

Testimony of

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United States Senate

**“Completing the Digital Television Transition:
A Consumer Converter Subsidy Can Reduce the Deficit
and Redeploy UHF Spectrum for Wireless Broadband”**

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Good morning. My name is Michael Calabrese, Vice President and Director of the Spectrum Policy Program at the New America Foundation, a nonpartisan public policy institute here in Washington. Thank you, Mr. Chairman and members of the Committee, for this opportunity to testify today. I will focus on our proposal for a consumer subsidy that can bring the long-stalled DTV transition to a swift conclusion while also ensuring that no American loses their access to “free” over-the-air programming.

There is a general consensus that rapidly completing the digital TV transition – thereby freeing up the 108 MHz of “beachfront” spectrum corresponding to TV channels 52-to-69 – is clearly in the public interest. Because wireless signals at this frequency range pass easily through walls and trees, the 700 MHz band could jumpstart the deployment of more affordable wireless broadband connections, particularly in rural areas.

Although Congress has already reallocated a portion of these TV channels for public safety agencies (to address interoperability problems) and for auction to licensed cellular services (which could yield \$30-to-\$40 billion in federal revenue), the DTV transition is badly stalled. There is no fixed deadline for redeploying these precious frequencies from analog broadcasting for the few to productive broadband for all. And, as FCC Media Bureau Chief Kenneth Ferree testified before the House Commerce Committee last week, under current law it could take decades before these economically critical frequencies are cleared for wireless broadband and other emerging technologies. The controversial question is how to end analog broadcasting without stranding the roughly 15 percent of consumers who still rely on analog over-the-air reception for their “free” TV.

How U.S. Households Receive Television, Comparing 1993 and 2003¹			
TV Households in United States	Dec. 1993 (millions)	June 2003 (millions)	Change (%)
Over the Air Only	33.9 (26%)	12.5 (11.7%)	-63%
MVPD Subscribers*			
Cable	57.2	70.5 ²	
DBS	.07	20	
Other	3	3.4	
Total Subscription MVPD	60.3 (64%)	93.9 (88.3%)	37%

*MVPD = Multichannel Video Programming Distributors are Cable, Direct Broadcast Satellite, and other service providers.

Last month the FCC’s Media Bureau floated a new DTV transition plan that represents a fairly radical departure from the government’s current approach. Rather than relying on additional subsidies to broadcasters, the “Ferree Plan” recognizes that the real DTV transition is taking place not over the air, but over the cable and satellite systems that already provide the primary TV service to at least 85 percent of U.S. households.³ By counting all cable households as capable of receiving digital broadcasts, the FCC could declare that the statutory 85 percent threshold of DTV-capable homes in each market has been reached – and on that basis schedule the termination of analog broadcasting, and the reallocation of the spectrum used by TV Channels 52-to-69, for January 1, 2009.

Unfortunately, while the Media Bureau plan is a step in the right direction, it is insufficient. By focusing solely on meeting the 85 percent statutory threshold for ending analog broadcasting, it ignores the far more relevant obstacle to redeploying the 700 MHz band to public safety and wireless broadband: the 17 million consumers who continue to rely on over-the-air analog TV. The switch from analog to digital-only broadcasting would currently force millions of households to purchase a digital TV, to purchase a

¹ FCC, “Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming: Tenth Annual Report,” January 28, 2004. Available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-5A1.pdf.

² Of these 70.5 million cable subscribers, an estimated 22 million receive digital cable, see <http://www.ncta.com/Docs/PageContent.cfm?pageID=86>

³ As of June 2003, according to the FCC only 12.5 million U.S. households relied on terrestrial (over-the-air) for their primary TV signal. More than 94 million of the nation’s 106.6 million TV households subscribed to cable, direct broadcast satellite or other multichannel video program distribution service. See *supra*, note 1, FCC, p. 54. However, because other credible survey data from the broadcast industry suggests that the OTA reliance may be as high as 17.5 million, or 16.1% of the nation’s 108 million TV households (as of Nov. 2003), we use that conservative estimate here. See Andrew D. Cotlar, “Digital-Only Broadcasting: A Roadmap for Early Return of Public Television’s Analog,” Association of Public Television Stations, Feb. 2004, at pp. 12-13 and Appendix C.

digital-to-analog converter (so that their current TV still functions), or to subscribe to a paid cable or satellite service.

