Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Expanding the Economic and Innovation	)	GN Docket No. 12-268
Opportunities of Spectrum Through Incentive	)	
Auctions	)	

SECOND ORDER ON RECONSIDERATION

Adopted: June 17, 2015 **Released: June 19, 2015**

By the Commission: Commissioner Pai approving in part, concurring in part, and issuing a statement.

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I. INTRODUCTION

1. This *Second Order on Reconsideration* addresses petitions for reconsideration of our Order adopting rules to implement the broadcast television spectrum incentive auction.[1] Based on the rules we adopted in the *Incentive Auction R&O*, we are now developing the detailed procedures necessary to govern the auction process.[2] As we have stated before, our intention is to begin accepting applications to participate in the incentive auction in the fall of 2015, and to start the bidding process in early 2016.[3] We issue this *Order* now in order to provide certainty for prospective bidders and other interested parties in advance of the incentive auction. We largely affirm our decisions in the *Incentive Auction R&O*, although we make certain clarifications and modifications in response to issues raised by the petitioners. Below, we address the issues raised by the petitioners in the same order that they were addressed in the *Incentive Auction R&O*.

II. THE REORGANIZED UHF BAND

2. In this section, we address petitions for reconsideration of our decisions regarding the reorganized UHF Band. We begin by addressing challenges to the 600 MHz Band Plan for licensing spectrum repurposed through the incentive auction, as well as to decisions implementing the statutory mandate to make all reasonable efforts to preserve the coverage area and population served of eligible broadcast television licensees in the repacking process. We then address challenges to decisions regarding unlicensed operations, channel 37 services, and wireless microphones in the UHF Band.

A. Band Plan for the New 600 MHz Band

3. Below, we address challenges to our decisions to accommodate market variation, to establish guard bands between licensed services that will be available for unlicensed use, and to adopt a Frequency Division Duplex ("FDD")-based framework for the 600 MHz Band.

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[1] *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014), *affirmed, National Association of Broadcasters v. FCC*, No. 14-1154 (D.C. Cir. June 12, 2015) ("*Incentive Auction R&O*"). We adopted a *First Order on Reconsideration and Notice of Proposed Rulemaking* (FCC 15-67) in this proceeding addressing television channel sharing issues on June 11, 2015 (*First Order on Reconsideration and Notice of Proposed Rulemaking*).

[2] *See Incentive Auction R&O*, 29 FCC Rcd at 6573–74, paras. 13–16 (describing pre-auction process for developing final auction procedures and resolving other outstanding incentive auction-related issues); *see also Broadcast Incentive Auction Comment Public Notice Auction 1000, 1001 and 1002*, AU Docket No. 14-252 & GN Docket No. 12-268, 29 FCC Rcd 15750 (2014) ("*Incentive Auction Comment PN*").

[3] *Incentive Auction Comment PN*, 29 FCC Rcd at 15754–55, para. 8.

1. Market Variation

4. *Background*. In the *Incentive Auction R&O*, the Commission adopted a 600 MHz Band Plan that can accommodate market variation in order to avoid restricting the amount of repurposed spectrum that is available in most areas nationwide.[4] Rather than establish a "least common denominator" band plan with the same amount of spectrum nationwide as is available in the most constrained markets, the Band Plan is flexible enough to avoid restricting the amount of repurposed spectrum that is available in most areas nationwide, either by including spectrum blocks subject to inter-service interference ("ISIX") in certain areas,[5] or alternatively, fewer spectrum blocks than in most areas.[6]

5. Advanced Television Broadcasting Alliance ("ATBA") and the Affiliates Associations ask us to reconsider our decision to accommodate market variation in the 600 MHz Band Plan.[7] Specifically, ATBA argues that the variable band plan "mandates" the auction of additional spectrum nationwide in areas where demand for additional wireless spectrum is minimal or non-existent, particularly rural areas, and will result in the repurposing of more spectrum than for which there is demand.[8] ATBA also argues that the accommodation of market variation will negatively impact low power television ("LPTV") and TV translator stations.[9] In opposition, CTIA argues against the adoption of a "nationwide band plan that would allow the most constrained markets to dictate spectrum availability for the rest of the country."[10]

6. *Discussion.* We deny ATBA's and the Affiliates Associations' petitions for reconsideration of the decision to accommodate market variation as necessary in the 600 MHz Band Plan.[11] First, Affiliates Associations argue that we "should consider focusing resources on recovering sufficient spectrum in the most constrained markets to allow a truly national plan, even if that means accepting a lower spectrum clearing target."[12] We disagree. Because the amount of UHF spectrum recovered through the reverse auction and the repacking process depends on the extent of broadcaster participation and other factors in each market, we must have the flexibility to accommodate market variation.[13] We agree with CTIA that market variation is essential to avoiding the "lowest common denominator" effect of establishing nationwide spectrum offerings based only on what is available in the

[4] *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 82.

[5] *See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions,* GN Docket No. 12-268, Second Report and Order and Further Notice of Proposed Rulemaking*,* 29 FCC Rcd 13071, 13083–104, paras. 23–60 (2014) ("*ISIX Order and FNPRM*").

[6] *Incentive Auction R&O*, 29 FCC Rcd at 6585, para. 45.

[7] ATBA Petition at 3, 8–10; Affiliates Associations Petition at 15–19. NAB filed comments in support of these petitions. NAB Nov. 12, 2014 Comments at 15–16; NAB Reply at 6–8.

[8] ATBA Petition at 3, 8–10. *See* NAB Reply at 8. ATBA filed a reply but did not comment on the issue of market variation. *See* ATBA Reply.

[9] ATBA Petition at 9–10 (stating that market variation will result in displacement of operating LPTV services and seeking clarification that LPTV providers are not required to protect from interference wireless providers in adjacent markets). *See* § II.B.2.d (LPTV and TV Translator Stations).

[10] CTIA Opposition at 2, 4–6.

[11] ATBA Petition at 3, 8–10; Affiliates Associations Petition at 15–19.

[12] Affiliates Associations Petition at 17–18. Affiliates Associations focus on concerns about how market variation will affect the reverse auction, and specifically "the question of how exactly the FCC will determine a near-national spectrum clearing target…." *Id*. at 16. As stated above, we consider this issue in the *Incentive Auction Comment PN,* 29 FCC Rcd at 15766–69, paras. 37–45.

[13] *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 82.

most constrained market despite the availability of more spectrum in the vast majority of the country.[14] Allowing for market variation also will enable us to ensure that broadcasters have ample opportunity to participate in the reverse auction in markets where interest is high.[15]

7. Second, we disagree with ATBA's claim that accommodating market variation will result in reclaiming and repurposing more spectrum than for which there is demand.[16] The purpose of accommodating market variation is to prevent constrained markets from decreasing the amount of repurposed spectrum that will be available in most areas nationwide, not to increase the amount that is repurposed in areas that lack broadcaster participation and/or demand from wireless carriers.[17] Further, the Middle Class Tax Relief and Job Creation Act of 2012 ("Spectrum Act") ensures a voluntary, market-based auction by requiring the forward auction to raise enough proceeds to satisfy the minimum proceeds requirements—in particular, the winning bids of reverse auction participants—before licenses can be reassigned or reallocated.[18] In other words, the Commission cannot repurpose any spectrum through the incentive auction process unless there is sufficient demand for the spectrum from wireless carriers participating in the forward auction. While ATBA expresses concern about displacement of LPTV stations in rural and underserved areas where they claim demand for wireless spectrum will be minimal, there are critical advantages to having a generally consistent band plan, including limiting the amount of potential interference between broadcast and wireless services and helping wireless carriers achieve economies of scale when deploying their new networks.[19] Accordingly, the Commission must recover spectrum in rural areas as well as urban ones. As we noted in the *Incentive Auction R&O*, however, "[i]n no case will we offer *more* spectrum in an area than the amount we decide to offer in most markets nationwide."[20]

8. As we explained in the *Incentive Auction R&O*, we fully recognize the advantages of a generally consistent band plan.[21] Nevertheless, the flexibility to accommodate a limited amount of market variation is absolutely necessary to address the challenges associated with the 600 MHz Band

[14] CTIA Opposition at 4–5. Affiliates Associations assert that we should maintain a nationwide band plan, and use the "lowest common denominator" markets as our clearing target, because "many of the markets … [that] will serve as a least common denominator are the most important markets for wireless carriers. Recovering additional spectrum in markets where wireless demand is relatively low serves no purpose." Affiliates Associations Petition at 17. We disagree with Affiliates Associations' premise. As discussed below, we will accommodate market variation only to the extent there is wireless demand in the forward auction. Further, our need to accommodate market variation hinges not only on broadcaster participation in the reverse auction but also on international border-related issues, which are independent of market demand. *See Incentive Auction Comment PN*, 29 FCC Rcd at 15763, para. 32.

[15] *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 82.

[16] ATBA Petition at 8–10.

[17] Even if a broadcast licensee elects to participate in the reverse auction and there is demand from wireless carriers in the forward auction, the broadcaster will not be required to go off the air unless it agrees to the price offered to relinquish its spectrum rights. *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 83. *See id.* at 6604, para. 81.

[18] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §§ 6402 (codified at 47 U.S.C. § 309(j)(8)G)), 6403 (codified at 47 U.S.C. § 1452), 126 Stat. 156 (2012)(Spectrum Act). *See* 47 U.S.C. § 1452(c)(2)(A). *See also Incentive Auction R&O*, 29 FCC Rcd at 6714, para. 344; § III.A *infra* (Integration of the Reverse and Forward Auctions).

[19] *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 83. *See* ATBA Petition at 8-9; NAB Reply at 8.

[20] *Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 83. *See also id*. at 6839, para. 667 n.1858 (stating that the Commission does not intend to "repurpose broadcast spectrum more extensively in rural areas than urban areas").

[21] *See Incentive Auction R&O*, 29 FCC Rcd at 6605, para. 83.

Plan.[22] In affirming this threshold decision, we make no determination on the issues related to market variation, including how much market variation to accommodate, on which we sought comment in the *Incentive Auction Comment PN*.[23] We will resolve those issues in the forthcoming *Incentive Auction Procedures PN*.[24]

2. Guard Bands

9. *Background*. The Spectrum Act authorizes the FCC to implement a band plan with "technically reasonable" guard bands, and authorizes "the use of such guard bands for unlicensed use."[25] In the *Incentive Auction R&O*, we interpreted the Spectrum Act to affirm the Commission's discretion to employ guard bands in exercising its spectrum management authority.[26] We concluded that establishing these guard bands will not only protect against harmful interference between the 600 MHz service and adjacent licensed services, but also help to ensure that the 600 MHz spectrum blocks offered in the forward auction are as interchangeable as possible, consistent with our auction goals.[27] We further concluded that the availability of guard bands for unlicensed use will bolster innovation and investment by unlicensed devices.[28] Accordingly, we established a guard band between television and wireless operations that ranges from seven to 11 megahertz, depending on the amount of spectrum cleared; a uniform duplex gap of 11 megahertz; and, if enough spectrum is repurposed to offer wireless blocks adjacent to channel 37 operations, uniform three megahertz guard bands to protect against interference between licensed Wireless Medical Telemetry Service ("WMTS") services on channel 37 and adjacent wireless services.[29]

10. ATBA and Free Access & Broadcast Telemedia, LLC ("Free Access") ask us to reconsider the size of the guard bands in the 600 MHz Band Plan. ATBA asserts that an 11 megahertz duplex gap is not "technically reasonable" and that the record does not reflect the need for guard bands larger than three megahertz.[30] Further, ATBA asserts that the effect of choosing such large guard bands is to "give unlicensed service 'primary' status over LPTV service" in violation of the Spectrum Act.[31] In

[22] *See id.* at 6582, para. 40, 6604, para. 81. ATBA asks that we clarify that LPTV stations will not be required to protect wireless services in "adjacent markets," and that wireless operators may not claim protection against LPTV operators. ATBA Petition at 10. We decline to do so. LPTV stations are subject to displacement by primary services, regardless of whether the primary service is located in an adjacent market or the same market. *See Incentive Auction R&O*, 29 FCC Rcd at 6839-41, paras. 668-72. *See also* 47 C.F.R. § 73.3700(g).

[23] *See Incentive Auction Comment PN*, 29 FCC Rcd at 15761-69, paras. 25-45 (seeking comment on various issues pertaining to market variation).

[24] *See Incentive Auction R&O*, 29 FCC Rcd at 6574, paras. 14–15. Accordingly, we decline to address the Affiliates Associations' request for clarification regarding issues related to market variation. *See* Affiliates Associations Petition at 16–18 (seeking clarification on, among other things, how the spectrum clearing target will be determined, how much variability will be allowed, how the potential costs and benefits of ISIX will be weighed in selecting a clearing target, and how competing broadcaster bids in the same or nearby markets will be weighed). Likewise, NAB's arguments that market variation will unnecessarily complicate the auction are untimely because we have not yet adopted the final auction procedures. *See* NAB Nov. 12, 2014 Comments at 16. We likewise decline to address the timing and status of auction and repacking software, as these matters will be addressed in the *Procedures PN*. *See* Affiliates Associations Petition at 18–19.

[25] 47 U.S.C. §§ 1452(a), (b), (c).

[26] *Incentive Auction R&O*, 29 FCC Rcd at 6607–08, para. 89.

[27] *See id.* at 6592–95, paras. 61–67 and 6779–80, paras. 513–18.

[28] *Id.* at 6607–08, para. 89.

[29] *Id.*

[30] ATBA Petition at 7–8.

[31] *Id*. at 10–11.

opposition, both Google/Microsoft and the Wireless Internet Service Providers Association ("WISPA") defend our determination that the guard bands adopted in the *Incentive Auction R&O* are "technically reasonable."[32]

11. Free Access also asks us to reconsider our decision to incorporate remainder spectrum into the guard bands.[33] Because, in some instances, converting six megahertz television channels to paired five megahertz blocks would leave "remainders" of spectrum too small to use for licensed services, we concluded in the *Incentive Auction R&O* to add this remainder spectrum to the guard bands.[34] Free Access argues that remainder spectrum should be used to ensure a successful repacking first and, if there is still remainder spectrum after repacking, it should be auctioned or held for auction at a later date.[35] WISPA and CTIA oppose Free Access' petition, arguing that the Commission acted within its authority under the Spectrum Act in establishing the 600 MHz guard bands.[36] Free Access argues in its reply that the remainder spectrum is a "set aside" that exceeds the Commission's authority under the Spectrum Act.[37]

12. *Discussion.* We deny ATBA's and Free Access' petitions to reconsider the size of the guard bands. We also deny Free Access' petition to reconsider incorporating remainder spectrum into the 600 MHz guard bands. First, we agree with Google/Microsoft and WISPA that the guard bands adopted in the *Incentive Auction R&O* are permitted under the Spectrum Act. As Google/Microsoft and WISPA point out,[38] ATBA and Free Access apply an incorrect standard for determining guard band size.[39] In the *Incentive Auction R&O*, we specifically rejected suggestions that the "technically reasonable" standard in the statute requires us to restrict guard bands to "the minimum size necessary" to prevent harmful interference.[40] The Spectrum Act clearly permits the Commission to establish "technically reasonable" guard bands in the 600 MHz Band.[41] Petitioners provide no basis to revisit our interpretation of the "technically reasonable" standard set forth in the *Incentive Auction R&O*.

13. Second, ATBA claims that the record does not support adopting guard bands larger than three megahertz.[42] This claim is without merit. Most commenters supported guard bands within the size

[32] Google/Microsoft Opposition at 15–19; WISPA Opposition at 7–8.

[33] Free Access Petition at 7–10; Free Access Reply at 2, 8–9.

[34] *Incentive Auction R&O*, 29 FCC Rcd at 6608, para. 90.

[35] Free Access Petition at 8.

[36] WISPA Opposition at 8–10; CTIA Opposition at 18–19.

[37] Free Access Reply at 2. Below, we dismiss Free Access' challenge to our decision to initiate a proceeding to consider whether to preserve a vacant television channel in each area for unlicensed and wireless microphone use following the auction. *See infra* paras. 95-97. *See also* Free Access Petition at 8; Free Access Reply at 2, 8–9. Free Access may comment on that issue in the rulemaking proceeding. *See Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band for Use By White Space Devices and Wireless Microphones,* MB Docket No. 15-146, Notice of Proposed Rulemaking, FCC 15-68 (adopted June 11, 2015)(*Vacant Channel NPRM*).

[38] Google/Microsoft Opposition at 16; WISPA Opposition at 8.

[39] ATBA claims that the FCC has not shown that the sizes of the guard bands adopted in the *Incentive Auction R&O* are "necessary." ATBA Petition at 8. Similarly, Free Access asserts that guard bands must be "minimally sufficient." Free Access Petition at 8.

[40] *Incentive Auction R&O*, 29 FCC Rcd at 6609–10, para. 92. WISPA states that "[t]here is an obvious difference between these terms, and [Free Access]'s transparent attempt to obfuscate the statutory basis for the Commission's authority is unavailing." WISPA Opposition at 8.

[41] 47 U.S.C. §§ 1452(a), (b), (c).

[42] ATBA Petition at 8.

range we adopted, with some commenters recommending much larger guard bands.[43] Furthermore, the guard bands are tailored to the technical properties of the 600 MHz Band under each spectrum recovery scenario, as well as to the unique goals of the incentive auction.[44] Our technical analysis, provided in the Technical Appendix of the *Incentive Auction R&O*, corroborated our conclusion that the guard bands adopted are technically reasonable to prevent harmful interference.[45]

14. Third, ATBA claims that the Commission is improperly using the auction as a "means to reallocate spectrum" from licensed services to unlicensed services.[46] We disagree. As discussed above, the Spectrum Act allows us to establish "technically reasonable" guard bands to protect against harmful interference. We considered a number of factors in creating the guard bands, including the technical properties of the 600 MHz Band, the need to accommodate different spectrum recovery scenarios (because we will not know in advance of the auction how much spectrum will be repurposed), the need to generate sufficient forward auction proceeds, and the problems that would be associated with auctioning "remainder spectrum."[47] Therefore, we reject the argument that we are sizing the guard bands solely to facilitate unlicensed use. The fact that the Spectrum Act allows us to make guard bands available for unlicensed use does not mean that we are reallocating spectrum from licensed services to unlicensed use.[48]

15. Additionally, we deny Free Access' petition to reconsider incorporating remainder spectrum into the 600 MHz guard bands. In the *Incentive Auction R&O*, we determined that adding remainder spectrum to the guard bands would enhance interference protection for licensed services and avoid unduly complicating the bidding procedures.[49] Further, incorporating the remainder spectrum creates guard bands that, under every band plan scenario, are no larger than "technically reasonable."[50] Because the guard bands we establish by incorporating the remainder spectrum will be no larger than "technically reasonable," we have complied with the requirements of the Spectrum Act.

3. Band Plan Technical Considerations

16. *Background.* In the *Incentive Auction R&O*, we determined that paired uplink and downlink bands supporting a Frequency Division Duplex ("FDD")-based framework for operations was the best design for the 600 MHz Band Plan in light of current technology, the Band's propagation characteristics, and the potential interference issues present in the Band.[51] Beyond these technical considerations, we also concluded that such a Band Plan best supported our central goal of allowing market forces to determine the highest and best use of spectrum, and supported a simple auction design as

[43] *Incentive Auction R&O*, 29 FCC Rcd at 6610–11, para. 93. For example, Alcatel-Lucent, AT&T, Motorola, Sony, Qualcomm, and Verizon Wireless all supported guard bands within the range we adopted. In contrast, Comcast, Free Press, and NCTA supported a duplex gap of at least 20 megahertz. *See id.* at 6610–11, para. 93 n.304.

[44] *Id.* at 6608–09, paras. 90–91.

[45] *See id.* at 6998–7017, Appendix C, § II.E (Effect of Frequency Separation on Inter- and Intra-service Interference).

[46] ATBA Petition at 7-8.

[47] *Incentive Auction R&O*, 29 FCC Rcd at 6608–09, paras. 90–91. While acknowledging that guard band size is subject to the statutory "technically reasonable" restriction, we recognized that it also is limited by our goals for the incentive auction. *Id.* at 6609, para. 91.

[48] *See* 47 U.S.C. §§ 1452(a), (b), (c).

[49] *Incentive Auction R&O*, 29 FCC Rcd at 6608–09, para. 90.

[50] *Id.* at 6608–09, para. 90, Appendix C, Figure 23 (Band Plan Scenarios).

[51] *See id.* at 6575, para. 17. We also determined that a Time Division Duplex ("TDD")- based framework was not necessarily more efficient and suffered from potential link budget constraints resulting in less uplink coverage at the cell edge. *See id.* at 6587, para. 51.

well as our five key policy goals of utility, certainty, interchangeability, quantity, and interoperability.[52] We did not set spectrum efficiency standards for the 600 MHz Band, consistent with the Spectrum Act direction that we repurpose spectrum for licensing as "flexible use" spectrum.[53]

17. Artemis Networks, LLC ("Artemis") did not previously participate in the incentive auction proceeding, and argues for the first time on reconsideration that we should establish minimum spectrum efficiency requirements for 600 MHz Band licensees that are similar to the efficiencies achieved by Artemis' "pCell™" technology.[54] In opposition, CTIA argues that spectrum efficiency requirements are unnecessary and unprecedented and appear to be designed to promote Artemis' technology.[55] Artemis also argues that a TDD-based framework for the 600 MHz Band "is the only practical choice" for achieving high spectral efficiency with technology such as pCell, and that we should therefore allow for TDD operations in either a portion of, or the entire, 600 MHz Band.[56] In opposition, Mobile Future argues against allowing TDD operations in the 600 MHz Band given the overwhelming record support for an FDD-based framework, the Commission's careful consideration of the technical alternatives, and Artemis' unexplained failure to raise its argument in favor of TDD in the original pleading cycle.[57]

18. *Discussion*. We dismiss, and on alternative and independent grounds, we deny Artemis' petition for reconsideration. We agree with Mobile Future that Artemis should have raised its arguments previously, and that not doing so is grounds for dismissing its petition.[58] While Artemis asserts it could not have made its claims before because it was still in the process of testing when the *Incentive Auction R&O* was issued,[59] Artemis concedes that it has been developing its technology for over a decade.[60] It has not shown why it was unable to raise these facts and arguments before adoption of the *Incentive Auction*

[52] *See id.* at 6584–85, para. 44.

[53] *See id.* at 6575, para.18, 6870, para. 741 & n.2090.

[54] *See* Artemis Petition at 12–14, 22; *see also* Letter from Stephen G. Perlman, President & CEO, Artemis Networks LLC to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268, at 6 & App. A at 54 (filed Dec. 4, 2014) (Artemis 2014 *Ex Parte* Letter). Artemis states that it is a San Francisco-based privately-held startup "that, after over a decade of R&D, has developed a new approach to wireless, named 'pCell™,' that increases the spectral efficiency (SE) of LTE to >50 bps/Hz consistently throughout the coverage area (vs. <3 bps/Hz average for LTE-A) while remaining compatible with off-the-shelf LTE devices." Artemis Petition at 2; *see also* Artemis 2014 *Ex Parte* Letter at App. A at 28.

[55] *See* CTIA Opposition at 3, 24 & n.73 (citing authority for the proposition that the Commission has dismissed arguments motivated primarily by financial incentives). Artemis disputes CTIA's claims. Artemis Reply at 5.

[56] *See* Artemis Petition at 22–23; Artemis Reply at 3; *see also* Artemis 2014 *Ex Parte* Letter at 2-4 & App. A at 51.

[57] Mobile Future Opposition at 1–2, 7–8. Mobile Future points out that the Commission explicitly sought comment on whether it should permit TDD operations in the 600 MHz band, and argues that because Artemis' technology was already under development, it should have raised its argument in favor of a TDD-based plan during the original pleading cycle. *Id*. at 8 & n.33 (citing *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Notice of Proposed Rulemaking, 27 FCC Rcd 12357, 12423, paras. 183-84 (2012) ("*Incentive Auction NPRM*")). Artemis' Reply did not address Mobile Future's arguments.

[58] Mobile Future Opposition at 8. *See* 47 C.F.R. § 1.429(b)(1)–(3) ("A petition for reconsideration which relies on facts or arguments which have not previously been presented to the Commission will be granted only under the following circumstances: (1) The facts or arguments relied on relate to events which have occurred or circumstances which have changed since the last opportunity to present such matters to the Commission; (2) The facts or arguments relied on were unknown to petitioner until after his last opportunity to present them to the Commission, and he could not through the exercise of ordinary diligence have learned of the facts or arguments in question prior to such opportunity; or (3) The Commission determines that consideration of the facts or arguments relied on is required in the public interest.").

[59] Artemis Petition at 5, 23–24.

[60] *Id.* at 2, 14.

R&O. Furthermore, during the course of the proceeding, the Wireless Bureau released a *Band Plan PN*, which provided sufficient detail about the band plans under consideration (including both FDD and TDD options) to allow Artemis to comment on those that could potentially impact its technology.[61] Even if, as Artemis claims, it was still testing its technology when the *Incentive Auction R&O* was issued,[62] it has not adequately explained why it could not have raised its claims regarding the need for minimum spectrum efficiency requirements or about the alleged advantages of TDD earlier.[63] Accordingly, we find that grant of the Artemis petition is not warranted under section 1.429(b)(1) because it does not "relate to events which have occurred or circumstances which have changed since the last opportunity to present such matters to the Commission."[64]

19. But even if its petition had been appropriately filed at this juncture, we would deny it on alternative and independent grounds because we also find that Artemis has failed to demonstrate that its petition to modify the 600 MHz band plan to allow TDD warrants reconsideration under the public interest prong of the rule.[65] As Mobile Future points out, we already considered whether to adopt a TDD-based framework for the Band Plan, "and chose to adopt an FDD-based plan after the proposal received overwhelming support in the record."[66] Furthermore, we disagree with Artemis' claim that because we evaluated FDD against TDD "in light of [then] current technology," Artemis' findings on the spectral efficiencies of its technology compel us to reconsider our decision.[67] Artemis has not established that it is in the public interest to reconsider our decision and modify our FDD Band Plan to allow for TDD-based operation on the description of its technology.[68] In fact, Artemis admits its technology can work in an

[61] *See, e.g., Wireless Telecommunications Bureau Seeks to Supplement the Record on the 600 MHz Band Plan*, GN Docket No. 12-268, Public Notice, 28 FCC Rcd 7414, 7418 *et seq.* (WTB 2013) (*Band Plan PN*). In addition to the original comment cycle, we released a number of supplemental public notices on key issues, and received additional *ex parte* filings until the Sunshine Notice took effect and the *Incentive Auction R&O* was adopted.

[62] Artemis Petition at 5.

[63] In fact, Artemis revealed the details of its pCell technology through a public notice and a live demonstration at Columbia University on February 19, 2014 – months before we adopted the *Incentive Auction R&O*. *See* Press Release, Artemis, *pCell™ Wireless Breakthrough Delivers Fiber-Class Mobile to Everyone, All the Time* (Feb. 19, 2014), *available at* https://s3-us-west-1.amazonaws.com/artemis-files/Artemis+pCell+Launch+Press+Release.pdf.

[64] *See* 47 C.F.R. § 1.429(b)(1). Artemis also appears to justify its petition on the grounds that it "could not anticipate the final technical details of the 600 MHz plan until the *Incentive Auction R&O* was published," *see* Artemis Petition at 5, or that "no one could have known that TDD was so highly efficient for high-order multiplexing," *see id.* at 24, or that it is "new knowledge" that pCell and high-order spatial multiplexing are more efficient with TDD or can achieve LTE-compatible high spectrum efficiency gains. *See id.* at 23. Although it has not explicitly asserted that reconsideration is warranted under section 1.429(b)(2) of our rules, Artemis would not succeed on this claim. Artemis has not demonstrated that the facts underlying its petition could not reasonably have been known prior to our adoption of the *Incentive Auction R&O*, particularly given that we specifically sought comment on a possible TDD framework (among other band plans) in both the *Incentive Auction NPRM* and in a *Band Plan PN*. Furthermore, Artemis has not explained why it lacked the knowledge to file an *ex parte* with the Commission concerning spectral efficiency after it publicly announced its pCell technology, which was prior to the adoption of the *Incentive Auction R&O*. *See supra* paras. 18-19.

[65] *See* 47 C.F.R. § 1.429(b)(3).

[66] Mobile Future Opposition at 7 & n.27 (citing *Incentive Auction R&O*, 29 FCC at Rcd 6587, para. 51 & n.111 ("Commenters overwhelmingly support this [FDD] approach.") (citing comments filed by multiple parties)).

[67] *See* Artemis Petition at 21–22 (arguing that we chose FDD based on technologies only with spectral efficiencies of 3bps/Hz or less and therefore lacked the benefit of Artemis' new findings with respect to pCell); Artemis Reply at 7-8. Artemis argues that with high-order spatial multiplexing technologies such as pCell (and most other 5G technologies likely to be used in the 600 MHz Band), the Commission's chosen FDD framework is "profoundly less efficient than TDD." Artemis Petition at 22.

[68] Artemis' arguments for adopting a TDD framework for the 600 MHz Band are not independent arguments for the adoption of TDD. Rather, Artemis argues that to achieve high spectral efficiency, carriers must use technology like

(continued….)

FDD environment, just not as efficiently.[69] Furthermore, as we noted above, in deciding on a paired uplink and downlink Band Plan supporting an FDD-based framework, we weighed a number of technical factors, including "current technology, the Band's propagation characteristics, and potential interference issues present in the band," as well as considering our central goal of allowing market forces to determine the highest and best use of spectrum, our desire to support a simple auction design, and five key policy goals.[70] Further, we declined to allow a mix of TDD and FDD in the 600 MHz Band because it "would require additional guard bands and increase the potential for harmful interference both within and outside the Band."[71] In arguing that TDD is preferable to FDD, Artemis fails to address the vast majority of the factors we considered in adopting the 600 MHz Band Plan.[72] In short, Artemis has not proven that it is in the public interest to reconsider our 600 MHz Band Plan and grant it the relief it seeks.[73]

20. In addition, we find Artemis has failed to demonstrate that it would be in the public interest to grant its petition for reconsideration to implement spectrum efficiency standards in the 600 MHz Band.[74] We agree with CTIA that for the 600 MHz Band, spectrum efficiency rules "are unprecedented, are not required under the Spectrum Act, and are unnecessary."[75] The Commission has generally found it unnecessary to implement spectrum efficiency standards for auctioned spectrum bands because the competitive bidding process itself is considered an effective tool for promoting efficient spectrum use.[76] Moreover, consistent with the Spectrum Act's directive,[77] we have adopted "flexible use"

(Continued from previous page)
its technology, which works most effectively with TDD networks. Artemis Petition at 21–24; *see also* Artemis 2014 *Ex Parte* Letter at 2-4 & App. A, at 51.

[69] Artemis Petition at 21.

[70] *See Incentive Auction R&O*, 29 FCC Rcd at 6575, para 17, 6584–85, para. 44, & 6587, para. 51; *see also supra* para. 16 & nn.51 & 52.

[71] *See Incentive Auction R&O*, 29 FCC Rcd at 6587, para. 52. However, we stated that our determination regarding the suitability of an unpaired TDD framework was "limited to the decision before us" and noted that "advances in technology[] may make an unpaired, TDD-compatible framework appropriate in other circumstances." *Id.*

[72] Although Artemis states in its *ex parte* filing that the Commission should choose TDD over FDD on technical, economic, deployment, and public policy bases, *see* Artemis 2014 *Ex Parte* Letter at 5, it fails to directly address the findings we made on these issues in the *Incentive Auction R&O*.

[73] In its *ex parte* filing, Artemis raises some additional points to support its arguments. To the extent these are not mere unsupported assertions, we find they are not new arguments, but ones that have already been raised by commenters in the underlying record and already considered in reaching our conclusions in the *Incentive Auction R&O*. *See* Artemis 2014 *Ex Parte* Letter at 1-6.

[74] *See* 47 C.F.R. § 1.429(b)(3).

[75] CTIA Opposition at 24.

[76] *See Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No 93-252, PP Docket No. 93-253, Memorandum Opinion and Order on Reconsideration, 13 FCC Rcd 14569, 14630, para. 133 & n.265 (1998) (citing *Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use*, ET Docket No. 94-32, Second Report and Order, 11 FCC Rcd 624, 643–44, para. 46 (1995)):

> The Commission has determined that the auction process tends to reinforce the desire of licensees to make efficient and intensive use of . . . spectrum. Auctions make explicit what others are willing to pay to use the spectrum, and the licensees' need to recoup the out-of-pocket expenditure for a license should provide additional motivation to get the most value out of the spectrum. In fact, the Commission has found that "the system of competitive bidding . . . will lead to the issuance of licenses to those parties who value the licenses most highly and who thus can be expected to make efficient and intensive use of the spectrum, as contemplated by Section 309(j)(3)(D) [of the Communications Act]."

[77] The Spectrum Act grants us incentive auction authority "to permit the assignment of new initial licenses *subject to flexible-use service rules*." 47 U.S.C. § 309 (j)(8)(G)(i) (emphasis added).

service rules for the 600 MHz Band.[78] Flexible use allows licensees to pursue any technology most expedient for achieving their operational goals in responding to marketplace pressures and consumer demand.[79] In mobile broadband spectrum bands similar to the 600 MHz Band where the Commission has followed a policy of "flexible use," the Commission has not adopted spectrum efficiency standards.[80] Rather, in cases where the Commission has adopted spectrum efficiency standards, it has done so because those spectrum bands were not subject to competitive bidding and/or the licenses granted were non-exclusive, shared spectrum licenses.[81] Indeed, as CTIA notes, the 600 MHz technical rules "are modeled after requirements in other spectrum bands that have allowed spectrum to be put to its highest and best use and promote the public interest … [and] have proven highly successful, and there is no basis to depart from this framework in the 600 MHz band."[82] We agree. We note that, although we do not find it necessary to mandate these requirements, licensees can voluntarily choose to use Artemis' technology or similar technology to improve their spectral efficiency.[83]

B. Repacking the Broadcast Television Bands

21. Below, we first decline to address challenges to decisions, which are the subject of pending litigation, regarding the use of updated software and inputs for applying the methodology

[78] *See Incentive Auction R&O*, 29 FCC Rcd at 6575, para.18, 6870, para. 741 & n.2090.

[79] The Commission has recognized that interference and technical rules can affect spectrum access and spectrum efficiency and overall network capacity, and it has largely adopted flexible licensing policies to the extent that they do not mandate any particular technology or network standard for commercial mobile wireless licensees. *Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless,* WT Docket No. 11-186, Sixteenth Report, 28 FCC Rcd 3700, 3765, para. 75, 3821, para. 183 (2013).

[80] *See Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands*, GN Docket No. 13-185, Report and Order, 29 FCC Rcd 4610, 4652, para. 112 (2014) (*AWS-3 Report and Order*); *Service Rules for Advanced Wireless Services H Block—Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-2000 MHz Bands*, WT Docket No. 12-357, Report and Order, 28 FCC Rcd 9483, 9490-91, paras. 15-16 (2013) (*H Block Report and Order*); *Service Rules for Advanced Wireless Services in the 200-2020 MHz and 2180-2200 MHz Bands*, WT Docket No. 12-70, Report and Order and Order of Proposed Modification, 27 FCC Rcd 16102, 16186, para. 220 (2012) (*AWS-4 Report and Order*). *See also Service Rules for the 698-746, 747-762 and 777-792 MHz Bands,* WT Docket No. 96-86, Second Report and Order, 22 FCC Rcd 15289, 15378, para. 242 (2007) (*700 MHz Second Report and Order*).

[81] For example, the Commission has in the past adopted spectrum efficiency standards for the Private Land Mobile Radio Service ("PLMR"). *See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity & Frequency Assignment Policies of the Private Land Mobile Radio Services*, PR Docket No. 92-235, Report and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 10076, 10078, para. 2, 10121–22, paras. 95–97 (1995) (where the Commission imposed a spectrum efficiency standard to create efficiency incentives in channels in older PLMR bands that were assigned on a shared, non-exclusive basis at no charge and were congested with thousands of licensees). Furthermore, the Commission has applied a minimum capacity payload rule, 47 C.F.R. § 101.141(a)(3), to microwave services in various bands in order to "promote efficient frequency use" and ensure that licensees will use the facilities for which they apply. *See Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees*, WT Docket No. 10-153, Report and Order, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, 26 FCC Rcd 11614, 11628, para. 31, 11632, para. 40 (2011) (applying minimum capacity requirements to non-exclusive microwave operations that are awarded for specific point-to-point links without competitive bidding).

[82] CTIA Opposition at 24.

[83] This, of course, presumes that a licensee can use this technology in an FDD environment, which Artemis claims it can, and that this technology can be implemented to work within the parameters of our 600 MHz technical rules.

described in OET Bulletin No. 69 ("OET-69"). We next modify two input values for applying the OET-69 methodology in order to address issues raised in the record. We then address challenges to our approaches to preserving eligible TV stations' coverage areas and populations served. Next, we address arguments as to which stations should be protected in the repacking process, including arguments by low power television ("LPTV") and TV translator station representatives. Finally, we address arguments regarding international coordination with Canada and Mexico along our common borders.

1. Implementing the Statutory Preservation Mandate

a. OET-69 and *TVStudy*

22. *Use of TVStudy*. In the *Incentive Auction R&O*, the Commission adopted the use of *TVStudy* software and certain modified inputs in applying the methodology described in OET-69 to evaluate the coverage area and population served by television stations in the repacking process.[84] The Affiliates Associations seek reconsideration of those decisions, arguing that the Spectrum Act's reference to the methodology described in OET-69 prohibits the Commission from changing either the implementing software or inputs to the methodology.[85]

23. In addition, the Affiliates Associations, as well as Cohen, Dippell and Everist, P.C. ("CDE"), complain that the use of *TVStudy* produces different results than the old software, and that we failed to address in the *Incentive Auction R&O* potential losses in coverage area.[86] CTIA, in its Opposition, supports the Commission's use of *TVStudy* to determine coverage area and population served of broadcast stations.[87] We decline to consider at this time the Affiliates Associations' and CDE's requests.[88] The arguments the Affiliates Associations and CDE raise are the subject of a recent decision by the United States Court of Appeals for the D.C. Circuit.[89] We will take appropriate action regarding these arguments in a subsequent Order.

