

# Next Steps for Auction of TV Broadcast Airwaves to Commercial Carriers

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The closing phases of an [incentive auction](#) process to license airwaves currently used for television broadcasting begins on August 16, 2016. The Federal Communications Commission (FCC) has established an online [dashboard](#) to provide status reports on auction activity. [Qualified bidders](#) include Verizon, AT&T, T-Mobile, and Comcast. Sprint, the fourth national carrier, will not participate. The proceeds of the auction are expected to pay billions of dollars to broadcasters that relinquish their spectrum holdings and may alter the competitive environment for wireless broadband if new entrants acquire spectrum licenses in the auction. Key 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](#)).

Many commercial wireless licenses can be resold directly by their license-holders for comparable uses; the purpose of incentive auctions is to reward license-holders, such as television broadcasters, in repurposing their spectrum for a different use. Incentive auctions might be used for other types of license-holders that want to receive payment for returning spectrum licenses. The act specifically addresses spectrum assignments held by over-the-air television broadcasters.

The act requires a reverse auction to determine the amount of compensation broadcasters would be willing to accept for the radio frequencies they voluntarily release for auction. Radio frequency spectrum released by TV broadcasters is to be repurposed for commercial broadband communications, with licenses sold through what the act refers to as a forward auction. At least one successful reverse auction is required to set minimum prices for a forward auction.

The FCC [Public Notice](#) establishing Incentive Auction bidding procedures was released on August 11, 2015. Auction 1000, as it is called, consists of two parts, as required by the Spectrum Act: Auction 1001 (reverse) and Auction 1002 (forward). Broadcasters participated in Auction 1001, establishing the prices they would accept for releasing spectrum. Wireless carriers and other commercial interests will participate in Auction 1002, bidding for licenses created from released spectrum. The notice also describes the process for setting targets for clearing spectrum. The FCC developed nine separate auction scenarios based on different amounts that might be released. It developed band plans for creating licenses from relinquished broadcast spectrum for each of the hypothetical amounts that might be made available. The band plans designate licensed and unlicensed spectrum allocations for each scenario.

The [first phase](#) of the reverse auction began on March 29, 2016, with broadcasters establishing the amount of spectrum they were willing to relinquish. At the conclusion of the reverse auction on [April 29, 2016](#), broadcasters had volunteered to make up to 126 MHz of spectrum available for commercial interests or for unlicensed use. Among the nine scenarios developed by the FCC for managing the Broadcast Incentive Auction, the release of 126 MHz of spectrum was the highest amount considered.

The [next phase](#) of the reverse auction, which established the values placed by broadcasters on the spectrum holdings they offered in phase one, concluded on June 29, 2016. The total value of commitments that would need to be met in a forward auction is over \$86 billion to clear 126 MHz. The amount of spectrum that might be [reassigned through licensing](#) is 100 MHz, with the balance of available spectrum used for unlicensed use or protection from interference.

As required by the Spectrum Act, the minimum amount that must be recovered in the forward auction for spectrum licenses is: the total amount committed to paying broadcasters that are releasing spectrum; plus the costs to the FCC of the auction; plus \$1.75 billion to cover some of the costs for relocating broadcasters displaced by spectrum reallocation. At the prices set by the reverse auction that concluded in June, this would be in excess of \$88 billion for licenses totaling 100 MHz. Although it may be possible for bids for spectrum licenses to achieve this required total, the possibility of the auction generating extra revenue for the federal treasury seems slight. Congressional Budget Office [predictions](#) for net auction revenue of \$25 billion or more were based on spectrum values averaging \$2.21 MHz-pop. MHz-pop is a standard measurement for market value determined by the bandwidth, in MHz, assigned to a license multiplied by the number of people in the geographic area covered by the license. An estimate in a February 2015 [report](#) commissioned by the FCC projected the MHz-pop would average \$1.50. To meet \$88 billion in an auction, a market value of at least \$2.76 MHz-pop is needed, according to a report in the [Wall Street Journal](#).

Many industry analysts believe that there is not enough demand in the wireless industry to raise \$88 billion in a forward auction. Many broadcasters, however, indicated in the reverse auction that they would be unwilling to release their spectrum at a lower value than what the FCC offered in the auction.

If the forward auction does not sell enough licenses to cover all costs, the FCC will set a new, lower target for the amount of spectrum to be released and establish new prices for broadcasters that may remain eligible to participate. The FCC had anticipated multiple stages for the forward auction, with less spectrum available and lower dollar amounts accepted by broadcasters. The [final clearing value](#) may be \$30 billion to \$40 billion with 84 MHz cleared and [70 MHz auctioned](#). The auction rules call for the FCC to repeat the auction process with modifications of the spectrum band plan until either the market clears at an equilibrium point between supply and demand, or demand by wireless carriers for licenses is insufficient to meet the price at which broadcasters are willing to sell.

See also: CRS Report R44433, [Framing Spectrum Policy: Legislative Initiatives](#), by Linda K. Moore.