



## CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

July 11, 2003

### **H.R. 1320** **Commercial Spectrum Enhancement Act**

*As ordered reported by the Senate Committee on Commerce, Science,  
and Transportation on June 26, 2003*

#### **SUMMARY**

H.R.1320 would amend the procedures used to pay for the cost of relocating federal telecommunications systems that use electromagnetic spectrum that will be licensed for commercial use. It would simplify the process companies use to reimburse the government for relocation costs and would allow agencies to spend those funds without further appropriation. Under current law, such spending is subject to appropriation. In addition, the act would exempt certain licenses from being auctioned and would amend existing law regarding loans made by the Telecommunications Development Fund (TDF).

CBO estimates that implementing H.R. 1320 would increase net direct spending by \$1.5 billion over the 2006-2008 period and by \$2.6 billion over the next 10 years. Allowing agencies to directly spend some auction proceeds would eliminate the need to appropriate funds for relocation costs. Consequently, the increase in direct spending for relocation costs could be largely offset by a reduction in discretionary spending if the total amounts appropriated in future years are reduced correspondingly.

H.R. 1320 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

#### **ESTIMATED COST TO THE FEDERAL GOVERNMENT**

The estimated budgetary impact of H.R. 1320 is shown in the following table. The costs of this legislation fall primarily within budget functions 050 (national defense) and 950 (undistributed offsetting receipts).

By Fiscal Year, in Billions of Dollars											
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>CHANGES IN DIRECT SPENDING</b>											
Spectrum Auction Receipts Under Current Law											
Estimated Budget Authority	-0.1	-0.3	-8.0	-8.0	-2.8	-2.5	0	0	0	0	0
Estimated Outlays	-0.1	-0.3	-8.0	-8.0	-2.8	-2.5	0	0	0	0	0
Proposed Changes:											
Delay of Spectrum Auctions											
Estimated Budget Authority	0	0	7.5	-7.5	0	0	0	0	0	0	0
Estimated Outlays	0	0	7.5	-7.5	0	0	0	0	0	0	0
Spending for Relocation Costs <sup>a</sup>											
Estimated Budget Authority	0	0	0	2.5	0	0	0	0	0	0	0
Estimated Outlays	0	0	0	0.3	0.5	0.6	0.6	0.3	0.1	0.1	0
Auction Exemption for Certain Licenses											
Estimated Budget Authority	0	0	0.1	0	0	0	0	0	0	0	0
Estimated Outlays	0	0	0.1	0	0	0	0	0	0	0	0
Total Proposed Changes											
Estimated Budget Authority	0	0	7.6	-5.0	0	0	0	0	0	0	0
Estimated Outlays	0	0	7.6	-7.2	0.5	0.6	0.6	0.3	0.1	0.1	0
Net Spectrum Auction Receipts Under H.R. 1320											
Estimated Budget Authority	-0.1	-0.3	-0.4	-13.0	-2.8	-2.5	0	0	0	0	0
Estimated Outlays	-0.1	-0.3	-0.4	-15.2	-2.3	-1.9	0.6	0.3	0.1	0.1	0

a. Implementing H.R. 1320 could result in a reduction in discretionary spending, similar to the estimated \$2.5 billion increase in direct spending for relocation costs if the total amounts appropriated in future years are reduced accordingly.

## BASIS OF ESTIMATE

H.R. 1320 would amend current law that governs auctions of the electromagnetic spectrum in three ways. First, it would change the process used to pay for the cost of relocating government operations when spectrum that is used by agencies is going to be reallocated and

licensed for commercial services. Second, the bill would preclude the FCC from auctioning licenses for terrestrial services that use the 500 megahertz extending from 12.2 gigahertz to 12.7 gigahertz. Finally, the act would change the treatment of loans made by the Telecommunications Development Fund. The cost of these changes is described below.

## **Federal Relocation Costs**

CBO estimates that implementing provisions that would allow agencies to spend some of the proceeds from spectrum auctions without further appropriation would increase net direct spending by \$2.5 billion over the next 10 years. Spending for agencies' spectrum relocation expenses is subject to appropriation under current law. By providing this direct spending authority, the act could lead to lower discretionary spending in the future if the funds appropriated are reduced by corresponding amounts.