It is true that product obsolescence is an everyday fact of life for Americans. Every year Americans throw away tens of millions of perfectly usable computers and mobile telephones because new technology comes along that makes them obsolete. Yet the potential backlash from consumers who continue to rely on terrestrial (over-the-air) broadcasting means the Ferree Plan is unlikely to succeed without a one-time consumer equipment subsidy.

We believe it is necessary for Congress to step in and fix the problem it created when it loaned broadcasters, with no strings attached, a second free channel of spectrum in the 1996 Communications Act. At a cost equal to about 10 percent of the likely revenue the government can receive by reassigning Channels 52-to-69, a consumer subsidy can facilitate a two-year switchover from analog to DTV. By January 1, 2008 the DTV transition can be completed, the 108 MHz of channel 52-to-69 spectrum can be repurposed to public safety and wireless broadband, tens of billions of dollars of new federal revenue can be collected, and the FCC's costly DTV tuner mandate can be repealed *if* Congress chooses to earmark a fraction of the spectrum auction revenue (between 5 and 15 percent) for a tax credit to offset the cost for consumers who still rely on analog over-the-air broadcasting. A rapid and smooth DTV transition along these lines was completed last year in Berlin, Germany – and can likewise be successful here.

Summary of New America's DTV Transition Proposal

We believe that that this Committee can best serve the public interest by adopting an enhanced version of the Media Bureau's plan that emphasizes two goals:

First, to protect consumer choice and consumer access to local broadcast programming. It's important to note that preserving every American's current ability to view their local OTA channels is *not* the same thing as requiring every American to watch digital-quality pictures.

Second, to quickly clear and reallocate Channel 52-to-69 spectrum for both unlicensed and licensed wireless broadband, which will generate even greater economic and social gains in the long-term than the spectrum auction revenues generated in the short-term.

We recommend that Congress both accelerate and improve upon the Media Bureau's DTV transition plan by adopting the following provisions:

1. Fixed Turn-off Date: Announce a January 1, 2008 deadline for analog turn-off and spectrum clearance.
2. Reschedule Auctions: Schedule auctions for assignment of licensed portion of the returned spectrum for 2006 (ideally only the initial license term would be auctioned, specifying an annual user fee to compensate the public thereafter).

3. Consumer Converter Subsidy: Using a fraction of auction revenues, authorize a refundable tax credit available to consumers during a 12-month period (calendar or fiscal year 2007) to offset the cost of converting from analog to DTV reception.
4. Consumer Choice: Give consumers the flexibility to apply the credit to a digital-to-analog (D-A) converter boxes, a new DTV set, or for initial satellite dish or cable set-up costs.
5. Revoke the DTV “Tuner Tax”: Reverse the FCC’s 2003 DTV tuner mandate, which seeks to reach the statutory 85% DTV threshold by requiring manufacturers to integrate over-the-air digital reception in every set over 13 inches by 2007 – increasing the cost to consumers by at least \$1.4 billion annually – despite the fact that the 85 percent of consumers who receive TV by cable or satellite may not need or want an OTA tuner.
6. Spectrum Reallocation for both Unlicensed and Licensed Wireless: In addition to the 24 MHz allocated for public safety, divide the remaining 84 MHz equally for use by licensed and unlicensed wireless broadband providers.
7. Switch from Analog to Digital Must-Carry: Upon return of their analog channel license, a broadcaster should be allowed to choose single channel digital must-carry (with no signal degradation); after Jan. 1, 2008, cable systems must pass through broadcasters’ primary digital signal, but can choose to cease down-converting the digital signal for analog reception.
8. Update the DTV Public Interest Obligations: The obligations of broadcast licensees should be extended to all “free” over-the-air programming streams and expanded to air each week the lesser of 3 hours, or 3 percent of programming time, of local civic and electoral programming (half of this in prime time).⁴
9. Earmark spectrum revenue to capitalize a PBS trust and DOIT: A portion of the spectrum auction revenue should be earmarked for investment in the future of public television and digital education, capitalizing a trust fund for the future of PBS and/or a Digital Opportunity Investment Trust.⁵

