

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Office of Engineering and Technology	)	ET Docket No. 14-14
Seeks to Supplement the Incentive Auction	)	
Proceeding Record Regarding Potential	)	
Interference Between Broadcast Television	)	
And Wireless Services	)	
	)	
Expanding the Economic and Innovation	)	GN Docket No. 12-268
Opportunities of Spectrum Through	)	
Incentive Auctions	)	

To: the Commission

**COMMENTS OF  
NATIONAL PUBLIC RADIO, INC.**

**Introduction**

National Public Radio, Inc. ("NPR") hereby submits its comments in response to the Public Notice in the above-captioned proceeding seeking to supplement the record in the incentive auction proceeding with respect to potential interference between broadcast television and wireless services.<sup>1</sup>

NPR is a non-profit membership corporation that produces and distributes noncommercial educational ("NCE") programming through 975 public radio stations nationwide. In addition to broadcasting award winning NPR programming, including All Things

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<sup>1</sup> In the Matter of Office of Engineering and Technology Seeks to Supplement the Incentive Auction Proceeding Record Regarding Potential Interference Between Broadcast Television and Wireless Services, ET Docket No. 14-14, GN Docket No. 12-268 (rel. Jan. 29, 2014) [hereinafter "Public Notice"]. Because Federal Government offices in the Washington, DC area were closed on March 17, 2014 due to weather conditions, the comments are timely filed on March 18. See 47 CFR § 1.4(e)(1).

Considered<sup>®</sup> and Morning Edition<sup>®</sup>, NPR Member stations are themselves significant program producers and community institutions. NPR also operates the Public Radio Satellite System (“PRSS”), which enables a broad and diverse array of public radio program producers and radio stations to distribute programming for broadcast, and provides representation and other services to its Members and other public radio stations and producers.

NPR supports the Commission’s efforts to reallocate the television broadcast spectrum in a way that increases the amount of spectrum available for wireless broadband use, generates revenue for the Federal government, and maintains broad availability of over-the-air television service.<sup>2</sup> As we have previously cautioned, however, those objectives should not be pursued at the expense of NCE radio service.<sup>3</sup> Specifically, in response to the Incentive Auction NPRM, NPR urged the Commission to grant waivers of DTV Channel 6 power and antenna height limitations *only* if adjacent NCE reserved FM radio stations are assured of protection from interference.<sup>4</sup> Because DTV Channel 6 stations and NCE FM reserved spectrum stations operate using immediately adjacent broadcast spectrum, NPR is compelled to comment more generally on the question of interference to and from DTV stations raised in the Public Notice.

As the Commission has previously indicated, it intends to reallocate DTV stations to the VHF spectrum, including DTV Channel 6, freeing the UHF channels for wireless broadband

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<sup>2</sup> See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Notice of Proposed Rulemaking, 27 FCC Rcd 12357, 12359 (2013) [hereinafter "Incentive Auction NPRM"].

<sup>3</sup> See Reply Comments of National Public Radio, Inc., GN Docket No. 12-268 (filed Mar. 12, 2013).

<sup>4</sup> Id. at 2-3. The Commission has reserved channels 200-220 of the FM band exclusively for NCE use. 47 C.F.R. § 73.501(a).

use.<sup>5</sup> Under current DTV rules, any new DTV-6 allotment requires the proponent to submit an engineering study to demonstrate that no interference would be caused to existing FM stations on FM channels 200-220.<sup>6</sup> As the Commission has previously acknowledged, this requirement is based on more than 60 years of Commission precedent requiring spectrum "newcomers" to bear responsibility for resolving interference caused to an incumbent broadcaster.<sup>7</sup> Thus, any entity contemplating transitioning to a DTV Channel 6 allotment must also bear the responsibility for remedying the interference it causes to adjacent NCE FM stations,<sup>8</sup> particularly in areas where there was not a DTV Channel 6 allotment previously or where NCE FM stations may have

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<sup>5</sup> See In the Matter of Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF, Notice of Proposed Rulemaking, 25 FCC Rcd 16498, 16511 (2010) ("Recognizing that UHF spectrum is highly desirable for flexible use, we are interested in exploring the steps needed to increase the utility of VHF spectrum for television broadcasts.")

<sup>6</sup> 47 C.F.R. § 73.623(f).

<sup>7</sup> Midnight Sun Broadcasting Co., 11 FCC 1119 (1947); see also Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act - Competitive Bidding, 10 FCC Rcd. 13821, at ¶41 (1995) (interference between co-equal services); In re Resolution of Interference between UHF Channels 14 and 69 and Adjacent-Channel Land Mobile Operations, 2 FCC Rcd. 7328, at ¶ 4 (1987) (cross-service interference).

