

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of )  
Spectrum for Broadband ) GN Docket No. 09-47  
 ) GN Docket No. 09-51  
 ) GN Docket No. 09-137  
 )

To: The Commission

**COMMENTS OF  
THE CONSUMER ELECTRONICS ASSOCIATION**

The Consumer Electronics Association (CEA)<sup>1</sup> thanks the Federal Communications Commission (FCC) for focusing on the issue of whether our scarce national resource of spectrum is appropriately allocated and used in the public interest. By these comments, CEA submits that we face a looming spectrum crisis, threatening our national priorities and competitiveness. CEA urges the FCC to initiate immediate action to assess spectrum usage and determine how additional spectrum can be allocated for wireless broadband and other uses.

Specifically, CEA recommends that the FCC should work with the Administration, even in the absence of a formal Congressional mandate, to inventory existing spectrum and assess whether it is being used efficiently. The inventory should be rigorous and thorough, analyzing

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<sup>1</sup> CEA is the principal U.S. trade association of the consumer electronics and information technologies industries. CEA's more than 2,000 member companies include the world's leading consumer electronics manufacturers. CEA's members design, manufacture, distribute, and sell a wide range of consumer products including television receivers and monitors, computers, computer television tuner cards, digital video recorders ("DVRs"), game devices, navigation devices, music players, telephones, radios, and products that combine a variety of these features and pair them with services – all as chosen by consumers in an open marketplace.

actual spectrum usage on a temporal and geographic basis, the population served, whether the services provided can be offered over less spectrum or perhaps in some cases over a wired infrastructure, and to what extent allocations are serving the public interest. We further suggest that the primary focus should be on spectrum not acquired at auction, i.e., spectrum used by the federal government or spectrum used by non-federal entities that was not acquired at auction. While un-auctioned spectrum should be heavily scrutinized to assess whether it is being used in the public interest, all of the nation's spectrum should be examined as technology and requirements have dramatically changed over time.

An inventory alone is not enough. At the same time that an inventory is undertaken, the FCC and the Administration must also seek a consensus on how to identify and reallocate spectrum for wireless broadband and other higher uses. The DTV Transition should give us confidence as a nation that we can be ambitious and creative and execute complex transitions without disenfranchising or disappointing important stakeholders, including consumers and businesses.

One possible approach would be to create a Blue Ribbon Advisory Committee on wireless broadband composed of diverse and respected leaders. This Committee could develop models and recommend strategies for allocating additional spectrum for wireless broadband. Many options should be explored, including the possible creation of incentives for incumbents to relinquish their spectrum or to operate more efficiently using less spectrum, thereby freeing up spectrum for other important uses.

The United States faces a spectrum crisis, which in turn threatens our global leadership in innovation and technology. Unless significant amounts of new spectrum is allocated to wireless broadband, the next iPhone, the next YouTube, the next telemedicine applications won't be

developed in the United States. Broadband innovators will flock to other nations who are on the verge of allocating hundreds more megahertz of spectrum than is currently available here.

The Internet is now undergoing a revolution as profound as the introduction of the World Wide Web. Consumers and businesses increasingly rely on mobile broadband to get online. As operators deploy 3G and 4G networks and as smartphones and wireless laptops proliferate, users can access the entire Internet, send e-mails, watch and upload videos, play online games, access social media sites, collaborate with co-workers, interact with enterprise databases, and buy and sell online. Urgent action is required now in order to keep up with spiraling consumer demand, and to ensure that our nation's broadband platforms are sufficiently robust to allow for the development of increasingly bandwidth-intensive applications, content and services in the years ahead.

As the Commission has already recognized, limited spectrum availability for new services does “pose a constraint on broadband access and development.”<sup>2</sup> The Congressional Research Service has before noted, “American competitiveness in advanced wireless technology may be constrained by the limited amount of exploitable bandwidth that is available.”<sup>3</sup> And the undeniable consumer thirst for broadband will only increase as mobile devices are used as media platforms and become further integrated as instruments of commerce.

To meet this demand, the Commission and the National Telecommunications and Information Administration (NTIA) should immediately conduct a rigorous inventory of the nation's spectrum and assess where it is being utilized inefficiently. CEA applauds the

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<sup>2</sup> *NOI* at ¶ 44.

