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Deficit Reduction and Spectrum Auctions: FY2006 Budget Reconciliation

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Summary

Congressional policymakers are seeking a way to accelerate the nation's transition to digital television and to expedite the transfer of certain radio frequency channels from the broadcast industry to public safety and commercial users no later than 2009. The Congressional Budget Office has informally estimated a value of \$10 billion from auction proceeds for these commercial channels; many believe the amount could be higher. Broadcasters are holding this valuable spectrum (channels 52-69) but would be required to relinquish it after the transition to digital television (DTV) is achieved. Without a hard deadline, the transition to digital television has been delayed and the spectrum has not been made available for other uses. Congress anticipates applying some of the proceeds received from auctions of the spectrum to be cleared to help meet deficit-reduction goals passed in H.Con.Res. 95. Consequently, some of the legislation deemed necessary to assure a timely transition to digital television has been proposed for inclusion in the FY2006 budget reconciliation process.

The transition to digital television has two major policy components. One set of policy decisions is concerned with how best to move television broadcasters and their viewers to digital technology. The other key policy issues deal with spectrum management and allocation. Briefly discussed below are key points about the transition process and its possible impact on budget reconciliation negotiations. This report will be updated over the course of the reconciliation procedure.

Budget Reconciliation

Not all the issues that Congress would like to resolve regarding the transition to digital television will be considered as part of the budget reconciliation process; these will

be treated in other bills being prepared for introduction. Legislative solutions that are under consideration as part of budget reconciliation are:

- Set a definite date for the release of spectrum at 700 MHz currently held by broadcasters.
- Require auctions by the Federal Communications Commission (FCC) of the freed spectrum. The FCC's authority to hold auctions expires in 2007; therefore this authority must be renewed or extended.
- Commit money from any auction(s) of spectrum at 700 MHz, scheduled to take place not later than FY2010, to reducing the budget deficit as specified in H.Con.Res. 95.¹
- Create a fund to receive a portion of spectrum auction revenue: to cover some of the costs of conversion to digital TV — including financial assistance to consumers with analog TVs; to equip first responders with new equipment; and to fund improvements in emergency call center (911) technology.
- Require that all the available channels in the 700 MHz band be auctioned² — a total of 60 MHz of spectrum.³ Public safety wireless communications experts have urged that 12 MHz of spectrum (in addition to the 24 MHz already allocated) be assigned in part to accommodate emergency communications interoperability with federal agencies.

Value of the Spectrum

Wireless technology is evolving rapidly and in recent years the industry has moved into offering high-speed, content-rich services generally known as 3G (third generation) while at the same time preparing to offer new services using even more advanced technologies. The 700 MHz spectrum that is to be relinquished by broadcasters is widely considered to be especially desirable for advanced wireless services. Also, many states are waiting for the spectrum to be freed in order to follow up on their plans for robust, interoperable public safety communications networks. Furthermore, digital television

¹ For the House Committee on Energy and Commerce, the total commitment could be \$14,734,000,000 for fiscal years 2006 through 2010; H. Con. Res 95, Concurrent Resolution on the Budget for Fiscal Year 2006, Title II, Sec. 201 (a) (2) (C). Reportedly the House would use \$4.8 billion of spectrum auction revenue to help meet this goal, see, for example, "DTV Bill to be Subsumed in Budget Bill," Communications Daily, July 8, 2005.

² As presently configured, 874 licenses in 60 MHz would be available for auction. Of these, 280 licenses are considered encumbered by television broadcast stations. Source: 700 MHz Advancement Coalition at [http://www.700MHz.org/700_MHz_band.htm]. Viewed October 19, 2005.

³ Wireless (radio frequency) spectrum is measured in cycles per second, or hertz (Hz). Standard abbreviations for measuring frequencies include kHz — kilohertz or thousands of hertz; MHz — megahertz, or millions of hertz; and GHz — gigahertz, or billions of hertz.

represents a superior form of technology, both in its efficient use of spectrum and the quality of the picture it provides. The value of the auction revenue in reducing the budget deficit is also a benefit. Overall, the benefits of releasing spectrum now used for analog TV broadcasting to complete the switch to digital are considered to be substantial, outweighing the costs of conversion.

