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Spectrum Management and Special Funds

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Abstract. This report covers some of the issues of spectrum management and special funds. Among bills related to special funds that were introduced during the 110th Congress are: the Spectrum Relocation Improvement Act of 2008 (H.R. 7207, Inslee); the RESPONDER Act of 2008 (S. 3465, Wicker); and The Public Safety Interoperability Implementation Act (H.R. 3116, Stupak).

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CRS Report for Congress

Spectrum Management and Special Funds

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Summary

Congress has acted to create two special funds to hold the revenue of certain spectrum auctions for specific purposes. These funds represent a departure from existing practice, which requires that auction proceeds be credited directly to the Treasury as income. The Deficit Reduction Act of 2005 (P.L. 109-171, Title III) required the auctioning of licenses for spectrum currently used by TV broadcasters for analog transmissions. It established the Digital Television Transition and Public Safety Fund to receive this auction revenue and use some of the proceeds for the transition to digital television, public safety communications, and other programs. The Commercial Spectrum Enhancement Act (P.L. 108-494, Title II) established a Spectrum Relocation Fund to hold the proceeds of certain spectrum auctions for the specific purpose of reimbursing federal entities for the costs of moving to new frequency assignments. The spectrum being vacated by federal users has been sold for commercial use. Passage of the Spectrum Enhancement Act set a precedent in national policy for spectrum management by linking spectrum auction proceeds to specific funding programs.

Among bills related to special funds that were introduced during the 110th Congress are: the Spectrum Relocation Improvement Act of 2008 (H.R. 7207, Inslee); the RESPONDER Act of 2008 (S. 3465, Wicker); and The Public Safety Interoperability Implementation Act (H.R. 3116, Stupak).

Background

Radio frequency spectrum allocation policy within the United States is coordinated primarily through the Federal Communications Commission (FCC) — for private use, including state and local public safety wireless communications — and the National Telecommunications and Information Administration (NTIA) — for federal use. Spectrum management goals include balancing diverse concerns such as technical quality, economic benefit, fairness, access, security, and global competitiveness. Many economic models for providing the “highest and best use” for spectrum exist and have been tried, both in the United States and worldwide. Spectrum for what is widely described as

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“prime” frequencies (300 MHz - 3000 MHz)¹ is judged by many to be the most commercially desirable and is widely sought after at auction.² The Congressional Budget Office has estimated that auction proceeds for fiscal years 2007-2011 will total \$28 billion.³

Spectrum Management and Auction Proceeds

Current broadcast and wireless communications technology requires the assignment of specific frequencies to prevent interference among transmissions. Preventing interference while fostering spectrum policies that promote public benefits and economic growth have been key bulwarks of spectrum policy and management for the FCC since its creation. Using auctions as a market-driven approach to spectrum allocation is a fairly recent innovation. The Communications Act of 1934, as modified primarily by the Balanced Budget Act of 1997, governs spectrum allocation and auction requirements in the United States. It directs the FCC to hold auctions and to deposit the proceeds in the general fund of the Treasury. Spectrum policy that designates auction proceeds for specific uses is a departure from this requirement.

Whenever spectrum reallocation is desirable or necessary because of changes in technology, spectrum value, or other factors, some mechanism — such as a trust fund — might be considered a component of spectrum management and policy in order to compensate organizations that cannot recover costs through pricing. On the assumption that spectrum reallocation is an integral part of spectrum management, and recognizing that relocation costs can climb to billions of dollars in some sectors, the need to create reimbursement programs could be considered part of spectrum policy.

Spectrum Relocation Fund

The purpose of the Spectrum Relocation Fund is to create a mechanism whereby federal agencies can recover the costs of moving from one spectrum band to another. The interest in relocating federal users — and accelerating the process by assuring reimbursement for the costs of moving — centers on valuable spectrum (relative to auction prices for comparable spectrum in the United States and other countries) now used by federal agencies, especially the Department of Defense. In particular, spectrum in bands within the 1710-1850 MHz range is sought by wireless telecommunications companies to facilitate the implementation of next-generation wireless technologies, including high-speed mobile services (3G). After much study, the NTIA and the FCC, aided by an Intra-Government 3G Planning Group, announced plans that would transfer spectrum in the 1710-1755 MHz range from federal agencies and make it available to the private sector through spectrum auctions conducted by the FCC. As part of the effort, the

¹ Spectrum is segmented into bands of radio frequencies and typically measured in cycles per second, or hertz; one million hertz = 1 megahertz (MHz); 1 billion hertz = 1 gigahertz (GHz).

