and future consumer demand, the substantial resources bidders have spent to obtain this spectrum to meet those needs, and the possible detrimental impact that significant delays could have on the value of spectrum for future auctions, as reasons to uphold the present timeframe. Furthermore, they state that a potential increase to repacking cost estimates is no reason to slow down the repacking process, as there is sufficient time and support to readjust funding levels, if needed.

**Impact on Other Broadcast Stations.** LPTV stations, translator stations, and some public TV stations, while not participating in the auction, may be required to transition to new channels as part of the repacking plan. LPTV stations typically serve rural communities with limited access to full power stations or provide specialized original programming to niche communities in urban areas. TV translator stations do not originate programming, but retransmit the programming of other TV broadcast stations (e.g., ABC and FOX affiliates), mostly to viewers in rural areas who cannot otherwise receive full power station broadcast TV signals. Both of these types of stations are categorized by the FCC as secondary and as such, are not entitled to protection from primary stations (i.e., full power and Class A). These stations may be displaced or incur costs in the repacking of primary stations. However, due to their secondary status they were not eligible to participate in the auction or receive reimbursement from the Fund. Similarly, some public TV stations do not qualify for reimbursement from the Fund, and even those that do are concerned that allocated funds are insufficient to cover repacking costs. Supporters stress that given these stations' tight budgets and limited resources, and their vital programming and emergency alert offerings, sufficient funding should be allocated to protect them from financial harm and possible bankruptcy.

FM radio station licensees that share space on TV broadcast towers are concerned that the repacking of TV broadcast stations could result in new costs and temporary disruptions if they are required to power down or shut down, to protect tower crews. Broadcast groups are seeking federal funding to cover radio station expenses and financial losses incurred due to their proximity to repacked TV stations.

### Congressional Role

By enacting the Spectrum Act, Congress authorized the FCC to conduct the TV broadcast incentive auction and has a continued interest to ensure that the post-auction repacking process fulfills the objectives and goals contained in the act. Hearings have been held to examine issues related to the repacking process and legislation has been introduced to address, among other issues, the allocation of additional funding to cover repacking related expenses. As the repacking proceeds, it is anticipated that Congress will continue its oversight of the process.

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