<sup>3</sup> U.S. Library of Congress, Congressional Research Service, *Wireless Technology and Spectrum Demand: Advanced Wireless Services* by Linda K. Moore, 2 (Jan. 20, 2006).

introduction in the House and Senate of legislation that would require the FCC and NTIA to conduct a spectrum inventory.<sup>4</sup> But we need not wait for these bills to become law. The FCC and NTIA can and should immediately begin an assessment of all spectrum usage, analyzing for each spectrum assignment or use the amount of spectrum, characteristics of usage, number of users, geographic and temporal use and the feasibility of migrating incumbent users to smaller spectrum assignments or wireline platforms.

Simultaneously with the spectrum inventories, the FCC and NTIA should develop a framework under which the agencies can identify spectrum that can be reallocated to wireless broadband and other higher uses. This framework should provide a means of assigning an economic value for the existing uses of spectrum, taking into account the amount of spectrum allocated for a particular service, whether that spectrum is being used efficiently, and how valuable that spectrum may be to an incumbent's overall enterprise value.

CEA asked economist Coleman Bazelon to develop a model that considers the value and efficiency of use of the nearly 300 megahertz of spectrum currently assigned to broadcast television.<sup>5</sup> CEA does not necessarily endorse the results of this specific analysis<sup>6</sup> and recognizes that interested parties will criticize its methodology, but offers this economist's approach as the type of analysis that should be considered by the FCC. The Commission should

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<sup>4</sup> H.R. 3125 and S. 649, The "Radio Spectrum Inventory Act."

<sup>5</sup> See Appendix, Coleman Bazelon, "The Need for Additional Spectrum for Wireless Broadband: The Economic Benefits and Costs of Reallocations."

<sup>6</sup> Indeed, this analysis does not take into account the advent of digital television broadcasts to mobile and handheld devices using the newly adopted A/153 ATSC Mobile DTV Standard, which has the potential of serving millions of American consumers with live, local DTV content on a new generation of devices.

request additional data to provide a fuller analysis and identify spectrum that may be reallocated for higher uses.

For its part, NTIA should explore the full range of policy options to achieve this result, including additional applications of the Commercial Spectrum Enhancement Act, rigorous use of OMB Circular A-11, exploration of spectrum fees, additional rights for federal government incumbents to lease their spectrum, more opportunities for spectrum sharing, and a rigorous review of agency use of spectrum.

In developing this analytical framework, CEA believes that it is essential that national spectrum policies continue to further the benefits resulting from both licensed and unlicensed uses. Both are needed, because licensed and unlicensed are complementary models. Exclusive licensing has proven to be a significant source of innovation and investment because of its freedom from interference and consumer benefit. Meanwhile, unlicensed spectrum has provided a platform for innovation and numerous consumer electronics products, including OFDM, MIMO, Wi-Fi, Bluetooth, and wireless HDMI connections, which have opened a new frontier of high-speed Internet options for consumers. Both models promote a competitive environment in which the marketplace rewards innovation.

Finally, the creation of a Blue Ribbon Committee, based on the FCC's Advisory Committee model, could play an instrumental role in identifying and reallocating spectrum for wireless broadband and other uses. For such a committee to be effective, it must have a specific mandate, consist of respected industry and public sector leaders, and have the full support of the FCC, NTIA and the Administration. At a minimum, the Committee would be charged with identifying spectrum for reallocation and developing the required transition plans.

As demonstrated above and echoed by many others throughout this proceeding, the nation faces a looming spectrum crisis that requires a comprehensive, long-term solution. The DTV transition taught us that as a nation, we can take big steps, supported by objective data, that benefit all stakeholders. The United States is now the world model for the DTV transition and can rightly claim to offer the best HDTV system as a result of an unprecedented level of cooperation between government and industry that operated in the national interest. It is indisputable that we need more spectrum to provide robust and innovative broadband content, application and services to all Americans. It is equally true that we have large swaths of underutilized spectrum. Let us work together as a nation to gather data, agree on a creative framework for spectrum reallocation and move forward to fulfill the President's and Congress's vision of ensuring that every American has access to broadband.

Respectfully submitted,

**CONSUMER ELECTRONICS ASSOCIATION**

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