Time to Shift from Broadcaster to Consumer Subsidies

There are two general approaches to speeding up the DTV transition. The first is what we call the “Broadcaster Subsidy Model.” This is the approach America has taken to date. The second approach, implemented successfully last year in Berlin, Germany, is

⁴ See “Proposed Processing Guidelines for DTV Public Interest Obligations,” submitted to the FCC April 7, 2004, by a coalition of nonprofit groups including Commons Cause, New America Foundation, Alliance for Better Campaigns, Center for Digital Democracy, Media Access Project, *et al.* Available at <http://www.ourairwaves.org/docs/index.php?DocID=56>

⁵ See The Digital Opportunity Investment Trust Act, S. 1854, sponsored by Senators Dodd, Snowe, and Durbin. A bill summary and Report to Congress by the Federation of American Science is available at http://www.digitalpromise.org/legislation_hearings/index.asp.

the “Consumer Subsidy Model.” This latter approach is premised on earmarking roughly 10 percent of the auction value of just a portion of the channel 52-to-59 spectrum to give *every U.S. household* (not just low-income households, as they did in Berlin) the option to claim a tax credit to offset the cost of converting from analog to digital reception.

During the past 15 years, local TV broadcasters have lobbied for and won a myriad of government subsidies justified by the federal industrial policy in favor of transitioning to DTV while preserving “free” (ad-supported) over-the-air TV. The most valuable of these include:

- **“Free Spectrum Loan”** – An indefinite, interest-free loan to existing broadcast TV licensees of a second 6 MHz channel with no fixed termination date.
- **“Spectrum Flexibility”** – Rights to use new digital technology to transmit ten or more standard definition TV programs (or two or more high definition TV programs) in the 6 MHz of spectrum that could previously only transmit one standard definition analog program.⁶
- **“Pay TV over Public Airwaves”** – Rights to use as much as 90% of the DTV spectrum channel for pay TV or other pay data services, the revenue from which is supposed to subsidize ad-supported (“free”) broadcast DTV services (subject to a 5 percent ancillary services fee to the government).
- **“DTV Tuner Mandate”** – Last year the FCC adopted an OTA tuner mandate – which begins phasing in next month (for high end TVs) and applies to all new sets by July 2007 – prohibiting consumers from purchasing a new TV set without a broadcast digital TV tuner inside it, even though the vast majority of TVs will never be used OTA.
- **“Broadcast Flag”** – A requirement that all consumer electronics devices include a “broadcast flag” to prevent retransmission of an FCC licensed broadcast signal out-of-the-home without payment to the broadcaster.
- **“Plug and Play”** – A requirement that all set top boxes sold for cable TV include built-in compatibility with broadcast DTV.
- **“More Eyeballs”** – Expanded geographic and household coverage for existing broadcast TV licensees.

After more than six years of this DTV industrial policy, the Consumer Electronics Association projects that only 53 percent of U.S. households will receive digital signals

⁶ This assumes use of a state-of-the-art digital compression technology. The current broadcast standard is generally thought to be able to support only about six standard definition programs or one true HDTV program and several standard definition programs. Microsoft Media Player 9 needs only about 1.5 Mbps for a standard definition program. With a 19.4 Mbps broadcast DTV data rate, 13 standard definition programs per DTV channel would be feasible. Broadcasters are only required to provide one standard definition program for owners of 1st generation broadcast equipment; they can use the rest of their spectrum for enhanced services.

by 2007, the target date for the end of the 10-year transition adopted in 1996. The overwhelming majority of these digital signals will be received by cable and satellite subscribers until many years after the government's DTV tuner mandate becomes fully effective in 2007.⁷ This is a primary rationale why many savvy insiders believe that the broadcast DTV transition, as defined under current law, won't be complete until 2025 at the earliest.

'The Last Granny Rule'

In addition to the tens of billions of dollars in costs imposed on consumers – both directly and because the spectrum is not available for advanced wireless services – the basic premise of the broadcaster subsidy is a fraud: Although current law assumes TV licensees will return their analog channel when 85% of the households in their market are capable of receiving digital signals, the political reality is that neither broadcasters nor the government will order the unplugging of analog broadcast TV when as many as 15% of Americans who rely exclusively on analog TV will lose at least partial access to their local TV stations. This is an unwritten obstacle to ending the DTV transition that we call “The Last Granny Rule.”