In considering the potential revenue from spectrum sales, reconciliation negotiators could decide to review the probable value of the channels. The Congressional Budget Office has reportedly set a benchmark estimate of \$10 billion in revenue from auction of this spectrum.⁴ Other estimates have projected that spectrum auctions in the 700 MHz band would gross \$20 billion to \$30 billion.⁵ A significant factor in valuing spectrum is the size of the market served. Usually this value is expressed in terms of dollars per MHz-Population. Using this methodology, a value of \$1.65 per MHz-Population, for example, yields a potential value of \$28 billion for 60 MHz of spectrum at 700 MHz. Dollar per MHz-Population estimates for upcoming auctions are derived from results of earlier auctions for similar spectrum. This estimated value is then typically increased or decreased depending on assumptions about a number of variables. The different weight that analysts give to the impact of hard-to-measure market conditions largely explains the range in valuations. For example, poor economic conditions may depress all markets and put downward pressure on prices for spectrum, just as an exuberant market — eager to implement new technology — may place an unusually high value on obtaining new licenses. The usability of spectrum is an important factor as well. There is a disincentive to invest in a non-performing asset, such as spectrum that is blocked by other users, or spectrum that doesn't serve an immediate market because new technology isn't ready for deployment. In the case of spectrum at 700 MHz, many believe that there is significant risk that the spectrum will remain encumbered, despite hard dates for the switch to digital, thereby tying up resources indefinitely.

Background

Recent Legislative History. Consideration of spectrum issues in the current budget resolution is one step in a long process of introducing digital television (DTV) technology that extends over more than a decade. The Telecommunications Act of 1996 (P.L. 104-104) provided that eligibility for DTV licenses should be limited initially to existing broadcasters. Digital signals cannot be transmitted with existing analog television technology. Therefore, broadcasters were issued additional licenses for new, DTV broadcast channels while continuing to broadcast on existing channels during the transition period. The old, analog licenses were to be returned to the federal government after the transition to DTV. In the Balanced Budget Act of 1997 (P.L. 105-33), Congress set a deadline of December 31, 2006 to complete the transition from analog to digital television but allowed several exceptions that can extend that deadline. The most critical exception is the establishment of a threshold of 85% for the percentage of households, by market, that must be able to receive digital signals before the licenses for analog broadcasts must be relinquished.

⁴ “Estimates Vary on Value of Spectrum,” by Drew Clark, Technology Daily, August 1, 2005.

⁵ “Analysis of an Accelerated Digital Television Transition,” prepared by the Analysis Group, sponsored by Intel Corporation, May 31, 2005, page 6 at [<http://www.itic.org/archives/DTV%20Transition%20Report.pdf>]. Viewed August 30, 2005.

Given the slower-than-expected rate of adoption for DTV in American homes, few believe that the goal of over-the-air digital television in 85% of American households by 2006 will be reached. As a result — under the Balanced Budget Act — television stations will be able to broadcast both analog and digital signals indefinitely. In the Intelligence Reform and Terrorism Prevention Act (P.L. 108-458), Congress expressed its sense that 1) it must act in the first session of the 109th Congress to establish a comprehensive approach to the timely return of spectrum held by the broadcasters and that 2) any delay in doing this would delay planning by the public safety sector that is to receive some of the spectrum for new communications systems. (Sec. 7501.)

DTV and Consumers. A key issue in the digital transition is that the millions of analog televisions that rely on over-the-air broadcasts will no longer work once the analog signal is turned off. According to a Government Accountability Office (GAO) survey, 19% of U.S. households (21 million) do not subscribe to a cable or satellite service and rely exclusively on over-the-air broadcasting. The GAO found that low-income, non-white, and Hispanic households are more likely to rely on over-the-air television broadcasting.⁶ The Federal Communications Commission (FCC) estimates that 15% of TV households are exclusively over-the-air.⁷ The Consumer Electronics Association (CEA) has estimated that less than 13% of TV households currently rely on over-the-air TV broadcasts.⁸ In June 2005, the Consumers Union and the Consumer Federation of America issued a joint study⁹ that estimated that approximately 16 million households would lose all TV reception when analog signals are cut off. Based on an estimate of a \$50 price to purchase a converter box, the report concluded that “the direct government-imposed costs on consumers to preserve the usefulness of [analog television sets] would be \$3.5 billion or more.” The GAO estimated that the cost of assuring over-the-air broadcasting by supplying converter boxes to households that only have analog television could total from \$460 million to \$10.6 billion, depending on a number of variables such as the cost of the boxes and the number of households eligible to receive assistance.¹⁰ The GAO cost estimates do not include the cost of implementing a subsidy program.