24. *Vertical Antenna Pattern.* When the OET-69 methodology was developed, the regulatory framework for the digital transition of LPTV stations, including Class A stations, had not yet been established.[90] The Commission subsequently amended its rules to allow for use of OET-69 to evaluate Class A stations.[91] In so doing, the Commission determined that the assumed vertical antenna patterns for full power stations in Table 8 of OET-69 were not appropriate for Class A stations because they could underestimate service and interference potential.[92] The Commission adopted an assumption that the downward relative field strengths for digital Class A stations are double the values specified in Table 8 up to a maximum of 1.0.[93] Thus, when processing digital Class A station applications, the Commission

[84] *Incentive Auction R&O*, 29 FCC Rcd at 6626, para 130; *see* 47 U.S.C. § 1452(b)(2).

[85] Affiliates Associations Petition at 21.

[86] *See id.* at 22*; See* CDE Petition at 4-5.

[87] CTIA Opposition at 14-17.

[88] Affiliates Associations Petition at 20-23.

[89] *See National Ass'n of Broadcasters, v. FCC*, 2015 WL 3634693 (D.C. Cir. June 12, 2015).

[90] *See generally* OET-69 (Feb. 6, 2004), available at http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet69/oet69.pdf at 1.

[91] *See* 47 C.F.R. § 74.793. These modifications are presently reflected in the processing of Class A and LPTV license applications.

[92] *Amendment to Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, Report and Order, 19 FCC Rcd 19331, 19364, para. 96 n.192, 19367-68, para. 104 (2004) (*Digital LPTV Order*).

[93] The rules now reflect the use of the doubled vertical antenna pattern values when calculating interference to or from Class A stations. *See* 47 C.F.R. § 73.793.

doubles the Table 8 values for purposes of predicting interference.[94] In addition, the Commission's rules do not call for the use of any vertical pattern when predicting digital Class A coverage area.[95] This distinction between full power and Class A stations is not reflected in the *TVStudy* software, which uses the same vertical antenna patterns for Class A and full power stations.[96]

25. Expanding Opportunities for Broadcasters Coalition ("EOBC") urges the Commission to revise the vertical antenna pattern inputs for Class A stations in *TVStudy* to conform to the Commission's rules in order to avoid underestimating the coverage areas of a number of Class A stations.[97] EOBC claims that revising the antenna pattern inputs in *TVStudy* will eliminate population losses that appear in the *TVStudy* results when compared with those of the legacy OET software. For example, EOBC indicates that *TVStudy* shows a 95.7 percent population loss for KSKT-CA which disappears when the correct inputs are used.[98] No other commenters commented on EOBC's request.

26. *Discussion.* We agree with EOBC, and revise the vertical antenna pattern inputs for Class A stations in *TVStudy* to reflect the same values we use when evaluating Class A license applications. The Commission previously has determined that those vertical antenna pattern settings better represent the performance characteristics of antennas used by Class A stations and, therefore, we conclude that they will enable more accurate modeling of the service and interference potential of those stations during the repacking process. Therefore, *TVStudy* will use no vertical antenna pattern when calculating Class A stations' protected contours and will double the vertical antenna pattern values included in Table 8 of OET-69 (to a maximum value of 1.0) for calculating interference. We note that our modified approach will reduce or eliminate the differences in results that EOBC observed between *TVStudy* and *tv_process*, the Media Bureau's application processing software.[99]

27. *Power Floors*. *TVStudy* uses minimum effective radiated power ("ERP") values, or power floors, to replicate a television station's signal contours when conducting pairwise interference analysis in the repacking process. When *TVStudy* is used to conduct this analysis, it uses each station's specific technical parameters and a set of default configuration parameters. Its power floor for full power stations is set to one kilowatt for stations on low-VHF channels, 3.2 kilowatts for stations on high-VHF channels, and 50 kilowatts for stations on UHF channels.[100] Similarly, its power floor for Class A digital TV stations is set to 0.07 kilowatts for stations on VHF channels and 0.75 kilowatts for stations on UHF channels.[101] These power floors, which were established for full power stations during the digital

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[94] *Id*.

[95] *See* 47 C.F.R. § 73.6010. Specifically, section 73.6010(d) provides that digital Class A station's service is calculated in accordance with section 73.625(b)(1), which has no provision for inclusion of a vertical pattern value.

[96] *Incentive Auction R&O*, 29 FCC Rcd at 6639 n.509.

[97] *See* Letter from Preston Padden, Executive Director, Expanding Opportunities for Broadcasters Coalition, to Marlene H. Dortch, Secretary, FCC, GN Docket 12-268, ET Docket No. 13-26 (filed Oct. 31, 2014) (EOBC Oct. 31, 2014 *Ex Parte* Letter).

[98] EOBC Oct. 31, 2014 *Ex Parte* Letter at 2.

[99] EOBC identified two television stations, KSKT-CA and WBGH-CA, for which the difference between *TVStudy* and *tv_process* in terms of population served is over 95 percent. *See* EOBC Oct. 31, 2014 *Ex Parte* Letter at 2. Our action here will result in there being no difference in the software's predictions of the stations' populations served.

[100] *See Incentive Auction Task Force Releases Information Related to Incentive Auction Repacking*, Public Notice, 28 FCC Rcd 10370, 10381-82 (IATF 2013) (listing power floors) (*Repacking Data PN*). *See also Incentive Auction R&O*, 29 FCC Rcd at 6620, para. 115 (adopting approach to developing constraint files proposed in the *Repacking Data PN*).

[101] Digital Class A service rules did not exist at the time these power floors were established. The power floors for digital Class A stations were subsequently derived by applying the same minimum-to-maximum ratio as for full power stations to the maximum ERPs in the digital Class A service rules. Thus, given (50 kW) / (1,000 kW) = 0.05,

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television ("DTV") transition,[102] originally were intended to ensure that all stations would be able to provide service competitively within their respective markets prior to knowing the precise technical details about how their digital television stations would eventually be constructed.[103] In other words, they were set high to protect stations' ability to "grow into" the power level needed to replicate their analog service areas.[104] In comparison, section 73.614 of our rules specifies a power floor of 100 watts for full power stations (our rules do not specify a power floor for Class A stations).[105]

28. EOBC observes that use of these power floors in *TVStudy* produces some anomalous results when replicating particular stations' contours on different channels in the context of the pairwise interference analysis.[106] EOBC provides as an example a full power station licensed to operate on channel 18 with an ERP of 1.62 kW. When *TVStudy* replicates that station's contour on a different channel, it uses a minimum ERP of 50 kW, which makes the station appear more resistant to interference than it actually is.[107] EOBC requests that the Commission either rationalize the use of power floors or eliminate them.[108] No other commenters commented on EOBC's request.

29. *Discussion*. We will reduce the power floors in *TVStudy* to address the issue raised by EOBC. Specifically, we will reduce the power floors in *TVStudy* to 100 watts for full power stations and 24 watts for Class A stations. A 100 watt power floor for full power stations accords with our rules.[109] Our rules do not provide for a minimum ERP for Class A stations, but we find that a 24 watt value is reasonable because it represents the lowest ERP of any Class A station currently licensed.[110] We do not anticipate that these lower power floors will reduce our repacking flexibility significantly.[111]

30. The modified power floors we adopt will allow replication of stations' existing coverage areas on different frequencies without artificially inflating their ERP values. Currently, when it replicates a television station's signal contour on a different channel, *TVStudy* assigns the station a default ERP value if the value necessary for replication is below the power floor. Because the default value exceeds the value actually required to replicate the station's contour, the use of power floors artificially inflates a

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so (0.05)(15 kW) = 0.75 kW for UHF; similarly, (1 kW / 45 kW) = 0.022, so (0.022)(3 kW) = 0.07 kW for VHF. *See* 47 C.F.R. §§ 73.6007, 74.735.

[102] *See Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket No. 87-268, Sixth Report and Order, 12 FCC Rcd 14588 (1997) (*DTV Sixth Report and Order*).

[103] *See DTV Sixth Report and Orde*r, 12 FCC Rcd at 14605-6, para. 30; *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket No. 87-268, Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders, 14 FCC Rcd 1348, 1374, para. 58 (1998).

[104] *See DTV Sixth Report and Order*, 12 FCC at 14607, para. 33 ("… broadcasters will be allowed to operate at power levels lower than those specified for their operation in the DTV Table. This will afford them an opportunity to increase their power over time and thereby 'grow into' the power level needed for full service area, as specified in the DTV Table").

[105] *See* 47 C.F.R. § 73.614.

[106] *See* Letter from Preston Padden, Executive Director, Expanding Opportunities for Broadcasters Coalition, to Marlene H. Dortch, Secretary, FCC, GN Docket 12-268, ET Docket No. 13-26 (filed Aug. 7, 2014) (EOBC Aug. 7, 2014 *Ex Parte* Letter).

[107] *See id.*

[108] *See id.*

[109] *See* 47 C.F.R. § 73.614.

[110] *See* WFXQ-CD, Springfield, Massachusetts, Facility ID 2650.

[111] The coverage areas and interference potential of the stations in question are relatively small, and the lower power floors are not likely to change the results regarding the stations enough to impact the number of constraints they impose on the repacking process.

station's predicted coverage area in such situations. The result is inaccuracy: the station's signal is predicted to be stronger than it actually would be, so *TVStudy* predicts coverage in areas that in fact would not receive service, and does not predict interference from undesired signals in other areas. Pursuant to EOBC's request, we adopt modified power floors to correct such inaccuracies.

31. We decline to adopt EOBC's alternative request to eliminate the use of power floors in *TVStudy*. Power floors remain necessary with regard to stations presently operating with very low power levels. Otherwise, their assigned ERP values on new frequencies, particularly on lower frequencies, might be unreasonably low. For example, due to differences in signal propagation between VHF and UHF channels, the signal of a UHF station operating with a low power level could be replicated on a VHF channel with a power level of less than 10 watts or even a fraction of a watt. We are concerned that the signals of such stations within their service contours, in the event that they were assigned to new channels, might be so weak as to not be adequately receivable by the stations' existing viewers due to noise and other environmental considerations. Furthermore, if such stations are full power stations, their ERP values would not comply with the minimum specified in our rules.[112]

b. Preserving Coverage Area

32. *Background*. In the *Incentive Auction R&O*, we stated that we would make all reasonable efforts to preserve the existing coverage areas of stations operating under a waiver of the antenna height above average terrain ("HAAT") or ERP limits pursuant to section 73.622(f)(5).[113] At the same time, we stated that "such operations will not be protected to the extent that they exceed the maximum power limits specified in the Commission's rules without regard to HAAT. Stations licensed pursuant to a waiver of the applicable ERP limit will be permitted to continue operations at power levels up to the existing authorized ERP."[114]

33. Walt Disney Company ("Disney"), Dispatch Printing Company ("Dispatch"), and CDE request that we preserve the coverage areas of stations that operate licensed facilities pursuant to a waiver of the maximum ERP limit, without regard to HAAT.[115] Disney and Dispatch are concerned that the above-quoted language would result in the preservation of coverage area and population served for some stations based on the maximum ERP level specified in the rules rather than the higher ERP level at which these stations are licensed to operate pursuant to a waiver.[116] Dispatch argues that this approach would violate section 1452(b)(2) of the Spectrum Act and the Administrative Procedure Act, 5 U.S.C. § 553 ("APA").[117] NAB filed in support of these requests, and no commenter filed in opposition.[118]

34. *Discussion*. We grant Disney's, Dispatch's, and CDE's requests for reconsideration regarding the preservation of coverage area and affirm that we will make all reasonable efforts to preserve

[112] *See* 47 C.F.R. § 73.614.

[113] *See Incentive Auction R&O*, 29 FCC Rcd at 6645, para 167. The maximum power limits are set forth in section 73.622(f) of the rules. 47 C.F.R. § 73.622(f). The maximum power limits are specified in conjunction with the maximum antenna HAAT limits.

[114] *See Incentive Auction R&O*, 29 FCC Rcd at 6645, para. 167 (footnotes omitted).

[115] *See generally* Disney Petition at 1; Dispatch Petition at 1; CDE Petition at 4.

[116] Disney Petition at 2-5. Most stations operating pursuant to such waivers are VHF stations that were not able to provide adequate service to the population within their former analog and /or current digital coverage area if they used facilities that complied with the DTV maximum limits following the digital transition. Those stations are WHBF-TV, WCYB-TV, WOI-DT, WPVI-TV, KTVM-TV, WRGB, KWWL, WJLA-TV, WABC-TV, KRCR-TV, WBNG-TV, WLIC-TV, KTVB, WTPC-TV, WSIU-TV, WNJB, WGAL, WFAA, KCAU-TV, WBPH-TV, WUSA, WWTO-TV, WTVD, WGVU-TV, WHAS-TV, WVPT, KECI-TV, WJZ-TV, and WTHR.

[117] Dispatch Petition at 3-4.

[118] NAB Nov. 12, 2014 Comments at 18-19.

the coverage areas of stations operating pursuant to waivers of HAAT or ERP, provided such facilities are otherwise entitled to protection under the *Incentive Auction R&O*.[119] We agree with Disney, Dispatch, and CDE that there is no basis to deny a station protection for its existing coverage area in the repacking process merely because its licensed facilities were authorized pursuant to a waiver of our technical rules.

c. Preserving Population Served

35. Background. In the *Incentive Auction R&O* we adopted the "Option 2" approach to preserving eligible TV stations' populations served in the repacking process, under which "we will preserve service to the same specific viewers for each eligible station, and no individual channel reassignment, considered alone, will reduce another station's population served on February 22, 2012 by more than 0.5 percent."[120]

36. Block Stations seek reconsideration of the Commission's decision. Block Stations argue that the Commission should have selected "Option 1" instead, because it would lead to the maximum protection of broadcast service.[121] Block Stations argue that the Commission's choice was improperly "designed to result in substantial diminishment in broadcast service," and instead the Commission should adopt a strict service replication standard for repacking.[122]

37. Discussion. We dismiss Block Stations' Petition for Reconsideration of the approach we adopted. Under Commission rules, if a petition for reconsideration simply repeats arguments that were previously fully considered and rejected in the proceeding, it will not likely warrant reconsideration.[123] We adopted Option 2 in the *Incentive Auction R&O* based on careful consideration of the record, and of the advantages and disadvantages of each of the options proposed. In particular, we concluded that "Option 2 provides the most protection to television stations' existing populations served consistent with

[119] Disney Petition at 1; Dispatch Petition at 1; CDE Petition at 4. We will adjust the maximum power settings in *TVStudy* to implement this decision. These settings will be released with the final version of *TVStudy* prior to the *Procedures PN*.

[120] *Incentive Auction R&O*, 29 FCC Rcd at 6649-50, para. 179.

[121] Block Stations Petition at 5. Option 1 "seeks to preserve service to the same total number of viewers but not necessarily the same viewers, allowing reassignments that would reduce a station's total population served as of February 22, 2012 by no more than 0.5 percent." *Incentive Auction R&O, 29* FCC Rcd at 6649, para. 178. CDE complains that stations reassigned to a different channel in the repacking process will be assigned a "computerized envelope pattern" that may not be commercially available. *See* CDE Petition. CDE claims that the assignment of a "computerized envelope pattern" to a broadcast station reassigned on a different channel during repacking would leave the station with an antenna pattern that is not commercially available and the FCC has failed to disclose the resulting loss of coverage and population. *See* CDE Petition at 1-2. However, the Commission in the *Incentive Auction R&O* adopted the "equal area" approach for replicating the area within the station's existing contour as closely as possible using the station's existing antenna pattern, which will allow stations to preserve their existing coverage areas using antennas that are practical to build, so that stations will be able to actually construct their new facilities. *See Incentive Auction R&O*, 29 FCC Rcd at 6644-45, para. 166. *See also Incentive Auction NPRM*, 27 FCC Rcd at 12391, para. 100; *Repacking Data PN*, 28 FCC Rcd at 10389. Under this approach, a station assigned to a new channel in the repacking will be allowed to continue to use the station's existing antenna pattern. *See also Expanding The Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Declaratory Ruling, 29 FCC Rcd 12240, 12242, para. 5 (2014). This approach differs from the approach used in the DTV transition which resulted in some cases requiring an antenna that could be impractical or impossible to construct. CDE also claims that the Commission did not consider the performance limits of current converter boxes and DTV receivers. *See* CDE Petition at 3-4. Contrary to CDE's claims, this issue was addressed extensively in the *ISIX Order and FNPRM,* 29 FCC Rcd at 13095, para. 46 n.159.

[122] Block Stations Petition at 2.

[123] 47 C.F.R. § 1.429(l)(3); *Connect America Fund,* WC Docket No. 10-90, Sixth Order on Reconsideration and Memorandum Opinion and Order, 28 FCC Rcd 2572, 2573, para. 3 (2013) (*Connect America Fund*).

our auction design needs."[124] We specifically declined to adopt Option 1 because it would not preserve service to existing viewers as of February 22, 2012, and because it would require analysis of interference relationships on an aggregate basis rather than on a pairwise basis.[125] Block Stations provide no basis to revisit our analysis or reconsider our approach.

2. Facilities to Be Protected

38. In this section, we address arguments as to which television stations should be protected in the repacking process. First, we grant protection to WNJU, Linden, New Jersey, finding that it is similarly situated to other stations affected by the destruction of the World Trade Center. Next, we reject challenges to our decision not to protect the facilities requested in pending VHF-to-UHF channel substitution requests. We then affirm our decision not to protect certain Class A-eligible LPTV stations that did not hold Class A licenses or did not have applications pending for licenses to cover a Class A facility as of February 22, 2012, but exercise discretion to protect stations that hold a Class A license today and that had an application for a Class A construction permit pending or granted as of February 22, 2012. Next, we address a number of challenges to our decisions regarding LPTV and TV translator stations' treatment in the repacking process and the post-auction transition process. Last, we address a reconsideration petition by the licensee of a LPTV station who is appealing the 2000 dismissal of a Class A eligibility certificate, as well as a reconsideration petition by an applicant with an ongoing challenge before us of the dismissal of its application for a full power analog television station.

a. Stations Affected By the Destruction of the World Trade Center

39. *Background*. In the *Incentive Auction R&O*, we afforded discretionary protection to five stations affected by the destruction of the World Trade Center and stated that we will not require certain authorized facilities for these stations to be licensed by the Pre-Auction Licensing Deadline.[126] We grounded our exercise of discretion on the destruction of these stations' facilities in the September 11, 2001 terrorist attacks and the fact that these stations were "forced to move to a temporary location after the destruction of the World Trade Center."[127] We stated that we would allow each of the identified stations to elect by the Pre-Auction Licensing Deadline interference protection for either (1) their licensed Empire State Building facilities or (2) proposed facilities at One World Trade Center.[128]

40. NBC Telemundo License, LLC ("NBC Telemundo"), licensee of WNJU, Linden, New Jersey, requests that we extend to WNJU the same protection we provided to the five other TV stations that were formerly licensed at the World Trade Center and were forced to re-locate to the Empire State Building. NBC Telemundo argues that WNJU deserves the same treatment because, like the other stations, it was licensed and operating at the World Trade Center on September 11, 2001 when the

[124] *Incentive Auction R&O*, 29 FCC Rcd at 6650-51, para. 181.

[125] *Id.* We note that the approach we adopted also aligns more closely than Option 1 with the Commission's current rules for considering station modification proposals. *See* 47 C.F.R. § 73.616(e) ("An application will not be accepted if it is predicted to cause interference to more than an additional 0.5 percent of the population served by another post-transition DTV station. For this purpose, the population served by the station receiving additional interference does not include portions of the population within the noise-limited service contour of that station that are predicted to receive interference from the post-transition DTV allotment facilities of the applicant or portions of that population receiving masking interference from any other station.").

[126] *Incentive Auction R&O*, 29 FCC Rcd at 6665, paras. 219-20. The Pre-Auction Licensing Deadline was the date by which full power and Class A stations must be licensed in order to be eligible for protection in the repacking process. *Id*. The Media Bureau, acting pursuant to delegated authority, established May 29, 2015 as the deadline. *Media Bureau Designates May 29, 2015 as Pre-Auction Licensing Deadline*, Public Notice, 30 FCC Rcd 393 (MB 2015).

[127] *Incentive Auction R&O,* 29 FCC Rcd at 6665, paras. 219-20.

[128] *Id.*

terrorist attacks occurred and was forced to relocate to the Empire State Building.[129] No commenter opposed this request.

41. *Discussion*. We grant NBC Telemundo's request that we extend to WNJU the same discretionary repacking protection afforded to other stations affected by the destruction of the World Trade Center.[130] Based on an examination of the record, we find that WNJU is similarly situated to the five other World Trade Center stations for which we already granted discretionary repacking protection. As with the other five stations affected by the destruction of the World Trade Center, we have permitted NBC Telemundo to elect protection by the Pre-Auction Licensing Deadline of either: (1) its licensed Empire State Building facilities or (2) proposed facilities at One World Trade Center. Providing NBC Telemundo with such flexibility will not significantly impact our repacking flexibility.[131]

b. Pending Channel Substitution Rulemaking Petitions

42. *Background.* Section 1452(g)(1)(B) of the Act provides that the Commission "may not" reassign a television licensee from a VHF to a UHF channel from the enactment date of the Spectrum Act (February 22, 2012) until the completion of the incentive auction "unless (i) such reassignment will not decrease the total amount of [UHF] spectrum made available for reallocation . . . or (ii) a request from such licensee for the reassignment was pending at the Commission on May 31, 2011."[132] The date of May 31, 2011 refers to the Media Bureau's issuance of a freeze on channel substitution petitions.[133] Upon adoption of the *Incentive Auction R&O*, there remained nine VHF-to-UHF channel substitution rulemaking petitions filed before May 31, 2011 pending with the Media Bureau.[134] In the *Incentive Auction R&O*, we declined to protect the facilities requested in these pending VHF-to-UHF rulemaking requests.[135] We directed the Media Bureau to dismiss any of the pending VHF-to-UHF petitions if issuance of an NPRM would not be appropriate.[136] We further directed the Media Bureau to hold in abeyance any remaining petitions or related rulemaking proceedings and to process them once the Media Bureau lifts the filing freezes now in place, unless the petition is withdrawn.[137]

43. In their Petitions for Reconsideration, Bonten Media Group, Inc. and Raycom Media, Inc. ("Bonten/Raycom") and Media General again argue that Congress intended the Commission to grant the pending VHF-to-UHF petitions.[138] They further claim that the Commission, in failing to exercise discretion to protect the facilities requested in the petitions, disregarded the substantial public interest benefits that would result from granting the petitions, such as restoring over-the-air service to viewers, and overstated the potential impact of grants on repacking flexibility and auction goals.[139] Petitioners also

[129] *Id.*

[130] On April 7, 2015, NBC Telemundo filed a Clarification of Petition for Limited Reconsideration to clarify that it is requesting that the Commission grant WNJU the same relief provided to the other identified stations by allowing it to elect by May 29, 2015 interference protection of either WNJU's licensed Empire State Building facility or facilities at One World Trade Center authorized in a construction permit. *Id*. at 1.

[131] *See Incentive Auction R&O,* 29 FCC Rcd at 6665, para. 219.

[132] 47 U.S.C. § 1452(g)(1)(B).

[133] *See Freeze on the Filing of Petitions for Digital Channel Substitutions, Effective Immediately*, Public Notice, 26 FCC Rcd 7721 (MB 2011) (*Channel Substitution Freeze PN*).

[134] *Incentive Auction R&O*, 29 FCC Rcd at 6667 n.704.

[135] *See id.* at 6667-70, paras. 227-31.

[136] *Id*. at 6669-70, para. 231.

[137] *Id*.

[138] *See* Bonten/Raycom Petition at 6-8; Media General Petition at 1-2.

[139] *See* Bonten/Raycom Petition at 3-5, 8; Media General Petition at 2-3. *See also* Bonten/Raycom Reply at 3; Media General Reply at 2-3; NAB Nov. 12, 2014 Comments at 17.

contend that failure to process the pending petitions would inequitably treat similarly-situated petitioners[140] and amounts to a retroactive freeze without notice.[141] They contend further that the Commission directed the Media Bureau to summarily dismiss the pending petitions without public comment.[142] They ask the Commission to direct the Media Bureau to process the pending petitions and to protect the proposed facilities in the repacking process.[143] NAB filed comments in support of the Bonten/Raycom and Media General petitions.[144]

44. *Discussion.* We deny the Bonten/Raycom and Media General Petitions. Petitioners claim that Congress intended for the Commission to grant the pending VHF-to-UHF petitions, but as we explained in the *Incentive Auction R&O*, the language in section 1452(g)(1)(B) is permissive.[145] Section 1452(g)(1)(B) allows the Commission to reassign a licensee from VHF to UHF if either of the two statutory conditions in this provision is met, but it does not mandate such reassignment. If Congress intended to remove our discretion and require us to grant the pending VHF-to-UHF petitions, it would have explicitly provided that the Commission "shall" reassign a licensee from VHF to UHF "if" a request for reassignment was pending on May 31, 2011.[146] Petitioners offer no basis to revisit our interpretation.

45. We disagree with petitioners' claims that the Commission disregarded the public interest benefits that would result from protecting the facilities requested in the pending petitions and overstated the impact on repacking flexibility. As we explained in the *Incentive Auction R&O*, the exercise of discretion to protect facilities beyond those required by the Spectrum Act requires a careful balancing of numerous factors.[147] We applied those factors and found that there were minimal equities in favor of protecting the facilities requested because the petitioners had not acted in reliance on Commission grants, had not made any investment in constructing their requested facilities, and had not begun operating the proposed facilities to provide service to viewers.[148] On the other hand, we explained that protecting the requested facilities would add new stations to the UHF Band and thereby encumber additional UHF spectrum.[149] Petitioners offer no basis to alter this balancing. While they claim that the number of pending petitions is minimal and speculate that this will not "significant[ly] effect" repacking,[150] they fail

[140] *See* Bonten/Raycom Petition at 3, 11-17; Media General Petition at 4.

[141] *See* Media General Petition at 3-4. *See also* Bonten/Raycom Reply at 3; Media General Reply at 3; NAB Nov. 12, 2014 Comments at 17.

[142] *See* Bonten/Raycom Petition at 3, 10, 13. *See also* Media General Reply at 3.

[143] *See* Bonten/Raycom Petition at 3. *See* Media General Petition at 4.

[144] NAB Nov. 12, 2014 Comments at 16-18.

[145] *Incentive Auction R&O*, 29 FCC Rcd at 6668-89, para. 229 (explaining that section 1452(g)(1)(B) uses a "may not . . . unless" construction, which has been interpreted in other contexts as permissive, and that a mandatory reading would compel the Commission to grant all pre-May 31, 2011 VHF-to-UHF channel substitution requests without regard to whether the requests meet the Commission's technical requirements or otherwise serve the public interest).

[146] *Incentive Auction R&O*, 29 FCC Rcd at 6669 n.711.

[147] On one hand, failing to protect certain facilities beyond the statutory floor may deprive viewers of television service they currently receive and may strand the investments broadcasters have made in these facilities. *Id*. at 6655, para. 192. On the other hand, any additional preservation beyond the statutory floor may encumber additional broadcast television spectrum, thereby increasing the constraints on the repacking process, hindering our ability to repack television spectrum, undermining our goal of using market forces to repurpose spectrum for flexible use, and increasing the costs of the reverse auction. *Id*. at 6655, para. 193.

[148] *Id*. at 6668, para. 228.

[149] *Id*.

[150] *See* Media General Petition at 3. *See also* Bonten/Raycom Petition at 8; NAB Nov. 12, 2014 Comments at 17.

to acknowledge the minimal equities in favor of protecting *proposed* facilities that have not been constructed and are not serving viewers.[151]

46. Petitioners claim further that we should have weighed the benefits to the public of restoring over-the-air service to pre-DTV transition viewers that would purportedly result from their channel substitution requests.[152] Declining to protect petitioners' proposed facilities in the repacking process, however, does not preclude grant of their petitions after conclusion of the repacking process. Despite petitioners' claim, we did not direct the Media Bureau to "summarily dismiss" the pending petitions without public comment. Rather, we directed the Media Bureau to dismiss any of these petitions for which issuance of an NPRM would not be appropriate, such as "if the proposed facility would result in an impermissible loss of existing service" or "the petition fails to make a showing as to why a channel change would serve the public interest."[153] Dismissal of channel substitution petitions without issuing an NPRM under such circumstances is consistent with past Bureau practice.[154] For petitions that are not dismissed, we directed the Media Bureau to hold them in abeyance, rather than granting them now but leaving them unprotected in the repacking process.[155] Petitioners do not dispute our conclusion that allowing VHF stations to move their existing service into the UHF Band on an unprotected basis pending the outcome of the repacking process presents a significant potential for viewer disruption if the station's operations in the UHF Band are displaced.[156]

47. We agree with petitioners that we could protect the requested facilities but preclude them from submitting UHF-to-VHF bids in the reverse auction, but this does not change our ultimate conclusion. Imposing such a condition would prevent the stations from demanding a share of incentive auction proceeds in exchange for relinquishing their newly granted rights, but would not mitigate the detrimental impact on our repacking flexibility of granting protection to the requested facilities.[157] The detrimental impact protecting the proposed facilities would have on our repacking flexibility and fulfillment of auction goals outweighs the minimal equities in favor of protection.

48. We also disagree with petitioners that their requests are similarly situated to the two VHF-to-UHF petitions that were filed before the Media Bureau's May 31, 2011 freeze, both of which

[151] For the same reasons, Bonten/Raycom's attempt to narrow the class of VHF-to-UHF petitions that should be protected to the two petitions involving low-VHF-to-UHF channel substitutions is unavailing. *See* Bonten/Raycom Petition at 4, 8.

[152] *See* Bonten/Raycom Petition at 8; Media General Petition at 3.

[153] *Incentive Auction R&O*, 29 FCC Rcd at 6669-70, para. 231.

[154] *See, e.g.,* Letter from Barbara A. Kreisman, Chief, Video Division, to Barry A. Friedman, Counsel for KVMD Licensee Co., LLC, 23 FCC Rcd 15748 (Vid. Div. 2008); Letter from Barbara A. Kreisman, Chief, Video Division, to Entravision Holdings, LLC, Ref. No. 1800E3-BEL (Vid. Div. 2003), *recon. denied*, 19 FCC Rcd 3006 (MB 2004), *app. rev. denied*, 27 FCC Rcd 2795 (MB 2012).

[155] *See* Media General Petition at 4.

[156] *Incentive Auction R&O*, 29 FCC Rcd at 6670 n.714.

[157] In the *Incentive Auction R&O*, we noted that if the facilities requested in a VHF-to-UHF petition were protected, the station could demand a share of incentive auction proceeds in exchange for relinquishing its newly granted rights through a UHF-to-VHF bid in the reverse auction. *Id.* at 6668 n.707. While petitioners indicated that they would accept a condition prohibiting them from submitting a UHF-to-VHF bid, we noted that the Spectrum Act provides that "a relinquishment of usage rights . . . *shall include*" three types of relinquishment, one of which is a UHF-to-VHF bid. *Id*. (citing 47 U.S.C. § 1452(a)(2)). To the extent this language suggests that the Commission lacks the discretion to restrict the acceptance of reverse auction bids based on policy goals, we reject that view. *See* Bonten/Raycom Petition at 9-10; Media General Petition at 3 n.8. *See also* Media General Reply at 3-4; NAB Nov. 12, 2014 Comments at 18.

resulted in an *NPRM* after that date, and were subsequently granted.[158] As explained in the *Incentive Auction R&O*, the granted petitions involved materially different facts. In one case, the station's tower collapsed, a fact that does not apply to the petitioners.[159] In the other case, the change to a UHF channel resulted in a significant population gain, a fact that likewise does not apply to the petitioners.[160] Moreover, the granted petitions explained why expedited consideration was needed,[161] whereas the petitioners failed to provide a timely explanation of such need.[162] In addition, the granted petitions were granted before the Spectrum Act was passed. In contrast, further action on the pending petitions required consideration of a number of new issues raised by the statute, including issues that the Commission was

[158] *See Incentive Auction R&O*, 29 FCC Rcd at 6669, para. 230 n.713 (citing *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Eau Claire, Wisconsin)*, MB Docket No. 11-100, Report and Order, 26 FCC Rcd 10326 (Vid. Div. 2011) ("*Eau Claire Petition*") and *Amendment of Section 73.622(i), Post-Transition Table of Allotments, Television Broadcast Stations (Panama City, Florida)*, MB Docket No. 11-140, Report and Order, 26 FCC Rcd 14415 (Vid. Div. 2011) ("*Panama City Petition*")). We disagree with Media General's claim that its pending VHF-to-UHF petitions are similar to others, in addition to the two noted above, that were acted on after May 31, 2011. *See* Media General Petition at 13 n.11. The petition in MB Docket No. 11-159 resulted in an *NPRM* issued after the Media Bureau's freeze, but it is treated the same as the pending VHF-to-UHF petitions. *See Incentive Auction R&O*, 29 FCC Rcd at 6668 n.706 (stating that the decision declining to exercise discretion to protect the facilities requested in pending VHF-to-UHF channel substitution rulemaking requests extends to the facilities requested in MB Docket No. 11-159) (citing *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Cleveland, Ohio)*, MB Docket No. 11-159, Notice of Proposed Rulemaking, 26 FCC Rcd 14280 (Vid. Div. 2011)). The petition in MB Docket 11-139 involved a change in community of license, not a VHF-to-UHF channel change, and was denied in any event. *See Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Hampton-Norfolk, Virginia; Norfolk, Virginia-Elizabeth City, North Carolina)*, MB Docket No. 11-139, Report and Order, 28 FCC Rcd 1368 (Vid. Div. 2013). The petition in MB Docket No. 11-74 involved an NPRM issued *before* the Media Bureau's freeze. The Media Bureau's freeze did not apply to NPRMs pending on the date of the freeze. *See Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (El Paso, Texas)*, MB Docket No. 11-74, Notice of Proposed Rulemaking, 26 FCC Rcd 6206 (Vid. Div. 2011); Report and Order, 26 FCC Rcd 9634 (Vid. Div. 2011).

[159] *Incentive Auction R&O*, 29 FCC Rcd at 6669 n.713 (citing *Eau Claire Petition*).

[160] *Compare id*. (noting that the channel substitution requested in the *Panama City Petition* would result in a population gain of approximately 515,000 persons) *with* Bonten/Raycom Petition at 5, 13, 16 (noting that their requests would result in a predicted loss of service).

[161] *Incentive Auction R&O*, 29 FCC Rcd at 6669, para. 230. *See also* Gray Television Licensee, LLC, Petition for Rulemaking to Amend the DTV Table of Allotments for Station WEAU-TV, Eau Claire, Wisconsin, MB Docket No. 11-100 (May 13, 2011), at 2; Gray Television Licensee, LLC, Petition for Rulemaking to Amend the DTV Table of Allotments for Station WJHG-TV, Panama City, Florida, MB Docket No. 11-140 (May 26, 2011), at 1.

[162] *See* Bonten/Raycom Petition at 11. Raycom's petition did not request expedited consideration. *See* WMC License Subsidiary, LLC, Petition for Rulemaking to Amend Section 73.622(b), Final DTV Table of Allotments, Television Broadcast Stations (Memphis, Tennessee) (May 26, 2011). Bonten's petition was stamped "Expedited Processing Requested," but contained no explanation as to why expedited processing was needed. *See* BlueStone License Holdings, Inc. Petition for Rulemaking to Amend Section 73.622(i), Final DTV Table of Allotments, Television Broadcast Stations (Bristol, Virginia) (May 26, 2011). It was not until December 2011 and January 2012 when Bonten and Raycom, respectively, attempted to justify expedited consideration, which was six-to-seven months after their petitions were filed and only two-to-three months before passage of the Spectrum Act. *See* BlueStone License Holdings, Inc., Supplement to Petition for Rulemaking, File No. BPRM-20110526AJO (Dec. 5, 2011), at 4; *See* WMC License Subsidiary, LLC, Supplement to Petition for Rulemaking (Jan. 4, 2012), at 5. Nevertheless, the Bureau began processing the petitioners' rulemaking petitions soon after they were filed, informing Bonten that its petition was mutually exclusive with another pending petition and directing both Bonten and Raycom to file supplements regarding the predicted loss in service presented by their proposals.

considering in the pending rulemaking proceeding.[163] Bonten/Raycom assert that the same considerations applied both before and after passage of the Spectrum Act because the Commission was aware that Congress was considering incentive auction legislation when the Media Bureau granted the two VHF-to-UHF petitions.[164] At the time the Media Bureau acted on the two petitions, however, it was unknown whether or when Congress would pass legislation providing for an incentive auction, and there was no basis to predict that any future legislation would specifically address the pending VHF-to-UHF petitions.[165]

49. We also reject petitioners' claim that refraining from processing the pending petitions amounts to a retroactive freeze without notice. The May 31, 2011 freeze was issued at the Bureau level, and the Media Bureau's statement that it would "continue its processing of [channel substitution] rulemaking petitions that are already on file" is not binding on the Commission.[166] In any event, the Bureau's statement was made before enactment of the Spectrum Act. To the extent the petitioners relied on the Bureau's freeze as entitling them to move into the UHF Band, such reliance was misplaced in light of Congress's subsequent passage of the Spectrum Act, which seeks to repurpose UHF spectrum for new uses and specifically addresses the pending VHF-to-UHF petitions. Indeed, despite the Media Bureau's statements in its May 31, 2011 freeze Public Notice, the Commission in the 2012 *Incentive Auction NPRM* analyzed section 1452(g)(1)(B) and put the pending VHF-to-UHF petitioners on notice that it proposed to refrain from acting on their petitions.[167]

c. Out-of-Core Class A-Eligible LPTV Stations

50. *Background*. The Community Broadcasters Protection Act of 1999 ("CBPA") provided certain qualifying LPTV stations with "primary" Class A status.[168] The CBPA provided for a two-step process for obtaining a Class A license. First, by January 28, 2000, an LPTV licensee seeking Class A status was required to file a certification of eligibility certifying compliance with certain criteria.[169] If the Commission granted the certification, the licensee's station became a "Class A-eligible LPTV station." Second, a Class A-eligible LPTV station was required to file an application for a Class A license.[170] While the CBPA prohibited the Commission from granting Class A status to LPTV stations operating on

[163] For example, further action required an interpretation of section 1452(g)(1)(B), an issue that the Commission was exploring in the pending rulemaking proceeding. *See Incentive Auction NPRM*, 27 FCC Rcd at 12398, para. 117; *Incentive Auction R&O*, 29 FCC Rcd at 6669, para. 230. Moreover, further action required consideration of how such action would impact the goals of the auction and repacking process, issues which the Commission was also considering in the rulemaking proceeding. *See Incentive Auction NPRM*, 27 FCC Rcd at 12398, para. 117.