The Consumer Subsidy Model

The theory behind the Consumer Subsidy Model is that if granny needs to be subsidized to speed the DTV transition, why not subsidize her *directly* rather than *indirectly* via handouts to producers? The Consumer Subsidy Model is derived from the successful broadcast DTV transition completed in the Berlin-Brandenburg area of Germany (henceforth “Berlin”). A similar model was briefly proposed but not seriously pursued by the Clinton Commerce Department in 1996 during the debate over the 1996 second (DTV) channel giveaway. This testimony suggests a number of changes to the Berlin Model to fit U.S. circumstances better.

The Berlin Transition

On February 13, 2002, the Berlin-Brandenburg, Germany regulatory authority known as MABB (the FCC-like regional regulatory agency) ruled that the digital TV transition would begin on November 1, 2002 and be complete by August 4, 2003. According to all reports, the Berlin DTV transition went smoothly. As a result, very similar transitions will soon be implemented in half dozen other states in Germany.

The Berlin transition was very much a win-win proposition for consumers and industry alike. Consumers in general benefited because, thanks to the wonders of digital compression technology, they could receive approximately four times as many free (i.e., 100% ad-supported) standard definition TV programs after the transition as they could with analog broadcast TV before the transition. In addition, they could receive new types of data services such as on-demand news and weather reports.

⁷ Drew Clark, “Deadline for Transition May Be Missed Despite Progress,” *TechDaily*, March 29, 2004.

In Berlin, only 7.4% of households were primarily reliant on free, broadcast TV. The rest chose to receive their TV from cable or satellite TV. However, the government didn't want low-income individuals to face the burden of either purchasing a digital TV set or doing without free (ad-supported) TV. So it purchased digital-to-analog converter boxes for 6,000 low-income individuals.

Broadcasters benefited because whereas before the transition they were only able to provide one standard definition TV program, after the transition, thanks to digital compression, on the same spectrum space they are able to provide additional channels of programming plus other types of services. In addition, the government mandated that after the DTV transition, cable TV companies continue with the status quo requirement that they broadcast analog versions of local TV broadcasts. Thus, cable subscribers were not affected by the transition.

Cost of a One-Time Consumer Tax Credit Subsidy

In Berlin, only low-income households received subsidies to purchase digital to analog converter boxes. However, although low-income homes have a greater need for a converter subsidy, because “free” TV has taken on the nature of an entitlement in American culture – and legislation that makes analog TV sets obsolete will be keenly felt even in middle-class homes as a type of “taking” – the combination of modest cost and the ability to pay for it with a fraction of the likely auction revenues from the band suggest that a limited but *universal* subsidy should be employed. As explained just below, a refundable tax credit would provide the most efficient and flexible means to distribute the subsidy, while enforcement issues would be minimized by making eligibility as broad as feasible.

Another difference with the Berlin experience is the nature of the subsidy. In Berlin, the government purchased and distributed DTA converters directly to 6,000 very low-income households. In the U.S. context we believe that a one-time tax credit that reimburses consumers a flat dollar amount (e.g., \$75) would be far more efficient and flexible. To simplify IRS implementation, the tax credit should be available only during a 12-month period corresponding to a single tax year (i.e., 2007). Although the government could certainly procure converter boxes in bulk at a wholesale price, the administrative costs of a government distribution could be excessive and unpredictable. A tax credit streamlines the process and makes the public cost more predictable.

As a matter of equity, it is important that the tax credit be “refundable,” which means that if a family has no income tax liability during that particular tax year, the subsidy would still be paid as a refund (the federal Earned Income Tax Credit works this way). Considering the public purpose of the converter subsidy, there seems to be no reason to deny its benefits to a household – most typically a very low-income household – that cannot offset an income tax liability that particular tax year.