**Relocation Costs Under Current Law.** Some of the electromagnetic spectrum now used by federal agencies is being reallocated from government to commercial use. Relocating agency operations to new frequencies or services typically involves buying new equipment and facilities. Under current law, those costs will be paid by the companies that win the commercial licenses at auctions held by the Federal Communications Commission (FCC). Agencies will notify bidders of estimated relocation costs before the auction begins, but final payment will be negotiated and made after the winning bidder has obtained—and paid for—the license. Funds paid by the commercial licensees for relocation costs will be deposited in the Treasury as miscellaneous receipts, but agencies cannot spend the proceeds until they are appropriated. How well the current relocation process would work is unknown because no auctions of such frequencies have occurred since the requirements were enacted in 1998.

**Proposed Changes.** H.R. 1320 would make two key changes in the agency relocation process. First, costs for relocation would be paid from the total auction proceeds rather than by individual licensees. The act would direct the FCC to set a minimum bid for an auction equal to 110 percent of the estimated relocation costs. If auction proceeds exceed that minimum bid, then all of the proceeds from the auction of the federal frequencies would be deposited in a Spectrum Relocation Fund. Auctions that fail to at least match the minimum bid would be canceled. Under the act, all auction proceeds in the fund could be spent by agencies without further appropriation on eligible relocation costs. Agency expenditures and relocation progress would be subject to review by the Office of Management and Budget (OMB), the National Telecommunications and Information Administration (NTIA), various Congressional committees, and the General Accounting Office (GAO). Unspent auction proceeds would remain in the Treasury.

The act also would require the FCC to notify NTIA of an upcoming auction at least 18 months in advance, giving agencies a year to prepare estimates of relocation costs that must be given to the FCC at least six months prior to the start of the auction.

**Budgetary Effects Related to Auctioning the 1710-1755 Megahertz Band.** The relocation procedures, both in current law and under H.R.1320, apply only to certain frequencies. Among the bands eligible for reimbursement are the 1710-1755 megahertz band, three small bands covered by existing law, and any frequencies reallocated from government to commercial use after January 1, 2003.

Most of the estimated cost of this act would result from applying the new process to the 1710-1755 megahertz band, which is scheduled to be paired with 45 megahertz of commercial spectrum and auctioned for use by advanced, third-generation wireless services in the next few years. Under current law, CBO anticipates that licenses for this 90 megahertz will be auctioned near the beginning of fiscal year 2005 and that proceeds totaling about \$15 billion would be collected over the 2005-2006 period. This estimate reflects our expectation that companies will discount their bids by about \$2 billion to \$3 billion because of the uncertainty associated with the time and cost of relocating federal and commercial users.

CBO estimates that implementing the new relocation procedures would affect the budget in three ways:

- Requiring the FCC to give NTIA at least 18-months notice would delay the start of the auction relative to CBO's baseline assumption, thereby shifting about \$7.5 billion in offsetting receipts from 2005 to 2006. CBO assumes that the 18-month period would not begin until after the NTIA and FCC identify alternative frequencies for federal operations, which will be a key determinant of relocation costs.
- Agencies would spend about \$2.5 billion, without further appropriation, to relocate federal systems that now use this band. This estimate reflects the preliminary estimate prepared by NTIA in 2001 on the cost of moving all federal systems out of this band. Most of this expense will be incurred by the Department of Defense (DoD).
- The estimated increase in direct spending could be largely offset by a reduction in discretionary spending if the amounts appropriated in future years are reduced correspondingly. However, CBO anticipates that total spending probably would be higher under H.R. 1320 than under current law because agencies' relocation plans would not be subject to negotiations with winning bidders or the appropriation process.

It is possible that the net effect of the act on direct spending could be higher or lower than estimated by CBO. On the one hand, agency spending could exceed \$2.5 billion because the NTIA study was based on preliminary data and did not include all systems or all allowable expenditures. Recent statements by DoD have suggested that its costs alone could exceed \$4 billion.

On the other hand, simplifying the reimbursement process could reduce some of the uncertainty for bidders, which could result in higher auction proceeds. Under current law, companies may underbid or overbid for spectrum licenses depending on how the amount they ultimately pay agencies for relocation expenses compares to the amount assumed in their bidding strategy. Likewise, under the act, agencies might have access to funds more quickly than under the current process, but CBO has no basis for determining whether this would have a material effect on when the spectrum would be available for commercial service. On balance, CBO expects that simplifying the process for bidders might lead to higher proceeds, but we estimate that the magnitude of any change would be small relative to other factors that will affect the market value of these frequencies.