[164] *See* Bonten/Raycom Petition at 11-12.

[165] *See* Comments of Media General, Inc., GN Docket No. 12-268 (Jan. 25, 2013), at 5-6 (noting that section 1452(g)(1)(B) was added at conference, after both the House and Senate had passed their own versions of the legislation); Media General Petition at 2.

[166] *See Comcast Corp. v. FCC*, 526 F.3d 763, 769 (D.C. Cir. 2008).

[167] *See Incentive Auction NPRM*, 27 FCC Rcd at 12398, para. 117 ("[W]e propose to exercise our discretion not to act at this time on the requests filed before [May 31, 2011], in order to ensure that we do not unnecessarily compromise our flexibility in the repacking process. We cannot know at this time what the balance of available channels in the UHF and VHF bands will be after the auction and repacking.").

[168] Community Broadcasters Protection Act of 1999, Pub. L. No. 106-113, 113 Stat. Appendix 1 at pp. 1501A-594 – 1501A-598 (1999), codified at 47 U.S.C. § 336(f).

[169] *See* 47 U.S.C. § 336(f)(1)(B).

[170] *See* 47 U.S.C. § 336(f)(1)(C).

"out-of-core" channels (channels 52-69),[171] it provided such stations with an opportunity to achieve Class A status on an in-core channel (channels 2-51).[172]

51. Although the Commission's rules implementing the CBPA were adopted in 2000, we explained in the *Incentive Auction R&O* that approximately 100 formerly out-of-core Class A-eligible LPTV stations had obtained an in-core channel but had not obtained a Class A license as of February 22, 2012.[173] We determined that such stations are not entitled to mandatory preservation.[174] We explained that the fact that such stations may obtain a Class A license after February 22, 2012 does not alter this conclusion because section 1452(b)(2) of the Spectrum Act mandates preservation of only the full power and Class A facilities that were actually in operation as of February 22, 2012.[175] With one exception—KHTV-CD, Los Angeles, California[176]—we also declined to exercise discretionary protection to preserve the facilities of such stations.[177]

52. Abacus Television ("Abacus") and The Videohouse, Inc. ("Videohouse"), the licensees of formerly out-of-core Class A-eligible LPTV stations that filed for and received Class A licenses after February 22, 2012, seek reconsideration of our decision not to protect Class A-eligible LPTV stations that did not hold Class A licenses as of February 22, 2012.[178] They argue that they are entitled to preservation under the CBPA.[179] They further claim that they are similarly situated to KHTV-CD, insofar as they have also allegedly taken steps to remove their secondary status in a timely manner, and therefore should be extended discretionary protection.[180] Moreover, they argue that they are similarly situated to other stations the Commission elected to protect in the repacking process.[181] In late-filed pleadings, the LPTV Spectrum Rights Coalition ("LPTV Coalition") and Abacus dispute the number of formerly out-of-core Class A-eligible LPTV stations that did not hold Class A licenses as of February 22, 2012.[182]

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[171] 47 U.S.C. § 336(f)(6)(A); *see Establishment of a Class A Television Service*, MM Docket No. 00-10, Report and Order, 15 FCC Rcd 6355, 6396-97, para. 103 (2000) ("it would be inconsistent with the statute to provide interference protection on a channel outside the core") ("*Class A R&O"*).

[172] 47 U.S.C. § 336(f)(6)(A); *Class A R&O*, 15 FCC Rcd at 6396–97, para. 103.

[173] *Incentive Auction R&O*, 29 FCC Rcd at 6670-71, paras. 233-34.

[174] *Id*. at 6670, para. 233.

[175] *Id*. *See also id*. at 6652-54, paras. 184-89.

[176] *Id*. at 6671-72, para. 235. In light of the unique circumstances that prevented KHTV-CD from filing its application for a license to cover Class A facilities until just two days after February 22, 2012, its certified operation consistent with Class A operating requirements since 2001, and its repeated efforts to convert to Class A status, we concluded that the equities in favor of protection outweighed the minimal impact on our repacking flexibility. *Id*. *See also* Venture Technologies Group, LLC, Reply Comments, GN Docket No. 12-268 (March 12, 2013) ("Venture Reply Comments").

[177] *Incentive Auction R&O*, 29 FCC Rcd at 6671, para. 234. We explained that doing so would encumber additional spectrum by requiring protection of approximately 100 stations, increasing the number of repacking constraints and limiting our flexibility. While we acknowledged that these stations have made investments in their facilities, we concluded that this did not outweigh the significant detrimental impact on repacking flexibility, especially in light of the failure of these stations to take the steps to obtain a Class A license and remove their secondary status in a timely manner. *Id*.

[178] Abacus Petition; Videohouse Petition.

[179] *See* Abacus Petition at 2-4; Videohouse Petition at 2-4. *See also* 47 U.S.C. §§ 336(f)(1)(D), 336(f)(6)(A).

[180] *See* Abacus Petition at 4-6, 7-9; Videohouse Petition at 4-7, 8-9.

[181] *See* Abacus Petition at 7; Videohouse Petition at 7-8.

[182] *See* Abacus Supplement to Petition for Reconsideration (Nov. 12, 2014) ("Abacus Supplement"); LPTV Coalition Supplement to Petition for Reconsideration (Nov. 12, 2014) ("LPTV Coalition Supplement").

53. *Discussion*. For reasons set forth below, we dismiss and otherwise deny the Abacus and Videohouse petitions.[183] As an initial manner, petitioners offer no basis to revisit our conclusion that section 1452(b)(2) mandates preservation of only full power and Class A facilities that were actually in operation as of February 22, 2012.[184] The only Class A facilities in operation as of February 22, 2012 were those that were licensed as Class A facilities on that date or were the subject of an application for a license to cover a Class A facility. The license to cover application signifies that the Class A-eligible LPTV station had constructed its facility and was operating consistent with the requirements applicable to Class A stations.[185] We note that some Class A-eligible LPTV stations filed prior to February 22, 2012 an application to convert an LPTV construction permit to a Class A construction permit.[186] We refer to this application below as a "Class A construction permit application." We clarify that a Class A-eligible LPTV station with an application for a Class A construction permit on file or granted as of February 22, 2012 is not entitled to mandatory protection.[187] An application for a Class A construction permit seeks protection of facilities authorized in an LPTV construction permit. Grant of a construction permit standing alone, however, does not authorize operation of those facilities.[188] Nonetheless, for the reasons discussed below, we exercise discretion to protect those stations that hold a Class A license today and that had an application for a Class A construction permit pending or granted as of February 22, 2012.[189]

[183] Asiavision, Inc. ("Asiavision") and Latina Broadcasters of Daytona Beach, LLC ("Latina") did not file timely Petitions for Reconsideration of the *Incentive Auction R&O*. Rather, in Oppositions, they present arguments similar to those raised in the Abacus and Videohouse Petitions as to why the Commission should have decided in the *Incentive Auction R&O* to protect their stations in the repacking process. *See* Asiavision Opposition; Latina Partial Opposition. We treat these pleadings as late-filed petitions for reconsideration and dismiss them. *See* 47 U.S.C. § 405(a) (petitions for reconsideration must be filed no later than 30 days after public notice of Commission decision); 47 C.F.R. § 1.429(d) (same). Asiavision and Latina did not seek a waiver of the deadline for seeking reconsideration. *See Reuters Ltd. v. FCC*, 781 F.2d 946, 951-52 (D.C. Cir. 1986) (the Commission may not waive the deadline for seeking reconsideration absent extraordinary circumstances). Moreover, to the extent Asiavision and Latina argue that the Commission should treat all similarly situated Class A stations the same if the Abacus and Videohouse Petitions are granted, their arguments are moot in light of our dismissal and denial of the Abacus and Videohouse Petitions. *See* Asiavision Opposition; Latina Partial Opposition. We will nonetheless treat these pleadings as informal comments.

[184] *Incentive Auction R&O*, 29 FCC Rcd at 6670-71, para. 233; *id*. at 6652-54, paras. 184-89.

[185] Specifically, the FCC Form 302-CA (entitled "Application for Class A Television Broadcast Station Construction Permit or License") requires the applicant to certify that it "(i) does, and will continue to, broadcast" a minimum of 18 hours per day and an average of at least 3 hours per week of local programming; (ii) has constructed and maintains a main studio at a location in compliance with the rules; (iii) maintains for its station a public inspection file that includes the documentation required by rules; and (iv) complies with those station operating requirements applicable to full power stations that are also applicable to Class A stations. *See* FCC Form 302-CA, Section II, Questions 3, 4, 8, 9, 10. *See also* 47 C.F.R. §§ 73.6001(b), 73.6026. LPTV stations are not subject to these service requirements. *See infra* n.229.

[186] Along with an application for a LPTV construction permit, these stations filed an FCC Form 302-CA indicating that the purpose of the application was to "convert authorized LPTV construction permit facilities to Class A facilities." *See* FCC Form 302-CA, Section I, Question 5.

[187] Certain language in the *Incentive Auction R&O* could be read to suggest otherwise. *Incentive Auction R&O*, 29 FCC Rcd at 6671-72, paras. 234-35 & n.724.

[188] The Communications Act provides that a "construction permit" authorizes "construction" of a station for the transmission of signals by radio, whereas a "license" authorizes "use" of that station. *Compare* 47 U.S.C. § 153(13) *with* 47 U.S.C. § 153(49); *see also Cedar Rapids Television Co. v. FCC*, 387 F.2d 228, 230-31 (D.C. Cir. 1967) (upholding Commission decision declining to consider a facility authorized in a construction permit as "actual television operations").

[189] *See infra* para. 62.

54. Petitioners do not dispute that, on February 22, 2012, they were not Class A licensees nor did they have an application for a license to cover a Class A facility on file, and thus are not entitled to mandatory preservation. In declining to exercise discretionary protection for such stations, we explained that there were approximately 100 stations in this category and that protecting them would increase the number of constraints on the repacking process, thereby limiting our repacking flexibility.[190] In late-filed pleadings, the LPTV Coalition and Abacus dispute the number of stations in this category.[191] As an initial matter, we dismiss these filings as late-filed petitions for reconsideration, but will treat them as informal comments.[192] We affirm the statement in the *Incentive Auction R&O* that there are approximately 100 formerly out-of-core Class A-Eligible LPTV stations that had not filed an application for a license to cover a Class A facility as of February 22, 2012.[193] While the LPTV Coalition asserts that they have not been provided with a list of such stations, the stations falling in this category can be identified using the Consolidated Database System ("CDBS").[194] Parties have provided no data or analysis undermining our findings on the number of stations in this category.[195]

55. We also reject on alternative and independent grounds petitioners' claims that they are entitled to protection under the CBPA. As an initial matter, petitioners' claims are late. To the extent they believe they were entitled to issuance of a Class A license when they were assigned in-core channels, they should have objected several years ago when the Media Bureau issued their in-core construction permits without also issuing a Class A license.[196] In any event, we reject petitioners' view. While

[190] *Incentive Auction R&O*, 29 FCC Rcd at 6671, para. 234.

[191] *See* Abacus Supplement; LPTV Coalition Supplement. *See also* Videohouse Reply at 2-3.

[192] *See* 47 U.S.C. § 405(a) (petitions for reconsideration must be filed no later than 30 days after public notice of Commission decision); 47 C.F.R. § 1.429(d) (same). The Commission may not waive the deadline for seeking reconsideration absent extraordinary circumstances. *See Reuters Ltd. v. FCC*, 781 F.2d 946, 951-52 (D.C. Cir. 1986). The number of formerly out-of-core Class A-eligible LPTV stations that had not filed an application for a license to cover a Class A facility as of February 22, 2012 was readily available via CDBS station records before the deadline for filing Petitions for Reconsideration. Thus, there were no extraordinary circumstances precluding parties from presenting their arguments in a timely fashion. Accordingly, we deny Abacus's Petition for Leave to File Supplemental Reconsideration and the LPTV Coalition's Petition for Leave to Amend. *See* Abacus Petition for Leave to File Supplemental Reconsideration (Nov. 12, 2014); LPTV Coalition Petition for Leave to Amend (Nov. 12, 2014).

[193] *Incentive Auction R&O*, 29 FCC Rcd at 6670, para. 232. While Abacus claims that there are only 12 to 15 stations in this category, it incorrectly defines the category as formerly out-of-core Class A-eligible LPTV stations that filed for *and received* a Class A license after February 22, 2012. *See* Abacus Supplement at 9-10. This ignores the dozens of formerly out-of-core Class A-eligible LPTV stations that have not yet filed for a Class A license.

[194] Specifically, the number of stations in this category can be obtained by searching CDBS for all formerly out-of-core LPTV stations whose certifications of eligibility for Class A status were accepted by the Commission, *see Certificates of Eligibility for Class A Television Station Status*, Public Notice, 15 FCC Rcd 9490 (MB 2000), and then determining whether such stations obtained an in-core facility but had not filed an application for a license to cover a Class A facility as of February 22, 2012.

[195] We note that certain formerly out-of-core Class A-eligible LPTV stations that will not be protected in the repacking process were included in a June 2014 staff interference study. *See* LPTV Coalition Supplement at 2; Videohouse Reply at 2 n.5. As an initial matter, this study was produced by staff and is not binding on the Commission. *See Comcast Corp. v. FCC*, 526 F.3d 763, 769 (D.C. Cir. 2008). In any event, the study did not state or imply that it represented the final list of stations that would be protected in the repacking process. *See Incentive Auction Task Force Releases Updated Constraint File Data Using Actual Channels and Staff Analysis Regarding Pairwise Approach to Preserving Population Served*, GN Docket No. 12-268, ET Docket No. 13-26, Public Notice, 29 FCC Rcd 5687 (IATF 2014) ("[T]he data and information released today are based on preliminary assumptions necessary for completing the analysis, and are illustrative only.").

[196] *See* 47 U.S.C. § 405(a) (petitions for reconsideration must be filed no later than 30 days after public notice of Commission decision); 47 C.F.R. § 1.429(d) (same).

petitioners note that the CBPA required the Commission to issue Class A licenses to out-of-core Class A-eligible LPTV stations "simultaneously" upon assignment of their in-core channels,[197] in order to effectuate this requirement, such stations were "require[d] . . . to file a Class A application simultaneously" with an application for an in-core construction permit.[198] When petitioners filed for construction permits to move to in-core channels, however, they did not file an application for a Class A license or a Class A construction permit.[199] Rather, it was not until January 2013 when petitioners first filed applications for a Class A authorization (i.e., either a Class A license or Class A permit), after they were assigned to in-core channels and after the enactment of the Spectrum Act.[200] Under petitioners' view, the CBPA required the Commission to issue a Class A license when it assigned petitioners in-core channels, even though they had not yet submitted applications for a Class A authorization (either a license or permit).[201] Yet the CBPA provides that the Commission shall issue a Class A license to an "applicant for a class A license" that is assigned a channel within the core, thereby requiring the station to have an application on file.[202] Moreover, petitioners' view runs afoul of the Communications Act and the CBPA, both of which require the filing of an application before the Commission may issue a license.[203]

56. Petitioners also note language from the *Class A R&O* stating that the Commission "will not impose any time limit on the filing of a Class A application by LPTV licensees operating on channels outside the core."[204] This language declines to impose a deadline on the simultaneous filing of

[197] 47 U.S.C. § 336(f)(6)(A) ("If such a qualified applicant for a class A license is assigned a channel within the core spectrum (as such term is defined in MM Docket No. 87-286, February 17, 1998), the Commission shall issue a class A license simultaneously with the assignment of such channel.").

[198] *Class A R&O*, 15 FCC Rcd at 6396-97, para. 103 ("When a qualified LPTV station outside the core seeking Class A status locates an in-core channel, we will require the station to file a Class A application simultaneously with its application for modification of license to move to the in-core channel.").

[199] As noted, the CBPA provides that, if a "qualified applicant for a class A license is assigned a channel within the core spectrum," then the Commission "shall issue a class A license simultaneously with the assignment of such channel." 47 U.S.C. § 336(f)(6)(A). Interpreted literally, this language would require the Commission to authorize use of a facility before its construction. *See supra* n.188. Instead, the Media Bureau's practice has been to allow a Class A-eligible LPTV station to file an application for a Class A "construction permit" simultaneously with an application for an in-core LPTV construction permit. *See supra* n.186. The Bureau would grant the permits simultaneously, thereby ensuring that the permitted facilities would be entitled to protection from interference like other Class A facilities. *See infra* para. 58. The petitioners, however, did not file for a Class A authorization (license or permit) until after the Spectrum Act was enacted.

[200] *See* Abacus Petition at 6; Videohouse Petition at 6. *See also* Asiavision Opposition at 5 (first application for Class A authorization filed in November 2013).

[201] While Videohouse was assigned an in-core channel in September 2009, *see* Videohouse Petition at 6, Abacus was not assigned an in-core channel until November 2012. *See* Abacus Supplement at 5. Thus, even if the Commission had issued Abacus a Class A license "simultaneously" upon assignment of its in-core channel, despite the absence of an application on file, Abacus's Class A license would have been issued after February 22, 2012, thus not entitling it to mandatory preservation.

[202] 47 U.S.C. § 336(f)(6)(A) ("If such a *qualified applicant for a class A license* is assigned a channel within the core spectrum (as such term is defined in MM Docket No. 87-286, February 17, 1998), the Commission shall issue a class A license simultaneously with the assignment of such channel.") (emphasis added).

[203] See 47 U.S.C. § 308(a) ("The Commission may grant . . . station licenses . . . only upon written application therefor received by it . . . ."); 47 U.S.C. § 336(f)(1)(C) ("a licensee may submit an application for class A designation . . . after final regulations are adopted"); *Class A R&O*, 15 FCC Rcd at 6361, para. 11 ("To be eligible for a Class A license, an LPTV station must go through several steps. . . . [I]t must file an application for a Class A license.").

[204] *Class A R&O*, 15 FCC Rcd at 6396-97, para. 103. *See* Abacus Petition at 2, 6; Videohouse Petition at 2, 7.

applications for an in-core LPTV construction permit and a Class A authorization.[205] It does not endorse the filing of an application for a Class A authorization after filing an application for an in-core construction permit. As noted in the *Incentive Auction R&O*, the Media Bureau did grant the applications of some stations that filed applications for Class A authorizations after applying for or obtaining an in-core construction permit if otherwise consistent with the Commission's rules.[206] As a general matter, however, stations that refrained from applying for a Class A authorization until after applying for or obtaining an in-core construction permit are not eligible for the simultaneous grant of a Class A authorization along with the grant of their in-core LPTV construction permit.[207]

57. While petitioners note that the CBPA requires the Commission to "preserve the service areas of low-power television licensees pending the final resolution of a class A application," this provision applies only "pending the final resolution of a class A application."[208] Petitioners, however, did not have applications for Class A licenses or Class A permits that were "pending . . . final resolution" on February 22, 2012, thus this provision of the CBPA does not apply.

58. Petitioners also note language from the *Class A R&O* in which the Commission stated that it would "commence contour protection for [out-of-core stations] upon issuance of a construction permit for an in-core channel."[209] This language clarified that protection of a station's contour would not have to wait until the filing of an application for "a license to cover construction" of the in-core channel.[210] To implement this approach, the Media Bureau required an out-of-core Class A eligible LPTV station to file an FCC Form 346 for a construction permit for an in-core LPTV facility and, at the same time, an FCC Form 302-CA for a Class a construction permit. When petitioners filed an FCC Form 346, however, they did not file the FCC Form 302-CA and thus were not entitled to contour protection.

59. Petitioners further claim that they are similarly situated to KHTV-CD, a formerly out-of-core Class A-Eligible LPTV station that filed an application for a license to cover a Class A facility after February 22, 2012 but to which we extended discretionary protection. As an initial matter, we dismiss petitioners' arguments on procedural grounds. The *Incentive Auction NPRM* squarely raised the question of which facilities to protect in the repacking process, proposing to interpret the Spectrum Act as mandating preservation only of full-power and Class A facilities that were licensed, or for which an

[205] In 2000, the Commission cautioned that "it would be in the best interest of qualified LPTV stations operating outside the core to try to locate an in-core channel *now*, as the core spectrum is becoming increasingly crowded and it is likely to become increasingly difficult to locate an in-core channel in the future." *Class A R&O*, 15 FCC Rcd at 6396–97, para. 103 (emphasis added). Moreover, all out-of-core LPTV stations were required to file displacement applications for an in-core channel by September 1, 2011. *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, MB Docket No. 03-185, Second Report and Order, 26 FCC Rcd 10732, 10733, para. 2 (2011). Thus, all out-of-core Class A-eligible LPTV stations had the opportunity to file an application for a Class A construction permit when filing for their in-core channel by September 1, 2011, well in advance of the Spectrum Act's enactment on February 22, 2012.

[206] *Incentive Auction R&O*, 29 FCC Rcd at 6670 n.717.

[207] Petitioners suggest that Commission staff has declined to issue Class A authorizations in certain cases until the in-core facilities were constructed and licensed as LPTV facilities. *See* Abacus Petition at 5; Videohouse Petition at 6-7; Abacus Supplement at 5 n.7. Even if accurate, this does not help petitioners because neither alleges that they filed for a Class A authorization before February 22, 2012, but such applications were dismissed by staff until the in-core facilities were constructed. Both petitioners acknowledge that their first application for a Class A authorization was not filed until January 2013. *See* Abacus Petition at 6; Videohouse Petition at 6. *See also* Asiavision Opposition at 5 (first application for Class A authorization filed in November 2013).

[208] *See* 47 U.S.C. § 336(f)(1)(D).

[209] *Class A R&O*, 15 FCC Rcd at 6372, para. 40 n.81. *See also id*. at 6396-97, para. 103.

[210] *Id.* at 6396-97, para. 103.

application for license to cover was on file, as of February 22, 2012.[211] Recognizing that it was not a Class A licensee as of February 22, 2012, KHTV-CD put forth in response to the *Incentive Auction NPRM* evidence demonstrating why it should be afforded discretionary protection.[212] Like KHTV-CD, petitioners were not Class A licensees as of February 22, 2012. Unlike KHTV-CD, however, petitioners did not attempt to demonstrate in response to the *Incentive Auction NPRM* why they should be afforded discretionary protection. Rather, on reconsideration, petitioners for the first time attempt to explain why they also should be extended discretionary protection. They have not shown, however, why they were unable to raise these facts and arguments before adoption of the *Incentive Auction R&O*. Indeed, all of the evidence put forth by petitioners, including the date when they were granted a Class A license, preceded adoption of the *Incentive Auction R&O*. Accordingly, we dismiss petitioners' claims that they are entitled to discretionary protection because they rely on facts and arguments not presented to the Commission before the *Incentive Auction R&O* was adopted and petitioners have not attempted to demonstrate compliance with the exceptions for such filings found in section 1.429(b) of our Rules.[213]

60. As an alternative and independent ground, we deny petitioners' claims that they are similarly situated to KHTV-CD. First, as described in the *Incentive Auction R&O,* KHTV-CD filed an application for a license to cover its Class A facility just two days after enactment of the Spectrum Act on February 22, 2012.[214] By contrast, despite receiving in-core construction permits in 2009 (Videohouse) and 2012 (Abacus), petitioners did not file applications for licenses to cover their Class A facilities until January 2013, almost a year after enactment of the Spectrum Act.[215] Second, KHTV-CD documented repeated efforts over the course of a decade to locate an in-core channel and convert to Class A status, including filing in July 2001 an initial application for a license to cover a Class A facility.[216] By contrast, petitioners do not document any efforts to locate an in-core channel before 2009, almost a decade after passage of the CBPA.[217] Third, beginning in 2001, KHTV-CD had either an application for a license to cover a Class A facility or an application for a Class A construction permit on file with the Commission in which it certified that it was meeting, and would continue to meet, all Class A operating requirements and applicable full power requirements.[218] By contrast, petitioners did not make these certifications in an application filed with the Commission until January 2013.[219] Petitioners vaguely assert that their service includes "locally produced, locally originated programming,"[220] but, unlike KHTV-CD, they do not state,

[211] *Incentive Auction NPRM*, 27 FCC Rcd at 12390, para. 98.

[212] *See* Venture Reply Comments.

[213] *See* 47 C.F.R. § 1.429(b)(1)-(3) (a petition for reconsideration which relies on facts or arguments which have not previously been presented to the Commission will be granted only under certain circumstances).

[214] *Incentive Auction R&O*, 29 FCC Rcd at 6671-72, para. 235.

[215] *See* Abacus Petition at 6; Videohouse Petition at 6; Abacus Supplement at 5. *See also* Asiavision Opposition at 5 (first application for Class A authorization filed in November 2013).

[216] *Incentive Auction R&O*, 29 FCC Rcd at 6671-72, para. 235.

[217] *See* Abacus Petition at 4-6; Videohouse Petition at 4-7.

[218] As indicated on the FCC Form 302-CA, willful false statements made in an application filed with the Commission are punishable by fine and imprisonment, 18 U.S.C. § 1001, and by appropriate administrative sanctions, including revocation of station license. 47 C.F.R. §§ 73.1015; 73.3513. KHTV filed an application for a license to cover a Class A facility in July 2001 that was subsequently dismissed because it was predicted to cause interference. *Incentive Auction R&O*, 29 FCC Rcd at 6671-72, para. 235. KHTV then filed an application for a construction permit for an in-core LPTV facility and, at the same time, an application on FCC Form 302-CA for a Class A construction permit. *Id*. While the application for the in-core LPTV construction permit was dismissed, the FCC Form 302-CA, including the certifications of compliance with Class A requirements, remained on file until July 2012. *See* Venture Reply Comments at 5 n.12.

[219] *See supra* n.215.

[220] *See* Abacus Petition at 4; Videohouse Petition at 4.

nor did they certify in an application filed with the Commission before January 2013, that they were meeting and would continue to meet, all Class A operating requirements and applicable full power requirements.[221]

61. We also reject petitioners' claim that they are similarly situated to stations in other categories the Commission elected to protect in the repacking process. As an initial matter, with the exception of new full power stations not licensed as of February 22, 2012, all of the stations in these categories were full-power or Class A licensees as of February 22, 2012 and thus entitled to mandatory preservation, unlike petitioners, who remained LPTV licensees as of February 22, 2012.[222] In the *Incentive Auction R&O*, we exercised discretion to protect certain modifications of these licensed full-power or Class A facilities because the impact on repacking flexibility would be minimal while, on the other hand, there were significant equities in favor of preservation.[223] We explained why the balance was different for formerly out-of-core Class A-eligible LPTV stations that had not filed applications for licenses to cover Class A facilities as of February 22, 2012.[224] Petitioners offer no basis to revisit this balance.

62. Based on examination of the record, we will exercise discretion to protect stations in addition to KHTV-CD that hold a Class A license today and that had an application for a Class A construction permit pending or granted as of February 22, 2012.[225] We find that there are significant equities in favor of protection of these stations that outweigh the limited adverse impact on our repacking flexibility.[226] By filing an application for a Class A construction permit prior to February 22, 2012, each of these stations documented efforts prior to passage of the Spectrum Act to remove their secondary status

[221] *Incentive Auction R&O*, 29 FCC Rcd at 6672 n.729.

[222] With respect to new full power stations not licensed as of February 22, 2012, the *Incentive Auction R&O* squarely addressed why they are unlike the formerly out-of-core Class A-Eligible LPTV stations. *Incentive Auction R&O*, 29 FCC Rcd at 6671 n.725 ("[S]uch full power stations are small in number and are licensed or authorized on VHF channels and/or in remote locations, and thus present far less impact on repacking flexibility than the approximately 100 stations in this category, almost all of which operate on UHF channels and many of which are located in spectrum-congested areas. Moreover, the new full power stations have proceeded to obtain licenses for their stations in due course, whereas the stations in this category have failed to take the steps necessary to remove their secondary status, despite the fact that the CBPA and the Commission's rules implementing it were adopted more than a decade ago.").

[223] *Id.* at 6657-58, paras. 198-202 (discussing facilities authorized in construction permits for channel substitutions that are licensed by the Pre-Auction Licensing Deadline); *id*. at 6660-62, paras. 207-10 (discussing the facilities of full power and Class A stations authorized in construction permits that were granted on or before April 5, 2013 but are licensed by the Pre-Auction Licensing Deadline); *id*. at 6663-65, paras. 216-18 (discussing Class A stations licensed before February 22, 2012 who have initial digital facilities that were not initially licensed until after February 22, 2012 but are licensed by the Pre-Auction Licensing Deadline).

[224] *Id*. at 6670 n.717, and 6671, para. 234. As stated above, protecting the approximately 100 stations in this category would significantly impact our repacking flexibility while, on the other hand, there were minimal equities in favor of preservation in light of the failure of these stations to remove their secondary status in a timely manner. *See supra*, Section II.B.2.c (Out-of-Core Class A-Eligible Television Stations).

[225] Stations that believe they fall within this category but were not listed in the Media Bureau's *Eligibility PN* may file a Petition for Eligible Entity Status seeking inclusion on the list of protected facilities. *See Media Bureau Announces Incentive Auction Eligible Facilities and July 9, 2015 Deadline for Filing Pre-Auction Technical Certification Form*, Public Notice, DA 15-679 (June 9, 2015) (explaining deadlines and procedures for filing a Petition for Eligible Entity Status).

[226] Based on our review of CDBS, we believe that approximately a dozen stations fall within this category. While protecting additional stations will impact our flexibility in the repacking process, such concerns are lessened by the fact that Class A stations have a limited coverage (Class A stations may radiate at a maximum operating power of 15 kilowatts, as opposed to 1000 kilowatts for full power stations) and, based on our review of CDBS, the stations in this category are located predominantly outside what we expect to be the most spectrum-constrained areas.

and avail themselves of Class A status. Under the Commission's rules, these stations were required to make the same certifications as if they had applied for a license to cover a Class A facility.[227] Among other things, each was required to certify that it "does, and will continue to, broadcast" a minimum of 18 hours per day and an average of at least three hours per week of local programming and that it complied with requirements applicable to full-power stations that apply to Class A stations. Thus, prior to the enactment of the Spectrum Act, such stations had certified in an application filed with the Commission that they were operating like Class A stations. In addition, the licensees of these stations may not have known that the stations were not entitled to mandatory protection under the Spectrum Act.[228] By contrast, as noted above, petitioners did not certify continuing compliance with Class A requirements in an application filed with the Commission until after the enactment of the Spectrum Act,[229] and they had no justification for not seeking discretionary protection in response to the *Incentive Auction NPRM*.[230]

63. As requested by the LPTV Coalition, we clarify certain issues pertaining to those Class A stations that will not be protected in the repacking process.[231] First, as explained in the *Incentive Auction R&O*, if such a station is displaced in the repacking process, it may file a displacement application during one of the filing opportunities for alternate channels.[232] The Media Bureau has delegated authority to determine whether such stations should be permitted to file for a new channel along with priority stations or during the second filing opportunity.[233] Second, such Class A stations are not eligible to participate in the reverse auction and thus may not submit channel sharing bids.[234] We have recently proposed, however, to allow Class A stations to channel share outside of the auction context.[235] Third, such stations are not eligible to receive reimbursement for relocation costs. The reimbursement mandate set forth in section 1452(b)(4) applies only to full power and Class A television licensees that are involuntarily "reassigned" to new channels in the repacking process pursuant to section 1452(b)(1)(B)(i).[236] The unprotected Class A stations will not be protected in the repacking process , and thus will be not "reassigned under [section 1452(b)(1)(B)(i)]" as required to fall within section 1452(b)(4).[237]

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[227] *See supra* n.185. *See also* FCC Form 302-CA, Section II, Questions 3, 4, 8, 9, 10; *supra* n.218 (explaining that willful false statements made in an application filed with the Commission are subject to penalties).

[228] As noted above, the *Incentive Auction R&O* was ambiguous as to whether a Class A-eligible station that filed an application for a Class A construction permit prior to February 22, 2012 would be entitled to mandatory protection. *See supra* n.187 and accompanying text. We clarify above that such stations are not entitled to mandatory protection. *See supra* para. 53. In addition, most of these stations were included on a preliminary list of stations that would be protected in the repacking process in a June 2014 staff interference study. *See supra* n.195.

[229] Rather, the petitioners' stations continued to operate as LPTV stations, which have no minimum operations requirements. 47 C.F.R. § 74.763(a); *Digital LPTV Order*, 19 FCC Rcd at 19392-3, paras. 185-87. ("LPTV and TV translator stations are not required to adhere to a minimum operating schedule because we desire to facilitate flexible LPTV station operations and to minimize the cost of regulatory compliance …"). It was not until after the enactment of the Spectrum Act, which does not provide for participation of LPTV stations in the reverse auction that petitioners first sought to change their status from LPTV to Class A.

[230] *See supra* para. 59.

[231] *See* LPTV Coalition Petition at 2.

[232] *Incentive Auction R&O*, 29 FCC Rcd at 6671, para. 234. *See also id*. at 6794, para. 554 and 6795, para. 556.

[233] *Id*. at 6671, para. 234.

[234] *Id*. at 6718 n.1053.

[235] *See First Order on Reconsideration and Notice of Proposed Rulemaking*, *infra* n.1.

[236] *Incentive Auction R&O*, 29 FCC Rcd at 6813, para. 601.

[237] *Id*. at 6813-14, para. 602 ("Stations that are not reassigned to a new channel will not be eligible for reimbursement. [Section 1452(b)(4)(A)(i)] expressly mandates reimbursement only for television licensees 'that (continued….)

d. LPTV and TV Translator Stations

(i) Repacking Protection

64. *Background.* In the *Incentive Auction R&O*, we explained that Congress limited mandatory repacking protection to "broadcast television licensees,"[238] the definition of which unambiguously excludes LPTV and TV translator stations.[239] We also declined to exercise our discretion to provide repacking protection to LPTV and TV translators, finding that, on balance, concerns about displacing LPTV and TV translators were outweighed by the detrimental impact that protecting them would have on the repacking process and on the success of the incentive auction.[240] In addition, we decided that the interference protections in the CBPA do not extend "to LPTV or TV translator stations vis-à-vis Class A television stations in the repacking process."[241] The CBPA prevents the Commission from approving a Class A license modification "unless the . . . licensee shows" that its proposal would not cause interference to LPTV or translator facilities authorized or proposed before "the application for … modification of such a license was filed."[242] We concluded that this language does not apply to our implementation of the repacking process authorized by the Spectrum Act, which was not anticipated at the time the CBPA was enacted and which, by the terms of the Spectrum Act, is initiated by the Commission rather than by "application[s]" from licensees.[243]

65. ATBA requests that we "conduct . . . a comprehensive study of the potential impact of the incentive auction on the LPTV service . . .; assess the impact of each repacking scenario on the LPTV service before closing each stage; and affirmatively to seek to maximize LPTV preservation at each stage of the auction and during repacking, including at the optimization stage."[244] Mako Communications, LLC ("Mako") argues that our decision not to protect LPTV and TV translator stations in the repacking process "altered" LPTV and TV translator stations' spectrum usage rights in contravention of section 1452(b)(5) by allowing them to be displaced by new wireless users.[245] It further argues that displacement of an LPTV or TV translator station is a "revocation" requiring an order to show cause and a hearing,[246] and challenges our conclusion that the interference protection ordinarily accorded to LPTV stations against modifications of Class A facilities under the CBPA does not apply to channel assignments made in the

(Continued from previous page)
[are] reassigned under [section 1452(b)(1)(B)(i)]' in the repacking process, and does not require reimbursement for stations that are not reassigned to new channels.").

[238] *See Incentive Auction R&O*, 29 FCC Rcd at 6652, para. 185; 6654, para. 188; 6673, para. 238.

[239] *Id. See also* CTIA Opposition at 5 ("the Spectrum Act's classification of LPTV is not a matter of interpretation . . . Congress afforded LPTV stations few to no rights in the incentive auction process"); Mobile Future Opposition at 2-4 (stating that the Commission's consideration and rejection of requests to afford repacking protection to LPTV and TV translator stations is consistent with the Spectrum Act, and petitioners have not provided new facts or arguments to contradict that decision).

[240] *Incentive Auction R&O*, 29 FCC Rcd at 6674, para. 241.

[241] *Id.* at 6676, para. 244.

[242] *Id.*; 47 U.S.C. § 336(f)(7)(B)

[243] *Incentive Auction R&O*, 29 FCC Rcd at 6676, para 244.

[244] ATBA Petition at 2-3.

[245] Mako Petition at 7-8. Mako argues that section 1452(b)(5) is meant to maintain low power television stations' secondary rights against those specific services discussed in earlier Commission actions, but does not further limit their spectrum usage rights against services involved in implementation of the Spectrum Act.

[246] Mako Petition at 8, citing 47 U.S.C. § 312(a) and 5 U.S.C. § 558(c). Mako argues that such "en masse revocation by rulemaking squarely violates the adjudicatory notice and hearing requirements" contained in the Communications Act and the Administrative Procedure Act.

repacking process.[247] Finally, US Television, LLC ("USTV") argues that "the FCC clearly erred when it failed to protect stations that Congress identified in the Digital Data Services Act ("DDSA") for its LPTV data pilot project."[248] In opposition, CTIA, Mobile Future and WISPA argue that the Commission's consideration and rejection of requests to afford repacking protection to LPTV and TV translator stations was consistent with the Spectrum Act.[249]

66. *Discussion.* We deny ATBA's, Mako's, and USTV's requests. ATBA's request is incompatible with our auction design: granting it would compromise the basic auction design principle of speed, which "is critical to the successful implementation of the incentive auction."[250] In addition, channel assignments will be provisional until the final TV channel assignment plan is established after the final stage rule is satisfied, so the analysis ATBA advocates during the reverse auction bidding process would not be useful in assessing the potential impact on LPTV service.[251]

67. Moreover, we cannot conclude that we must further analyze the potential impact of the incentive auction on the LPTV service before conducting the repacking process. As we explained in the *Incentive Auction R&O*, the Spectrum Act does not require protection of LPTV stations, which always have been subject to displacement by primary services.[252] Although we have limited discretion to extend repacking protection beyond the requirements of the statute,[253] we have done so only with respect to the facilities of "broadcast television licensees" as defined in the Spectrum Act, that is, full-power or Class A stations.[254] Based on careful consideration of the factors relevant to our exercise of discretion, we declined to extend repacking protection to LPTV stations.[255] Nevertheless, recognizing the important services provided by the LPTV stations, we adopted a number of measures to mitigate the potential impact of the repacking process on LPTV stations, and initiated a separate proceeding to consider additional measures.[256] In short, we have taken into consideration the potential impact of the repacking

[247] Mako Petition at 9, citing 47 U.S.C. § 336(f)(7)(B).