<sup>8</sup> In the Matter of; Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, Memorandum Opinion And Order On Reconsideration Of The Sixth Report And Order, 13 FCC Rcd 7418, 7437 (1997) ("Accordingly, as a general matter and consistent with our longstanding policy regarding new stations, it will be the initial responsibility of a DTV licensee to protect against or eliminate harmful interference to any FM radio stations that are in operation at the time the DTV station commences operation.").

modified their facilities following the transition of an analog TV Channel 6 station to a different DTV channel allotment.<sup>9</sup>

With respect to the protection of DTV Channel 6 stations by NCE reserved FM stations, the evolution of technology and the passage of time have effectively nullified the Commission's existing protection rule. Indeed, NPR has petitioned the Commission to repeal Section 73.525 of the Commission's Rules,<sup>10</sup> but even absent formal Commission action, there is no longer a real world basis for applying the rule.

Section 73.525 was adopted almost thirty years ago to account for inadequate interference rejection capabilities of television receivers.<sup>11</sup> The rule was based on a study of analog television receivers manufactured between 1968 and 1978.<sup>12</sup> The Commission adopted the rule as a temporary measure<sup>13</sup> because it believed private industry was in the process of

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<sup>9</sup> See Public Notice, DA 09-2214, rel. Oct. 13, 2009 (announcing that an NCE FM applicant will no longer be required to demonstrate compliance with Section 73.525 of the Commission's Rules with regard to a TV Channel 6 station that has ceased analog transmissions and that has a new DTV channel assignment).

<sup>10</sup> Petition for Rulemaking of National Public Radio, Inc., RM-11579, filed Oct. 20, 2009) [hereinafter "Petition"].

<sup>11</sup> See Changes in the Rules Relating to Noncommercial Educational FM Broadcast Stations, Memorandum Opinion and Order, 58 R.R.2d 629 (1985) [hereinafter "Channel 6 Memorandum Opinion and Order"]. See also Public Notice, FCC 81-340, rel. July 22, 1981 ("The problem is widely recognized as a problem in the design of the television receiving system. Television sets have been designed in such a way that under certain conditions they are unable to reject the undesired FM signal.).

<sup>12</sup> See Second Further Notice of Proposed Rule Making in the Matter of Changes in the Rules Relating to Noncommercial, Educational FM Broadcast Stations, 47 Fed. Reg. 24,144, at ¶9 (June 3, 1982) (citing FCC/OST Lab Report No. 79-01 (Tests of TV Receivers for "Just Perceptible" Interference to TV Channel 6 from Educational FM Signals), September, 1979).

<sup>13</sup> Channel 6 Memorandum Opinion and Order, 58 R.R. 2d at 629 ("[T]his proceeding has attempted to provide an interim solution.")

developing voluntary interference immunity standards.<sup>14</sup> While the Commission has apparently never reassessed the situation, modern DTV receivers offer far more sophisticated interference rejection capability, thereby rendering meaningless the distance separations on which Section 73.525 is based.

Indeed, testing conducted by NPR Labs has demonstrated as much.<sup>15</sup> Areas affected by NCE-FM induced TV Channel 6 interference have shrunk, on average, by over 86%. Even where interference might remain, modern DTV receivers substantially decrease the picture impairment formerly found in analog television receivers. In sum, and as these studies demonstrate, the problem the Commission sought to fix has all but disappeared.

Accordingly, and as the Commission assesses the potential interference between wireless services and broadcast television, it is well past time that it clarify that NCE reserved FM stations no longer have an obligation to protect DTV Channel 6 stations from non-existent interference and that they may modify their facilities or establish service without regard to proximity to existing or new DTV Channel 6 stations.

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<sup>14</sup> Id., 58 R.R.2d at 632 (“[T]he [consumer electronics] industry appears to have every intention of developing improved immunity standards on its own.”).

<sup>15</sup> Petition, Appendix A (NPR Labs, Comparison of FM Broadcast Signal Interference Areas with Current Digital Television Receivers on Channel 6 to Analog TV Receivers Assumed in 47 C.F.R. 73.525 (2008)), Appendix B (NPR Labs Report, Interference Rejection Thresholds of Consumer Digital Television Receivers on Channel 6 with FM Broadcast Signals (2007)).

**Conclusion**

For the foregoing reasons, NPR urges the Commission to adopt interference protection requirements consistent with the above.

Respectfully submitted,

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March 18, 2014