The Cost of Four Options for a DTV Transition Consumer Subsidy⁸				
Household eligibility based on reliance on over-the-air (OTA) TV	Number Of Credits (TVs Eligible)	Refundable Tax Credit (Subsidy/ Converter)	Total Cost (100% Subsidy)	Total Cost (Progressive Subsidy)
Option #1: Only low-income OTA exclusives; Limit one set/hh	7.7 m (44% of OTA Only HH)	\$75	\$578 m	\$578 m (100%)
Option #2: All exclusive OTA hh; Limit one set/hh	17.4 m	\$75	\$1.3 B	\$942 m (100% credit for low-income; 50% for all others)
Option #3: All TV hh; Limit one set/hh	62.5 m (17.4 + 50% of 90.1 million non-OTA hh)	\$75	\$4.7 B	\$3.4 B (100%, low-income; 50% others)
Option #4 (NAB Scenario⁹): OTA sets in all hh; No limit on sets/hh	82 m	\$75	\$6.2 B	\$4.4 B (100%, low income primary set; 50% others)
<i>Sources: Options #1 and #2,¹⁰ Options #3 and #4</i>				

The Table above shows estimates of the cost associated with a range of eligibility options for a one-time \$75 refundable tax credit to offset the cost of a digital-to-analog (D-A) converter, or other qualifying device. Currently, because few are produced, the price of a D-A converter with the capacity to down-convert high-definition broadcast signals for display on an analog set is between \$200 and \$250 each. However, the price of D-A converters, like other computer products, will fall substantially over time and with economies of scale. If the government creates a market for five million or more D-A converters, analysts at the Consumer Electronics Association estimate that the cost should fall into the \$50 to \$100 range. Although the FCC's Media Bureau and the Association

⁸ Source: November 2003 Television Bureau of Advertising (TVB) study states that 17.4 million U.S. Households, rely exclusively on OTA reception. See *supra*, note 3, Cotlar, pp. 12, 14, 44.

⁹ Option #4 is the solution most called for by the NAB, which assumes that a converter credit be made available for every analog TV set in all households that rely on OTA (i.e., all sets not connected to cable, DBS, or another subscriber service.) See Reply Comments of NAB, MSTV, ALTV, In the Matter of Carriage of Digital Television Broadcast Signals, Docket 98-120, August 16, 2001, p. 22; Comments of the NAB, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, CS Docket 01-129, August 3, 2001.

¹⁰ Option #1: 44% of U.S. households earn less than \$40,000. 16.1% of U.S. households (17.4 million) exclusively rely on terrestrial OTA broadcast TV (44% X 17.4 million = 7.7 million).

of Public Television Stations use a \$50 estimate, the cost estimates here are based on a more conservative \$75 per converter, consistent with preliminary electronics industry projections.

Option #1 would limit the \$75 refundable credit to the approximately eight million households that rely exclusively on OTA reception and have incomes under \$40,000. This means-tested approach would cost roughly \$578 million – less than 2 percent of the value of the returned spectrum based on recent transactions for cellular licenses. A second, more obvious option would be to extend the subsidy to *all* 17.4 million households that rely exclusively on OTA reception, regardless of income level. Assuming each taxpayer/family is limited to a single converter credit, the cost would be approximately \$1.3 billion.

While Options #1 and #2 would each cost the government less than 5 percent of the returned spectrum's likely auction value, the tax credit would be denied to a household that subscribes to cable or DBS, but which also owns a secondary analog set that is used OTA only. Equity aside, it would be difficult if not impossible to enforce a rule limiting the tax credit to households that do not already subscribe to a paid TV service, since the IRS has no way to know how particular taxpayers receive their TV signals.

Thus, a third alternative (Option #3) would permit all TV households to claim a single credit for the purchase of qualifying DTV equipment. We assume that only 50 percent of households already subscribing to cable or DBS will bother to retrofit a secondary analog set and claim the credit, which puts the likely cost at \$4.7 billion – roughly 10 percent of the returned spectrum's market value.¹¹

Qualifying DTV Devices: If Congress authorizes a consumer subsidy, we believe there is no reason to limit consumer choice to a D-A converter box. A refundable tax credit could as easily allow consumers to choose to apply their rebate to reduce the cost of a new DTV set, or to the equipment costs for a new cable or DBS subscription. Moreover, whereas a D-A converter simply preserves the consumer's ability to watch analog TV, greater choice will lead many consumers to make the switch to high-definition platforms.