[248] USTV Petition at 1, citing Public Law No. 106-554, 114 Stat. 4577 (Dec. 21, 2000) (codified at 47 U.S.C. § 336(h)).

[249] *See* CTIA Opposition at 5; Mobile Future Opposition at 2-4; WISPA Opposition at 7-11.

[250] *Incentive Auction R&O*, 29 FCC Rcd at 6618, para. 111.

[251] *Id.* at 6621, para. 118. We sought comment on the final TV channel assignment optimization in the *Incentive Auction Comment PN*, *see supra* n.2, and decline to address it here.

[252] *Id.* at 6673-74, paras. 238-239; 47 U.S.C. § 1452(b)(2), (b)(5).

[253] *Incentive Auction R&O*, 29 FCC Rcd at 6655, para. 192 ("Our exercise of discretion requires a careful balancing of numerous factors in order to carry out the goals of the Spectrum Act and other statutory and Commission goals.").

[254] 47 U.S.C. § 1401(6).

[255] *Incentive Auction R&O*, 29 FCC Rcd at 6674, para. 241 ("[T]here are more than 5,500 licensed LPTV and TV translator stations, and almost 4,500 of these stations are licensed on UHF channels. Protecting them would increase the number of constraints on the repacking process significantly, and severely limit our recovery of spectrum to carry out the forward auction, thereby frustrating the purposes of the Spectrum Act."). Accordingly, we deny Free Access' claim that, for a given PEA, we cannot repurpose more spectrum than is vacant before the reverse auction or than is relinquished in the reverse auction, until all LPTV and translator stations are relocated. Free Access Petition at 5-7. Such an approach would require protection of LPTV stations in the repacking process, which we decline to do for the reasons stated above and in the *Incentive Auction R&O*. Moreover, despite Free Access' claims, we have already rejected the argument that LPTV stations' spectrum usage rights are protected from taking by the Fifth Amendment. *See Incentive Auction R&O*, 29 FCC Rcd at 6674, para. 240.

[256] *Id.* at 6834-39, paras. 657-67; *see Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations*, MB Docket No. 03-185, Third Notice of Proposed Rulemaking, 29 FCC Rcd 12536 (2014) ("*Third LPTV NPRM*"). We also described the steps that we have taken to minimize the significant economic impact on LPTV stations of the repacking process in (continued….)

process on LPTV stations in this proceeding, and are not required to conduct additional analysis.[257] For the same reasons, we reject ATBA's suggestion that we must consider the potential impact of LPTV displacement on the diversity of broadcast voices before carrying out the incentive auction.[258] LPTV and TV translator stations have always been at risk of displacement by primary services,[259] yet Congress provided specifically that the Spectrum Act does not alter that risk.[260]

68. We also disagree with Mako that our decision not to protect LPTV and TV translator stations in the repacking process "altered" LPTV and TV translator stations' spectrum usage rights in contravention of section 1452(b)(5). As explained in the *Vacant Channel NPRM*, we interpret section 1452(b)(5) as a rule of statutory construction, not a limit on the Commission's authority.[261] In any event, LPTV and TV translator stations have always operated on a secondary basis with respect to primary licensees, which may be authorized and operated without regard to existing or proposed LPTV and TV translators.[262] Any LPTV displacement as a result of the incentive auction, therefore, does not "alter the spectrum usage rights of low power television stations."[263] Mako counters that this is the first time that the LPTV industry "will be subject to losing their station licenses."[264] However, LPTV stations have always operated in an environment where they could be displaced from their operating channel by a primary user and, if no new channel assignment is available, forced to go silent.[265] The potential impact

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the *Incentive Auction R&O's* Final Regulatory Flexibility Analysis ("FRFA"). *Incentive Auction R&O*, 29 FCC Rcd at 6948, Appendix B, para. 9.

[257] In Section III.B.1 (Reverse Auction – Eligibility), *infra*, we specifically address the argument that the Regulatory Flexibility Act required an economic impact analysis by the Commission of how the incentive auction will affect LPTV service.

[258] *See* ATBA Reply at 2 (arguing that the Commission "has held for decades that the diversity of broadcast voices is an overriding public interest objective" and "it would not be reasonable for the Commission to take action that will eliminate hundreds or thousands of diverse voices without assessing how many will be eliminated.").

[259] *Incentive Auction R&O*, 29 FCC Rcd at 6674, para. 241.

[260] 47 U.S.C. § 1452(b)(5).

[261] *See Vacant Channels NPRM*, *supra* n.37.

[262] *Id.* Mako challenges this statement but within its own footnotes it cites to Commission decisions stating the longstanding policy, dating back to the service's creation in 1982, that LPTV and TV translator stations are secondary to all primary spectrum users. *See Inquiry into the Future Role of Low-Power Television Broadcasting and TV Translators*, BC Docket No. 78-253, Report and Order, 51 Rad. Reg. 2d (P & F) 476, 488 and 499 (1982) (low power stations are authorized on a secondary basis to all stations in existing primary allocations); *Reallocation and Service Rules for 698-746 MHz Spectrum Band (Channels 52-69)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022, 1034-35, paras. 27-29 (2002); *DTV Sixth Report and Order*, 12 FCC Red at 14652-53, paras. 141-43; and *Memorandum Opinion and Order on Reconsideration of Sixth Report and Order*, 13 FCC Rcd 7418, 7461, para. 105 (1998) ("as secondary operations, low power stations must give way to new operations by primary users of the spectrum"); *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, GN Docket No. 01-74, Notice of Proposed Rulemaking, 16 FCC Rcd 7278, 7288, para. 18 (2001) ("[W]e propose that LPTV and TV translator stations not be permitted to cause harmful interference to stations of primary services, including new licensees in Channels 52-59, and cannot claim protection from harmful interference from stations of primary services, including new licensees in Channels 52-59"); *LPTV DTV R&O*, 19 FCC Rcd at 19333, para. 2 ("stations in the low power television service are authorized with 'secondary' frequency use status. These stations may not cause interference to, and must accept interference from, full-service television stations, certain land mobile radio operations and other primary services.").

[263] *See* Mobile Future Opposition at 5.

[264] Mako Petition at 8.

[265] *See Petition by Community Broadcasters Association to Amend Part 74 of the Commission's Rules*, Memorandum Opinion and Order, 59 Rad. Reg. 2d (P&F) 1216, 1217, para. 4 (1986) (parties have had "explicit, full and clear prior notice that operation in the LPTV [and TV translator service] entails the risk of displacement") citing (continued….)

of the repacking process is no different.

69. We also disagree with Mako that displacement of an LPTV or TV translator station is a "revocation" requiring an order to show cause and a hearing. Displacement does not "revoke" LPTV or TV translator licenses for purposes of section 312 of the Act because it does not require termination of operations or relinquishment of spectrum usage rights; displacement requires only that LPTV and TV translator stations vacate the channel on which they are operating. Indeed, displacement is not even a license modification, as LPTV and TV translator stations may be displaced by primary services at any time.[266]

70. We also disagree with Mako's argument that the Commission's conclusion that the CBPA does not protect LPTV and TV translator stations vis-à-vis Class A stations during the repacking process cannot be justified based on the CBPA's "fail[ure] to 'anticipate' a broadcast television incentive auction would be held at some future point."[267] This argument is based on a misreading of the *Incentive Auction R&O*. Our statutory interpretation in the *Incentive Auction R&O* was based on the fact section 336(f)(7)(B) "grants LPTV and TV translator stations protection against changes to facilities *proposed by Class A licenses*," whereas channel reassignments in the repacking process will be carried out by the Commission;[268] Class A licensees will neither initiate such reassignments nor have the right to protest the resulting license modifications.[269] Our interpretation of the statutory language was not based on the fact that Congress could not have anticipated the incentive auction and the repacking process when it enacted the CBPA in 1999. Nevertheless, we note that our interpretation harmonizes the two statutes in a way that Mako's fails to do: reading section 336(f)(7)(B) to require the Commission to protect LPTV and TV translator stations vis-à-vis Class A stations would create tension with the statutory preservation mandate of section 1452(b)(2), which directs the Commission to make all reasonable efforts to preserve the coverage area and population served of Class A stations, not LPTV or TV translator stations.

71. Finally, we also disagree with USTV that "the FCC clearly erred when it failed to protect stations that Congress identified in the Digital Data Services Act (DDSA) for its LPTV data pilot project."[270] In the DDSA, Congress created a project to allow 13 LPTV stations to begin operating with digital facilities prior to the adoption of digital rules for the low power television services.[271] USTV maintains that Congress "clearly expressed its intention that the 13 stations identified in the DDSA should be permitted to operate so that they can introduce digital data services on low-power TV spectrum."[272] USTV further argues that "the Spectrum Act did not repeal the DDSA or give the FCC authority to abrogate or ignore its provisions."[273] Contrary to USTV's argument, stations authorized to operate under

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Report and Order, 51 Rad. Reg. 2d (P & F) 476, 494 (1982); *Amendment of the Commission's Rules to Allow the Selection from Among Certain Competing Applications Using Random Selection or Lotteries Instead of Comparative Hearings*, Gen. Docket No. 81-768, Second Report and Order, 93 FCC 2d 952, 983-4, para. 81 (1983); and *The Future Role of Low Power Television Broadcasting and Television Translators in the National Telecommunications System,* BC Docket No. 78-253, Memorandum Opinion and Order, 48 Fed.Reg. 21478, 21480 (1983).

[266] *See supra* para. 67.

[267] Mako Petition at 9, citing 47 U.S.C. § 336(f)(7)(B).

[268] *See Incentive Auction R&O*, 29 FCC Rcd at 6676, para. 244 (emphasis added).

[269] *See* 47 U.S.C. § 1452(h) (protest rights under section 316 of the Communication Act are inapplicable to channel reassignments made in the repacking process).

[270] USTV Petition at 1.

[271] 47 U.S.C. § 336(h).

[272] USTV Petition at 5.

[273] *Id.*

the terms of the DDSA remain secondary in nature under the Commission's rules, and nothing in the DDSA, the Commission's order implementing the DDSA, the Commission's rules, or the Spectrum Act mandates that DDSA stations be protected in the repacking process.[274] Furthermore, as USTV points out, the pilot program never materialized,[275] and there are no stations that are currently operating under the program to qualify even if we were to decide to extend discretionary protection to them.

(ii) Measures to Assist LPTV and TV Translators

72. *Background.* In the *Incentive Auction R&O*, we announced measures to assist LPTV and TV translators that are displaced as a result of the incentive auction and repacking, including opening a special post-auction filing window for displaced LPTV and TV translator stations, including analog-to-digital replacement translators ("DRTs"), to request a new channel.[276] We established a priority for displaced DRTs in the event of mutual exclusivity that cannot be resolved.[277]

73. ATBA and USTV ask that we reconsider our decision to provide DRTs a priority in the post-incentive auction displacement window and other measures to assist displaced LPTV and TV translator stations.[278] ATBA argues that we unreasonably "refused a sensible request that the FCC permit LPTV licensees to use alternative technical standards or infrastructure deployments in order to preserve coverage area and population served."[279] In comments filed in response to the petitions for reconsideration, WatchTV questions the Commission's decision to give DRTs a priority in the post-auction displacement window,[280] arguing that "today's technology is far ahead of the technology of 2009 in terms of where true need will exist."[281] WatchTV argues that full power stations should use Distributed Transmission Systems (DTS) "to fill in gaps along with on-channel boosters without occupying additional channels that will be needed by LPTV stations and TV translators that have

[274] *See Implementation of LPTV Digital Data Services Pilot Project*, Order, 16 FCC Rcd 9734 (2001); Order on Reconsideration, 17 FCC Rcd 2988 (2002); and 47 C.F.R. § 74.785. In fact, the DDSA provides that stations may operate under the pilot program unless provision of the service causes interference in violation of the Commission's rules to full service, Class A or TV translator stations. *See* 47 U.S.C. §§ 336(h)(3)(C), 336(h)(5)(A).

[275] *See* USTV Petition at 3 ("[u]nfortunately, the technology of deploying two-way wireless data over the UHF spectrum was neither developed nor commercially available at that time, and the relative handful of thirteen DDSA stations that could benefit from its deployment did not justify the immense capital investment necessary to develop such technology and customer equipment. USTV's goal of rolling out full two-way broadband services on its low power TV stations went into a temporary hiatus."). USTV subsequently updated the status of the 13 stations in the pilot program and reported that, of the original 13 stations listed in the DDSA, two stations have had their licenses cancelled and no longer qualify for the program and two have converted to Class A status and already are protected in the repacking process. *See* Letter from Dean M. Mosely, CEO and President, U.S. Television, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268 (filed Mar. 12, 2015).

[276] *Incentive Auction R&O*, 29 FCC Rcd at 6835-36, paras. 659-63.

[277] *Id.* at 6836-37, para. 661.

[278] *Id.*

[279] ATBA Petition at 13-14. This request was included in *ex parte* filings by Watch TV, Inc. ("Watch TV"). *See* Letters from Peter Tannenwald to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268 (filed Jun. 28, 2013, Oct. 29, 2013, Jan. 22, 2014, and Mar. 6, 2015). ATBA believes that we should have granted the request because "the smaller interference footprint of a single frequency network using a new broadcast standard might permit displacement to new facilities and a new channel while maintaining equivalent coverage." ATBA Petition at 14. WatchTV agrees that LPTV stations "need to be given more flexibility in their signal format." *See* WatchTV Comments on Petitions for Reconsideration at 4.

[280] Watch TV Comments on Petitions for Reconsideration at 5.

[281] *Id.*

nowhere else to go."[282] In addition, USTV contends that the Commission should have provided the 13 LPTV stations under the original DDSA pilot program a displacement priority.[283]

74. *Discussion.* We decline to grant ATBA's request that we reconsider our decision not to allow displaced LPTV stations to operate with alternative technical standards and non-broadcast type facilities. Although we are sympathetic to the objectives and concerns cited by ATBA and WatchTV, grant of ATBA's request would require the creation of new technical standards that, in turn, would require in-depth analysis and complete overhaul of the existing LPTV rules and policies. We conclude that such a supplementary project is infeasible in the incentive auction proceeding. We believe that ATBA's request is appropriately addressed in the rulemaking in MB Docket No. 03-185 that we initiated to address the potential impact of the incentive auction and the repacking process on the LPTV service.[284] Indeed, we invited parties to raise such matters in that proceeding and many commenters have raised this issue there.[285]

75. We affirm our decision to grant a processing priority to displacement applications for DRTs.[286] As we found in the *Incentive Auction R&O*, replacement translators are still an important tool for full power stations to replace service lost in the digital transition.[287] Contrary to WatchTV's assertion, DTS may not work in all cases and digital TV boosters are not authorized by the rules. For these reasons, to ensure that television stations are able to restore service from DRT facilities that are displaced in the repacking process, we affirm our decision to give displacement applications for DRTs a displacement priority.

76. In addition, we reject USTV's contention that we should have provided a displacement priority for the 13 LPTV stations. As indicated above, nothing in the DDSA or the Spectrum Act mandates priority treatment of DDSA stations in the repacking process, and the same applies to the post-auction transition. Moreover, there are no stations operating in the pilot program to qualify for such a priority even if we were to provide one.

e. Other Issues

77. *Background*. Section 1452(b)(2) directs the Commission to make all reasonable efforts to preserve, as of February 22, 2012, the coverage area and population served of each "broadcast television licensee."[288] With respect to auction eligibility, section 1452(a)(1) directs the Commission to conduct a reverse auction to determine the amount of compensation that each "broadcast television

[282] *Id*. WatchTV concludes that "DRTs if favored at all should be favored only in the rare circumstance that no other solution is available; and a stringent engineering showing of actual, as opposed to theoretical, need should be required." *Id.*

[283] USTV Petition at 4-6. As noted *supra* at para. 71, in the DDSA, Congress created a pilot project to allow 13 LPTV stations to begin operating in digital prior to the time that the Commission had adopted digital rules for LPTV stations.

[284] *See Third LPTV NPRM*, *supra* n.256.

[285] *See id.*; *see also* following comments filed in MB Docket No. 03-185: ATBA Comments at 7-8; Sinclair Comments at 4-5; SEI and Watch TV Comments at 2 and 7; *but see* CTIA Comments at 9-10 & n.21; WISPA Comments at 8.

[286] We note that WatchTV's arguments concerning providing a displacement priority to DRTs were not raised in a timely petition for reconsideration but rather for the first time in its Comments on timely-filed Petitions for Reconsideration. We may not consider WatchTV's pleading as a petition for reconsideration as we lack authority to waive or extend the statutory thirty-day filing period for petitions for reconsideration absent extraordinary circumstances, which WatchTV has failed to demonstrate. *See* 47 U.S.C. § 405(a); *Reuters Limited v. FCC*, 781 F.2d 946, 951-952 (D.C. Cir. 1986). However, we will treat WatchTV's pleading as an informal comment.

[287] *Incentive Auction R&O*, 29 FCC Rcd at 6837, para. 661.

[288] 47 U.S.C. § 1452(b)(2).

licensee" would accept in return for voluntarily relinquishing some or all of its spectrum usage rights.[289] The Spectrum Act defines a "broadcast television licensee" as the licensee of a full power or Class A station.[290] In the *Incentive Auction R&O*, we concluded that, because the definition of "broadcast television licensee" does not include LPTV or TV translator stations, such stations are not entitled to mandatory protection in the repacking process and will not be eligible to participate in the reverse auction.[291]

78. Beach TV Properties, Inc. ("Beach TV") is the licensee of a low power television station. In 2000, the Media Bureau dismissed its certification of eligibility for Class A status as materially deficient, an action which the Commission affirmed.[292] Beach TV has challenged dismissal of its certification in a case pending before the United States Court of Appeals for the D.C. Circuit.[293] Beach TV asks that it be protected in the repacking process and allowed to participate in the reverse auction until its appeal has been resolved.[294]

79. American Legacy Foundation ("ALF") submitted an application in 1996 for a full power analog station in Coolidge, Arizona.[295] Its application was dismissed in 2004, subsequently reinstated in 2007, and then dismissed again in October 2011 because the Commission was statutorily prohibited from authorizing full power analog operations.[296] ALF has pending an Application for Review of the Bureau's denial of its petition for reconsideration of the 2011 dismissal.[297] ALF argues that it should be allowed to participate in the reverse auction contingent on the outcome of its pending challenge and any subsequent appeals.[298] It claims that excluding it would impermissibly deny it due process.[299]

80. *Discussion*. We dismiss and, on alternative and independent grounds, deny the ALF and

[289] 47 U.S.C. § 1452(a)(1).

[290] 47 U.S.C. § 1401(6).

[291] *Incentive Auction R&O*, 29 FCC Rcd at 6652, para. 185, 6673-74, paras. 238-39, and 6716-17, para. 352. *See supra* Section II.B.2.d (Facilities to Be Protected - LPTV and TV Translator Stations) (affirming this conclusion).

[292] *See Dismissal of LPTV Licensee Certificates of Eligibility for Class A Television Station Status*, Public Notice, 15 FCC Rcd 9761 (MMB 2000), *recon. denied*, Letter from Barbara A. Kreisman, Chief, Video Division, to The Atlanta Channel, Inc., 1800E3-JLB (Vid. Div. 2000), *app. rev. denied*, 27 FCC Rcd 14541 (2012), *recon. dismissed or denied*, 29 FCC Rcd 11848 (MB 2014). As noted above, the CBPA established a two-step process for obtaining a Class A license, the first of which was for the LPTV licensee to file by January 28, 2000 a certification of eligibility certifying compliance with certain criteria. *See supra* Section II.B.2.c (Facilities to Be Protected - Out-of-Core Class A-Eligible Television Stations).

[293] *See Beach TV Properties, Inc. v. FCC*, Case Nos. 14-1229 and 14-1230 (D.C. Cir.).

[294] *See* Beach TV Petition at 4.

[295] *See* ALF Petition at 1.

[296] *See* ALF Petition at 1-2. *See also Pending Applications and Pleadings Related to Proceedings for New Analog Full-Power Television Stations for Communities in Several States*, Order, 26 FCC Rcd 14301 (MB 2011) (explaining that the Commission was required by statute to take actions necessary to require the cessation of broadcasting by full-power stations in the analog television service by June 2009, and thus was statutorily prohibited from granting the analog authorizations).

[297] When ALF filed its Petition for Reconsideration of the *Incentive Auction R&O*, it had pending a Petition for Reconsideration of the Media Bureau's 2011 dismissal of its application. *See* ALF Petition at 2. The Media Bureau denied this Petition on March 26, 2015. *See* Letter from Barbara A. Kreisman, Chief, Video Division, to American Legacy Foundation, File No. BPET-19960710LC (Vid. Div. 2015). On April 27, 2015, ALF filed an Application for Review of the Bureau's denial. *See* American Legacy Foundation, Application for Review, File No. BPET-19960710LC

[298] *See* ALF Petition at 2.

[299] *Id.*

Beach TV Petitions. As an initial matter, we dismiss the Petitions on procedural grounds. The *Incentive Auction NPRM* squarely raised the question of which facilities to protect in the repacking process and which stations would be eligible to participate in the reverse auction.[300] On reconsideration, petitioners for the first time attempt to explain why they should be protected in the repacking process or allowed to participate in the reverse auction. They have not shown, however, why they were unable to raise these facts and arguments before adoption of the *Incentive Auction R&O*. Indeed, the evidence put forth by petitioners precedes the adoption of the *Incentive Auction R&O*. Accordingly, we dismiss the Petitions because they rely on facts and arguments not presented to the Commission before the *Incentive Auction R&O* was issued and petitioners have not attempted to demonstrate compliance with the exceptions for such filings found in section 1.429(b) of our Rules.[301]

81. As an alternative and independent ground, we deny the Petitions because neither petitioner is a "broadcast television licensee" entitled to mandatory protection in the repacking process or eligible to participate in the reverse auction. Beach TV is the licensee of an LPTV station that has never filed an application for a Class A license. ALF is a mere applicant for a new full power television construction permit. While we determined that full power or Class A licensees that are the subject of non-final license validity proceedings[302] or downgrade orders will be protected in the repacking process, and may participate in the reverse auction until the proceeding or order becomes final and non-reviewable,[303] this treatment applies to stations that previously held full power or Class A licenses. Beach TV and ALF have never held such licenses.[304]

82. We also dismiss Beach TV's request that we protect it in the repacking process as a matter of discretion.[305] We explained in the *Incentive Auction R&O* the reasons for declining to extend discretionary protection to LPTV stations, such as Beach TV.[306] As discussed above, we affirm that decision.[307] In addition, as we stated above, we extended discretionary protection only to otherwise eligible "broadcast television licensees," i.e., full power and licensed Class A stations.[308] Moreover,

[300] *Incentive Auction NPRM*, 27 FCC Rcd at 12390, para. 98 (proposing to interpret the Spectrum Act as mandating preservation only of full-power and Class A facilities that were licensed, or for which an application for license to cover was on file, as of February 22, 2012); *id*. at 12380-81, paras. 73-74 (proposing to limit reverse auction participation to full power and Class A broadcast television licensees).

[301] *See* 47 C.F.R. § 1.429(b)(1)-(3) (a petition for reconsideration which relies on facts or arguments which have not previously been presented to the Commission will be granted only under certain circumstances).

[302] *See Incentive Auction R&O,* 29 FCC Rcd at 6722-23, paras. 362-63 (defining "license validity proceeding" as a proceeding regarding the expiration or cancellation of a license).

[303] *See id*. at 6667, para. 225 and 6722-23, para. 363.

[304] We reject ALF's claim that excluding it from the reverse auction denies it due process. ALF Petition at 2. ALF offers no basis to conclude that it was denied "notice and an opportunity to respond." *Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 546 (1985) ("The essential requirements of due process . . . are notice and an opportunity to respond."). To the extent that ALF believed there was unreasonable delay at any stage in the processing of its application, it had the opportunity to file a petition for writ of mandamus to compel agency action.

[305] As explained above, only "broadcast television licensees" are eligible to participate in the auction, thus we deny the Petitions to the extent they request that we allow them Petitioners participate in the reverse auction as a matter of discretion. *See* ALF Petition at 2; Beach TV Petition at 4. *See also Incentive Auction R&O*, 29 FCC Rcd at 6716-17, para. 352; *supra* Section II.B.2.d (Facilities to Be Protected - LPTV and TV Translator Stations).

[306] *Incentive Auction R&O*, 29 FCC Rcd at 6674-75, para. 241.

[307] *See supra* Section II.B.2.d (Facilities to Be Protected - LPTV and TV Translator Stations). In addition, we have already rejected the argument that LPTV stations' spectrum usage rights are protected from taking by the Fifth Amendment, and Beach TV cites to no contrary authority. *See Incentive Auction R&O*, 29 FCC Rcd at 6674, para. 240.

[308] *See supra* Section II.B.2.c (Facilities to Be Protected - Out-of-Core Class A-Eligible Television Stations).

despite its claim, Beach TV is unlike KHTV-CD, a formerly out-of-core Class A-eligible LPTV station that we elected to protect in the repacking process. Unlike Beach TV, KHTV-CD's eligibility for Class A status has never been in doubt and it holds a Class A license. Moreover, unlike Beach TV, KHTV-CD documented repeated efforts over the course of a decade to locate an in-core channel and convert to Class A status.[309]

3. International Coordination

83. *Background*. Section 1452(b)(l) of the Spectrum Act states that, for purposes of making spectrum available for the forward auction of broadcast television spectrum, the Commission "may, subject to international coordination along the border with Mexico and Canada," reassign television channels and reallocate available portions of spectrum.[310] We stressed in the *Incentive Auction R&O* that international coordination is a "continual" process and rejected the argument that the Spectrum Act requires coordination as a precondition to the repacking process, either as a legal or a practical matter.[311] We also concluded that the Spectrum Act does not require preapproval by Canada and Mexico of all reassignments and reallocations.[312] The Spectrum Act affords the FCC discretion regarding how to implement the coordination process, including the timing of that process.[313]

84. We also concluded in the *Incentive Auction R&O* that, as a practical matter, the Commission need not complete coordination, including assignment of specific channel allotments, in order to initiate the repacking process and the post-auction transition process.[314] We found that all that is required is a mutual understandings with Canada and Mexico as to how the repacking process in the U.S. will be conducted to protect border stations in all countries from interference, and how a possible repacking "could" be conducted in Canada and Mexico should either of those countries decide to proceed with such a process.[315] We are currently in discussions with Canada and Mexico regarding mutual understanding that include agreement on such matters as lists of TV stations and allotments to be protected, technical criteria to be used in evaluating TV service and interference during the repacking, advance approval of channel options, and flexibility in assigning TV channels after the auction. Once we have established a mutual understanding regarding the baseline TV station data and repacking procedures, we expect that the post-auction channel assignments will follow without delay, so that U.S. TV stations will be able to construct new facilities and receive reimbursements in a timely manner. We indicated that we expect to reach arrangements with Canada and Mexico that will enable us to carry out the repacking process in a manner fully consistent with the requirements of the statute and our goals for the auction.[316] Prior to the start of the incentive auction, we will release information regarding border stations and allotments so that auction participants have the information necessary to formulate their bidding strategies.

85. Several petitioners argue that the Commission must complete international coordination

[309] ALF sets forth no equities in favor of discretionary protection in the repacking process. As noted in the *Incentive Auction R&O*, mere applicants have minimal equities in favor of preservation considering that they have not acted in reliance on Commission grants, have not made any investment in constructing their requested facilities, and have not begun operating the proposed facilities to provide service to viewers. *See Incentive Auction R&O*, 29 FCC Rcd at 6668, para. 228.

[310] 47 U.S.C. § 1452(b)(1).

[311] *Incentive Auction R&O*, 29 FCC Rcd at 6677-79, paras. 248-53.

[312] *Id.* at 6678-79, para. 253.

[313] *Id*.

[314] *Id.* at 6679, para. 254.

[315] *Id.*

[316] *Id.*

prior to start of the auction and the repacking process, or take other measures to ensure that border stations can obtain reimbursement for the costs of relocation if coordination is not completed before the auction.[317] Specifically, Affiliates Associations argue that the Spectrum Act requires the Commission to complete international coordination prior to the auction or repacking and that beginning the auction, or repacking, prior to completing such coordination risks harming broadcasters by limiting their ability to receive full reimbursement for their relocation.[318] Block Stations assert that the Commission misinterpreted Congress's requirement that the Commission may, subject to international coordination, repack television spectrum, and argues that because Congress gave the Commission ten years to conduct the auction and the repacking process, the Commission should take the time necessary to coordinate the border issues before conducting the reverse auction.[319] CDE argues that the Commission has not properly considered the potential effect of incomplete coordination with Mexico and Canada.[320]

86. ATBA asserts that the Spectrum Act does not permit the Commission to displace LPTV licensees in the border areas until after coordination has been completed.[321] ATBA argues that doing so will result in the elimination of LPTV stations along the borders because the FCC will be constrained to existing coordinated assignments,[322] as well as "double-displacement and double-builds," as licensees will be displaced once after the auction and possibly again when coordination is completed.[323]

87. NAB filed comments in support of petitioners.[324] NAB asserts that if international coordination is not completed, border stations risk either not receiving reimbursement during the three-year reimbursement period or being forced to go dark on their old channels before they can begin operations on their reassigned channels.[325] To mitigate the effects of not completing such coordination, NAB asks the Commission to require winning bidders in the forward auction to reimburse relocation expenses incurred after the three-year statutory reimbursement period or clarify that the 39-month deadline for stations to go dark is only triggered when a station receives its new channel assignment and that assignment is completely coordinated.[326] CTIA filed an opposition against these petitioners voicing its support for the conclusion reached in the *Incentive Auction R&O*.[327] Specifically, CTIA notes that the *Incentive Auction R&O* found that completion of border coordination is not a precondition to repacking as either a legal or practical matter.[328] It also asserts that the Commission acted well within its statutory authority in interpreting the Spectrum Act as not imposing a temporal requirement on international coordination,[329] and that the Commission is familiar with matters of international coordination, having

[317] Affiliates Associations Petition at 14-15; Gannett Petition at 2-4; ATBA Petition at 3, 5-6; Block Petition at 2-3, 7-8; CDE Petition at 2; NAB Nov. 12, 2014 Comments at 10-12.

[318] Affiliates Associations Petition at 14-15.

[319] Block Petition at 2-3, 7-8.

[320] CDE Petition at 2.

[321] ATBA Petition at 5-6 (arguing that the FCC should interpret "television channels" to include LPTV stations and allow them to pursue reimbursement).

[322] *Id.* at 3, 5-6.

[323] *Id.* at 6.

[324] NAB Nov. 12, 2014 Comments at 10.

[325] *Id.* at 10-11.

[326] *Id.* at 12.

[327] CTIA Opposition and Reply at 10-11.

[328] *Id*. at 10.

[329] *Id*. at 11.

dealt with similar issues every time it auctions new wireless spectrum.[330]

88. *Discussion*. We deny the requests for reconsideration by Affiliates Associations, Gannett, ATBA, Block, and CDE as they relate to international coordination.[331] We must, of course, take Canadian and Mexican stations into account in determining the assignment of channels particularly in U.S. markets along the borders, but completion of border coordination to potentially reduce the impairments caused by those stations is not a precondition to repacking as either a legal or practical matter.[332] International coordination is an ongoing process which by its nature involves negotiation with sovereign nations whose actions the FCC does not control.[333] The Commission is familiar with matters of international coordination, having dealt with similar issues every time it auctions new spectrum licenses.[334] The Spectrum Act affords the FCC discretion regarding how to implement the coordination process, including the timing of that process.[335] As CTIA points out, therefore, we reasonably interpreted the Spectrum Act as not imposing a temporal requirement on international coordination.[336] Because we fully considered and rejected in the *Incentive Auction R&O* the arguments of Affiliates Associations and ATBA that the language of the Spectrum Act should be interpreted as requiring the Commission to complete international coordination prior to the auction or the repacking process, we dismiss these arguments on procedural grounds.[337] Block Stations' request that we reconsider our statutory interpretation because the Spectrum Act does not require that the incentive auction be conducted right away lacks merit: delay in our schedule for conducting the incentive auction is not necessary and would disserve the public interest.[338]

89. We disagree with NAB that, if international coordination is not completed in advance of the auction, stations in border areas risk being forced to go dark.[339] As discussed below, we expect to reach timely arrangements with Canada and Mexico that will enable us to carry out the repacking process in an efficient manner that is fully consistent with the requirements of the statute and our goals for the auction. As we explained in the *Incentive Auction R&O*, however, all that is required as a practical matter in order to carry out the repacking process in the border areas is a mutual understanding with Canada and Mexico as to how the repacking process in the U.S. will be conducted to protect border stations in all countries from interference, and the requisite information about the location and operating parameters of Canadian and Mexican stations that affect the assignment of television channels in the U.S. The mutual understanding that we anticipate reaching with Canada and Mexico regarding the technical criteria to be used in repacking will enable us to secure timely approval of individual channel assignments for U.S.

[330] *Id*.

[331] In Section IV.C (Reimbursement of Relocation Costs) *infra*, we also deny Gannett's and NAB's requests that winning forward auction bidders be required to fund relocation expenses for border stations that cannot complete relocation within the 36-month reimbursement period.

[332] CTIA Opposition and Reply at 10.

[333] *Incentive Auction R&O*, 29 FCC Rcd at 6678-79, para. 253.

[334] CTIA Opposition and Reply at 11.

[335] *Incentive Auction R&O*, 29 FCC Rcd at 6679, para. 253.

[336] CTIA Opposition and Reply at 11. *Incentive Auction R&O*, 29 FCC Rcd at 6678-79, para. 253.

[337] *See* 47 C.F.R. §1.429(l)(3) (petitions for reconsideration that plainly do not warrant consideration may be dismissed, including those that rely on arguments that have been fully considered and rejected within the same proceeding); *Connect America Fund*, 28 FCC Rcd at 2573, para. 3 (stating that if a petition for reconsideration simply repeats arguments that were previously fully considered and rejected in the proceeding, it will not likely warrant reconsideration).

[338] *See Incentive Auction R&O*, 29 FCC Rcd at 6573, para. 13; Comments of EOBC to the *Incentive Auction Comment PN*, GN Docket No. 12-268 (Feb. 19, 2015) at 9-11.

[339] NAB Nov. 12, 2014 Comments at 10-11; *see also* Gannett Petition at 5-6.

stations after the auction. Accordingly, we are not persuaded that stations in border areas are at risk of going dark if coordination is not complete. In the unlikely event that a border station has not been able to complete construction on its new channel assignment by the end of the 36-month construction period, that station may request authorization to operate on temporary facilities as provided in the *Incentive Auction R&O*.[340] We will make every reasonable effort to accommodate such requests.

90. We also reject the other arguments of Affiliates Associations, CDE, and NAB regarding border stations. We are not persuaded that border stations face an unfair risk of being deprived of the opportunity for reimbursement in the event that the FCC cannot complete coordination prior to the incentive auction and the repacking process. In the event that international coordination is not completed prior to the commencement of the incentive auction, the reimbursement process we adopted in the *Incentive Auction R&O* will facilitate a smooth transition for border stations that provides a fair opportunity to obtain reimbursement. We fully intend to make initial allocations quickly to help broadcasters initiate the relocation process.[341] If cases occur in which a broadcaster's move to a new channel is delayed because of international coordination, the delay need not jeopardize reimbursement. We expressly provided broadcasters the opportunity to receive initial allocations based on estimated reimbursement costs.[342] We also afforded stations the flexibility to update their cost estimates if they experience a change in circumstances during the reimbursement period.[343] Moreover, our process recognizes that construction for certain stations may run up against the end of the 36-month reimbursement period and therefore includes a final allocation, to be made based on actual costs incurred by a date prior to the end of the three-year period, in addition to a station's estimated expenses through the end of construction.[344] For any relocating station, this final allocation will occur during the statutory reimbursement period, even if construction is not complete until after the end of the three-year reimbursement period.[345] We believe this process will provide sufficient flexibility for any stations that encounter difficulties constructing new facilities located along the borders with Mexico and Canada.[346] We explain in Section IV.C *infra* how the reimbursement process is designed to address problems or delays that may arise for stations in the post-auction transition process.[347]

91. While we regard the confidentiality of the ongoing government-to-government incentive auction coordination discussions as critical to their ultimate success, there are indications that our ongoing coordination efforts are advancing our goal to reach mutual spectrum reconfiguration arrangements with Canada in a manner that is fully consistent with our statutory mandate and our goals for the auction. We note that on December 18, 2014, Industry Canada initiated a consultation (similar to a Notice of Proposed Rulemaking) that proposes a joint reconfiguration of the 600 MHz Band for mobile use.[348] The Industry Canada consultation proposed to adopt the U.S. 600 MHz Band Plan framework and to commit to

[340] *See Incentive Auction R&O*, 29 FCC Rcd at 6800, para. 569.

[341] *See infra* Section IV.A.3 (Reimbursement of Relocation Costs – Reimbursement Timing).

[342] *Incentive Auction R&O*, 29 FCC Rcd at 6815-16, 6817-18, paras. 607, 610-13.

[343] *Id.* at 6817, para. 610.

[344] *Id.* at 6819, para. 616.

[345] *See infra* Section IV.A.3 (Reimbursement of Relocation Costs – Reimbursement Timing).

[346] For the foregoing reasons, we reject Gannett's suggestion that the Commission provide upfront payments to border stations for 100 percent of their estimated costs. Gannett Petition at 3-4. We cannot conclude that such a measure is either warranted or fair to non-border stations that are not eligible for initial allocations of 100 percent of their estimated costs.

[347] *See infra* Section IV.C (Reimbursement of Relocation Costs).