² Federal Communications Commission, Office of Plans and Policy, OPP Working Paper Series No. 38, “A Proposal for a Rapid Transition to Market Allocation of Spectrum,” November 2002, at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-228552A1.pdf].

³ Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2008-2017*, p. 82, January 2007.

need was identified for new legislation that would permit affected federal agencies to recover costs directly from these auction proceeds. To meet this need, in mid-2002 the Department of Commerce proposed the creation of a Spectrum Relocation Fund. This fund could provide a means to make it possible for federal agencies to recover relocation costs directly from auction proceeds when they are required to vacate spectrum slated for commercial auction. In effect, successful commercial bidders cover the costs of relocation. To accomplish the NTIA and FCC goals required modification of the Communications Act of 1934, to permit the agencies direct access to auction funds. This was accomplished with the passage of the Commercial Spectrum Enhancement Act, Title II of P.L. 108-494, in 2004.

Among key provisions of the act were requirements that the auctions must recoup at least 110% of the projected costs,⁴ and that unused funds would revert to the Treasury after eight years.⁵ Specific frequencies mentioned included not only the 1710-1755 MHz band but also other federally used frequencies scheduled for reallocation and possible auction.⁶ The Communications Act of 1934 was therefore amended to create a Spectrum Relocation Fund within the Treasury to hold auction proceeds as designated.⁷ The fund is administered by the Office of Management and Budget.⁸ Following procedures required by the act, the FCC scheduled an auction for Advanced Wireless Services (AWS), designated Auction 66, which was completed on September 18, 2006.⁹ The AWS auction attracted nearly \$13.9 billion in completed bids, substantially above the cost established by the NTIA of almost \$936 million for the move.¹⁰ The FCC ruled that auction winners wishing to put acquired licenses to immediate use would in most cases be able to share with current federal users under guidance from the FCC.¹¹ At a Washington, DC, conference in September 2007, John Kneuer, Director of the NTIA at the time, told the audience that there were some “issues” on relocating federal users to clear space for commercial license-holders.¹²

⁴ P.L. 108-494, Title II, Sec. 203 (a) (3) and (b).

⁵ P.L. 108-494, Title II, Sec. 204, ‘Sec. 118 ‘(d) ‘(3).

⁶ P.L. 108-494, Title II, Sec. 202 ‘(2).

⁷ P.L. 108-494, Title II, Sec. 204, ‘Sec. 118.

⁸ P.L. 108-494, Title II, Sec. 204, ‘Sec. 118 ‘(a).

⁹ “FCC’s Advanced Wireless Services (AWS) Spectrum Auction Concludes,” FCC News, September 18, 2006.

¹⁰ See [<http://www.ntia.doc.gov/osmhome/reports/specrelo/index.htm>]. Viewed January 2, 2008.

¹¹ “Coordination Procedures in the 1710-1755 MHz Band,” FCC Public Notice, FCC 06-50, April 20, 2006 (WTB Docket No. 02-353).

¹² Fourth Annual Conference on Spectrum Management, Washington, DC, September 17-18, 2007, sponsored by Law Seminars International.

Digital Television Transition and Public Safety Fund

To facilitate the clearing of spectrum for revenue-generating auctions, the 109th Congress included measures in a budget reconciliation bill¹³ to create a fund to hold the proceeds from Congressionally mandated auctions of licenses in the 700 MHz band.¹⁴ The fund and disbursements are administered by the NTIA, which is directed in the act to make specific disbursements. These are: \$7,363 million from the auction of spectrum licenses at 700 MHz is slated go to reduce the budget deficit¹⁵ as specified in H.Con.Res. 95; up to \$1,500 million on coupons for households toward the purchase of TV set top boxes that can convert digital broadcast signals for display on analog sets;¹⁶ a grant program of up to \$1,000 million to improve communications capabilities for public safety agencies;¹⁷ payments of up to \$30 million toward the cost of temporary digital transmission equipment for broadcasters serving the Metropolitan New York area;¹⁸ payments of up to \$10 million to help low-power television stations purchase equipment that will convert full-power broadcast signals from digital to analog;¹⁹ a program funded up to \$65 million to reimburse low-power television stations in rural areas for upgrading equipment from analog to digital technology;²⁰ up to \$106 million to implement a unified national alert system and \$50 million for a tsunami warning and coastal vulnerability program;²¹ contributions totaling no more than \$43.5 million for a national 911 improvement program established by the ENHANCE 911 Act of 2004;²² and up to \$30 million in support of the Essential Air Service Program.²³ The NTIA was authorized to finance some of the programs through loans from the Treasury, secured by the expected proceeds of the auction required by the law. Some of the funding provisions were later amended as regards timing of payments and use of funds but the amounts were not changed.²⁴

