The Association for Maximum Service Television, Inc. ("MSTV")\(^1\) and the National Association of Broadcasters ("NAB")\(^2\) hereby reply to the comments filed in response to the Commission’s NOI seeking insights on spectrum management and wireless innovation.\(^3\)

The comments in this proceeding provided a wealth of perspectives and suggestions for the Commission—and for all spectrum users—to consider in the effort to review and, where appropriate, modify the Commission’s spectrum policy. MSTV and NAB filed initial comments in this proceeding to share the broadcasting industry’s insights, built upon 60 years of real-world experience in handling spectrum allocation and management issues (including the recently-concluded, multi-billion dollar investment in the transition to digital television). Our comments suggested core principles and practical considerations that should be kept in mind

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\(^1\) MSTV is a nonprofit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality for the local broadcast system.

\(^2\) NAB is a trade association that advocates on behalf of local radio and television stations and also broadcast networks before Congress, the Federal Communications Commission and other federal agencies, and the courts.

\(^3\) Fostering Innovation and Investment in the Wireless Communications Market, Notice of Inquiry, FCC 09-66 (Aug. 27, 2009) (the “NOI”).
when assessing the spectrum efficiency, including the importance of taking into account public policy objectives, consumer investments, interference consequences, incentives for innovation, and the disruptive effects and other costs of reallocation.

The principles articulated by MSTV and NAB, such as the need to manage interference in order to promote innovation, are well-supported in the record and broadly applicable to a wide range of spectrum uses. Here, MSTV and NAB briefly respond to certain comments raised by a few parties with respect to the spectrum used for digital television service.

As we noted in our initial comments in this proceeding, “efficient” spectrum usage relies not just on purely technical considerations, but also on public policy considerations. These considerations include ubiquity of coverage, localism, and minimizing costs to consumers.4 We observed that “[c]onsumer cost concerns are especially relevant when considering incumbent uses of spectrum that employ an ‘open’ architecture in which the transmitting party does not control the receiving equipment used by consumers.”5

The spectrum management approach described by Google would not work in the context of open-architecture systems, such as broadcasting. Google argues that the Commission should “permit Part 15 unlicensed intentional radiators to operate at low power levels across the RF spectrum, either through underlays or overlays.”6 It seeks the elimination of measures

4 See Comments of MSTV and NAB at 3-4. One commenter, Marcus Spectrum Solutions LLC (“MSS”) argued that broadcasters should stop broadcasting and simply rely on cable carriage. See Comments of Marcus Spectrum Solutions LLC (“MSS”) at 10. The MSS approach ignores the public policy goals of universal broadcast service, would strand consumer and government investment in DTV reception equipment, and would deprive consumers of new services such as mobile video.

5 See id. at 4.

6 See Comments of Google Inc. at 24. Devices relying on sensing only should not be permitted in the broadcast spectrum until it is proven that the technology works in real-world (continued…)}
designed to limit adjacent channel interference, arguing that new and improved equipment can render such protective measures unnecessary. Further, Google advocates allowing “the marketplace to sort out frequency interference and usage.”

Setting aside concerns that may apply in closed-architecture systems, it is clear that these proposals would not be feasible for services that rely on open architecture systems. An influx of new users and a reduction of interference protections cannot be premised on the notion that consumers can simply buy new receiving equipment. Unlike certain spectrum users, such as wireless communications providers, broadcasters do not themselves produce or specify standards for consumer equipment, and cannot demand that consumers purchase expensive new equipment. But even if they could, requiring consumers to purchase brand new televisions—or risk losing access to free, local, over-the-air television service—would frustrate consumers’ investment-backed expectations. It also would come with a price tag in the billions of dollars.

The Commission should protect consumers, including their investments in reception equipment and their interests in receiving interference-free local television service.

The importance of protecting consumers’ access to critical services also makes Google and WISPA’s “white spaces” proposals impractical. Google states that the Commission

environments. As the Commission has noted, “spectrum sensing, as currently presented in our measurement studies of prototype devices, is not sufficient by itself to enable unlicensed devices to reliably determine the TV channels that are available for use at a location.” See Second Report and Order and Memorandum Opinion and Order, ET Docket Nos. 04-186 and 02-380, 23 FCC Rcd 16807 (2008), at para. 71.

7 See Comments of Google at 24-25. Relatedly, Google urges the Commission to adopt receiver standards for particular frequency bands or services. See id. at 25.

8 See id. at 26.

9 Similarly inefficient, technically challenging, and massively expensive would be the suggestion of the Information Technology and Innovation Foundation (“ITIF”) to convert all digital broadcasting from 8-VSB to COFDM. See Comments of the ITIF at 2.
should “eliminate the spectrum sensing requirement for devices operating under the management of a geolocation database.”\footnote{See Comments of Google at 10.} MSTV and NAB have responded to these arguments in the context of the white spaces proceeding.\footnote{See Opposition and Comments of MSTV and NAB to Petitions for Reconsideration and Clarification, ET Docket Nos. 04-186 and 02-380 (“MSTV and NAB White Spaces Opposition”) (May 8, 2009).} We note briefly here, for the record, that TV band devices relying on geolocation alone would pose a serious risk to television broadcasting. For example, such devices could interfere with wireless microphones used by news crews to cover breaking news events like fires, child abductions, and other emergencies. WISPA too asks the Commission to “[t]ake action on WISPA’s Petition for Reconsideration” in the white spaces proceeding.\footnote{See Comments of the Wireless Internet Service Providers Association (“WISPA”) at 4.} Although WISPA’s Petition asks the Commission to increase the permissible power levels for high-powered fixed TV band devices, the Commission’s decision to limit power for such devices to 4 Watts “correctly balanced the interest of the new wireless Internet service providers to adequately reach their customers, while protecting TV viewers, wireless microphone operations, and cable head-ends from destructive interference.”\footnote{See MSTV and NAB White Spaces Opposition at 7. See also Reply of MSTV and NAB, ET Docket Nos. 04-186 and 02-380 (May 18, 2009), at 1-3. MSTV and NAB also have explained why the Commission should reject WISPA’s proposal to narrow the required distance separations. See MSTV and NAB White Spaces Opposition at 9-10.} In connection with the Commission’s broadband initiative, MSTV and NAB note that our filings in the white spaces proceeding show how the white space spectrum can be used to provide rural broadband without compromising the public’s access to free, over-the-air television.\footnote{See, e.g., MSTV Ex Parte Notice, ET Docket Nos. 04-186 and 02-380 (Oct. 17, 2008) (noting broadcaster support for rural broadband deployment).}

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\footnote{10 See Comments of Google at 10.}
Broadcasters use spectrum to deliver a wide range of services that benefit American consumers, from free, high-definition video programming and multicast services to mobile broadcasting and other ancillary and supplemental services. Limiting costs imposed on viewers will be a key aspect of any framework that is designed to promote innovation and protect consumers. We look forward to working with the Commission as it moves forward in reassessing its spectrum policies.

Respectfully submitted,

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