[348] *See* Consultation on Repurposing the 600 MHz Band, Spectrum Management and Telecommunications, Industry Canada, SLPB-005-14, released Dec. 18, 2014, http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10891.html (*Industry Canada 600 MHz Consultation*).

repurposing the same amount of spectrum as the U.S., as determined in the FCC's incentive auction.[349] Moreover, Industry Canada's consultation also expressly states that Canada would have to make a decision on the harmonized band plan *before* the incentive auction in the U.S.[350] The Industry Canada consultation also proposes harmonizing Canada's approach for developing a TV allotment plan with that of the U.S.[351] It also recognizes the mutual benefits of a joint repacking that takes into consideration broadcasters on both sides of the border and ensures maximum benefits with minimum disruption of broadcast services, resulting in a more efficient reassignment of broadcasting channels and more spectrum being made available for mobile services in both countries.[352] In light of the consultation, we anticipate that our coordination efforts will culminate in an arrangement that captures the mutual benefits to Canada and the U.S. of a harmonized 600 MHz Band Plan approach that will repurpose the spectrum for mobile broadband services and optimize television channel placement on both sides of the border.

92. FCC staff also continues to collaborate closely with Mexico's Instituto Federal de Telecomunicaciones (IFT) on attaining a spectrum reconfiguration arrangement that would incorporate unified objectives regarding spectrum allocation and accommodate television broadcast and wireless services along the common border. As part of Mexico's constitutional reforms adopted in 2012, IFT is committed to completion of Mexico's DTV transition by the end of 2015.[353] The FCC and IFT, through the established coordination process, are assigning Mexican DTV channels below channel 37 to the extent possible while also providing channels for the FCC to use in repacking. Considering the efforts and progress made by both Administrations towards developing a comprehensive solution that involves the best and future use of current television spectrum, we anticipate the eventual completion of an arrangement with Mexico that will enable us to carry out the repacking process in a manner fully consistent with the requirements of the statute and our goals for the auction. In any event, prior to the start of the incentive auction, we will release information regarding the Mexican stations and allotments that will need to be protected in the repacking.

93. Finally, we reject ATBA's requests for reconsideration with regard to LPTV stations in the border areas. Contrary to ATBA's argument, the Spectrum Act places no special limits on displacement of LPTV licensees in border areas. ATBA notes that section 1452(b)(1)(B)(i) provides that the Commission may, subject to international coordination, make "reassignments" of "television

[349] *Id.* at 8.

[350] *Id.* The Industry Canada consultation states: "For planning purposes, the decision on the band plan to be adopted by Canada (including the amount of spectrum to be auctioned for mobile) must be made before the execution of the incentive auction in the United States, so that Canadian TV stations to be protected and the associated target spectrum where they can be assigned channels can be included in the parameters for the U.S. incentive auction and the algorithm for joint repacking of the TV stations in Canada and the United States. If the intent is to harmonize with the U.S. band plan and repurpose the same amount of spectrum, Canada must adopt the entire band plan framework and preapprove the band plan option that will result at the conclusion of the incentive auction." *Id*.

[351] The Industry Canada consultation proposes to maximize the amount of repurposed spectrum by protecting only operating TV stations and by not including vacant allotments for future use in the allotment plan. *Id.* at 10.

[352] *Id.* at 4. The following text of the Industry Canada consultation illustrates this ongoing U.S. – Canada dialog: "There is an opportunity for Canada to repurpose the 600 MHz band by participating in a joint initiative with the United States. Doing so would see both countries benefit from the reallocation as the repacking would take into consideration broadcasters on both sides of the border, resulting in a more efficient reassignment of broadcasting channels and more spectrum being made available for mobile services in both countries. The decision on whether to join the United States in the repacking initiative must be made before the incentive auction, so that the joint repacking algorithm can integrate the Canadian TV stations into the incentive auction process and parameters." *See id.* at 1-2, 4.

[353] See Mexico Constitutional Reform Decreto por el que se reforman y adicionan diversas disposiciones de los articulos 6, 7, 27, 28, 73, 78, 94 y 105 de la Constitución Política de los Estados Unidos Mexicanos, en material de telecomunicaciones, Transitorios, Quinto, published in the Diario Oficial, June 11, 2013.

channels," and argues that "television channels" should be read broadly to include LPTV stations.[354] We reject this argument. As an initial matter, nothing in section 1452(b) "shall be construed to alter the spectrum usage rights of [LPTV] stations," which as we have explained have never included protection from displacement by primary services.[355] Moreover, while section 1452(b)(1)(B)(i) refers to the Commission's "reassignment" of "television channels," the Commission will not be "reassign[ing]" the television channels of LPTV stations. Rather, LPTV stations may be displaced when broadcasters begin operations on their new channels post-repacking and required to locate new channels, but they will not be "reassigned" as that term is used in the Spectrum Act.[356] Further, ATBA's concern regarding the risk of LPTV stations being subject to "double-displacement and double-builds" is ill-founded.[357] Our post-auction coordination process for relocating stations will require Canada's or Mexico's concurrence before the Media Bureau issues a construction permit. Once a channel assignment has been coordinated with Canada or Mexico, it is unlikely that the relocating station will be subjected to another coordination.

C. Unlicensed Operations

94. Below, we dismiss a request that the Commission not propose action to preserve a vacant television channel in each area of the United States for unlicensed device and wireless microphone operations, and deny challenges of our decisions to permit unlicensed devices to operate in the 600 MHz guard bands and channel 37 subject to the development of appropriate Part 15 technical rules and database requirements.

1. Television Bands

95. *Background.* In the *Incentive Auction R&O*, the Commission recognized that following the incentive auction and repacking of the television bands there would likely be fewer unused television channels available for use either by unlicensed white space devices or wireless microphones.[358] However, the Commission anticipated that there would be at least one channel in the UHF Band in all areas in the United States that is not assigned to a television station in the repacking process and, given the importance of white space devices and wireless microphones to businesses and consumers, stated its intent, after additional notice and an opportunity to comment, to preserve one television channel in each area of the United States for shared use by these devices.[359]

96. In its petition, Free Access asks the Commission to reconsider this aspect of the *Incentive Auction R&O*.[360] It argues that this spectrum block cannot be construed as a guard band, but is a new reserve for special uses.[361] Free Access further argues that a Commission decision to designate additional

[354] ATBA Petition at 5-6.

[355] *See supra* Section II.B.2.d.ii (Measures to Assist LPTV and TV Translators). We deny below ATBA's request to allow LPTV stations to claim reimbursement because LPTV licensees do not meet the definition of "broadcast television licensee." *See infra* IV.C.2 (Reimbursement of Relocation Costs – Stations That Are Not Repacked and Translator Facilities).

[356] Only the "television channels" of "broadcast television licensees," defined to include only full-power and Class A stations, are subject to "reassignment" as that term is used in the Spectrum Act. *See, e.g.,* 47 U.S.C. § 1452(b)(2) ("In making any reassignments or reallocations under [section 1452(b)(1)(B)], the Commission shall make all reasonable efforts to preserve . . . the coverage area and population served of each broadcast television licensee . . . ."); *id*. § 1452(b)(3) ("In making any reassignments under [section 1452(b)(1)(B)(i)], the Commission may not involuntarily reassign a broadcast television licensee [from UHF to VHF].").

[357] ATBA Petition at 6.

[358] *Incentive Auction R&O,* 29 FCC Rcd at 6683-84, para. 269.

[359] *Id.*

[360] Free Access Petition at 11.

[361] *Id*. at 8.

spectrum beyond the minimum necessary to prevent harmful interference is beyond the Commission's statutory authority under the Spectrum Act.[362] WatchTV supports Free Access' request while Google/Microsoft and WISPA oppose it.[363]

97. *Discussion.* We dismiss Free Access' request. In the *Incentive Auction R&O*, the Commission indicated that it intended, following notice and comment, to designate one unused television channel following the repacking process for shared use by unlicensed devices and wireless microphones.[364] The Commission stated that it sought to strike a balance between the interests of all users of the television bands, including the secondary broadcast stations and white space device operators, for access to the UHF TV spectrum.[365] As indicated in the *Incentive Auction R&O*, the final decision on preserving one such television channel, and precisely how to do so, would follow additional notice and comment. Accordingly, we dismiss Free Access' challenge of the Commission's action on this issue in the *Incentive Auction R&O* given the absence of a final decision. On June 11, 2015, the Commission adopted the *Vacant Channel NPRM* proposing to take action to preserve a vacant television channel, following the repacking process, for use by both unlicensed white space devices and wireless microphones.[366] This proceeding provides Free Access with an opportunity to express its concerns to the Commission on the proposal to preserve a television channel for use by unlicensed white space devices as well as wireless microphones.

2. Guard Bands and Duplex Gap

98. *Background*. In the *Incentive Auction R&O,* the Commission provided for the establishment of the 600 MHz Band guard bands, including a duplex gap. The guard bands between the wireless downlink services band and the TV band will vary in size and frequency depending on the amount of spectrum recovered in the auction.[367] The duplex gap, an 11 megahertz guard band between wireless uplink and downlink services, is provided to prevent harmful interference between these services.[368] The Commission decided to permit unlicensed white space devices to operate in the 600 MHz Band guard bands and duplex gap, as contemplated by section 1454(c) of the Spectrum Act, to make spectrum available for these unlicensed devices nationwide.[369] However, the Commission determined that a further record would be necessary to establish the technical standards to govern unlicensed white space device use of the guard bands, and stated that it would initiate a rulemaking proceeding to establish the

[362] *Id*. at 9.

[363] WatchTV Opposition at 4-5; Google/Microsoft Opposition at 18; WISPA Opposition at 8.

[364] *Incentive Auction R&O,* 29 FCC Rcd at 6683-84, para. 269; 6701-02, para. 310.

[365] *Id.* at 6683-84, para. 269 (discussion of white space devices); *id*. at 6701-02, para. 310 (discussion of wireless microphones).

[366] *See Vacant Channels NPRM*, *supra* n.37.

[367] There are three possibilities for the size of this guard band: 11 megahertz, nine megahertz and seven megahertz. However, if exactly 84 megahertz of spectrum is recovered in the auction, channel 37 plus the three megahertz guard band that protects the WMTS and RAS on channel 37 will serve as the guard band between the wireless downlink services band and TV band. Therefore, there would not be a separate guard band between the TV band and the wireless downlink services band as there would be under other spectrum recovery scenarios.

[368] The frequency range of this duplex gap will depend on the outcome of the incentive auction, but the size of the band will be the same nationwide, regardless of whether there is any market variation in the amount of spectrum recovered in certain areas. Wireless downlink services will operate in the lower adjacent spectrum to the duplex gap, and wireless uplink services will operate in the upper adjacent spectrum to the duplex gap.

[369] *Incentive Auction R&O,* 29 FCC Rcd at 6683, para. 266. Under the 600 MHz Band Plan, between 14 and 28 megahertz of spectrum in the 600 MHz Band guard bands will be available for unlicensed use nationwide, depending on the amount of spectrum recovered in the auction, including in major markets where today and post-auction few, if any, vacant television channels may be available.

appropriate Part 15 technical rules.[370] In making its decision with respect to unlicensed white space devices, the Commission recognized the concerns of Qualcomm concerning the potential for unlicensed devices operating pursuant to the rules applicable to personal/portable white space devices in the TV bands to interfere with licensed services.[371] The Commission indicated that, consistent with the Spectrum Act, its decision to allow unlicensed white space device use of the guard bands will be subject to the ultimate determination that such use will not cause harmful interference to licensed services.[372] As discussed below, the Commission also decided to permit unlicensed wireless microphone operations in the guard bands and duplex gap, as well as certain licensed wireless microphone operations in a portion of the duplex gap.[373]

99. In its petition, Qualcomm argues that the Commission's decision to permit unlicensed white space device operations in the guard bands and duplex gap should be reconsidered and reversed.[374] It states that it previously presented detailed technical analyses showing that unlicensed device operations in the 600 MHz Band duplex gap and guard bands under the rules applicable to personal/portable white space devices in the TV bands will cause harmful interference to licensed mobile services which the Commission failed to consider.[375] Qualcomm argues that such unlicensed operations in the 600 MHz Band will destroy the fungibility of the licensed spectrum blocks because unlicensed operations would cause interference to the licensed mobile spectrum blocks adjacent to the duplex gap and guard bands, thus reducing their value.[376] Qualcomm further argues that the Commission's decision to permit unlicensed operations in the 600 MHz duplex gap and guard bands violates the Spectrum Act, the APA, and the Commission's own Part 15 rules.[377] TIA, CTIA and NAB generally support Qualcomm's petition,[378] while Google/Microsoft, WISPA, Open Technology Institute/Public Knowledge ("OTI/PK") and Sennheiser oppose it.[379]

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[370] *Id.* at 6683 and 6686, paras. 268 and 273.

[371] *Id.* at 6685, para. 272.

[372] *Id.* at 6686, para. 273.

[373] *See infra* Section II.D.2 (Repacking the Broadcast Television Bands – LPAS and Unlicensed Wireless Microphones).

[374] Qualcomm Petition at 3, 8.

[375] *Id.* at 4.

[376] *Id.* at 9.

[377] *Id.* at 12. Qualcomm claims that the Commission's decision violates the Spectrum Act and section 15.5(b) of the rules because unlicensed operation in the guard bands and duplex gap will cause harmful interference to licensed services. It claims that because the Commission ignored important arguments and evidence in making its decision, the decision is arbitrary and capricious in violation of the APA.

[378] TIA states that it shares many of Qualcomm's concerns regarding unlicensed operations in the duplex gap and the guard bands, and argues that the Commission did not address evidence in the record that unlicensed operation may cause harmful interference to licensed service, and that a conclusory statement may not substitute for a reasoned explanation under the APA. TIA Consolidated Response at 1-2. CTIA states that the Commission should carefully consider Qualcomm's petition and technical findings and only uphold its unlicensed operations framework if, consistent with the Spectrum Act, these operations will not cause harmful interference to licensed wireless services. CTIA Opposition at 23. NAB supports petitions seeking reconsideration of the Commission's determinations regarding the allocation of spectrum in the duplex gap for unlicensed use. NAB Opposition at 12.

[379] Google/Microsoft argue that Qualcomm's objections to unlicensed operations in the 600 MHz Band are procedurally and substantively flawed because they rely on the single flawed premise that unlicensed broadband devices are incapable of operating in a channel near LTE operations under any set of technical standards without causing harmful interference. Google/Microsoft Opposition at 2. Google/Microsoft, WISPA, OTI/PK, and Sennheiser generally argue that Qualcomm's objections are premature and stem primarily from a misunderstanding about what the Commission has and has not decided. Google/Microsoft Opposition at 3, WISPA Opposition at 4, (continued….)

100. *Discussion*. We deny Qualcomm's request to reconsider the Commission's decision in the *Incentive Auction R&O* to permit unlicensed white space devices to operate in the guard bands and duplex gap. The Commission determined in the *Incentive Auction R&O* that the Part 15 rules provide an "appropriate and reliable framework for permitting low power uses on an unlicensed basis," while also recognizing that a further record would be necessary to establish the technical standards to govern such use in the guard bands and duplex gap.[380] The Commission also emphasized that, "consistent with the Spectrum Act, unlicensed use of the guard bands will be subject to the Commission's ultimate determination that such use will not cause harmful interference to licensed services."[381] Subsequent to the *Incentive Auction R&O,* the Commission initiated a rulemaking proceeding to develop technical and operational rules to enable unlicensed devices to operate in the guard bands and duplex gap without causing harmful interference to licensed services. Specifically, on September 30, 2014, the Commission adopted the *Part 15 NPRM* that proposed rules for unlicensed white space device operation in the TV bands, repurposed 600 MHz Band, guard bands (including the duplex gap), and on channel 37.[382]

101. We disagree with Qualcomm that the Commission's decision is arbitrary, capricious, or otherwise violates the APA.[383] The procedure the Commission is following in this proceeding (first deciding to allow unlicensed use of certain frequency bands, and then proposing specific technical rules) is similar to the procedure the Commission followed in the TV white spaces proceeding (ET Docket No. 04-186). In that proceeding, the Commission decided to allow fixed unlicensed use of certain vacant channels in the TV bands, but did not have a sufficient record to adopt technical rules for such operation.[384] It adopted the *TV White Spaces First R&O and FNRPM* that made the decision but did not adopt any technical rules. Along with this decision, the Commission included a further notice of proposed rulemaking portion proposing specific technical rules, which it followed subsequently with the *TV White Spaces Second Incentive Auction R&O* in which it adopted technical rules.[385] Thus, there is precedent for the Commission's decision to decide first to permit unlicensed operations in a frequency band—in this case in the guard bands and duplex gap—subject to the subsequent proceedings to develop technical rules to allow such operation. Moreover, the Commission has broad authority to decide how best to manage its decision-making process.[386] Also, we disagree that the Commission disregarded

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OTI/PK Reply at 2 and Sennheiser Reply at 8. Google/Microsoft argue that the Commission's expression of "confidence" that it can allow unlicensed operations cannot be challenged in a petition for reconsideration because it is not a final action and that Qualcomm is mistaken in maintaining that the Commission overlooked various issues raised in the company's filings. Google/Microsoft Opposition at 4-5.

[380] *Incentive Auction R&O*, 29 FCC Rcd at 6686, para. 273.

[381] *Id.* This includes the duplex gap which is a guard band between wireless uplink and downlink services.

[382] *See Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37*, ET Docket No. 14-165, Notice of Proposed Rulemaking, 29 FCC Rcd 12248 (2014) ("*Part 15 NPRM*"). As discussed below, in the *Part 15 NPRM* the Commission also sought comment on proposed rules for unlicensed wireless microphone operations in the TV bands, guard bands and duplex gap, and licensed wireless microphone operations in a portion of the duplex gap.

[383] *See* 5 U.S.C. § 553.

[384] *See Unlicensed Operation in the TV Broadcast Bands and Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, ET Docket No. 04-186, First Report and Order and Further Notice of Proposed Rulemaking, 21 FCC Rcd 12266 (2006) (*TV White Spaces First R&O and FNPRM*).

[385] *See Unlicensed Operation in the TV Broadcast Bands and Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, ET Docket No. 04-186, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807 (2008) (*TV White Spaces Second R&O*).

[386] *See FCC v. Fox Television Stations*, 556 U.S. 502, 522 (2009) ("Nothing prohibits federal agencies from moving in an incremental manner."). *See also Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 1002 (2005) (affirming the FCC's decision to incrementally address the regulatory framework for different categories of facilities-based information service providers); *Personal Watercraft Indus. Assoc. v. Dept. of*
(continued….)

Qualcomm's filings alleging that unlicensed use of the guard bands and duplex gap would result in harmful interference to licensed services.[387] The Commission considered them when making its decision, specifically recognizing that parties disagreed on certain assumptions in Qualcomm's technical analysis, and decided that these disagreements would be more appropriately addressed in the rulemaking proceeding that it initiated subsequent to the *Incentive Auction R&O*.[388]

102. We also disagree with Qualcomm's contention that unlicensed operations in the 600 MHz Band would destroy the fungibility of the licensed spectrum blocks and reduce their value. This argument is based on the premise that unlicensed operations in the guard bands and duplex gap will definitely cause harmful interference to licensed services in adjacent bands. As discussed above, we will not permit any unlicensed operations in the guard bands and duplex gap that will cause harmful interference to licensed services.

3. Channel 37

103. *Background*. The current Part 15 rules generally prohibit operation of unlicensed devices on channel 37.[389] The Commission ceased certifying new unlicensed medical telemetry transmitters for operation on channel 37 when it established the WMTS as a licensed service under Part 95, but it permits previously authorized medical telemetry equipment to continue operating on channel 37.[390] The rules do not allow the operation of white space devices on channel 37.[391] The Commission excluded white space devices from operating on channel 37 to protect the WMTS and the Radio Astronomy Service ("RAS") since channel 37 is not used for TV service and therefore has different interference considerations than those at issue in the white spaces proceeding.[392]

104. In the *Incentive Auction R&O,* the Commission decided that unlicensed devices will be permitted to operate on channel 37, subject to the development of the appropriate technical parameters for such operations, including the use of the white space databases to protect WMTS operations at their fixed locations.[393] It stated that unlicensed operations on channel 37 will be authorized in locations that are sufficiently removed from WMTS users and RAS sites to protect those incumbent users from harmful interference.[394] In making this decision, the Commission recognized the concerns of WMTS equipment manufacturers and users about the potential for unlicensed operations on channel 37 to cause harmful interference to the WMTS.[395] It also recognized that parties disagreed on the appropriate interference analysis methodology and the ability of the TV bands databases to provide adequate protection to the WMTS.[396] The Commission decided that it would "permit unlicensed operations on channel 37 at

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Commerce, 48 F.3d 540, 544 (D.C. Cir. 1995) ("An agency does not have to 'make progress on every front before it can make progress on any front.'") (quoting *United States v. Edge Broadcasting Co.*, 509 U.S. 418, 434 (1993)); *see also* 47 U.S.C. § 154(j). *See Cimco Communications, Inc*., Memorandum Opinion and Order and Order on Reconsideration, 25 FCC Rcd 3401, 3404, para. 8 n.16 (2010) (citing *FCC v. Schreiber*, 381 U.S. 279, 289-90 (1965); *Nader v. FCC*, 520 F.2d 182, 195 (D.C. Cir. 1975)).

[387] *Incentive Auction R&O*, 29 FCC Rcd at 6685-86, para. 272.

[388] *Id.* at 6686, para. 273.

[389] *See* 47 C.F.R. § 15.205(a).

[390] *See* 47 C.F.R. §§15.205(b)(5), 15.242 and 15.37(b).

[391] *See* 47 C.F.R. § 15.707.

[392] *See TV White Spaces First R&O and FNPRM*, 21 FCC Rcd at 12274-75, paras. 19-21.

[393] *Incentive Auction R&O*, 29 FCC Rcd at 6686-88, paras. 274-77.

[394] *Id.*

[395] *Id.* at 6686, para. 275.

[396] *Id.*

locations where it is not in use by incumbents, subject to the development of the appropriate technical parameters to protect incumbents from harmful interference,"[397] and that it would consider these issues as part of a separate rulemaking proceeding "with the objective of developing reliable technical requirements that will permit unlicensed operations while protecting the WMTS and RAS from harmful interference."[398]

105. GE Healthcare ("GEHC") and the WMTS Coalition seek reconsideration of the Commission's decision to allow unlicensed devices to operate on channel 37.[399] The petitioners argue that the Commission should consider whether to permit sharing only after it has completed a full and balanced inquiry into whether operating and technical rules can be developed that assure that harmful interference will not occur to the WMTS.[400] GEHC claims that the Commission's decision to permit unlicensed operations on channel 37 is a policy change and a rule change because the Commission revised section 15.707(a) to permit unlicensed operations in the 600 MHz Band, including on channel 37, and thus its request for reconsideration is appropriate and ripe for review.[401] GEHC and the WMTS Coalition also claim that the Commission's decision is inconsistent with past precedents that WMTS and unlicensed devices could not share the band.[402] The WMTS Coalition states that the Commission has given careful consideration to the advisability of band sharing on channel 37 between unlicensed devices and the WMTS several times over the last twelve years, and that each time it has done so, it determined that channel 37 should not be subject to sharing with unlicensed devices.[403] GEHC argues that the Commission's failure to explain its departure from precedent or how harmful interference to WMTS operations from unlicensed devices will be avoided violates the APA.[404] The WMTS Coalition also argues that the decision to allow sharing is premised upon the unrealistic assumption that current and future WMTS sites can be accurately identified.[405] It states that the geographic coordinates in the WMTS database are not sufficiently accurate for frequency coordination, and that some hospitals have either not kept their data updated or have not registered at all with the database.[406] The WMTS Coalition argues that by determining in advance that sharing of channel 37 will occur, the Commission has tipped the scales away from a balanced analysis of the risks and benefits of allowing sharing.[407] We received oppositions to the GEHC and WMTS Coalition petitions from Google/Microsoft, WISPA, OTI/PK and Sennheiser.[408]

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[397] *Id*. at 6683, para. 267.

[398] *Id.* at 6686, para. 275.

[399] GEHC Petition at 4; WMTS Coalition Petition at i.

[400] GEHC Petition at 5-6 (the Commission's decision to permit unlicensed operations on channel 37 without adopting technical rules to protect WMTS operations is not supported by the record, is internally inconsistent, and is arbitrary and capricious under the APA); WMTS Coalition Petition at 4.

[401] GEHC Petition at 4-6.

[402] GEHC Petition at 7; WMTS Coalition Petition at 4-5.

[403] WMTS Coalition Petition at 5.

[404] GEHC Petition at 7.

[405] WMTS Coalition Petition at 13.

[406] *Id.* at 13-14.

[407] WMTS Coalition Reply at 3.

[408] Google/Microsoft argue that GEHC and the WMTS Coalition misunderstand both the Commission's decision and the record. Google/Microsoft argue that these parties' petitions are flawed because they attack decisions the Commission has not made and make assertions that the Commission overlooked issues that the *Incentive Auction R&O* specifically addresses. Google/Microsoft Opposition at 9. Google/Microsoft, WISPA, OTI/PK, and Sennheiser argue that these petitions are premature because the Commission's decision to permit unlicensed devices to operate on channel 37 remains subject to the development of technical rules to prevent harmful interference with (continued….)

106. *Discussion*. We deny the requests of GEHC and the WMTS Coalition to reverse the Commission's decision to permit unlicensed white space devices to operate on channel 37. The Commission made this decision subject to the development of appropriate technical parameters for such operations, so unlicensed devices cannot operate on channel 37 unless such rules are promulgated.[409] Subsequent to the *Incentive Auction R&O,* the Commission initiated a rulemaking proceeding to develop technical and operational rules to enable unlicensed white space devices to access and operate on channel 37, through use of a database, in a manner that would not cause harmful interference to the WMTS and RAS. Specifically, on September 30, 2014, the Commission adopted a *Notice of Proposed Rulemaking* that proposes rules for unlicensed operation in the TV bands, repurposed 600 MHz Band, guard bands (including the duplex gap), and on channel 37.[410]

107. We disagree with GEHC that the Commission's action to allow unlicensed white space device operation on channel 37 is arbitrary, capricious, or violates the APA. As discussed above, the Commission followed a similar course in the TV white spaces proceeding in which it decided to allow unlicensed white space device operation in particular frequency bands (the TV bands in that case), followed by a proposal to develop the appropriate technical requirements to prevent interference to authorized services in those bands.[411] As with the guard bands, the decision in the *Incentive Auction R&O* was based on the record, recognizing that the parties had different analyses based on different assumptions. The decision is conditioned on developing technical rules to protect incumbent services from harmful interference. As noted above, the Commission has broad authority to decide how best to manage its decision-making process and to order its docket "as will best conduce to the proper dispatch of business and to the ends of justice."[412] Contrary to GEHC's assertion, the changes that the Commission made to section 15.707(a) in the *Incentive Auction R&O* do not allow operation of unlicensed white space devices on channel 37 prior to the development of technical requirements.[413] The purpose of the changes to section 15.707(a) is to allow the continued operation of white space devices in the 600 MHz Band after the incentive auction at locations where licensees have not yet commenced service. The 600 MHz Band as defined in Part 27 does not encompass channel 37, so the Commission's changes to section 15.707(a) in the *Incentive Auction R&O* do not allow unlicensed device operation on channel 37.[414]

108. The Commission adequately explained its policy change to allow unlicensed white space devices to operate on channel 37. As discussed above, when the Commission decided in 2006 to exclude white space devices from operating on channel 37 to protect the WMTS and RAS, it noted that channel 37 has different interference considerations than those at issue in the white spaces proceeding.[415] In particular, the white space proceeding focused on unlicensed devices operating on channels used for the broadcast television service, so the Commission developed technical requirements to protect television and other operations in the TV bands, such as wireless microphones. The Commission did not conclude that sharing with the WMTS and RAS was not possible; it simply chose not to address the issue of such

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other services. Google/Microsoft Opposition at 9; WISPA Opposition at 2; OTI/PK Reply at 5; Sennheiser Reply at 10. Google/Microsoft further argue that the Commission adequately explained its decision to allow unlicensed operation on Channel 37. Google/Microsoft Opposition at 11.

[409] *Incentive Auction R&O*, 29 FCC Rcd at 6686, para 274.

[410] *See Part 15 NPRM*.

[411] *See supra* Section II.C.2 (Unlicensed Operations, Guard Bands and Duplex Gap).

[412] *See supra* n.386.

[413] *See* 47 C.F.R. § 15.707(a).

[414] The 600 MHz Band is defined in section 27.5(l) of the rules as paired channel blocks of 5+5 megahertz available for assignment under the terms and conditions of this proceeding (GN Docket No. 12-268). Channel 37 will not be reallocated for Part 27 services and is therefore not covered by this definition.

[415] *See supra* para. 103.

sharing in the TV white spaces proceeding. The Commission explained in the *Incentive Auction R&O* that since the time it made the decision to prohibit unlicensed use of channel 37, it has designated multiple TV bands database administrators, has had extensive experience working with their databases, and has a high degree of confidence that they can reliably protect fixed operations.[416] The Commission further explained that the fixed locations where the WMTS is used are already registered in the American Society for Health Care Engineering ("ASHE") database, and these data could be added to the TV bands databases.[417] The Commission recognized concerns that WMTS location information in the ASHE database may be imprecise or missing, and stated that these could be addressed by establishing conservative separation distances from unlicensed devices and by reminding hospitals and other medical facilities of their obligation under the rules to register and maintain current information in the database.[418] The Commission is currently considering these issues in the *Part 15 NPRM*.[419]

D. Other Services

109. Below, we deny requests that we reconsider the standards we established to address potential adjacent band interference to the WMTS from either licensed 600 MHz Band operations or television stations after the incentive auction. We also reject challenges of the Commission's decisions pertaining to licensed and unlicensed wireless microphone operations.

1. Channel 37 Services

110. *Background*. The WMTS, which operates licensed stations on channel 37 in the UHF Band, is used for remote monitoring of patients' vital signs and other important health parameters (e.g., pulse and respiration rates) inside medical facilities.[420] WMTS includes devices that transport the data via a radio link to a remote location, such as a nurse's station, for monitoring. After the incentive auction, the services that will operate in the frequency bands adjacent to the WMTS will depend on the amount of spectrum recovered in the incentive auction. If more than 84 megahertz is recovered, there will be three megahertz guard bands on each side of channel 37, with wireless downlink spectrum above and below these guard bands. If exactly 84 megahertz is recovered, there will be a three megahertz guardband above channel 37 to separate this channel from wireless downlink spectrum, while channel 36 will continue to be used for television. If less than 84 megahertz is recovered, channels 36 and 38 will both continue to be used for television.

111. The decision to provide for a three megahertz guard band between WMTS and 600 MHz downlink operations balanced the need to protect WMTS facilities from interference with the need for new 600 MHz licensees to have flexibility to deploy base stations where needed to provide coverage

[416] *Incentive Auction R&O*, 29 FCC Rcd at 6687, para 276. A list of the white space database administrators can be found at: http://www.fcc.gov/encyclopedia/white-space-database-administrators-guide.

[417] *Incentive Auction R&O*, 29 FCC Rcd at 6687, para 276. The Commission also stated that WMTS operations could be protected by establishing minimum distance separations as is done to protect other fixed operations, such as TV stations, wireless microphones, and receive sites.

[418] *Id.* at 6687, n.832.

[419] *Part 15 NPRM*, 29 FCC Rcd at 12283, para 113 and 12300-01, paras. 170-74.

[420] *See* 47 C.F.R. § 95.630. In addition to channel 37 in the UHF Band, the WMTS operates in the bands 1395-1400 MHz and 1427-1429.5 MHz, except at the locations listed in § 90.259(b)(4) where the WMTS may operate in the 1429–1431.5 MHz band instead of the 1427-1429.5 MHz band. Health care institutions are required to register their locations and coordinate the use of all three bands through the American Society for Health Care Engineering (ASHE) of the American Hospital Association—the designated frequency coordinator—prior to commencing operation. *See Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service*, ET Docket 99-255, Report and Order, 16 FCC Rcd 4543 (2001) (*WMTS R&O*). This process minimizes the potential of WMTS users from causing harmful interference to, and receiving harmful interference from, other WMTS devices.

over their service areas. The decision not to require coordination[421] was supported by the Commission's technical analysis, based on protection criteria GEHC provided in its comments.[422] This analysis showed that three megahertz guard bands adjacent to channel 37 requires only reasonably short separation distances to protect WMTS from new 600 MHz operations.[423] The Commission decided not to provide for enhanced protection of WMTS if additional TV stations are placed in channels 36 or 38 as a result of the repacking process.[424] Instead, we chose to rely on the existing DTV out-of-band emission (OOBE) limits, and noted that the extent of potential interference to WMTS would depend in large part on the locations of any TV stations repacked to channels 36 or 38 in relationship to health care facilities.[425]

112. In its Petition, GEHC claims the Commission erred when it relied solely on the three megahertz guard band to protect WMTS from 600 MHz Band operations in adjacent bands, and that GEHC's revised analysis shows that greater separation distances or more stringent limits on power and out-of-band emissions from 600 MHz Band base stations are needed.[426] GEHC makes three main claims to support its position: 1) the FCC's technical analysis inappropriately applied the protection criteria GEHC provided; 2) the FCC failed to consider interference aggregation from multiple WMTS antennas; and 3) the FCC incorrectly converted field strength to received power.[427] GEHC further claims that the Commission ignored key concerns that allowing additional TV stations to be repacked into channels 36 and 38 will reduce WMTS spectrum capacity, increase the number of WMTS facilities that could experience interference from TV operations, cause hospitals to incur additional costs to protect their WMTS operations from harmful interference, and require hospitals to create de facto guard bands to protect their WMTS operations from harmful interference, effectively reducing the amount of usable spectrum on channel 37 for the WMTS.[428] CTIA disagrees with GEHC, noting that their positions would threaten to limit the amount of licensed spectrum made available in the incentive auction and increase the number of new wireless licenses that are encumbered.[429]

113. *Discussion—WMTS and 600 MHz Band services*. While we revise our technical analysis in light of GEHC's Petition, we affirm our conclusion that a three megahertz guard band between 600 MHz operations and channel 37, along with the 600 MHz Band service out-of-band emission limits we adopted, will adequately protect WMTS facilities. GEHC states that the FCC's technical analysis inappropriately applied the protection criteria GEHC provided. More specifically, it states that instead of applying the field strength protection values it provided "at the perimeter of a registered WMTS facility," we applied them at the receiver.[430] GEHC argues that this resulted in the double-counting of building penetration losses and filter rejection in the overload interference analyses and double-counting

[421] *Incentive Auction R&O*, 29 FCC Rcd at 6863-64, paras. 722-24.

[422] *See* Comments of GEHC, GN Docket No. 12-268 (Jan. 25, 2013) ("GEHC NPRM Comments").

[423] *See Incentive Auction R&O*, 29 FCC Rcd at 7006-13, Technical Appendix § II.E.2 (Potential for Interference between 600 MHz Downlink and WMTS).

[424] *Id.* at 6693, para. 291. There is currently no frequency separation between the WMTS on channel 37 and broadcast television stations on adjacent channels 36 and 38.

[425] *Id.*

[426] GEHC Petition at 14.

[427] *Id*. at 10.

[428] *Id.* at 16-17. GEHC states that WMTS stations would have to operate on less than six megahertz to effectively create guard bands within channel 37.

[429] CTIA Opposition at 12-14.

[430] GEHC bases that claim on the Commission's inclusion of building losses and filter rejection in its analysis that effectively "can apply only inside the facility." *See* GEHC Petition at 11.

of building penetration loss in the out-of-band analysis.[431] GEHC's maximum recommended field strength levels at the perimeter of a WMTS facility that were provided in its comments to the *Incentive Auction NPRM* were based on several tables showing a link budget analysis for overload and out-of-band interference.[432] These tables included a term described as "excess loss (building attenuation, etc.)," which we included in our analysis. It was unclear from GEHC's comments that these losses had been already considered in developing their recommended field strength limits. However, based on the clarification in its petition, we now agree that these losses should not have been considered in our analysis. Accordingly, we eliminate this factor from our revised analysis shown in Appendix A.

114. While we agree that we incorrectly double-counted building losses in our original analysis, we disagree that we double-counted any WMTS receive filter attenuation outside of channel 37. GEHC developed its recommended field strength limits using the assumption that new 600 MHz licensees would be operating directly adjacent to channel 37.[433] The 600 MHz Band Plan, however, includes three megahertz guard bands adjacent to channel 37. Based on the filter characteristics provided by GEHC, this frequency separation provides an additional 10 dB of signal attenuation. Thus, it was appropriate to include this additional 10 dB of signal loss for filter attenuation in our analysis. This is so even though the receiver which includes the filter is not located at the perimeter of the building, because the goal is to protect the receiver and the filter provides some of that protection.[434] Such excess loss occurs after the point at which GEHC specifies the protection values must be met. But, because that loss is a real phenomenon, GEHC takes it into account when developing its protection criteria. We treat the filter attenuation in a similar manner in our analysis.

115. We also agree with GEHC that we erred by failing to consider interference aggregation from multiple WMTS antennas in our technical analysis. Because most WMTS facilities employ distributed antenna systems ("DAS") which include many antenna elements, more than a single antenna element may receive an interfering signal. In its comments, GEHC asserted that the analysis therefore should include a 10 dB penalty for aggregating signals from ten WMTS antennas.[435] In its Petition, GEHC states that this scenario is unlikely,[436] and instead recommends an aggregation adjustment of three dB based on signal aggregation from two antennas.[437] Using the revised three dB value provides an additional seven dB of margin, which would allow less stringent field strength protection values than those GEHC proposed. We take this three dB antenna aggregation factor into account in our new analysis shown in Appendix A.

116. Regarding GEHC's claim that we incorrectly converted field strength to received power, we disagree. There are many methods for converting between these units and the choice of which method to use depends on many factors, such as whether the conversion is being used to verify a measurement or to estimate an electric field at some distance from a transmitter. GEHC asserts that the formula we used, which is commonly used in measurement laboratories, unfairly biases our results by

[431] GEHC Petition at 10-11.

[432] GEHC NPRM Comments at 49-50 (Tables 3 and 4).

[433] The 600 MHz band plan and the size of any guard bands adjacent to channel 37 had not been determined at the time GEHC filed their comments to the *Incentive Auction NPRM.*

[434] This is no different than GEHC's use of the "excess loss (building attenuation, etc.)" factor in the analysis it conducted to determine its recommended field strength protection values. As noted above, GEHC's recommended field strength protection values were based on several tables showing a link budget analysis for overload and out-of-band interference.

[435] *Id.* at 49 (Tables 3 and 4).

[436] GEHC Petition at 13-14.