Total legislated disbursements are slightly more than \$10 billion, to stay within an estimate of auction revenue of approximately \$12 billion, as originally provided by the

¹³ The Deficit Reduction Act of 2005; P.L. 109-171.

¹⁴ “There is established in the Treasury of the United States a fund to be known as the Digital Television Transition and Public Safety Fund.” P.L. 109-171, Sec. 3004 (3) “(E) “(i).

¹⁵ P.L. 109-171, Sec. 3004 (3) “(E) “(iii).

¹⁶ P.L. 109-171, Sec. 3005.

¹⁷ P.L. 109-171, Sec. 3006.

¹⁸ P.L. 109-171, Sec. 3007.

¹⁹ P.L. 109-171, Sec. 3008.

²⁰ P.L. 109-171, Sec. 3009.

²¹ P.L. 109-171, Sec. 3010.

²² P.L. 109-171, Sec. 3011.

²³ P.L. 109-171, Sec. 3012.

²⁴ An overview of changes in grants to public safety communications is provided in CRS Report RL33747, *Emergency Communications Legislation: Implications for the 110th Congress*; changes in 911 programs are discussed in CRS Report RL32939, *An Emergency Communications Safety Net: Integrating 911 and Other Services*; both reports are by Linda K. Moore.

Congressional Budget Office. There is no provision in the act for disbursing auction proceeds beyond that amount, although all the “proceeds (including deposits and upfront payments from successful bidders) from the use of a competitive bidding system under this subsection with respect to recovered analog spectrum” are to be deposited into the fund.²⁵ Any additional disbursements from the fund would be treated as new costs by the Congressional Budget Office and would score as needing to be offset. Absent new legislation, the surplus in the fund will be deposited in the Treasury as general revenue. The fund, however, has no sunset date. The auction, Auction 73, concluded on March 18, 2008; it grossed \$19,592,420,000.

Legislation in the 110th Congress

The Public Safety Interoperability Implementation Act (H.R. 3116, Representative Stupak) would establish a separate fund within the Digital Television Transition and Public Safety Fund that would be used for public safety communications grants. This separate fund would receive the proceeds remaining from the auction required by the Deficit Reduction Act, after the payments required by the act had been made. It would also receive up to half of the net proceeds of future auctions, although this share could be reduced. In addition a total of \$1.5 billion would be authorized for appropriations over three years, beginning with FY2008. The grant program would be administered by the NTIA with a board created for that purpose, with five members appointed by the Secretary of Commerce. Grants would go for communications critical to public safety, with a preference for programs providing broad-based interoperability. The bill was introduced July 19, 2007.

The Reliable, Effective, and Sustained Procurement of New Devices for Emergency Responders (RESPONDER) Act of 2008 (S. 3465, Senator Wicker) would create a First Responders Interoperable Device Availability Trust Fund to provide grants to purchase interoperable radios for the new public safety network proposed for some of the channels being released in the transition to digital TV. The network plan is linked to the auction of a remaining block of analog spectrum, known as the D Block. The RESPONDER Act would place the entire net proceeds of the D Block Auction in the Trust. Additional funds would come from a percentage of future auctions. Auction authority for the Federal Communication Commission would be extended to assure the continuation of revenue-producing auctions. The bill was introduced September 10, 2008.

The Spectrum Relocation Improvement Act of 2008 (H.R. 7207, Representative Inslee) would require that federal agencies covered by the Commercial Spectrum Enhancement Act provide detailed, publicly available information about the spectrum relocation plans and timelines covered under the act. In particular the availability of frequencies for shared use would be documented. To be eligible to receive payments from the Spectrum Relocation Fund, agencies would be required to complete the transition within a specified time period, to report on progress, and to comply with other requirements stated in the bill.

²⁵ P.L. 109-171, Sec. 3004 (3) “(E) “(ii).