**Budgetary Effects Related to Other Bands.** Based on information from NTIA and other agencies, CBO expects that implementing this act would have no significant effect on the net proceeds from other auctions likely to be held before the FCC's auction authority expires in 2007.

### **Auction Exemption for Certain Licenses**

The FCC is required by law to use competitive bidding procedures to assign most licenses for commercial uses of the radio spectrum. H.R. 1320 would exempt certain licenses—those using the 12.2-12.7 gigahertz band for terrestrial services—from this auction requirement. It also would prohibit the FCC from licensing those frequencies for mobile telephony. CBO estimates that enacting this exemption would result in a loss of about \$60 million in auction proceeds that would otherwise occur in 2005.

The 12.2-12.7 gigahertz band is currently used for two different satellite-based services. Licenses for direct broadcast satellite services (DBS), which use geostationary satellites, were assigned by competitive bidding in 1996 and generated auction proceeds totaling \$735 million. (Those licenses currently are held by EchoStar, which markets its satellite television services through the DISH Network). The FCC also allocated those frequencies for use by nongeostationary satellites that provide international telecommunication services. Under current law, licenses for international services are assigned administratively rather than by auction, consistent with international protocols.

The FCC recently determined that it is also technically feasible to use the 12.2-12.7 gigahertz band for certain terrestrial services. Companies such as Northpoint Technology have proposed using those frequencies to provide multichannel video distribution and data services that would compete with existing DBS and cable television services. Other firms have expressed interest in using the band to provide high-speed data and broadband services. The FCC initially planned to begin auctioning licenses for terrestrial services for this band in June 2003, but the auction was postponed in response to industry proposals to change the geographic areas covered by each license. Although a new date has not yet been announced, CBO expects that the auction will now begin in 2004, with auction proceeds deposited in the Treasury in 2005.

CBO estimates that proceeds from the auction of this 500 megahertz band could range from \$14 million (the minimum bid set by the FCC) to over \$100 million, with an expected value of about \$60 million. Auction proceeds are difficult to predict, and are especially uncertain in cases where the technology and markets are untested. For example, Nextel recently paid \$144 million to buy Worldcom spectrum licenses and equipment in the 2.5 gigahertz band, which may be used for broadband services. (Worldcom originally paid about \$1 billion for those licenses.) Furthermore, some analysts have suggested that the new services in the 12.2-12.7 gigahertz band could capture between 10 percent and 40 percent of the \$14 billion DBS market. If auction participants were to base their bids on such marketing scenarios, CBO estimates that auction proceeds could exceed \$100 million. Alternatively, auction proceeds could be at the lower end of this range if the potential services or technologies to be offered are considered financially risky.

### **Telecommunications Development Fund**

The TDF was established by law in 1996 to spend the interest earned on certain proceeds collected by the FCC as part of the spectrum auction process. Those interest earnings are used as venture capital for small businesses and spent on other activities related to telecommunications services. The fund is administered by a seven-member board appointed by the FCC and is governed by certain statutory criteria. H.R. 1320 would remove one of those requirements, namely that loans made by the TDF are subject to the Federal Credit Reform Act.

Since its creation, CBO has suggested that the TDF be included in the budget as a federal activity because its leadership, purpose, and funding are controlled by the government. OMB, however, treats the TDF as a nonfederal entity. Because the TDF currently is treated as a nonfederal entity, CBO estimates that enacting this provision would have no budgetary impact.

## **INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT**

H.R. 1320 contains no intergovernmental or private-sector mandates as defined in the UMRA and would impose no costs on state, local, or tribal governments.

## **PREVIOUS CBO ESTIMATE**

On May 13, 2003, CBO transmitted a cost estimate for H.R. 1320 as ordered reported by the House Committee on Energy and Commerce on April 30, 2003. The House version did not include provisions exempting the 12.2-12.7 gigahertz band from auction requirements and our cost estimates reflect that difference.

## **COMPARISON WITH OTHER ESTIMATES**

In February 2003, the Administration recommended enacting legislation that included provisions similar to those in H.R. 1320 regarding federal relocation costs. The Office of Management and Budget estimated that enacting its proposed legislation would increase direct spending by \$2.5 billion over the 2005-2013 period.

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