[437] *Id.* at 14. We note in this respect that the field strength protection values GEHC provided in their comments to the *Incentive Auction NPRM* were based on the larger 10 dB aggregation factor.

three meters (the assumed measurement distance).[438] It states that such bias creates a 37.6 dB disparity, which is equivalent to the free space loss over the first three meters from an antenna at 611 MHz. GEHC's claim fails to recognize that the received power is being generated from a transmitter at a much greater distance than three meters. Because signal strength attenuates exponentially over distance, the loss in that last three meters is much less than the loss over the first three meters or any other three-meter segment along the signal path. The exact difference will depend on the actual distance of the transmitter from the WMTS facility.

117. We reject GEHC's alternative formula for calculating radiated power and field strength for conducted power measurements.[439] It cites an equation that relates power in the load (i.e. power received by the antenna) to the field strength.[440] GEHC then argues an equivalency between that field strength and the transmitter equivalent isotropically radiated power ("EIRP").[441] GEHC fails to acknowledge that the EIRP is a function of the transmitter power and transmit antenna gain, which is at some distance from the receiving antenna. Thus, the power received by the receive antenna is not the EIRP, but the EIRP less the path loss (e.g., free space loss plus any additional loss that the signal may incur as it propagates from the transmitter to the antenna).[442]

118. We also disagree with GEHC's claims that there are several other, less serious errors in our analysis. For the overload analysis, it states that while we assumed five megahertz channels for the 600 MHz transmitter, we incorrectly considered only that portion of the 600 MHz Band power that falls in the first adjacent six megahertz channels above and below channel 37, effectively ignoring any power in the second adjacent channels.[443] GEHC argues that such a methodology is unrealistic as it inherently assumes that power in the second adjacent channel does not exist or that the receiver's filter perfectly rejects this portion of the power.[444] Based on the surface acoustic wave ("SAW") filter[445] characteristics GEHC provided, which show attenuation between approximately 40 and 60 dB beyond four to five megahertz of the channel 37 band edges (i.e., into the second adjacent channel), our assumption to only consider the power in the first adjacent channel is reasonable. If we were to consider the power across additional channels, we would also need to consider the full filter attenuation across the channel; instead, we simplify our analysis and assume only 10 dB of attenuation at three megahertz from the band edge. Thus, our power assumptions are conservative.[446] GEHC also states that we should not have integrated

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[438] *Id.* at 12.

[439] *Id.*, citing Semtech TN1200.4, "Calculating Radiated Power and Field Strength for Conducted Power Measurements (2007)" available at: http://www.semtech.com/images/promo/Semtech_ACS_Rad_Pwr_Field_Strength.pdf.

[440] *Id.* Equation 18 of the Semtech Technical Note states: E(dB uV / m) = P_L(dBm) + 77 2 dB + 20log(f ,MHz) - G_{ant} (dB).

[441] EIRP is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

[442] In this equation, the power in the load is the power after the signal is captured by the antenna and converted from an electric field to a signal propagating through the antenna to the receiver. Equating this power to the transmitter EIRP minus propagation loss is valid because an isotropic (Gain = 0 dB) antenna is assumed.

[443] *Id.* at 15.

[444] *Id.* at 14-15.

[445] A SAW filter works by converting an electrical input signal to an acoustic wave and then filtering that acoustic wave. Such filters have characteristics of high selectivity and low loss. Once filtered, the acoustic wave is then converted back to an electrical signal.

[446] We concede that GEHC has a valid point if there were no guard band between a 600 MHz licensee and channel 37 when a licensee is operating in the second adjacent 600 MHz channel. In that case, we should use values of 1200 W/6 MHz and 6000 W/6 MHz for the assumed 200 W/MHz and 1000 W/MHz transmitters. However, this case is

(continued….)

the partial power over the entire six megahertz adjacent channel.[447] However, GEHC fails to offer an alternative method. Again, we believe this to be a valid simplifying assumption for the purposes of our analysis.

119. In advocating for specific field strength protection values, GEHC fails to provide information on the relationship between the results of its analysis and those field strength protection values.[448] GEHC does, however, state that those field strength protection values are based on meeting a -37.8 dBm/MHz threshold in its overload (or blocking) analysis[449] and on meeting an I/N ratio of -6 in its OOBE analysis.[450] GEHC's methodology for calculating protection distance based on these protection values is straightforward. Using that same methodology, we show in Appendix A that the separation distance necessary to protect WMTS from 600 MHz operations is reasonably small.[451] The results of our analysis show shorter separation distances than those calculated by GEHC to meet the same protection criteria for overload and OOBE interference. We acknowledge that these distances are larger than those we calculated in our analysis supporting the *Incentive Auction R&O*, but not of such a magnitude that persuades us to alter our conclusion that the vast majority of WMTS stations will not suffer any detrimental effects from the installation of new 600 MHz base stations. It is important to note that this is a worst case analysis and in most installations one or more of the parameters we assumed here will provide additional protection.[452] Thus, we continue to believe that the three megahertz guard band along with the adopted 600 MHz service OOBE limits we adopted will adequately protect WMTS facilities while providing flexibility for new 600 MHz licensees to deploy their systems. Nevertheless, we encourage new 600 MHz licensees to be cognizant of the presence of WMTS facilities when designing their networks and when possible to take measures to minimize the energy directed towards them.

120. *WMTS and Television Services.* We decline to reconsider our decision not to limit the number of television stations that could be repacked in channels 36 and 38. Restricting repacking on channels 36 and 38 would significantly impede repacking flexibility and limit our ability to repurpose spectrum through the incentive auction. Even if channels 36 and 38 continue to be used for broadcast television after the auction, an increase in the number of stations on these channels does not correspond to an increase in the number of WMTS users that would be affected by adjacent channel TV stations. We expect that there will be many locations where TV stations can operate on channels 36 and 38 with minimal or no effect on WMTS users. Any interference that does occur to the WMTS from adjacent channel TV operations can be addressed on an as-needed basis. The potential for an adjacent channel TV station to affect a WMTS installation depends on many factors, including the TV station power and antenna height, separation distance, intervening obstacles (such as terrain, trees or buildings), and the WMTS receive antenna characteristics (such as height, gain, directionality, and location inside or outside a building). While we recognize GEHC's concern that "hardening" a WMTS facility against adjacent

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not relevant to the analysis here because we adopted a three megahertz guard band between a 600 MHz licensee and channel 37.

[447] GEHC Petition at 15.

[448] CTIA comments that it does not believe GEHC has provided sufficient detail on the technical parameters associated with WMTS devices in use. CTIA Opposition at 12.

[449] GEHC NPRM Comments at 49.

[450] *Id.* at 50.

[451] *See* Appendix A. We note that we made refinements to GEBC's methodology based on the presence of a three megahertz guard band (i.e., taking advantage of the attenuation provided by the SAW filter) as well as the revised antenna aggregation value.

[452] For example, in high density urban deployments, transmitters must operate at low power to avoid intra-system interference. Also, we expect that the actual out-of-band emissions from transmitters will exceed those we assumed here.

channel TV emissions involves costs, we note that many WMTS licensees have already taken such action by adding filters to their systems. Thus, we believe that the need for some facilities to take this action does not pose an insurmountable problem, or require a blanket restriction on repacking TV stations into channels 36 and 38. As CTIA points out, WMTS has never been able to rely on those channels being vacant.[453]

121. Finally, we note that the Commission allocated three spectrum bands for the WMTS, including two bands at 1.4 GHz in addition to channel 37.[454] In allocating this spectrum, the Commission recognized that WMTS operations on channel 37 could be affected in some instances by nearby stations on channels 36 and 38, and it stated that WMTS providers could use one of the other allocated bands in these situations.[455] The Commission also stated that manufacturers could design their equipment to provide sufficient protection from adjacent channel interference.[456]

2. LPAS and Unlicensed Wireless Microphones

122. *Background.* Licensed wireless microphone and other "low power auxiliary station" operations (referenced collectively as "licensed wireless microphones") are authorized under Part 74 to operate on television channels on a secondary, non-exclusive basis.[457] Unlicensed operations of wireless microphones and related devices ("unlicensed wireless microphones") also are permitted on these channels pursuant to a limited waiver and Part 15 rules.[458] The Commission took several steps in the *Incentive Auction R&O* to accommodate their continued use in the reduced amount of spectrum that would remain allocated for television following the incentive auction and in the future 600 MHz Band guard bands.[459] The Commission also allowed wireless microphone users to continue to operate for some period of time following the incentive auction in the spectrum that is being repurposed for wireless broadband, thus providing wireless microphone users operating on these frequencies additional time to make the necessary transition to other spectrum outside of this repurposed spectrum.[460] In addition, the Commission indicated that it would initiate two proceedings[461] to seek comment on additional ways to accommodate wireless microphone operations in the television bands and the 600 MHz guard bands, as well as in several other frequency bands outside of the current TV bands.[462]

123. Two parties—Sennheiser, a wireless microphone manufacturer, and Radio Television Digital News Association ("RTDNA"), a professional organization representing electronic journalism—filed petitions for reconsideration requesting that the Commission reserve more spectrum exclusively for wireless microphone uses.[463] Sennheiser argues that the Commission should ensure that two UHF

[453] CTIA Opposition at 13-14.

[454] *See* 47 C.F.R. § 95.630.

[455] *See WMTS R&O*, 15 FCC Rcd at 11213, para. 19.

[456] *Id.*

[457] 47 C.F.R. Part 74, Subpart H ("Low Power Auxiliary Stations"); *see Incentive Auction R&O*, 29 FCC Rcd at 6696, para. 299.

[458] *See Incentive Auction R&O*, 29 FCC Rcd at 6696, para. 299. As noted above, since adoption of the *Incentive Auction R&O*, the Commission has initiated a proceeding on unlicensed operations in the TV bands, including the unlicensed operations of wireless microphones and related audio devices under the Part 15 rules. *See Part 15 NPRM*.

[459] *See generally Incentive Auction R&O*, 29 FCC Rcd at 6696-705, paras. 299-316.

[460] *Id.* at 6696-702, paras. 300-310.

[461] *Part 15 NPRM*; *Promoting Spectrum Access for Wireless Microphone Operations*, GN Docket Nos. 14-166 and 12-268, Notice of Proposed Rulemaking, 29 FCC Rcd 12343 (2014) ("*Wireless Microphones NPRM*").

[462] *Incentive Auction R&O*, 29 FCC Rcd at 6697-98, 6701-05, paras. 303, 309, 311, 314, 316.

[463] *See* Sennheiser Petition; RTDNA Petition.

television channels will be available for the exclusive use of certain wireless microphones users, generally reprising policy arguments that it made prior to adoption of the *Incentive Auction R&O*.[464] Sennheiser proposes here that the two channels be comprised of channel 37 plus the vacant channel that the Commission stated that it intended to designate for shared use by wireless microphones and unlicensed white space device operations.[465] Alternatively, Sennheiser requests that the exclusive wireless microphone spectrum be comprised of two TV band channels, or that two unauctioned five megahertz blocks outside of the TV bands be set aside exclusively for wireless microphone operations.[466] RTDNA also argues that the Commission should designate the duplex gap exclusively for licensed wireless microphone users,[467] and contends that this action, combined with making the other guard bands available for sharing on an unlicensed basis between wireless microphone and white space device users, would achieve a more balanced outcome.[468] Several advocates for wireless microphone operations, including A.B. Spectrum Company, CP Communications, Full Compass Systems, Future Sonics, Lectrosonics, Karl Richardson, Rich Roszel, and NAB generally support the request in these petitions for more exclusive use spectrum for wireless microphone operations,[469] while CTIA, OTI/PK, WISPA, Mobile Future, and the WTMS Coalition oppose them.[470]

124. Qualcomm challenges the Commission's decision to permit unlicensed wireless microphones in the guard bands, including the duplex gap, along with white space devices, as well as permitting certain licensed wireless microphone operations in a portion of the duplex gap.[471] In particular, Qualcomm argues that there was no record support for permitting the "disparate" operations of wireless microphones and unlicensed white space devices in these bands without a demonstration that all of these devices can operate successfully without causing interference to licensed mobile operations in the adjacent bands.[472] NAB supports Qualcomm's petition insofar as it recommends that the Commission revisit its decision regarding wireless microphone and unlicensed operations in the guard bands; in particular, NAB calls for further studies and analysis with regard to operations in the guard bands and

[464] Sennheiser Petition at 4-9. It asserts that wireless microphone operations serve vital broadcasting, commercial, and entertainment needs, and that two reserved channels are necessary to enable the provision of reliable, high quality "critical" professional operations, including unplanned broadcasts of news and high-end live events, and that the use of guard band spectrum cannot effectively address these needs.

[465] *Id.* at 9-10. Sennheiser prefers making this channel available for wireless microphones in all areas of the country, but at a minimum states that it should be made available in all urban and suburban areas.

[466] *Id.* at 10.

[467] *See generally* RTDNA Petition.

[468] *Id.* at 2-4.

[469] *See* A.B. Spectrum Company Comments at 1 (supporting exclusive use channels for wireless microphones); CP Communications Comments at 2-3 (same); Full Compass Systems Comments at 1 (same); Future Sonics Comments at 1 (same); Lectrosonics Comments at 1 (same); Richardson Comments at 1 (same); Roszel Comments at 1 (same); NAB Comments at 12-14 (generally endorsing RTDNA's petition; supporting licensed wireless microphone operations on exclusive basis in the duplex gap and permitting such operations in the guard band spectrum following further studies and analysis).

[470] *See* CTIA Opposition at 20-23 (opposing exclusive use channels for wireless microphones); OTI/PK Consolidated Replies at 8-9 (same); WISPA Opposition at 5-7 (same); Mobile Future Opposition at 5-6 (same); WMTS Coalition (opposing wireless microphone operations on Channel 37).

[471] Qualcomm Petition at 11. As noted in Section II.C (Unlicensed Operations) *supra*, Qualcomm's Petition raised several issues. Apart from the issues that focus specifically on wireless microphones, these issues are addressed in Section II.C.2 (Guard Bands and Duplex Gap).

[472] Qualcomm Petition at 11. Some commenters disagreed with Qualcomm on this issue. *See, e.g.*, Sennheiser Reply at 8-9 (because the Commission is in the process of developing the standards for operations in the guard bands, Qualcomm's petition is premature); *cf.* WISPA Opposition at 4-5 (same).

duplex gap, and argues that licensed wireless microphone users also should have access to the guard bands and should have exclusive use of the spectrum in the duplex gap.[473] Sennheiser and OTI/PK disagree with Qualcomm's assertion that the Commission provided no technically sound justification for allowing unlicensed operations and wireless microphones in the duplex gap.[474]

125. Finally, Sennheiser requests that the Commission revisit its decision not to require forward auction winners to compensate wireless microphone users for the expense of replacing any equipment to the extent they are "displaced" as a result of the incentive auction.[475] It challenges the Commission's decision not to require reimbursement on the grounds that wireless microphone operations are "secondary," and asserts that the Commission has statutory authority outside of the Spectrum Act to require such reimbursement.[476] Sennheiser contends that neither licensed nor unlicensed wireless microphone users, many of whom recently bought new equipment for operating in the current TV bands after having to cease operating in the 700 MHz Band, had any warning that they might need to cease operating on UHF television band spectrum.[477] While A.B. Spectrum Systems, CP Communications, Future Sonics, Lectrosonics, and Rich Roszel support Sennheiser's request,[478] CTIA and Mobile Future support the Commission's decision not to require reimbursement.[479]

126. *Discussion.* We deny Sennheiser's and RTDNA's petitions requesting that additional spectrum be reserved exclusively for wireless microphone operations.[480] We instead affirm the balanced approach we adopted in the *Incentive Auction R&O* to accommodate wireless microphone operations while also taking into account the interests of other users of the more limited spectrum in the repacked TV bands and the repurposed 600 MHz Band spectrum, including the 600 MHz Band guard bands.[481] Considering the several actions the Commission took in the *Incentive Auction R&O*, as well as the additional actions it now is actively exploring, to accommodate wireless microphone operators' needs following the incentive auction, including the high-end professional-type needs about which Sennheiser and RDTNA are concerned,[482] we are not persuaded that we should provide any more spectrum exclusively for use by wireless microphone users for these types of operations.

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[473] NAB Comments at 12-15.

[474] Sennheiser Reply at 8-9; OTI/PK Reply at 3-5. As discussed above, several commenters opposed Qualcomm's petition insofar as it challenged the Commission's decision to permit unlicensed operations in the guard bands and duplex gap. *See* Section II.C.2 (Guard Bands and Duplex Gap).

[475] Sennheiser Petition at 10-15. *See Incentive Auction R&O*, 29 FCC Rcd at 6704, para. 316 n.957 (rejecting requests by Sennheiser and others that the Commission reimburse wireless microphone users for "relocation" costs that would result from the incentive auction).

[476] Sennheiser Petition at 11-14.

[477] *Id.* at 14-15.

[478] *See* A.B. Spectrum Systems Comments at 1; CP Communications Comments at 3-5; Future Sonics Comments at 1; Lectrosonics Comments at 1; Roszel Comments at 2-3.

[479] *See* CTIA Opposition at 20-23; Mobile Future Opposition at 4-5.

[480] *See* Sennheiser Petition; RTDNA Petition; Qualcomm Petition at 11 (portion of petition focusing on wireless microphones). Qualcomm's petition also asks that we revisit the decision to permit unlicensed white space devices in the guard bands, including the duplex gap. Its Petition on those issues is addressed in Section II.C.2 (Guard Bands and Duplex Gap) above.

[481] *Incentive Auction R&O*, 29 FCC Rcd at 6697-98, 6701-02, 6704-05, paras. 303, 310, 316.

[482] The types of wireless microphone users for which Sennheiser and RTDNA request that we provide with more exclusive use spectrum include, as a general matter, the entities eligible to hold wireless microphone licenses under the Part 74 rules—including broadcasters (e.g., newsgatherers) and professional event producers that need access to spectrum protected from interference for their operations. For many years, entities eligible to hold Part 74 LPAS licenses have included TV broadcasters, among others. Concurrent with adoption of the *Incentive Auction R&O*, the (continued….)

127. The Commission took several steps in the *Incentive Auction R&O* to accommodate wireless microphone operations—including licensed wireless microphone operations—in the spectrum that would remain available for use following the incentive auction. Specifically, it provided for more opportunities for co-channel operations with television stations.[483] It also sought to ensure that at least one channel in the TV bands would continue to be available for wireless microphone operations, stating its intent, following notice and comment, to designate one unused TV channel in each area of the country for use by wireless microphones and white space devices.[484] As discussed above, we recently adopted the *Vacant Channel NPRM* proposing to do this.[485] Licensed wireless microphone operators needing interference-free operations from white space devices will be able to reserve this channel for use at specified locations and times through the TV bands databases.[486] Further, the Commission stated that it would seek comment on ways to update its rules for TV bands databases to provide for more immediate reservation of unused and available channels for use by wireless microphone operators in order to better enable them to obtain needed interference protection from white space device operations at specified locations and times.[487] Shortly following adoption of the *Incentive Auction R&O*, in September 2014, the Commission issued the *Part 15 NPRM* proposing such revisions.[488]

128. The Commission also indicated in the *Incentive Auction R&O* that it planned to take additional steps to ensure that spectrum for wireless microphone users—again including licensed wireless microphone users—would be available following the incentive auction. It provided that wireless microphones would be permitted to operate in the 600 MHz Band guard bands, including the duplex gap, subject to technical standards to be developed in a later proceeding.[489] In the *Part 15 NPRM*, we are following through on that decision, including seeking comment on our proposal to provide licensed wireless microphone operators with exclusive access to four megahertz of spectrum in the duplex gap.[490] Because wireless microphone operators today rely heavily on the current UHF Band, we provided for a transition period that would permit them to continue to operate in the repurposed 600 MHz Band

(Continued from previous page)
Commission expanded such eligibility to include professional sound companies and owners and operators of large venues that routinely use 50 or more wireless microphones. *See Revisions to Rules for Authorizing the Operation of Low Power Auxiliary Stations in the 698-806 MHz Band*, WT Docket Nos. 08-166, 08-167 and ET Docket No. 10-24, Second Report and Order, 29 FCC Rcd 6103 (2014) (*TV Bands Wireless Microphones Second R&O*); 47 C.F.R. § 74.832(a); *see also Incentive Auction R&O*, 29 FCC Rcd at 6701, para. 308.

[483] *Incentive Auction R&O*, 29 FCC Rcd at 6699-700, para. 307 (revising rules for co-channel operations to provide licensed and unlicensed wireless microphone users with access to spectrum closer to television stations, and allowing *licensed* wireless microphone users access to additional spectrum inside the DTV protected contour—where white space device operations are not permitted—to the extent that the wireless microphone users coordinate with broadcast licensees).

[484] *Id.* at 6701, para. 309. The Commission determined that it would not continue to designate two unused television channels (where available) *exclusively* for wireless microphone use following the auction because this would significantly reduce the amount of spectrum available for auction, particularly in many larger markets, and preclude the more efficient sharing of limited television spectrum with white space device operations which also provide public interest benefits. *Id.* at 6701-02, para. 310.

[485] *See Vacant Channels NPRM*, *supra* n.37.

[486] *Incentive Auction R&O*, 29 FCC Rcd at 6701-02, paras. 310-311 & n.943.

[487] *Id.* at 6702, para. 311.

[488] *Part 15 NPRM*, 29 FCC Rcd at 12306-08, paras. 91-95.

[489] *Incentive Auction R&O*, 29 FCC Rcd at 6703-04, paras. 313-15. Specifically, it stated that it would be initiating a proceeding to develop the rules, following notice and comment, to permit unlicensed wireless microphone operations in the guard bands, including the duplex gap, while also providing for licensed wireless microphone operations by broadcasters and cable programming networks on a 4-megahertz portion of the duplex gap.

[490] *Part 15 NPRM*, 29 FCC Rcd at 12276-78, paras. 158-65.

spectrum for up to 39 months following issuance of the Channel Reassignment PN, subject to specified conditions, both to address their near-term needs and to help facilitate the transition of users that currently operate in this portion of the UHF Band to spectrum that is or will be available for their use.[491] In order to accommodate wireless microphone users' long-term needs, the Commission committed to initiating a proceeding to explore additional steps it can take, including use of additional frequency bands.[492] We followed through on this commitment by adopting the *Wireless Microphones NPRM* in September 2014.[493] In light of the above-stated actions, and the need to balance the interests of multiple different UHF Band spectrum users, as well as the goals of the incentive auction, we decline to take action on reconsideration to provide any more spectrum exclusively for use by wireless microphone users.[494]

129. We also deny Qualcomm's petition challenging the Commission's decision to permit wireless microphone operations in the guard bands and duplex gap. The crux of Qualcomm's challenge is that there was insufficient record to decide how wireless microphones could operate successfully in these bands, along with white space devices, in a manner that also ensures that such operations do not cause interference to licensed wireless services in the adjacent bands. For the reasons discussed above with respect to Qualcomm's challenge of the decision to permit unlicensed white space devices to operate in the guard bands and duplex gap (along with wireless microphones), we reject Qualcomm's request.[495] In the *Part 15 NPRM*, we are seeking comment on technical rules that comply with the Spectrum Act and address the potential interference concerns raised in Qualcomm's petition. Qualcomm has the opportunity to present its concerns in that proceeding.

130. Finally, we reject Sennheiser's renewed request that we require forward auction winners to reimburse licensed and unlicensed wireless microphone users for costs associated with replacing equipment as a result of the incentive auction and repurposing of spectrum for wireless services. Sennheiser does not challenge the Commission's conclusion that reimbursement was not contemplated or required by the Spectrum Act.[496] Instead, Sennheiser argues that the Commission has independent authority under the Communications Act to require reimbursement,[497] and challenges the Commission's reasoning that wireless microphone users are not entitled to reimbursement because they operate on a secondary or unlicensed basis.[498] While we agree that the Commission does have independent authority for requiring reimbursements for relocation costs under certain circumstances, we affirm our decision not

[491] *Incentive Auction R&O*, 29 FCC Rcd at 6845-46, paras. 686-87.

[492] *Id.* at 6704-05, para. 310.

[493] *See Wireless Microphones NPRM*.

[494] In denying these requests, we are also rejecting Sennheiser's specific requests that we make more UHF Band spectrum outside of the future TV bands and guard bands exclusively available for wireless microphone operations. In particular, we decline its request to make channel 37 available for wireless microphone operations. The Commission never proposed in this proceeding to permit wireless microphone operations on channel 37, which places Sennheiser's proposal beyond the scope of this proceeding. *See generally Incentive Auction NPRM*, 27 FCC Rcd at 12435-37, paras. 224-26 (discussion of proposals relating to wireless microphones, none of which proposed operations on channel 37), and 12440, para. 237 (proposing use of channel 37 by white space devices). As the Commission made clear in the *Incentive Auction R&O*, it decided that it would permit other operations on channel 37 only insofar as incumbent operations would be protected by requiring that access be obtained through use of the white spaces databases applicable to white space devices (but which are not applicable to wireless microphones). *Id.* at 6686-88, paras. 274-77. We also reject Sennheiser's suggestion that we should set aside two blocks of unauctioned spectrum for wireless microphone operations. Such action would be inconsistent with the purposes of the Spectrum Act to reallocate portions of the broadcast spectrum for wireless services.

[495] *See supra* Section II.C.2 (Unlicensed Devices – Guard Bands and Duplex Gap).

[496] *Incentive Auction R&O*, 29 FCC Rcd at 6704, para. 316 n.957; Sennheiser Petition at 11.

[497] Sennheiser Petition at 11-12.

[498] *Incentive Auction R&O*, 29 FCC Rcd at 6704, para. 316 n.957.

to require it here.[499] Contrary to Sennheiser's arguments, our rules and policies are clear that licensed wireless microphone operations are secondary, and not primary, in those portions of the current TV bands that will be reallocated for wireless services following the incentive auction.[500] The Commission has never required that primary licensees (here, the 600 MHz Band wireless licensees) moving into a band reimburse users that have been operating on a secondary basis in that band.[501] We also decline to require reimbursement of unlicensed wireless microphone users that currently are operating pursuant to a limited waiver under certain Part 15 rules; unlicensed users as a general matter do not have vested or cognizable rights to their continued operations in the reallocated TV bands.[502]

III. THE INCENTIVE AUCTION PROCESS

131. In this section, we reject challenges to the average price component of the final stage rule. We also affirm our decisions to limit participation in the auction to full power and Class A television stations and not to place limits on the ability of noncommercial educational ("NCE") stations to place bids in the reverse auction.

A. Integration of the Reverse and Forward Auctions

132. *Background*. In the *Incentive Auction R&O*, the Commission adopted the final stage rule, which is an aggregate reserve price based on bids in the forward auction.[503] If the final stage rule is satisfied, the forward auction bidding will continue until there is no excess demand, and then the incentive auction will close. If the final stage rule is not satisfied, additional stages will be run, with progressively

[499] *Id.*

[500] 47 C.F.R. § 74.803(b). Sennheiser argues that licensed wireless microphones are not "secondary" because such operations are not identified as secondary allocations in the Table of Allocations, and instead are authorized with secondary rights insofar as they must operate on a non-interfering basis with primary broadcasters. Sennheiser contends that licensed wireless microphone operations are nonetheless valuable, and the mere fact that they must operate on a non-interfering basis is not an *a priori* bar to reimbursement. Sennheiser Petition at 12-13.

[501] *See, e.g.*, *Improving Public Safety Communications in the 800 MHz Band, Consolidating the 800 and 900 MHz Industrial/Land Transportation and Business Pool Channels* (WT Docket No. 02-55), *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems (ET Docket No. 00-258), Petition for Rule Making of the Wireless Information Networks Forum Concerning Unlicensed Personal Communications Service, Petition for Rule Making of UT Starcom, Inc., Concerning Unlicensed Personal Communications Service (RM-10024), Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by Mobile Satellite Service (ET Docket No. 95-18)*, Second Memorandum Opinion and Order, 22 FCC Rcd 10467, 10490, para. 57 & n.145 (the Commission's relocation policies do not require relocation reimbursement for secondary licensees), 10493, para. 64 (same) (2007).

[502] *See* 47 C.F.R. § 15.5(a). We also point out that, after authorizing unlicensed wireless microphone operations in the TV bands pursuant to a limited waiver, the Commission required that a "consumer alert" be conspicuously displayed to purchasers to notify them that the unlicensed wireless microphones systems that they were buying were not entitled to protection against interference, and that purchasers should be aware that the Commission was evaluating use of wireless microphone systems and that the its rules were subject to change. *See FCC Enforcement Advisory on Wireless Microphones*; *Manufacture, Importation, Sale, and Lease of 700 MHz Wireless Microphones is Prohibited; Consumer Alert Required for All Other Wireless Microphones At the Point of Sale or Lease*, Public Notice, 25 FCC Rcd 5867 (EB 2010).

[503] *Incentive Auction R&O*, 29 FCC Rcd at 6712, para. 338. In the *Mobile Spectrum Holdings* proceeding, the Commission separately decided that the spectrum reserve for the 600 MHz Band would be implemented when the conditions of the final stage rule are satisfied. *Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269, Report and Order, 29 FCC Rcd 6133, 6209, para. 187 (2014). This separate decision is also the subject of petitions for reconsideration. *See* T-Mobile Reply at 2 (citing separately filed petition). We do not address those petitions or arguments based on the use of the average price component with respect to establishing the spectrum reserve here.

lower spectrum targets in the reverse auction and less spectrum for licenses available in the forward auction, until the rule is satisfied.[504]

133. The final stage rule has two components, an average price component and a costs component, both of which must be satisfied. For the average price component, the Commission will establish a forward auction average price benchmark prior to the auction, in terms of dollars per MHz-pop.[505] The Commission also will establish a forward auction spectrum clearing benchmark, corresponding to total megahertz of licensed spectrum.[506] If the spectrum clearing target for a particular stage is equal to or less than the spectrum clearing benchmark, the average of relevant bids in the forward auction must exceed the average price benchmark in order to satisfy the first component. However, if the spectrum clearing target for a particular stage exceeds the spectrum clearing benchmark, bidding will satisfy the average price component if the aggregate amount of relevant bids exceeds the product of the average price benchmark and the spectrum clearing benchmark multiplied by the covered population.[507]

134. For the costs component, the anticipated proceeds of bidding in the forward auction must exceed a certain sum, comprised of costs mandated by statute and identified by the Commission.[508] Three of these four sums will be known before the incentive auction begins. Specifically, these three are the remaining amount, if any, that the Public Safety Trust Fund needs to meet Congress's mandate for funding FirstNet from the auction; the estimated amount of post-auction relocation costs reimbursable pursuant to the Spectrum Act; and the Commission's expenses in conducting the incentive auction. The amount of the fourth cost, the payments to broadcast licensees that are willing to relinquish voluntarily their spectrum usage rights in the reverse auction, will be determined by bidding in the reverse auction before bidding begins in the forward auction. The costs component "ensures that the forward auction recovers the clearing costs and other expenses identified by the Spectrum Act[,] … also … FirstNet funding … consistent with [Communication Act] section 309(j)(3)."[509]

135. T-Mobile USA, Inc. ("T-Mobile") challenges the average price component of the final stage rule "because [the Commission] failed to 'articulate a satisfactory explanation for' its decision, 'including a rational connection between the facts found and the choice made.'"[510] The Competitive Carrier's Association ("CCA") similarly contends that the *Incentive Auction R&O* "does not articulate a satisfactory explanation for adopting *two* reserve prices rather than one."[511] According to CCA, the average price component "is wholly unjustified."[512] In addition, both petitioners contend that the Commission failed to take into account various specific risks resulting from the adoption of the average price component. The essential risk, they argue, is that forward auction bids that satisfy the costs

[504] *Incentive Auction R&O* at 6578, para. 26.

[505] *Incentive Auction R&O* at para. 340. The term "MHz-pop" is defined as the product derived from multiplying the number of megahertz associated with a license by the population of the license's service area. *See Incentive Auction R&O* at 6578, para. 26 n.45.

[506] *Id.* at 6712-13, para. 340.

[507] *Id.* at 6712, para. 340. This alternative recognizes that the average price likely will be lower in the event that the auction clears substantially more spectrum than the spectrum clearing benchmark and prevents the average price component from unnecessarily precluding the final stage rule from being satisfied in such circumstances. *See id.* at 6713, para. 342.

[508] *Id.* at 6713, para. 341.

[509] *Id.* at 6713-14, para. 344 (citing the Spectrum Act and the Communications Act).

[510] T-Mobile Petition at 2 (quoting *Motor Vehicle Mfrs Assn. of the U.S., Inc. v. State Farm Mut. Auto. Insur. Co.*, 463 U.S. 29, 43 (1983)).

[511] CCA Petition at 3.

[512] CCA Reply to Oppositions at 2.

component in a given stage of the auction may not satisfy the average price component and therefore the auction will not close at that stage. T-Mobile argues that the Commission failed to address the risk this creates with respect both to furthering competition in mobile broadband services and to the availability of sufficient spectrum to meet the demand for mobile broadband services. Similarly, CCA argues that the forward auction bids in such a circumstance could represent "an economically efficient equilibrium price" between "willing buyers and sellers," and that the result should be the issuance of new licenses.[513]

136. AT&T filed an opposition to the T-Mobile and CCA petitions, contending that the petitioners' arguments regarding the average price component are either premature, pending adoption of a specific average price component, or insufficient.[514] T-Mobile and CCA filed replies to the oppositions, reiterating their arguments.[515] The Computer & Communications Industry Association ("CCIA") also filed a reply, supporting the arguments of T-Mobile and CCA.[516]

137. *Discussion*. We deny the petitions for reconsideration of the average price component of the final stage rule.[517] Contrary to petitioners' claims, the Commission clearly stated the reason for the adoption of the average price component in the *Incentive Auction R&O*. The Commission concluded that its reserve price approach would help assure that auction prices reflect competitive market values and serve the public interest.[518] In particular, the Commission stated, "the first component of the final stage rule's reserve price [the average price component] ensures that the forward auction recovers 'a portion of the value of the public spectrum resource,' as required by the Communications Act."[519] Neither T-Mobile nor CCA demonstrates that this objective is not a satisfactory explanation for adopting this component.

138. CCA argues that the average price component is unnecessary because forward auction bids that satisfy the costs component (including payments to reverse auction bidders) would represent a price for goods agreed to by willing sellers and buyers of those goods, but this argument is based on an incorrect premise. The forward auction bidders will not be "buying" what the reverse auction bidders are "selling." Rather, the Commission will offer new flexible use licenses—unlike existing broadcast licenses—utilizing spectrum from various sources, including the aggregate spectrum relinquished by reverse auction bidders as well as spectrum freed by relocating broadcasters that will continue broadcasting on different frequencies. Consequently, bids to relinquish spectrum in the reverse auction do not intrinsically determine the value of the licenses offered in the forward auction. As a result, CCA has not demonstrated that it was unreasonable for the Commission to establish the average price component to serve public interest objectives of spectrum auctions as required by the Communications Act.

139. T-Mobile contends that the Commission failed to adequately address the inherent risk that forward auction bids may not satisfy the average price component or the risks that an unsuccessful auction pose to wireless competition and the availability of sufficient low band spectrum to meet demand

[513] CCA Petition at 2.

[514] AT&T Opposition. Mobile Future filed an opposition that was limited to the use of the average price component as the spectrum reserve trigger. Mobile Future Opposition. As already noted, the separate issue addressed by Mobile Future is not considered in this Order.

[515] T-Mobile Reply; CCA Reply.

[516] CCIA Reply.

[517] *See* CCA Petition; T-Mobile Petition.

[518] *Incentive Auction R&O*, 29 FCC Rcd at 6713, para. 343 n.1017; *see* 47 U.S.C. § 309(j)(4)(F).

[519] *Incentive Auction R&O*, 29 FCC Rcd at 6713-14, para. 343 (quoting 47 U.S.C. § 309(j)(3)(C)). Accordingly, the Commission noted that it would base the average price component "on factors including, but not limited to, prices received in auctions of comparable spectrum licenses." *Incentive Auction R&O* at 6713, para. 343 n.1018.

for broadband services.[520] The degree of these risks, however, depends in large part on the final benchmarks used, which the Commission stated that it would decide later based on additional public input.[521] To the extent T-Mobile's argument rests upon the degree of risk posed by a specific average price, therefore, it is premature.[522] Moreover, assessing the reasonableness of any risk to the incentive auction's success requires a proper metric for that success. The incentive auction will succeed if its results serve the public interest, as identified by the Commission and consistent with Congress's statutory mandates. As discussed, Congress mandated the particular objective of recovering a portion of the value of the public spectrum resource in the Communications Act. Neither petitioner takes into account this metric of success when complaining that the average price component risks auction "failure."[523]

140. We do not find the petitioners' additional arguments any more persuasive. T-Mobile complains that the use of an "average" price benchmark leaves many issues undecided and adds further complexity to an already complex proceeding.[524] As noted in the *Incentive Auction R&O*, however, "the *Procedures PN* will determine the specific parameters of the final stage rule after further notice and comment in the pre-auction process."[525] In its Reply, T-Mobile strains to read the *Incentive Auction R&O* as providing that "all that remains to be done … is for the Commission to announce a price figure[.]"[526] T-Mobile's list of questions regarding implementation, however, demonstrates that more is required in the pre-auction process than simply announcing a price figure.[527] The *Incentive Auction Comment PN* makes proposals and seeks comment with respect to several such points.[528] Accordingly, T-Mobile's argument does not offer a basis for reconsidering the decision to adopt the average price component of the final stage rule.

141. Finally, CCA contends that the Commission did not articulate a reason for addressing the possibility in the average price component that the spectrum clearing target exceeds the spectrum clearing benchmark, but not the possibility that the actual target falls below the spectrum clearing benchmark.[529] The Commission need not address why the decision it made "is a better means [to achieving its purpose] than any conceivable alternative."[530] Given that the Commission's mandate is to recover "a portion of the value of the public spectrum resource," the average price component need not be designed to take into account MHz-pop prices that might be higher than expected (which would be the effect, if any, of the auction clearing less spectrum than the spectrum clearing benchmark). Put differently, the Commission is not charged with recovering a particular percentage of the spectrum value, so there is no need for the average price component to respond to increasing prices.

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[520] *See, generally,* T-Mobile Petition and Reply. CCA likewise asserts that the Commission "fails to account for the risk of auction failure as a result of an improper reserve price." CCA Petition at 3.