Other Key Elements to Complete America's DTV Transition

A Fixed Deadline for Analog Turn Off. In Berlin, the total time from passage of the law to completion of the transition was approximately 18 months. The transition began nine months after the law was passed and was completed nine months after that. In contrast, the Media Bureau plan would drag the transition out more than four more years, until 2009.

Assuming Congress can complete action by the end of its 2005 session (by November 2005), we believe that a two-year transition period would be more than adequate. Both

¹¹ Option #4 indicates that it would cost a comparable amount to convert all analog sets owned by households that do not subscribe to a paid TV service. However, there appears to be no compelling reason to subsidize multiple sets per household, or to distinguish between the secondary sets of OTA and subscription TV households.

consumers and manufacturers would then also know more than a year in advance of the coming 12-month window (presumably corresponding to fiscal or calendar/tax year 2007) for the procurement of digital-to-analog converters. Consumers need this time to be educated about the need to purchase either a D-A converter or a new digital TV set, and manufacturers need time to ramp up mass production. Any auction for the reallocation of returned spectrum could occur in 2006 – and fetch full value thanks to the certainty of the January 1, 2008 turn-off and clearance deadline.

Phased in Transition: According to the Television Bureau of Advertising, thirty markets have 10 percent or fewer households that rely on over-the-air reception. In nine markets, the percentage is even lower than in Berlin. An even earlier (2007) transition in some of these markets – as trial markets – has some advantages in terms of reducing public education costs, increasing lead times and competition among manufacturers, and learning from experience.

Allowing Down Conversion for Analog Cable Subscribers. The cable DTV transition should be viewed as a completely separate issue from the broadcast DTV transition. The key question is whether cable TV’s transition should be market-based or not. We believe it should, since pay TV customers can always choose to receive their local TV stations over-the-air. Moreover, the cable TV industry has strong motivations to transition to digital because it can then use its bandwidth far more efficiently. By transitioning from analog to digital, a cable system opens up capacity for hundreds of new DTV channels and allocates more spectrum for next-generation broadband service. This allows cable to charge for additional services as well as better compete with both satellite and telephone competitors.

On the cost side, digital conversion over cable can be accomplished by adding a \$25 chip to a standard set top box, or by providing customers with a \$75 standalone converter box. When this cost is amortized over the lifecycle of a set top box or cable subscription, its cost per month is expected to be negligible compared to the benefits it provides. One major cable company, Charter Communications, has already converted to DTV all its subscribers in Long Beach, California.¹²

In short, although this Committee may want to extend the one-time consumer credit to cable households, whether a cable customer ends up watching in analog- or digital-quality should not be dictated by the government. For this same reason – and because a consumer equipment subsidy would make the statutory 85 percent analog turn-off threshold irrelevant – we urge the Committee to repeal the FCC’s digital tuner integration mandate, thereby saving pay TV subscribers at least \$1 billion annually. It is the height of regulatory arrogance for the government to force manufacturers to charge non-OTA households extra to integrate a piece of equipment that consumers have overwhelmingly demonstrated they do not want or need.

¹² See “Cable,” *Communications Daily*, January 20, 2004: “Converting to digital from analog recovers capacity that can be used to provide more high-definition TV, as well as targeted services, including video-on-demand and specialized subscription packages. Charter said all-digital service would save money by using lower cost digital-only set-top boxes. Entry-level digital set-tops that support broadcast, interactive and on-demand services cost about 50% less than comparable analog/digital set-tops...”

Allocation of Spectrum After the Transition. Currently, public safety is promised 24 MHz (channels 63, 64, 68, and 69) of the 108 MHz (channels 52-69) available after the broadcast DTV transition. We recommend that Congress reallocate the remainder of the cleared 700 MHz band so that it is evenly divided (42 MHz and 42 MHz) between licensed and unlicensed spectrum, with the licensed spectrum auctioned to the highest bidder.

We also urge the Congress to earmark a larger portion of the spectrum revenue from Channels 52-to-69 to address the distinctive information market failures of our information age, with 50% of the proceeds used to fund the public TV trust fund proposed by the Association of Public TV Stations and 50% used to fund the Digital Opportunity Investment Trust Act (S. 1854) introduced by Senators Snowe, Dodd and Durbin.