⁶ See U.S. Government Accountability Office, Testimony before the Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, House of Representatives, *Digital Broadcast Television Transition: Estimated Cost of Supporting Set-Top Boxes to Help Advance the DTV Transition*, February 17, 2005. Available at [<http://energycommerce.house.gov/108/Hearings/05262005hearing1533/Shapiro.pdf>]. Viewed July 7, 2005

⁷ FCC, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Report FCC 05-13, MB Docket No. 04-227, released February 4, 2005.

⁸ Statement of Gary Shapiro, President and CEO, Consumer Electronics Association, before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, May 26, 2005. Available at [<http://energycommerce.house.gov/108/Hearings/05262005hearing1533/Shapiro.pdf>]. Viewed July 9, 2005.

⁹ *Estimating Consumer Costs of a Federally-Mandated Digital TV Transition*, Consumers Union and Consumer Federation of America, June 29, 2005 at [http://www.hearusnow.org/fileadmin/sitecontent/DTV_Survey_Report-Final_6-29-05.pdf]. Viewed August 10, 2005.

¹⁰ GAO-05-258T, pp. 14-15.

Policy issues include whether some form of financial assistance (subsidies or tax credits, for example) should be provided by the federal government to enable over-the-air households to purchase converter boxes or digital televisions; whether such assistance should go to low-income households exclusively or to all households; whether subsidies, if warranted, should be financed by proceeds garnered by auctioning the analog spectrum; how much funding a subsidy program would require; and how much revenue is likely to be available from auction proceeds.

DTV and the Broadcasters. Many cable households might wish to continue to use analog televisions after the transition. Cable companies might offer converter boxes to these customers. As an alternative, it is possible that cable providers might seek authority from Congress to “downconvert” the digital signal of selected local broadcast stations to analog format. To serve customers with digital televisions, cable providers would continue to provide digital signals as well (in other words, “dual carriage”). Under this scenario, a key issue is whether (and how) Congress should mandate which local broadcast stations would receive the benefit of “dual carriage” to cable customers, and for how long. A related issue is whether cable systems should be required to carry any or all digital multicasted channels transmitted by commercial broadcasters (known as “must carry”). The National Association of Broadcasters has maintained that its “priority continues to be the prevention of cable companies from blocking consumer access to local TV programming.”¹¹ Reportedly, NAB is arguing that its acceptance of a hard date for relinquishing broadcast spectrum is contingent on passage of a “must carry” requirement for cable companies.¹²

Legislative Activity

Some aspects of the budget resolution could take into account proposals in other legislation. Among bills introduced or planned that deal with spectrum at 700 MHz and the transition to digital television are: the following

- Beginning with the 107th Congress, Representative Jane Harman has introduced the HERO Act in each Congress; this legislation would assure the release of spectrum for public safety use (H.R. 1646, 109th Congress).
- Senator John McCain has introduced the SAVE LIVES Act (S. 1268, 109th Congress) that would release all the encumbered spectrum and fund subsidies to cover some of the costs of transition, among other provisions.
- Senator Olympia J. Snowe has introduced a bill, S. 1600, with the primary objective of assisting low-power TV stations, especially those serving rural areas, in completing the transition to digital television.

¹¹ “Statement,” NAB Newsroom press release, June 29, 2005 at [http://www.nab.org/newsroom/pressrel/statements/062905_CU-CFA_Survey_Statement.htm]. Viewed October 19, 2005.

¹² See, for example, “DTV Bills Coming Soon,” by Ted Hearn, Multichannel News, page 28, October 10, 2005.

- Representative Joe Barton (Chairman, Committee on Energy and Commerce, House of Representatives) and Senator Ted Stevens (Chairman, Committee on Commerce, Science, and Transportation, Senate) are reportedly preparing bills covering aspects of the release of spectrum and the transition to DTV that are likely not to be included in a budget resolution.¹³

¹³ “Reconciliation Moves to Center Stage,” National Journal’s CongressDaily,” am edition, October 17, 2005.