[521] This issue is considered in the *Incentive Auction Comment PN*. *See Incentive Auction Comment PN*, *supra* n.2.

[522] *See, generally,* AT&T Opposition.

[523] Petitioners attempt to add weight to their arguments regarding auction failure by noting that the Spectrum Act authorizes only one attempt at re-organizing the broadcast television spectrum with an incentive auction under its terms. *See* T-Mobile Petition at 5; CCA Petition at 6 (both citing 47 U.S.C. § 1452(e)). The number of times that the Commission may attempt a broadcast incentive auction does not, however, change the standard for determining the auction's success, even if it magnifies the risk posed by a failure.

[524] T-Mobile Petition at 6-7.

[525] *Incentive Auction R&O*, 29 FCC Rcd at 6713, para. 343 n.1018.

[526] T-Mobile Reply at 6.

[527] T-Mobile Petition at 6.

[528] *Incentive Auction Comment PN,* 29 FCC Rcd at 15769-71, paras. 47-54.

[529] CCA Petition at 3, 8.

[530] CCA Reply to Oppositions at 3 n.4.

B. Reverse Auction

142. Below, we reject arguments that LPTV stations be allowed to participate in the incentive auction, and that we violated the Regulatory Flexibility Act ("RFA"). We also affirm our decision to allow NCE stations to participate fully in the reverse auction.

1. Eligibility

143. *Background*. The Spectrum Act mandates a reverse auction to determine the amount of compensation that each "broadcast television licensee" would accept in return for voluntarily relinquishing spectrum usage rights, and defines "broadcast television licensee" as "the licensee of (A) a full-power television station; or (B) a low-power television station that has been accorded primary status as a Class A television licensee."[531] Because this definition does not include LPTV stations, we found that licensees of such stations are not eligible to participate in the reverse auction.[532] We also concluded that limiting reverse auction eligibility in this manner is consistent with our mandate to seek to preserve the coverage area and population served of full power and Class A stations in the repacking process,[533] and with our decision not to extend repacking protection to LPTV stations, as harmonizing qualifications for reverse auction eligibility with those for repacking protection would further Spectrum Act goals.[534]

144. Free Access argues that the RFA[535] requires that the Commission "examine inclusion of LPTV in the incentive auction as an alternative on reconsideration to see if it would minimize the significant economic impact on admittedly small LPTV entities."[536] Similarly, Signal Above LLC ("Signal Above") argues that the FCC must conduct "its own independent analysis of the economic impact to LPTV of either excluding or including LPTV,"[537] and LPTV Coalition demands public release

[531] 47 U.S.C. §§ 1452(a)(1), 1401(6)(A)–(B).

[532] *Incentive Auction R&O*, 29 FCC Rcd at 6716-17, para. 352. In the original Notice of Proposed Rulemaking in this proceeding, the Commission stated in its Initial Regulatory Flexibility Act Analysis ("IRFA") that it "could allow low power television stations to participate in the reverse auction," although it did not propose to do so. *See Incentive Auction NPRM,* 27 FCC Rcd at 12357, 12539, Appendix B, para. 71. In the *Incentive Auction R&O*, however, we concluded that limiting reverse auction eligibility to licensees of full power and Class A television stations "comports with the plain language of the Spectrum Act as well as the policies underlying it." *Incentive Auction R&*O, 29 FCC Rcd at 6716, para. 352.

[533] *Incentive Auction R&*O, 29 FCC Rcd at 6716-17, para. 352 (citing 47 U.S.C. § 1452(b)(2) (requiring the Commission to make "all reasonable efforts" to preserve the coverage area and population served of full power and Class A television licensees only); *id*. § 1452(b)(4)(A)(i) (requiring reimbursement of certain "broadcast television licensee[s]")).

[534] *Incentive Auction R&*O, 29 FCC Rcd at 6716-17, para. 352.

[535] 5 U.S.C. §§ 601 – 612.

[536] Free Access Petition at 3. Two months after the deadline for filing reconsideration petitions, Free Access filed a Motion for Leave to File Supplement to Petition for Reconsideration (filed Dec. 15, 2014) ("Free Access Motion"), arguing that it discovered additional information after the deadline for filing for reconsideration, that it raised such matters in a letter to the Chairman and to the Chief Counsel of the Small Business Administration ("SBA Letter"), and asking that the SBA Letter be included in the record of this proceeding. Free Access Motion at 1-2 and accompanying SBA Letter. We dismiss this filing as a late-filed petition for reconsideration. *See* 47 U.S.C. § 405(a) (petitions for reconsideration must be filed no later than 30 days after public notice of Commission decision); 47 C.F.R. § 1.429(d) (same). The Commission may not waive the deadline for seeking reconsideration absent extraordinary circumstances, which Free Access has failed to demonstrate. *See Reuters Ltd. v. FCC*, 781 F.2d 946, 951-52 (D.C. Cir. 1986). Accordingly, we deny Free Access' Motion. We will, however, consider the matters raised in Free Access' Motion as informal comments.

[537] Signal Above Petition at 1-2.

of "the economic study or model" on which we based the decision not to include LPTV stations.[538] Signal Above further maintains that the FCC excluded LPTV based solely on their secondary nature, and should have addressed comments "suggesting that inclusion of LPTV in the incentive auction would speed up the repacking process, make available more spectrum for the forward auction, and result in more revenue for the government."[539] In opposition, CTIA argues that Congress afforded LPTV stations few to no rights in the incentive auction process and therefore the Commission was under no obligation to allow LPTV stations to participate in the reverse auction.[540]

145. *Discussion.* We reject the arguments of Free Access, LPTV Coalition, and Signal Above that LPTV stations should be allowed to participate in the incentive auction[541] and that we violated the RFA by failing to conduct an independent analysis of the potential economic impact on LPTV stations of either granting or denying them eligibility to participate. We affirm our determination that eligibility to participate in the reverse auction is limited to licensees of full power and Class A television stations. This determination is consistent with the Spectrum Act's mandate to conduct a reverse auction specifically for each "broadcast television licensee," which is defined to exclude LPTV stations. Even assuming we have discretion to grant eligibility to the licensees of LPTV stations despite the statutory mandate, granting such eligibility would be inappropriate for the reasons we explained in the *Incentive Auction R&O*. For instance, LPTV stations are not entitled to repacking protection, and we reasonably declined to exercise our limited discretion to protect them.[542] As LPTV stations are not eligible for protection in the repacking process and are subject to displacement by primary services, relinquishment of their spectrum usage rights is not necessary "in order to make spectrum available for assignment" in the forward auction.[543] Accordingly, sharing the proceeds of the forward auction with the licensees of LPTV stations would not further the goals of the Spectrum Act; instead, it would undercut Congress's funding priorities, including public-safety related priorities and deficit reduction.[544]

146. Contrary to the petitioners' arguments, nothing in the RFA or any other statute requires the Commission to conduct an independent analysis of the economic impact on LPTV stations of making them ineligible to participate in the incentive auction. The RFA requires a "'statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule.' Nowhere does it require … cost-benefit analysis or economic modeling."[545] Likewise, the APA requires that a rule be "reasonable

[538] LPTV Coalition Petition at 2 ("The FCC needs to prove through an economic study, analysis, or model its determination that by excluding LPTV it will generate more revenues for the government.").

[539] Signal Above Petition at 1-2. *See* Free Access Motion at 3 (arguing that no analysis was provided to support the Commission's decision that "it would serve no useful purpose to the goals of the auction for the FCC to include LPTV broadcast licensees in the auction, even though the FCC explicitly stated it has the authority to do so.").

[540] CTIA Opposition at 5.

[541] *See* Free Access Petition at 7; LPTV Coalition Petition at 1-2 ("with many more LPTV licenses entering the auction than primary stations, the FCC would be assured that a far larger amount of spectrum could be cleared").

[542] As discussed above, we exercised our discretionary authority only with respect to "broadcast television licensees" as defined in the Spectrum Act, that is, full power or Class A stations. 47 U.S.C. § 1401(6). As a secondary service, LPTV stations always have been subject to displacement by primary services, and protecting the thousands of LPTV stations would significantly increase the number of constraints on the repacking process and undercut our ability to carry out a successful auction. *See supra*, Section II.B.2.d.i (Facilities to Be Protected – LPTV and TV Translator Stations).

[543] 47 U.S.C. § 1452(a)(1).

[544] *See Incentive Auction R&O*, 29 FCC Rcd at 6714, para. 344; 47 U.S.C. § 309(j)(8)(G)(iii)(II)(bb).

[545] *Alenco Comm. Inc. v. FCC*, 201 F.3d 608, 625 (5th Cir. 2000) ("the RFA plainly does not require economic analysis.") (citations omitted); *see Nat'l Tel. Coop. Ass'n v. FCC*, 563 F.3d 536, 540 (D.C. Cir. 2009) (RFA is "'[p]urely procedural.' . . . Though it directs agencies to state, summarize, and describe, the Act in and of itself imposes no substantive constraint on agency decisionmaking.") (citations omitted). We disagree with Free Access' (continued….)

and reasonably explained."[546] Here, Congress has already determined that LPTV stations are not eligible for the auction, rendering an economic analysis superfluous at best. We fully explained our reasons for declining to protect LPTV stations in the repacking process or to include them in the reverse auction, adopted various measures to mitigate the potential impact of the incentive auction and the repacking process on LPTV stations, and initiated a separate proceeding to consider additional remedial measures.[547] Having demonstrated a "reasonable, good-faith effort to carry out [the RFA's] mandate," no independent analysis of the potential economic impact on LPTV stations of excluding them from reverse auction participation was required of us, nor would such an analysis have been useful or helpful.[548]

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claim that the Final Regulatory Flexibility Analysis included with the *Incentive Auction R&O* incorrectly stated that "no comments were received in response to the IRFA [Initial Regulatory Flexibility Analysis] in this proceeding." Free Access Reply at n.1; Free Access Motion (attaching SBA Letter at 3). The IRFA included with the *Incentive Auction NPRM* at Appendix B stated that "[w]ritten public comments are requested on this IRFA" and that "[c]omments must be identified as responses to the IRFA and must be filed by the deadlines for comments indicated on the first page of the Notice." *See Incentive Auction NPRM*, 27 FCC Rcd at 12523, Appendix B, para. 1. Although some parties may have raised IRFA-related matters in *ex parte* presentations to staff, these presentations did not constitute formal comments filed in response to the IRFA, were not identified as such, and were not filed by the comment deadline. Nevertheless, the matters that were raised in these *ex parte* presentations (namely that the FCC should undertake a full economic and financial analysis as to whether LPTV participation could result in a more successful incentive auction) were considered by the Commission in this proceeding. Furthermore, many of the filings Free Access mentions simply cite a sentence in the IRFA included with the *Incentive Auction NPRM* as support for the position that LPTV may participate in the auction. *See* Free Access Reply at n.1. Those filings have nothing to do with the analysis in the IRFA of the impact on small entities.

[546] *National Tel. Coop. Ass'n*, 563 F.3d at 540.

[547] *See supra*, Section II.B.2.d.i (Facilities to Be Protected – LPTV and TV Translator Stations); *Incentive Auction R&O*, 29 FCC Rcd at 6947-66, Appendix B (Final Regulatory Flexibility Analysis). We fully complied with the RFA in the *Incentive Auction R&O*, listing the steps we took and intended to take to minimize the impact of our decisions on LPTV stations, *id.* at 6948, para. 9, and explaining our reasons for excluding LPTV stations from repacking protection. *Id.* at 6964, para. 56.

[548] *U.S. Cellular Corp. v FCC,* 254 F.3d 78, 88 (D.C. Cir. 2001) (the RFA "requires nothing more than that the agency file a FRFA demonstrating a 'reasonable, good-faith effort to carry out [RFA's] mandate.'") (internal quotes and citations omitted); *see National Tel. Coop. Ass'n*, 563 F.3d at 540 ("In effect . . .the Act requires agencies to publish analyses that address certain legally delineated topics. Because the analysis at issue here undoubtedly addressed all of the legally mandated subject areas, it complies with the Act"). We note that Free Access continues to press its request "that the FCC release data and analysis outputs underlying and giving rise to the 1st Greenhill Report . . . that pertain to the magnitude of displacement impact(s) on LPTV stations," Letter from Melodie A. Virtue, Counsel, Free Access & Broadcast Telemedia, LLC, to Marlene A. Dorch, Secretary, FCC, GN Docket No. 12-268 at 2 (filed Mar. 27, 2015); *see* Letter from Melodie A. Virtue, Counsel, Free Access & Broadcast Telemedia, LLC, to Marlene A. Dorch, Secretary, FCC, GN Docket No. 12-268 at 1-2 (filed May 22, 2015); Letter from Melodie A. Virtue, Counsel, Free Access & Broadcast Telemedia, LLC, to Marlene A. Dorch, Secretary, FCC, GN Docket No. 12-268 at 2 (filed Feb. 12, 2015), Comments of Free Access in MB Docket No. 03-185, GN Docket No. 12-268, ET Docket No. 14-175, p. 3-7 (Jan. 12, 2015), although the Media Bureau has explained that "[t]he Greenhill Report . . . did not involve an analysis of LPTV and TV translator stations." *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations*, MB Docket No. 03-185, GN Docket No. 12-268, ET Docket No. 14-175, Order, 30 FCC Rcd 116, 118, para. 6 (MB 2015). We reiterate that, because LPTV stations will not be protected in the repacking process for the reasons we have explained, neither the Greenhill Report nor any other data or analysis developed by the staff in connection with the incentive auction includes data or assumptions regarding the potential displacement impact on LPTV stations. *See id*. For the same reason, because LPTV stations are not entitled to protection in the repacking process, no assumptions regarding them are necessary to conduct auction simulations or repacking analyses; LPTV stations do not factor into such analyses.

2. Bid Options

147. *Background*. In the *Incentive Auction R&O*, we decided to allow full participation in the reverse auction by eligible NCE stations.[549] We rejected proposals that we condition a station's participation on the remaining availability of NCE service in a given community or area at the end of the repacking process. More specifically, we declined to reject a bid if it would leave an area unserved by any NCE stations eligible to receive a community service grant from the Corporation for Public Broadcasting ("CPB.")[550]

148. The Association of Public Television Stations, CPB, and Public Broadcast Service (collectively, "PTV") argue that our decision overturns more than six decades of Commission precedent protecting reserved spectrum for noncommercial educational service, in violation of the APA and contrary to the goal of the Public Broadcasting Act of 1967.[551] They ask that we allow an NCE station operating on a reserved channel to relinquish its spectrum usage rights only if at least one other NCE station will remain on-air in the community or at least one reserved channel is preserved during the repacking process to enable a new entrant to offer NCE service in the community.[552]

149. *Discussion*. For the reasons set out in more detail below, we affirm our decision to allow NCE stations to participate fully in the reverse auction and find that it is consistent with the Public Broadcasting Act and our NCE reservation policy, taking into account the unique circumstances and Congressional directives with respect to the auction. At the same time, the Commission remains fully committed to the mission of noncommercial broadcasting. The Commission has continuously found that NCEs provide an important service in the public interest, and it has promoted the growth of public television accordingly.[553] In the context of the incentive auction, we emphasize that there will be multiple ways for NCE stations to participate in the auction and continue in their broadcasting missions. The bid options to channel share and to move to a VHF channel will enable NCE stations to continue service after the auction while still realizing significant proceeds. In the channel sharing context, we continue to disfavor dereservation of NCE channels.[554] For those stations that are interested in moving to VHF, we

[549] *Incentive Auction R&O*, 29 FCC Rcd at 6716, para. 352 ("we find that the Spectrum Act extends reverse auction eligibility to NCE licensees of full power and Class A stations."). We noted that "the statute protects the cable and satellite carriage rights of channel sharing NCE stations, implying the eligibility of NCEs to participate in the reverse auction." *Id.* at 6716, para. 352 n.1038.

[550] *Id.* at 6724-25, para. 368 n.1094 (citing Public Broadcasters' Comments at 6-7).

[551] PTV Petition at 1.

[552] *Id.* at 2, 9-10.

[553] *Sixth Report and Order on Television Allocations*, 41 FCC 148, paras. 38-43 (1952) ("*1952 Table Order*); *Amendment of Section 73.606, Table of Assignments, Television Broadcast Stations (Ogden, Utah)*, RM-1562, Memorandum Opinion and Order, 28 FCC 2d 705, 707-08, paras 5, 7 (1971) ("The policy of reserving television channels for noncommercial educational use is based on the fact that channels . . . not only should be kept available for an educational applicant but kept free from reverting . . . to commercial operation."); *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket No. 87-268, Second Report and Order/Further Notice of Proposed Rulemaking, 7 FCC Rcd 3340, 3350, para. 36 (1992) ("[O]ur spectrum planning with respect to the broadcast industry has traditionally taken into account the important role noncommercial stations play in providing quality programming to the public. . . ."); *Deletion of Noncommercial Reservation of Channel *16, 482-488 MHz, Pittsburgh, Pennsylvania*, Memorandum Opinion and Order, 11 FCC Rcd 11700, 11710, para. 18 (1996) ("The Commission has repeatedly denied requests to delete reserved channels, citing as a principal reason for doing so the need to preserve the future availability of channels.") ("*1996 WQED Order*").

[554] *See Incentive Auction R&O*, 29 FCC Rcd at 6855, para. 704 ("NCE [s]tations should have the flexibility to enter into channel sharing arrangements with commercial stations, as long as the Commission ensures that these arrangements do not result in the dereservation of a[n NCE's] channel consistent with the Commission's

(continued….)

have proposed opening prices that represent significant percentages of the prices for going off the air, and we will afford favorable consideration to post-auction requests for waiver of the VHF power and height limitations.[555] NCEs that participate in the auction under any bid option but are not selected will remain broadcasters in their home band, and we will make all reasonable efforts to preserve their service.

150. Our auction design preserves for each NCE licensee the decision of whether to participate, giving stations that want to participate but remain on the air choices for doing so, without unnecessarily constraining our ability to repurpose spectrum. Our approach gives NCE licensees the flexibility to participate fully in the incentive auction, and we will be able to address any service losses after the auction is complete in a manner consistent with the goals of section 307(b) of the Communications Act and our longstanding NCE reservation policy.[556] On balance, we find that the approach we adopted in the *Incentive Auction R&O* is the best way to uphold the NCE reservation policy while also carrying out Congress's goals for the incentive auction.

151. We agree with PTV that the Commission has a longstanding policy of reserving spectrum in the television band for NCE stations and against dereserving channel allotments.[557] As PTV notes, the Commission's policy originated more than 60 years ago, when the Commission concluded that "there is a need for non commercial educational stations."[558] Indeed, the Commission has historically denied requests for dereservation both where the licensee was in severe financial distress and where the channel was vacant after a number of attempts to provide noncommercial service failed.[559]

152. However, we disagree that our decision reverses the NCE reservation policy.[560] The

(Continued from previous page)
longstanding policy against dereservation.") (internal quotations omitted). Further, in the First Order on Reconsideration, we confirmed that, if a channel sharing partner is an NCE operating on a reserved channel that faces involuntary license termination, its portion of the shared channel must continue to be reserved for NCE-only use. *First Order on Reconsideration*, *supra* n.1, at para. 22.

[555] *Incentive Auction R&O*, 29 FCC Rcd at 6726, para. 371; *Incentive Auction Comment PN*, 29 FCC Rcd at 15785-86, paras. 99-101.

[556] 47 U.S.C. § 307(b). Section 307(b) provides for the "fair, efficient and equitable distribution" of television spectrum, and the Commission implemented section 307(b) in establishing a Table of Allotments in which it reserved channels nationwide for NCEs, in order "to insure an extensive . . . development of educational television." *1952 Table Order*, 41 FCC at 161, para. 41.

[557] While we make no determination of whether relinquishment of an NCE license amounts to a dereservation, we note that the objective of the reverse auction is to reallocate the spectrum for new and different uses altogether, not a reversion to commercial status as is typically considered a dereservation. Further, as we have already described, section 307(b), which governs the Commission's consideration of "applications for licenses, and modifications and renewals thereof" including the reservation of channels, does not apply in the auction context and thus does not require the Commission to restrict bids based on loss of service. 47 U.S.C. § 307(b); *Incentive Auction R&O*, 29 FCC Rcd at 6724, para. 367 & n.1092.

[558] *1952 Table Order*, 41 FCC at 159, para. 38.

[559] *See 1996 WQED Order*, 11 FCC Rcd at 11710, para. 22; *Amendment of Section 73.606, Table of Assignments, Television Broadcast Stations (Ogden, Utah)*, Docket No. 21358, Report and Order, 45 Rad. Reg. 2d (P&F) 768, 774, para. 24 (Broad. Bur. 1979).

[560] PTV Petition at 2. PTV also claims that the *Incentive Auction R&O* "frustrat[es] the congressional goals embodied in the Public Broadcasting Act of 1967." PTV Petition at 1. The Public Broadcasting Act of 1967 ("PBA") contained Congressional declarations of policy that NCE services further the general welfare and that the federal government should support those services being available to all citizens. 47 U.S.C. §§ 395(a)(5), (7). While the Commission continues to serve those goals as opposed to frustrating them, as detailed above, the Commission has already rejected any claims that the PBA imposes a duty on the FCC to prevent the loss of service by NCE stations. *Incentive Auction R&O*, 29 FCC Rcd at 6524-25, para. 368 n.1094. The Commission stated that this argument incorrectly elevates the Congressional declaration of policy in the PBA into a binding mandate. *Id.* Since PTV is not making a legal claim that the PBA acts as a mandate in this situation, we consider this issue to be settled.

incentive auction presents unique circumstances that we must take into account in implementing this policy. Congress directed that the Commission conduct a broadcast television spectrum incentive auction to repurpose UHF spectrum for new, flexible uses, but directed that participation in the reverse auction by broadcasters must be voluntary.[561] Thus, the Commission cannot compel participation, but neither should it preclude a willing broadcast licensee, including an NCE station, from bidding.[562] Most closely analogous to the incentive auction in terms of application of the reservation policy was the digital television transition. There, the Commission preserved vacant reserved allotments where possible, but where it was impossible, the Commission allowed for the future allotment of reserved NCE channels after the transition to fill in those areas that lost a reserved allotment, finding that "if vacant allotments were retained, it would not be possible to accommodate all existing broadcasters in all areas … and could result in increased interference to existing . . . stations."[563] In the auction context, we similarly determined that we could not apply the reservation policy during the repacking process itself because there is no feasible way of doing so without creating additional constraints on repacking that would compromise the auction.[564]

153. PTV proposes "to allow a noncommercial educational station to relinquish its spectrum so long as at least one such station remains on-air in the community or at least one reserved channel is preserved in the repacking to enable a new entrant to offer noncommercial educational television service in the community."[565] While PTV regards its proposal as balanced because it would allow the last NCE to relinquish its spectrum, the two options it puts forward would impose essentially equivalent constraints on our ability to repurpose spectrum. Under PTV's proposal, the auction mechanism would either have to reject the bids of the last NCE station in a market, or it would have to put an additional constraint in the new television band. Rejecting the bid of the last NCE in a market would prevent at least some NCEs from engaging in the auction. And while conditioning the relinquishment of the last NCE's spectrum on the preservation of at least one reserved channel may allow full participation by NCE licensees, it would impose the same constraint on the auction system's ability to repack commercial and NCE stations that remain on the air. The effect would be the same as PTV's first option, reducing the amount of spectrum

[561] 47 U.S.C. § 1452(a)(1).

[562] *Incentive Auction R&O*, 29 FCC Rcd at 6724, para. 367 (noting that "[t]he decision whether to participate in the reverse auction . . . is a voluntary, market-based decision left to broadcast stations. . . ."). PTV also claims that our analysis that restrictions on participation would be contrary to the statute is flawed. PTV Petition at 7 n.25. On this, we agree and update our analysis. Section 1452(a)(1) provides that the Commission "shall conduct a reverse auction to determine the amount of compensation that each broadcast television licensee would accept in return for voluntarily relinquishing some or all of its broadcast television usage rights . . . ." 47 U.S.C. § 1452(a)(1). After further analysis, we agree that the language in section 1452(a) is ambiguous and that nothing in section 1452(a) expressly prohibits the FCC from imposing conditions on its acceptance of reverse auction bids in order to serve policy goals, and the Commission did in fact impose certain conditions on acceptance of reverse auction bids in the *Incentive Auction R&O*. *See, e.g.*, *Incentive Auction R&O*, 29 FCC Rcd at 6744, 6847-48, paras. 418, 691 (declining to accept a channel sharing bid if (1) it would result in a violation of the Commission's media ownership rules or (2) it would result in a station changing its DMA). Nevertheless, while we agree that we are not statutorily precluded from adopting the PTV proposal, we decline to adopt it for all the policy reasons described above.

[563] *DTV Sixth Report and Order*, 12 FCC Rcd at 14639, para. 112. In response to similar arguments that the Commission had reversed its policy against dereservation in the DTV and 700 MHz transitions, the Commission found, "[a]lthough that required a balancing of the Commission's goals of advancing DTV service with protecting available spectrum for educational use, it did not signal a relaxation of Commission policy disfavoring dereservation and did not result in the dereservation of any channel occupied by NCE stations." *Amendment of the Television Table of Allotments to Delete Noncommercial Reservation on Channel *16, 482-488 MHz, Pittsburgh, Pennsylvania*, Report and Order, 17 FCC Rcd 14038, 14048, para. 2 (2002) ("*2002 WQED R&O*") (citing *DTV Sixth Report and Order*, 12 FCC Rcd at 14639, para. 112).

[564] *See Incentive Auction R&O*, 29 FCC Rcd at 6724, para. 367 n.1090.

[565] PTV Petition at 9.

that can be cleared and the revenue that can be realized in the forward auction. This extra analysis would also compromise the speed at which the auction runs.[566]

154. We conclude that the most effective means of balancing our commitment to noncommercial educational broadcasting and the mandates of the Spectrum Act is to address any actual service losses on a case-by-case basis in a manner that is tailored to the post-auction television landscape.[567] We are considering a number of such measures.[568] For example, we could waive the freeze on the filing of applications for new LPTV or TV translator stations to allow NCE licensees to promptly restore NCE service to a loss area with these stations.[569] Or, if the last NCE station in a given community goes off the air as a result of the incentive auction, the Commission could consider a minor modification application by a neighboring public station to expand its contour to cover that community, possibly by waiving our rules on power and height restrictions, if the licensee can demonstrate that it would not introduce new interference to other broadcasters. In addition, interested parties could file petitions for rulemaking to propose the allotment of new reserved channels to replace the lost service once the Commission lifts the current freeze on the filing of petitions for rulemaking for new station allotments, or the Commission could do so on its own motion.[570]

155. Finally, we disagree with PTV's claim that "nothing in the *Notice of Proposed Rulemaking* or the extensive record in this proceeding 'fairly apprised the public of the Commission's new approach' to reserved channels," contrary to the requirements of the APA.[571] The petition states that the "*Notice*'s discussion of the impact of the incentive auction on noncommercial educational service was limited to channel sharing restrictions aimed at 'preserv[ing] NCE stations and reserved channels.'"[572] This is incorrect. The *Incentive Auction NPRM* specifically analyzed whether NCEs would be eligible to participate in the reverse auction. It proposed an approach that did not restrict the participation of NCEs

[566] *Incentive Auction R&O*, 29 FCC Rcd at 6724, para. 367 n.1090 ("Consideration of service losses during the reverse auction bidding would slow the auction and repacking process by complicating the feasibility check. For example, under APTS's proposal that we reject bids that would leave a DMA unserved by any NCE stations eligible to receive a community service grant from the Corporation for Public Broadcasting, the feasibility check would have to take into account whether acceptance of a license relinquishment bid would cause another participating station to be the only 'qualified NCE station' in a DMA.") (internal citations omitted).

[567] *See id.* at 6725, para. 368 ("To the extent that any loss in service results from the reverse auction, we will consider appropriate actions to address such losses, such as by inviting applications to serve areas that have lost service."). Given the strong mission orientation of many NCE stations and the multiple bid options that allow stations to participate and still remain on the air, we believe that the number of communities that will be left without an NCE station, if any, will be very small.

[568] We note that some or all of these proposals, as well as any others we may consider, may be subject to rules we adopt in the pending rulemaking proceeding to preserve vacant channels for unlicensed white space devices and wireless microphones. *See Vacant Channel NPRM*, *supra* n.37.

[569] *See Freeze on the Filing of Applications for New Digital Low Power Television and TV Translator Stations*, Public Notice, 25 FCC Rcd 15120 (MB 2010); *see also Initiation of Nationwide First-Come, First-Served Digital Licensing for Low Power Television and TV Translators Postponed Until Further Notice*, Public Notice, 25 FCC Rcd 8179 (MB 2010).

[570] There are precedents and authority for this type of action. *See* 47 U.S.C. §§ 301, 303, 307(b). As discussed above, in the digital transition, the Commission deleted vacant analog channel allotments, replaced a few with a digital channel allotments, and stated that, "[a]fter the transition, we also will consider establishing additional noncommercial reserved allotments on recovered spectrum for those existing vacant noncommercial allotments that cannot be replaced at this time." *DTV Sixth Report and Order*, 12 FCC Rcd at 14639, para. 112.

[571] Administrative Procedure Act, 5 U.S.C. § 553(b)(3) (requiring federal agencies to provide notice of "either the terms or substance of the proposed rule," and then give interested parties an opportunity for comment); PTV Petition at 8 (citing *Prometheus Radio Project v. FCC*, 652 F.3d 431, 453 (3d. Cir. 2011)).

[572] PTV Petition at 8 (citing *Incentive Auction NPRM*, 27 FCC Rcd at 12479-80, para. 370)

operating on reserved or non-reserved channels, noting that the Spectrum Act did not limit eligibility based on commercial status.[573] The *Incentive Auction NPRM* indicated further that NCE participation in the auction would be beneficial, both because it would promote the overall goals of the auction and it would "serve the public interest by providing NCE licensees with opportunities to strengthen their financial positions and improve their service to the public."[574] Adequacy of the notice is demonstrated by comments that PTV submitted in response to the *Incentive Auction NPRM*, which cited section 307(b) and the FCC's historical policies pertaining to loss of service and asked the Commission not to accept license relinquishment bids that would result in DMAs not served by certain NCE stations.[575]

IV. THE POST-INCENTIVE AUCTION TRANSITION

156. In this section, we first decline to consider at this time requests regarding our decision to establish a 39-month post-auction transition period because that issue is the subject of a recent court decision. We reject, however, a request that LPTV and TV translator stations be protected from displacement during and after the post-auction transition process. We then address a challenge to the consumer education requirements we established for broadcasters that are reassigned to new channels in the repacking process. Finally, we address a number of issues regarding the reimbursement process.

A. Construction Schedule and Deadlines

157. *Background*. In the *Incentive Auction R&O*, we adopted a 39-month transition period for broadcasters that are assigned new channels in the repacking process and winning UHF-to-VHF and high-VHF-to-low-VHF bidders. The 39-month transition period is comprised of a three-month period, beginning upon the release of the Channel Reassignment PN, for broadcasters that are reassigned to new channels to complete and file construction permit applications to modify their facilities to operate on the new channels, as well as a 36-month period for construction of such facilities, within which stations will be assigned individual deadlines tailored to their circumstances.[576]

158. Affiliates Associations, ATBA, and Gannett request that we reconsider certain aspects of our 39-month post-auction transition period for full power and Class A stations that are assigned to new channels as a result of the incentive auction and the repacking process to modify their facilities to operate on the new channels. Affiliates Associations seeks reconsideration of our decision to impose "hard" deadlines on these stations to complete their transition as well as our decision to delegate authority to the Media Bureau to determine the stations' construction deadlines.[577] Gannett asks that we clarify our decision to allow stations that experience delays with international coordination additional time to complete construction.[578]

159. ATBA argues that we should provide more time for full power stations to transition and "protect" all LPTV licenses and construction permits during the transition period and for at least two years thereafter.[579] ATBA argues that the Commission's decision to complete the post-auction transition in 39 months will have a substantial impact on the LPTV service because industry resources will be fully

[573] *Incentive Auction NPRM,* 27 FCC Rcd at 12381, para. 76 and 12442, para. 243 ("Television licensees operating on noncommercial educational reserved channels, as well as licensees operating with NCE status on non-reserved channels, would be eligible to participate in the reverse auction under our proposed approach."); 47 U.S.C. §1452(a)(1).

[574] *Incentive Auction NPRM,* 27 FCC Rcd at 12381, para. 76.

[575] *See* PTV Comments (Jan. 25, 2013), at 15-16. *See also Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246 (D.C. Cir. 1994) ("[I]nsightful comments may be reflective of notice and may be adduced as evidence of its adequacy.").

[576] *Incentive Auction R&O*, 29 FCC Rcd at 6796, para. 559.

[577] Affiliates Associations Petition at 8, 10.

[578] Gannett Petition at 5.

[579] ATBA Petition at 7.

occupied helping full power licensees get through the transition as quickly as possible.[580] ATBA maintains that it will be impossible during that period for displaced LPTV licensees to finish their moves to their new channels and there will be at least temporary (and unnecessary) loss of service to viewers who need the service the most.[581] In opposition to ATBA, CTIA argues that Congress afforded LPTV stations few to no rights in the incentive auction process and therefore the Commission was under no obligation to take steps to preserve "the coverage area and population served" of an LPTV station.[582]

160. *Discussion*. We decline to consider at this time the Affiliates Associations, ATBA's, and Gannett's requests regarding the transition period for full power and Class A stations because the arguments the petitioners raise are the subject of a recent decision by the United States Court of Appeals for the D.C. Circuit.[583] We will take appropriate action regarding these arguments in a subsequent Order.

161. We will, however, address ATBA's petition to the extent that it challenges the decision not to "protect" LPTV and TV translator stations from displacement during and after the post-auction transition process. We decline ATBA's request that we "protect all LPTV licenses and construction permits" during the post-incentive auction transition period and "for at least two years thereafter," which would presumably allow LPTV and TV translators to avoid being displaced during the post-incentive auction transition and two years beyond while repacked stations continue to make modifications to their facilities.[584] The Spectrum Act does not mandate protection of LPTV or TV translator stations in the repacking process, and we declined to grant such protection as a matter of discretion for the reasons explained in the *Incentive Auction R&O*.[585] For the same reasons, we decline to grant LPTV and TV translator stations protection during and after the post-auction transition period. Any such protection would be inconsistent with the secondary status of LPTV stations under the Commission's rules and policies and would seriously impede the transition process, a critical element to the incentive auction's success.[586] Recognizing the potential impact of the incentive auction and the repacking process on LPTV stations, we adopted in the *Incentive Auction R&O* an expedited post-auction displacement window to allow stations that are displaced to file an application for a new channel without having to wait until they are actually displaced by a primary user.[587] In addition, we have initiated a proceeding to consider measures to help LPTV and TV translators that are displaced, including delaying the digital transition deadline, allowing stations to channel share, and other measures.[588] These actions will mitigate the impact of the repacking process on LPTV stations without impeding the post-incentive auction transition process.

B. Consumer Education

162. *Background*. In the *Incentive Auction R&O*, we concluded that consumers will need to be informed if stations they view will be changing channels as a result of the incentive auction and repacking.[589] Therefore, we adopted rules to require that stations assigned new channels take certain

[580] *Id*.

[581] *Id.*

[582] CTIA Opposition at 5.

[583] *See National Ass'n of Broadcasters v. FCC*, 2015 WL 3634693 (D.C. Cir. June 12, 2015).

[584] ATBA Petition at 7.

[585] *See Incentive Auction R&O*, 29 FCC Rcd at 6672-75, paras. 237-42.

[586] *Id*. at 6796, para. 559 ("The record in this proceeding shows the need for a post-incentive auction transition timetable that is flexible for broadcasters and that minimizes disruption to viewers. At the same time, the transition schedule must provide certainty to wireless providers and be completed as expeditiously as possible.").

[587] *Id.* at 6835-36, paras. 659-63.

[588] *See Third LPTV NPRM,* 29 FCC Rcd 12536 (2014).

[589] *Incentive Auction R&O*, 29 FCC Rcd at 6807, para. 587.

actions to adequately notify consumers and minimize any potential disruption including viewer notifications for a minimum of 30 days prior to the date that the station will terminate operations on its pre-auction channel.[590]

163. Affiliates Associations argue that these requirements are "unnecessary" because "television stations that are forced to relocate as a result of auction repacking have every incentive to inform their viewers how to find them post-transition."[591] At least, Affiliates Associations argue, "the Commission should undertake a serious cost-benefit analysis to determine whether the costs of imposing these additional regulations are necessary."[592] No other commenters commented on Affiliates Associations' request.[593]

164. *Discussion*. We grant, in part, Affiliates Associations' petition for reconsideration and modify our consumer education requirements with respect to certain "transitioning stations."[594] We continue to believe that "[c]onsumer education will be an important element of an orderly post-auction band transition. Consumers will need to be informed if stations they view will be changing channels, encouraged to rescan their receivers for new channel assignments, and educated on steps to resolve potential reception issues."[595] At the same time, we agree with Affiliates Association that transitioning stations, except for license relinquishment stations, will be motivated to inform their viewers of their upcoming channel change to prevent disruptions in service.[596] Therefore, we revise our consumer education requirements to provide these stations with additional flexibility.

165. In the *Incentive Auction R&O*, we required that all commercial full power and Class A television transitioning stations air a mix of Public Service Announcements ("PSAs") and crawls at specific times of the day.[597] We allowed NCE full power stations to comply with consumer education requirements through an alternate plan.[598] Specifically, we allowed NCE full power stations to either comply with the framework established for commercial full power and Class A television stations or by only airing 60 seconds per day of on-air consumer education PSAs for 30 days prior to termination of operations on their pre-auction channel.[599] Thus, NCE full power stations were given additional flexibility to choose the timeslots for their consumer education PSAs and to not have to air crawls. We conclude that all transitioning stations, except for license relinquishment stations, should have the same

[590] *See Incentive Auction R&O*, 29 FCC Rcd at 6807-10, paras. 586-91.

[591] Affiliates Associations Petition at 19. Affiliates Associations contend that "[m]ore prescriptive regulations, like the ones adopted by the Commission, are necessary only in circumstances where consumers must be protected from corporate incentives that may not be in their best interests." *Id.* Here, they maintain, "the interests of television stations and consumers align perfectly, as viewers are the lifeblood of each and every station." *Id.*

[592] *Id.*

[593] *But see* Letter from National Association of Broadcasters to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268, June 12, 2015 (urging the Commission "to postpone establishing these requirements until after the auction, when more is known about how many stations, in which markets, will be moving to new channels").