An Opportunity to Expand Unlicensed Wireless Broadband

In addition, guard band and unassigned channels in each market below Channel 52 should be opened up as soon as practicable for unlicensed providers of local wireless broadband networks. Wi-Fi is just beginning of a wireless paradigm shift – a radio revolution premised on shared, *unlicensed* access to the airwaves that will determine if the U.S. will be a leader or a laggard in the next generation of network technologies. While the Wi-Fi boom has been about short-range mobility, more than 1,500 wireless Internet service providers (WISPs) already are using unlicensed spectrum to offer high-speed broadband to homes and businesses up to 30 miles from the Internet backbone. This is particularly important for rural areas, where wired connections are unavailable or unaffordable. WISPs such as AMA*TechTel and Prairie iNet are building wide area networks on unlicensed frequencies that cover 20,000 square miles or more in rural and small town Texas, Oklahoma, Iowa and other states.

As a national goal, we need to think and plan not merely in terms of universal broadband access, but in terms of pervasive connectivity. We can try to do this by relying on a pair of regulated monopolies – one cable, one copper – to trench fiber into every home and small business. We also could wait for a few national wireless carriers to invest tens of billions to blanket the nation with a thick quilt of cell towers needed to extend high-speed connections everywhere. Alternatively, we can spread our bets by promoting competition in the last-mile by opening more spectrum to thousands of entrepreneurial WISPs and nonprofit community access networks that are already offering last-mile connections on unlicensed frequencies.

Unlicensed access is especially important for connecting rural and low-income areas. We urge the Committee both to reallocate a portion of Channels 52-to-69 for unlicensed wireless broadband and to express support for the rulemaking the FCC opened last month, in which it proposes to open empty TV channels below Channel 52 for unlicensed broadband.

DTV Public Interest Obligations for Local Civic and Electoral Programming.

Perhaps the most neglected aspect of the DTV transition is an updating of the public interest obligations of local DTV broadcast licensees in exchange for the tremendous increase in broadcasting capacity they receive in the switch from analog to digital. As the age of DTV multicasting dawns, Congress and the FCC has a fresh opportunity to create meaningful public interest obligations for broadcasters. Licensees should be required to use DTV's enormously increased capacity to expand the coverage of diverse viewpoints and of local civic affairs and election contests.

We urge the Committee to include in any DTV transition legislation a provision that adopts the local civic and electoral programming obligation proposed by the Public Interest, Public Airwaves Coalition. In April the Coalition presented the FCC with a proposed "processing guideline," modeled after the FCC's guideline on children's educational programming, that allows for expedited license renewal for stations that air a minimum of three hours per week of local civic and electoral affairs programming on the most-watched channel, with at least 50 percent aired between 5 and 11:35 p.m. Additional hours of civic affairs and election coverage – no less than 3 percent of the aggregate hours multicast – would be required on licensee's additional "free" (ad-supported) OTA programming streams. Strengthened disclosure requirements would also help the public determine whether this obligation and others was being faithfully fulfilled by individual stations in individual markets.¹³

Conclusion

The producer subsidy model has been a dismal failure. Local TV broadcasting, perhaps the most profitable legal business in America today, has arguably received the largest government subsidies in U.S. history. Yet there is no end in sight to the OTA digital transition. Every year this delay imposes an opportunity cost of tens of billions of dollars on taxpayers and consumers who are deprived of both payment for commercial use of the public airwaves and the economic value that spectrum-starved wireless broadband services providers could provide more efficiently at low frequencies.

We urge Congress to earmark a portion (roughly 10 percent) of the federal revenue likely from reassignment of TV Channel 52-to-69 spectrum for a one-time refundable tax credit to enable the remaining 17 million households relying on analog OTA reception to switch to digital-only – and to deal address the social dimensions of the DTV transition by extending TV licensees' public interest obligations and by earmarking spectrum revenue to invest in the digital future of public broadcasting and education technology.

Thank you again for this opportunity to testify. I will be most happy to respond to any questions or to assist staff as the Committee develops its own solution to this important problem.

¹³ The Coalition proposal and supporting information is available online at <http://www.ourairwaves.org/>.