[594] In the *Incentive Auction R&O*, we defined "transitioning stations" as full power and Class A television stations that are: (1) reassigned to new channels by the Commission, (2) winning UHF-to-VHF and high-VHF-to-low-VHF bidders, (3) winning license relinquishment bidders, or (4) parties to a winning channel sharing bid. *Incentive Auction R&O*, 29 FCC Rcd at 6807, para. 587 n.1656. Channel sharer stations were required to participate in consumer education only if they are reassigned to a new channel in the repacking process. *Id.*

[595] *Incentive Auction R&O*, 29 FCC Rcd at 6807, para. 587.

[596] *See* Affiliates Associations Petition at 19.

[597] *Incentive Auction R&O*, 29 FCC Rcd at 6808-9, para. 588; *see also* 47 C.F.R. § 73.3700(c).

[598] *Incentive Auction R&O*, 29 FCC Rcd at 6809, para. 589.

[599] *Id.*

flexibility. Therefore, we will allow all transitioning stations, except for license relinquishment stations, to meet the consumer education objectives by airing, at a minimum, either 60 seconds of on-air consumer education PSAs or 60 seconds of crawls per day for 30 days prior to termination of operations on their pre-auction channel. Stations will have the discretion to choose the timeslots for these PSAs or crawls. We will continue to require that transition PSAs and crawls conform to the requirements set forth in the rules.[600]

166. We decline, however, to revise our consumer education requirements for license relinquishment stations.[601] Given that these stations will be going off the air, their incentives are necessarily different from stations that will remain on the air. Specifically, relinquishing stations may be less motivated to inform their viewers of their upcoming plan to terminate operations. Nevertheless, it is critical that viewers of these stations be informed of the potential loss of service so they can take the necessary steps to view programming from another source. As we did with consumer education during the DTV transition, we continue to believe a "'baseline requirement' is necessary and appropriate for license relinquishment stations to ensure the public awareness necessary for a smooth and orderly transition."[602] For these reasons, we affirm our decision with respect to consumer education requirements for license relinquishment stations.[603]

C. Reimbursement of Relocation Costs

167. Below, we first address arguments regarding the sufficiency of the $1.75 billion TV Broadcaster Relocation Fund ("Reimbursement Fund" or "Fund") established by Congress. We next decline to expand the universe of broadcasters eligible for reimbursement from the Fund. Finally, we address a number of petitions regarding the timing of the reimbursement process.

1. Sufficiency of Reimbursement Fund

168. *Background*. The Spectrum Act, which provides for the establishment of a $1.75 billion Reimbursement Fund, requires that the Commission "reimburse costs reasonably incurred" by eligible broadcasters and multichannel video programming distributors ("MVPDs") "from funds available" in the Fund.[604] In the *Incentive Auction R&O*, the Commission concluded that the statutory provisions that provide for a $1.75 billion Reimbursement Fund were not intended as a limitation on the repacking process.[605]

169. Affiliates Associations and the Block Stations argue once again that the Commission should not require relocation of more stations than can be reimbursed by this sum.[606] The Block Stations

[600] *See* 47 C.F.R. § 73.3700(c)(4)-(5) of the revised rules as set forth in Appendix B.

[601] Section 73.3700(a)(7) defines a "license relinquishment station" as "a broadcast television station for which a winning license relinquishment bid, as defined in § 1.2200(7) of this chapter, was submitted."

[602] *See DTV Consumer Education Initiative*, MB Docket No. 07-148, Report and Order, 23 FCC Rcd 4134, 4143-44, para. 17 (2008).

[603] License relinquishment stations must therefore continue to comply with the consumer education requirements set forth in section 73.3700(c) of the rules.

[604] 47 U.S.C. § 1452(b)(4)(A).

[605] *Incentive Auction R&O*, 29 FCC Rcd at 6830-32, paras. 646-50.

[606] Affiliates Associations Petition at 2-3; Block Stations Petition at 8-10. *See also* Affliliates Associations *Incentive Auction NPRM* Comments at 46-47 (arguing the $1.75 billion effectively serves as a budget for repacking); Comments of Block Stations to *Media Bureau Seeks Comment on Widelity Report and Catalog of Potential Expenses and Estimated Costs*, GN Docket No. 12-268, Public Notice, 29 FCC Rcd 2989, 2993–3078 (2014) (*Reassignment Costs Report PN*) at 7 ("In other words, as many commenters have noted, the law permits the FCC to repack only as many stations as can be reimbursed from the $1.75 billion fund.").

advocate in favor of repacking software that will relocate as few stations as possible.[607] NAB contends that the Commission should use constraint files to include a cap on the number of stations relocated, based on a rough estimate of how many stations could be moved within the $1.75 billion budget.[608] Alternatively, NAB argues, the Commission should categorize stations and potential channel moves according to estimated cost ranges and update the constraint files to disallow repacking solutions where the total estimated costs exceed $1.75 billion.[609] Affiliates Associations and NAB also point to simulated repacking scenarios released by the Commission showing the potential for relocation of large numbers of stations as evidence that repacking expenses will exceed the amount available in the Fund.[610] Affiliates Associations argue that applying optimization to reduce the number of stations reassigned to new channels is unlikely to bring the total cost below $1.75 billion.[611] In opposition, CTIA argues that the statute merely limits the budget of the Fund to $1.75 billion but does not require that actual costs fall below this level.[612]

170. The Block Stations urge reconsideration of the Commission's conclusion that the Spectrum Act does not limit the number of stations that can be repacked because, they argue, the Commission failed to read the "all reasonable efforts" language as a limitation on whether stations can be repacked.[613] According to the Block Stations, there is a risk that a shortfall in reimbursement funding would leave some stations unable to afford the expense of completing their channel reassignment, and lead to loss of service to viewers, which would be contrary to Congressional intent.[614]

171. Affiliates Associations further contend that auction participation may not be wholly voluntary if broadcasters believe they might incur significant expenses if they remain on the air and are reassigned to a new channel.[615] They request that the Commission require winning bidders in the forward auction to reimburse relocated stations if there is a shortfall because, they argue, doing so would be consistent with past Commission practice.[616] Similarly, ATBA contends that the Commission should require wireless carriers to pay for displaced LPTV and translator facilities.[617] In opposition, Mobile Future argues that because LPTV licensees do not meet the definition of "broadcast station licensee" they are not eligible for reimbursement from any source.[618] Affiliates Associations also argues that the Commission should set aside auction proceeds beyond the $1.75 billion as part of the auction closing conditions to cover any shortfall that exists if it declines to treat the Fund amount as a budget for repacking or to require forward auction winning bidders to reimburse stations.[619]

172. ATBA further argues that the Commission could reduce claims on the Fund by granting blanket flexible use waivers of its service rules for all stations owned by a broadcast group, rather than

[607] Block Stations Petition at 10.

[608] NAB Nov. 12, 2014 Comments at 5.

[609] *Id.*

[610] Affiliates Associations Petition at 2; NAB Nov. 12, 2014 Comments at 2.

[611] Affiliates Associations Petition at 2-3.

[612] CTIA Opposition at 9.

[613] Block Stations Petition at 9.

[614] *Id.*

[615] Affiliates Associations Petition at 3-4.

[616] *Id*. at 6; *see also* NAB Nov. 12, 2014 Comments at 4.

[617] ATBA Petition at 11.

[618] *See* Mobile Future Opposition at 4.

[619] Affiliates Associations Petition at 4.

evaluating waiver petitions on a station-by-station basis.[620] According to ATBA, this approach would reduce demand for reimbursement and would also benefit broadcasters, consumers and LPTV stations.[621]

173. *Discussion*. For the reasons set out below, we deny the requests of Affiliates Associations, Block Stations and NAB that the Commission limit the number of stations that can be repacked based on the availability of $1.75 billion for relocation expenses.[622] We agree with CTIA that the statute merely limits the budget of the Fund to $1.75 billion but does not require that actual costs fall below this level.[623] We affirm the repacking approach adopted in the *Incentive Auction R&O*, which will incorporate an optimization process to determine the amount of spectrum that can be cleared or repurposed based on the feasibility of assigning channels to stations that remain following the reverse auction.[624] We deny NAB's request that the Commission impose additional constraints on provisional channel assignments, which will be made throughout the reverse auction, beyond those mandated by the statute.[625] Imposing the cost-based constraints sought by petitioners is not mandated by the Spectrum Act and would be unworkable because the total cost of any repacking scenario remains unknown.[626] Moreover, by increasing the number of constraints on the repacking process, granting the petitioners' request would limit our ability to recover spectrum through the incentive auction and undermine the goals of the Spectrum Act.

174. We agree that reducing the overall costs associated with the repacking process would be beneficial, not only to broadcasters and MVPDs that will rely on reimbursement from the Fund, but also because any excess in funding would be applied to deficit reduction, consistent with another goal of the Spectrum Act. Accordingly, the Commission has proposed an optimization process that seeks to minimize relocation costs associated with the repacking process by adopting a plan for final channel assignments that maximizes the number of stations assigned to their pre-auction channel and avoids reassignments of stations with high anticipated relocation costs.[627] The proposed optimization process would accomplish the same goals as the proposals made by NAB, without compromising the speed and certainty provided by the repacking process adopted in the *Incentive Auction R&O*. In this regard, we note that Affiliates Associations' and NAB's reliance on estimates that up to 1,300 stations could be reassigned to new channels is misplaced.[628] These estimates do not include any optimization to minimize

[620] ATBA Petition at 12-13.

[621] *Id*. at 13.

[622] Affiliates Associations Petition at 2; Block Stations Petition at 3; NAB Nov. 12, 2014 Comments at 4-5.

[623] CTIA Opposition at 9.

[624] *Incentive Auction R&O*, 29 FCC Rcd at 6709-10, para. 330. *See also Incentive Auction Comment PN*, 29 FCC Rcd at 15792-93, paras. 129-30.

[625] *See Incentive Auction Comment PN*, 29 FCC Rcd at 15792-93, para. 129 ("Unlike the provisional assignments made during the reverse auction clock rounds, which will be based solely on such constraints, final channel assignments will be made applying optimization techniques that take into account additional objectives.").

[626] In the *Incentive Auction R&O*, we concluded that it was not possible to estimate the precise cost of relocation until repacked stations submit their estimated costs three months after the Channel Reassignment PN is issued. *Incentive Auction R&O*, 29 FCC Rcd at 6832, para. 649. We also stated that "[n]either the Commission nor any party knows precisely how many stations will be repacked and, of those stations relocated, how many will forgo reimbursement in order to obtain a flexible use waiver." *Id*. Although simulated repacking scenarios released since that time indicate the possibility that more than 1,000 stations could be repacked, we expect that optimization techniques designed to minimize the number of stations relocated will minimize overall relocation costs.

[627] *Incentive Auction Comment PN*, 29 FCC Rcd at 15793-94, paras. 130-31, 133.

[628] Affiliates Associations Petition at 2; NAB Nov. 12, 2014 Comments at 2, citing Letter from Gary Epstein, Chair, Incentive Auction Task Force, to Rick Kaplan, Executive Vice President, Strategic Planning, NAB, GN Docket No. 12-268, ET Docket No. 13-26 (filed June 30, 2014).

channel moves and reduce relocation costs in the final TV channel assignment plan.[629] Therefore, these results are not representative of the final number of stations that will be required to move, which we expect to be significantly lower as a result of optimization. Likewise, Affiliates Associations' concern that optimization may not reduce the number of stations repacked enough to bring the total costs below $1.75 billion does not account for the ability of the optimization process to avoid reassignments of stations with high anticipated relocation costs, thereby reducing the total cost of repacking.[630] In light of these initiatives, we have no reason, at this time, to believe the Fund will be insufficient to cover all eligible relocation costs.

175. Contrary to Block Stations' contention, the "all reasonable efforts" mandate in section 1452(b)(2) does not require us to limit the number of repacked stations based on concerns about the sufficiency of the Fund.[631] Section 1452(b)(2) applies "[i]n making any reassignments or reallocations" under section 1452(b)(1)(B).[632] "Reassignments and reallocations" are "ma[de]" during the repacking process, and become "effective" after "the completion of the reverse auction . . . and the forward auction," specifically upon release of the Channel Reassignment PN.[633] Although the Commission's efforts to fulfill the statutory mandate include post-auction measures available to remedy losses in coverage area or population served that individual stations may experience,[634] the mandate itself does not extend to the reimbursement process, which will occur after the Commission has made the reassignments and reallocations for which the statute provides.[635]

176. We are not persuaded by Affiliates Associations' argument that participation in the reverse auction might become involuntary for broadcasters if there is a risk that they could potentially incur out-of-pocket expenses. As discussed in the *Incentive Auction R&O*, Congress allocated $1.75 billion of the auction proceeds to cover repacking costs. The Spectrum Act expressly provides that broadcasters' participation in the reverse auction is voluntary, but the repacking process is not voluntary. Other than suggesting that the Commission could be "putting its thumb on the scale" in favor of auction participation as broadcasters weigh their options, Affiliates Associations offers no evidence that, notwithstanding the $1.75 billion set aside to compensate broadcasters for reasonable relocation costs, broadcasters who would otherwise remain on the air will be motivated to participate in the reverse auction out of concern they will not be fully compensated for their relocation expenses. For the reasons stated above, we believe that the optimization process will enhance the sufficiency of the $1.75 billion Fund by reducing both the overall number of stations repacked and the number of particularly expensive channel moves.

177. We decline Affiliates Associations' request to reconsider the conclusion that providing additional funding from auction proceeds beyond the $1.75 billion would be contrary to the express

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[629] *Incentive Auction Task Force Releases Constraint File Data Using Actual Channels and Staff Analysis Regarding Pairwise Approach to Preserving Population Served,* GN Docket No. 12-268, ET Docket No. 13-26, Public Notice, 29 FCC Rcd 5687, 5690 (IATF 2014).

[630] *See Incentive Auction Comment PN*, 29 FCC Rcd at 15794 n.243 (suggesting the Commission could rely on data compiled for the Media Bureau by Widelity, Inc. or data provided by broadcasters pre-auction to estimate equipment and facilities costs, and seeking comment on how to determine expenses).

[631] Block Stations Petition at 9.

[632] 47 U.S.C. § 1452(b)(2).

[633] 47 U.S.C. § 1452(f)(2); *Incentive Auction R&O,* 29 FCC Rcd at 6783-84, para. 529.

[634] *See, e.g., Incentive Auction R&O*, 29 FCC Rcd at 6648, para. 175 (discussing measures that will allow stations to remedy losses of coverage due to terrain that may occur in individual cases).

[635] We note that the sufficiency of the Fund will not be known until after the "reassignments [and] reallocations" become "effective."

language of the Spectrum Act.[636] Our decision is consistent with the Commission's conclusion in previous auctions that it lacks authority to use auction proceeds to pay incumbents' relocation costs.[637] In this case, section 309 of the Communications Act, as revised, requires $1.75 billion of "the proceeds" of the auction to be deposited in the Reimbursement Fund, and "all other proceeds" to be deposited in the Public Safety Trust Fund and the general fund of the Treasury.[638] While section 1452(i) of the Act provides that "[n]othing in [section 1452(b)] shall be construed to" expand or contract the FCC's authority except as expressly provided, that provision does not qualify the specific direction in section 309 as to funding priorities and the amount of proceeds to be dedicated to relocation costs.[639]

178. We also deny requests that we mandate that winning forward auction bidders pay for post-auction expenses.[640] First, we find no merit in the argument of ATBA that wireless carriers should reimburse LPTV stations. We agree with CTIA that the Commission is not obligated to provide reimbursement for displaced LPTV stations given Congress' unambiguous definition of "broadcast television licensee," which includes only full-power television stations and Class A licensees.[641] Because LPTV licensees do not meet the definition of "broadcast station licensee" they are not eligible for reimbursement from any source.[642] Second, we disagree with the Affiliates Associations and NAB that there is relevant precedent for requiring winning forward auction bidders to reimburse relocation expenses of repacked broadcasters. Although in previous auctions the Commission has required winning bidders to cover incumbents' relocation costs pursuant to its broad spectrum management authority,[643] in this case the Spectrum Act contains an explicit provision for the Reimbursement Fund. Congress's adoption of a precise amount for such costs indicates its intention to limit the FCC's authority to order additional reimbursements.[644] In any event, it distinguishes the incentive auction from previous auctions in which the Commission has adopted other measures to address incumbent relocation costs.

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[636] Affiliates Associations Petition at 3. *See Incentive Auction R&O*, 29 FCC Rcd at 6831-32, para. 648.

[637] *See Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-band*, ET Docket No. 98-206, Memorandum Opinion and Order and Second Report and Order, 17 FCC Rcd 9614, 9713, para. 257 (2002) ("Section 309(j)(8) … requires the Commission to deposit all proceeds from a competitive bidding system in the United States Treasury, except for expenditures made for the purposes of conducting competitive bidding. In light of this statutory requirement, the Commission has no authority to use auction proceeds for the purpose of offsetting costs incurred by DBS from MVDDS licensees.").

[638] 47 U.S.C. § 309(j)(8)(G)(iii).

[639] 47 U.S.C. § 1452(i).

[640] ATBA Petition at 11; Affiliates Associations Petition at 6; Gannett Petition at 3-4; NAB Nov. 12, 2014 Comments at 5-6.

[641] CTIA Opposition at 19. *See also* 47 U.S.C. § 1401(6); *Incentive Auction R&O*, 29 FCC Rcd at 6673, para. 238.

[642] *See* Mobile Future Opposition at 4.

[643] Pursuant to the *Emerging Technologies* precedent, this requirement usually is triggered only if the new licensee elects to enter the band prior to a sunset date, in which case it must negotiate for the relocation of the incumbent. *See Amendment of the Commission's Rules to Establish New Personal Communications Services*, Gen. Docket No. 90-314, Second Report and Order, 8 FCC Rcd 7700, 7738, para. 88 (1993); *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, ET Docket No. 92-9, First Report and Order and Third Notice of Proposed Rule Making, 7 FCC Rcd 6886 (1992); Second Report and Order, 8 FCC Rcd 6495 (1993); Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (1993); Memorandum Opinion and Order, 9 FCC Rcd 1943 (1994); Second Memorandum Opinion and Order, 9 FCC Rcd 7797 (1994), *aff'd, Ass'n of Pub. Safety Commc'ns Officials-Int'l, Inc. v. FCC,* 76 F.3d 395 (D.C. Cir. 1996) (collectively, "*Emerging Technologies*").

[644] *See United States v. Davis*, 978 F.2d 415, 418 (8th Cir. 1992) (the maxim of statutory construction *expressio unius est exclusio alterius* (the mention of one thing implies the exclusion of another) dictates that an expressly

(continued….)

179. The blanket waiver approach advocated by ATBA is inconsistent with the Commission's obligation to analyze waiver petitions to ensure they comply with the statutory requirements.[645] The Spectrum Act's flexible use waiver provision provides a means of reducing demand on the Fund by conditioning petition grant on an agreement to forgo reimbursement, as well as offering broadcasters flexibility in the use of their licensed broadcast spectrum.[646] In the *Incentive Auction R&O*, we declined to automatically grant service rule waiver requests because we found that, in evaluating a waiver petition, the Media Bureau must determine whether the petition meets the Commission's general waiver standard and complies with the statutory requirements pertaining to interference protection and the provision of one broadcast television program stream at no cost to the public.[647] Similarly, this analysis must be performed for each station seeking a waiver of the Commission's service rules.[648] Therefore, we deny the request of ATBA. We note that a station group may still obtain a waiver for all of its stations if the Media Bureau determines they demonstrate compliance with the relevant statutory provisions.[649]

2. Stations That Are Not Repacked and Translator Facilities

180. *Background*. The Spectrum Act expressly limits eligibility for reimbursement to "broadcast television licensees" "that [are] reassigned under [section 1452(b)(1)(B)(i)]" in the repacking process, and MVPDs that incur costs "in order to continue to carry the signal of a broadcast television licensee" that changes channels.[650] In the *Incentive Auction R&O*, the Commission declined to exercise any authority the statute might provide to reimburse stations that are not reassigned to new channels in the repacking process.[651]

181. Affiliates Associations argue that the Commission acted inconsistently by exercising discretion to allow MVPDs to be reimbursed for costs associated with continuing to carry winning high-VHF-to-low-VHF broadcast bidders, but not to make non-reassigned stations whole.[652] ATBA argues

(Continued from previous page)
stated exception impliedly excludes all other exceptions). If winning forward auction bidders were required to cover broadcasters' relocation costs exceeding $1.75 billion or the displacement costs of LPTV facilities, forward auction bids likely would be reduced to account for bidders' prospective liability for such costs, reducing the auction proceeds ultimately deposited in the Treasury. Thus, as a practical matter, such a requirement would reduce the proceeds that would otherwise be available for the purposes specified by Congress (the Public Safety Trust Fund and deficit reduction).

[645] ATBA Petition at 12.

[646] 47 U.S.C. § 1452(b)(4)(B) ("In lieu of reimbursement for relocation costs under subparagraph (A), a broadcast television licensee may accept, and the Commission may grant as it considers appropriate, a waiver of the service rules of the Commission to permit the licensee, subject to interference protections, to make flexible use of the spectrum assigned to the licensee to provide services other than broadcast television services. Such waiver shall only remain in effect while the licensee provides at least 1 broadcast television program stream on such spectrum at no charge to the public.").

[647] *Incentive Auction R&O*, 29 FCC Rcd 6828-29, para. 641.

[648] Section 1452(b)(4)(B) explicitly provides the Commission with the discretion to grant a service rule waiver "as it considers appropriate."

[649] In the *Incentive Auction R&O*, the Commission noted that broadcasters that are not eligible to apply for a service rule waiver under section 1452(b)(4)(B) are free to apply for a waiver under our general waiver authority under 47 C.F.R. § 1.3. *Id.* at 6829 n.1790 & para. 642.

[650] 47 U.S.C. § 1452(b)(4)(A)(i)-(ii).

[651] *Incentive Auction R&O*, 29 FCC Rcd at 6814, para. 602.

[652] Affiliates Associations Petition at 5. Affiliates Associations also argue that the Commission has the authority to require winning forward auction bidders to reimburse expenses of non-repacked stations. Affiliates Associations Petition at 6. For the reasons discussed above, we decline to grant requests that the Commission require winning forward auction bidders to pay any relocation expenses. *See supra* para. 178.

that the FCC can and should interpret "broadcast television licensee" to include translators and allow them to seek reimbursement from the Fund.[653] In opposition, Mobile Future argues that the Commission should reject requests to protect TV translator stations in the repacking process as inconsistent with the Spectrum Act.[654]

182. *Discussion*. We decline to exercise our discretionary authority to allow secondary services such as translator stations to claim reimbursement from the Fund, consistent with our decision not to protect these entities in the repacking process.[655] This decision is consistent with Commission precedent to reimburse only primary services that are relocated, not secondary services that are not entitled to protection.[656] Providing reimbursement for translators or other secondary services out of the $1.75 billion Fund would also reduce the amount available to reimburse repacked Class A and full-power stations for their eligible relocation costs. Therefore, we deny this portion of ATBA's petition.

183. Further, we are not persuaded by Affiliates Associations' argument that we acted inconsistently in declining to reimburse non-reassigned stations directly but allowing MVPDs to be reimbursed from the Fund for expenses related to a particular type of station move (successful high-VHF-to-low-VHF bidders). Although the Spectrum Act does not require reimbursement for either type of expense, they are distinguishable. The MVPD expenses in question arise from our decision to allow high-VHF-to-low-VHF bids, a decision that Congress could not have specifically anticipated.[657] Our exercise of discretion makes MVPDs eligible for reimbursement for the reasonable costs they incur in order to continue to carry broadcast stations that are reassigned as a result of the auction, regardless of the type of bid option exercised by the broadcaster. In contrast, Congress clearly anticipated a distinction between reassigned and non-reassigned broadcasters, expressly providing for reimbursement of the former but not the latter. Moreover, non-repacked broadcasters might nevertheless indirectly benefit from a reimbursement to a reassigned station.[658] We find that our decision was reasonable and will help to preserve limited reimbursement funds.

3. Reimbursement Timing

184. *Background*. The Spectrum Act limits the period during which reimbursements can be made from the Fund to three years from completion of the auction.[659] In the *Incentive Auction R&O*, the Commission concluded that the auction will be "complete" within the meaning of the Spectrum Act when a public notice announces that each phase of the auction has ended.[660] To facilitate channel relocation within the statutory timeframe, the *Incentive Auction R&O* adopted a reimbursement process in which eligible broadcasters and MVPDs will receive an initial allocation of up to 80 percent of their estimated relocation costs (90 percent for non commercial stations), which will provide them with access to the funding they require to begin construction and be reimbursed as they incur expenses.[661]

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[653] ATBA Petition at 11.

[654] Mobile Future Opposition at 1.

[655] *Incentive Auction R&O*, 29 FCC Rcd at 6672-73, para. 237 (declining to extend repacking protection to LPTV and TV translator services).

[656] *See, e.g.,* Section II.D.2 *supra* (Repacking the Broadcast Television Bands – LPAS and Unlicensed Wireless Microphones)(affirming the Commission's decision not to reimburse the costs of wireless microphone users).

[657] *Incentive Auction R&O*, 29 FCC Rcd at 6814, para. 603 & n.1705.

[658] *Id.* at 6813-14, para. 602 & n.1701 (noting that in some instances where a non-repacked broadcaster shares a tower or equipment with a repacked station, the non-repacked broadcaster can benefit from reimbursement funds paid to the repacked broadcaster).

[659] 47 U.S.C. § 1452(b)(4)(D).

[660] *Incentive Auction R&O*, 29 FCC Rcd at 6783-84, paras. 529-30.

[661] *Id.* at 6817-18, paras. 610-17.

185. Affiliates Associations seek reconsideration of the Commission's decision to deem the forward auction "complete" upon release of a Public Notice.[662] Instead, Affiliates Associations assert, the auction should not be deemed complete for purposes of commencing the reimbursement period until the Commission awards wireless licenses to winning forward auction bidders.[663] Affiliates Associations also argue that providing 80 percent of broadcasters' expenses does not guarantee that all broadcasters can meet the three-year construction deadline.[664] According to Affiliates Associations, the Commission should reimburse broadcasters fully for their estimated expenditures, with a true-up at the end of the process designed to refund money to the U.S. Treasury.[665]

186. Affiliates Associations also argue that the three-month deadline for construction permit and cost estimates is unreasonable given the potential number of stations repacked and the limited number of engineers.[666] Affiliates Associations argue that the Media Bureau will take longer to approve cost estimates than it is giving broadcasters to file because it lacks expertise in evaluating cost estimates.[667] Thus, they argue, for both construction permit applications and cost estimates, the Commission should extend the submission deadline to six months, while maintaining the possibility of waivers granted for good cause.[668]

187. *Discussion*. We dismiss on procedural grounds Affiliates Associations' request that we delay the completion of the auction until after forward licenses have been issued.[669] The *Incentive Auction R&O* fully considered the argument by broadcasters that the Commission should delay the close of the forward auction until wireless licenses are assigned.[670] Specifically, we found that this approach would produce uncertainty in the UHF Band transition because the Spectrum Act directs that no reassignments or reallocations may become effective until the completion of the reverse auction and the forward auction.[671] We therefore dismiss the assertion of Affiliates Associations that close of the auction should be contingent on assigning licenses to winning forward auction bidders.

188. We deny the requests of Affiliates Associations and Gannett for reconsideration of certain aspects of the reimbursement process.[672] In adopting a reimbursement process providing that eligible entities receive an initial allocation of up to 80 percent of their estimated expenses, the Commission concluded that this approach should help ensure that broadcasters and MVPDs do not face an undue financial burden while also reducing the possibility that we allocate more funds than necessary to cover actual relocation expenses.[673] Moreover, this approach takes into consideration the practical

[662] *Id.* at 7.

[663] *Id.*

[664] *Id.* at 7-8.

[665] *Id.*

[666] *Id.* at 12.

[667] *Id.*

[668] *Id.*

[669] Affiliates Associations Petition at 7. As we stated above, under Commission rules, if a petition for reconsideration simply repeats arguments that were previously fully considered and rejected in the proceeding, it will not likely warrant reconsideration. 47 C.F.R. § 1.429(l)(3); *Connect America Fund,* 28 FCC Rcd at 2573, para. 3.

[670] *Incentive Auction R&O*, 29 FCC Rcd at 6784, para. 530 n.1501 (citing Affiliates Associations R&O Comments at 48; Affiliates Associations R&O Reply at 15; NAB R&O Comments at 49–51; State Broadcaster Associations R&O Comments at 15).

[671] *Incentive Auction R&O*, 29 FCC Rcd at 6784-85, para. 531 (citing 47 U.S.C. § 1452(f)(2)).

[672] Affiliates Associations Petition at 7-8; Gannett Petition at 5.

[673] *Incentive Auction R&O*, 29 FCC Rcd at 6818-19, para. 614.

limitation that the Commission will have only $1 billion (borrowed from Treasury) to allocate at the beginning of the reimbursement process.[674] Nevertheless, we fully intend to make initial allocations quickly to help broadcasters begin the relocation process.[675]

189. We also deny requests that we extend the initial three-month deadline for repacked stations to file construction permits and cost estimates.[676] We find that doing so would postpone the award of initial funding allocations, thus making it more difficult for broadcasters to meet construction deadlines. The purpose behind these deadlines is to permit broadcasters to begin construction as quickly as possible. Moreover, the statute requires that reimbursements from the Fund be completed no later than three years after the completion of the forward auction, and extending the filing deadline would compress the period within which disbursements could be made.[677] We disagree with Affiliates Associations that the Media Bureau will be unable to approve the cost estimates and construction permit applications of a large number of stations quickly.[678] With respect to construction permit applications, the Media Bureau has the experience and expertise to process these applications quickly and has adopted expedited processing guidelines for certain applications to further accelerate the approval process.[679] We also plan to hire a reimbursement contractor to assist with processing the cost estimates and actual cost submissions throughout the reimbursement period.[680] In order to make initial allocations, we require all eligible entities to file cost estimates at the three-month deadline because allocations will be calculated based on total cost estimates in relation to the amount available to the Commission at the time. To the extent a broadcaster or MVPD is unable to obtain price quotes by the filing deadline, it can use the predetermined cost estimates published in the Catalog of Eligible Expenses as cost estimate proxies.[681] For these reasons, we retain the three-month deadline for eligible entities to file construction permit applications and reimbursement cost estimates.

V. OTHER MATTERS

190. Mako argues that the *Incentive Auction R&O* violates the National Environmental Policy Act of 1969 ("NEPA") because it did not include an "Environmental Assessment" ("EA") with a "No Significant Impact" finding or a full "Environmental Impact Statement" ("EIS").[682] We reject this argument. The environmental effects attributable to the rules adopted in the *Incentive Auction R&O*, including the potential modification of broadcast facilities resulting from channel reassignments and the build-out of facilities in the 600 MHz Band, are already subject to environmental review under our NEPA procedures.[683] Under those procedures, potentially significant environmental effects of proposed facilities will be evaluated on a site-specific basis prior to construction. Adoption of rules in the *Incentive Auction R&O* has no potentially significant environmental effects—beyond those already subject to site-specific

[674] *Id* at 6819, para. 615.

[675] Allocations may be made in tranches, as funding becomes available. *Id*.

[676] Affiliates Associations Petition at 11-12;

[677] *See* 47 U.S.C. § 1452(b)(4)(D).

[678] Affiliates Associations Petition at 11-12.

[679] *See Incentive Auction R&O*, 29 FCC Rcd at 6792, para. 551.

[680] *Id*. at 6820, para. 618.

[681] *Id*. at 6817-18, para. 611.

[682] Mako Petition at 10-12. In addition, International Broadcasting Network ("IBN") argues without any support that Chairman Wheeler should be recused from this proceeding. IBN Petition at 3. We find no evidence whatsoever to support IBN's claim that the Chairman should have recused himself from this proceeding and we therefore we reject this request.

[683] 47 C.F.R. §§ 1.1307, 1.1308 and 1.1311.

reviews—that the Commission must evaluate in an EA or EIS under NEPA or the Commission's NEPA procedures.

VI. PROCEDURAL MATTERS

191. *Final Regulatory Flexibility Act Analysis*. The Commission has prepared a Final Regulatory Flexibility Certification in Appendix C.

192. *Final Paperwork Reduction Act of 1995 Analysis*. This document contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 ("PRA"), Public Law 104-13. It will be submitted to the Office of Management and Budget ("OMB") for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

193. We have assessed the effects of the policies adopted in this Second Order on Reconsideration with regard to information collection burdens on small business concerns, and find that these policies will benefit many companies with fewer than 25 employees by providing them with options for voluntarily relinquishing broadcast spectrum usage rights or for gaining access to valuable repurposed spectrum. In addition, we have described impacts that might affect small businesses, which includes most businesses with fewer than 25 employees, in the Final Regulatory Flexibility Certification attached to this Second Order on Reconsideration as Appendix C.

194. *Congressional Review Act*. The Commission will send a copy of this Second Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act.[684]

VII. ORDERING CLAUSES

195. **IT IS ORDERED**, pursuant to the authority found in Sections 1, 4, 301, 303, 307, 308, 309, 310, 316, 319, 325(b), 332, 336(f), 338, 339, 340, 399b, 403, 534, and 535 of the Communications Act of 1934, as amended, and sections 6004, 6402, 6403, 6404, and 6407 of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156, 47 U.S.C. §§ 151, 154, 301, 303, 307, 308, 309, 310, 316, 319, 325(b), 332, 336(f), 338, 339, 340, 399b, 403, 534, 535, 1404, 1452, and 1454, this Second Order on Reconsideration in GN Docket No. 12-268 **IS ADOPTED,** effective thirty (30) days after the date of publication in the *Federal Register*.

196. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petition for Reconsideration filed by ABC Television Affiliates Association, CBS Television Network Affiliates Association, FBC Television Affiliates Association, and NBC Television Affiliates, **IS GRANTED IN PART AND DENIED IN PART** to the extent described herein

197. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petition for Reconsideration filed by NBC Telemundo License, LLC, as clarified on April 7, 2015, **IS GRANTED** to the extent described herein.

198. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petition for Reconsideration filed by the Walt Disney Company **IS GRANTED** to the extent described herein.

[684] *See* 5 U.S.C. § 801(a)(1)(A).

199. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petition for Reconsideration filed by Dispatch Printing Company **IS GRANTED** to the extent described herein.

200. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petition for Reconsideration filed by Cohen, Dippell, and Everist, P.C **IS GRANTED IN PART AND DENIED IN PART** to the extent described herein.

201. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petitions for Reconsideration filed by Advanced Television Broadcasting Alliance; and Gannett Co., Inc., Graham Media Group, and ICA Broadcasting **ARE DENIED IN PART** to the extent described herein.

202. **IT IS FURTHER ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § and 405, and section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, the Petitions for Reconsideration filed by Abacus Television; American Legacy Foundation; Artemis Networks LLC; Association of Public Television Stations, Corporation for Public Broadcasting, and Public Broadcasting Service; Beach TV Properties, Inc.; Block Communications, Inc.; Bonten Media Group, Inc. and Raycom Media, Inc.; Competitive Carriers Association; Free Access & Broadcast Telemedia, LLC; GE Healthcare; International Broadcasting Network; the LPTV Spectrum Rights Coalition; Mako Communications, LLC; Media General, Inc.; Radio Television Digital News Association; Sennheiser Electronic Corporation; Signal Above, LLC; Qualcomm Inc.; T-Mobile USA, Inc.; U.S. Television, LLC; The Videohouse, Inc.; and the WMTS Coalition **ARE DISMISSED AND/OR DENIED** to the extent described herein.

203. **IT IS FURTHER ORDERED** that the Petition for Leave to File Supplemental Reconsideration filed by Abacus Television on November 12, 2014 and the Petition for Leave to Amend filed by the LPTV Coalition on November 12, 2014 **ARE DENIED**.

204. **IT IS FURTHER ORDERED** that the Motion for Leave to File Supplement to Petition for Reconsideration filed by Free Access and Broadcast Telemedia, LLC on December 15, 2014 **IS DENIED**.

205. **IT IS FURTHER ORDERED** that the Commission's rules **ARE HEREBY AMENDED** as set forth in Appendix B and **WILL BECOME EFFECTIVE** after the Commission publishes a notice in the *Federal Register* announcing approval by the OMB under the PRA and the relevant effective date.

206. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this Second Order on Reconsideration in GN Docket No. 12-268, including the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

207. **IT IS FURTHER ORDERED** that the Commission **SHALL SEND** a copy of this Second Order on Reconsideration in GN Docket No. 12-268 in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

SEPARATION DISTANCES TO PROTECT WMTS FROM 600 MHZ OPERATIONS BASED ON GEHC METHODOLOGY

Table 1: Overload (Blocking) Analysis

Description	200 W/MHz Transmitter[1]	1000 W/MHz Transmitter[2]
Emission Frequency (MHz)	608	608
Single Transmitter EIRP (dBm/MHz)	50	57
Calculated Transmitter to WMTS Distance (m)[3]	43	96
Path Loss Coefficient	2	2
Path Los (dB)	60.8	67.8
Excess Loss (Building Attenuation, etc.)	20	20
SAW Filter Attenuation @ 3 Megahertz separation (dB)	10	10
Total Coupling Loss (dB)	90.8	97.8
Received Interference per Exposed WMTS Antenna, per Transmitter (dBm/6 MHz)	-40.8	-40.8
Number of Dominant Transmitters	1	1
Number of Exposed WMTS antenna per Dominant Transmitter	2	2
Overall Aggregation Factor	2	2
Overall Aggregation Factor (dB)	3	3
Aggregate Received Interference Power (dBm / MHz)	-37.8	-37.8
Assumed Non-Hardened WMTS Blocking Threshold (dBm/MHz)	-37.8	-37.8

[1] As shown in our initial analysis in the *Incentive Auction R&O*, because only the energy in the channel adjacent to channel 37 is considered, the roll-off from the out-of-band emission mask has no effect on the results of the analysis. *Incentive Auction R&O*, 29 FCC Rcd at 7009, Technical Appendix at para 100. Therefore, only a single case is shown for each transmitter power in this column and in the next column.

[2] *See* preceding note.

[3] This is the calculated required distance, using the other parameters in the table, necessary to meet the GEHC provided WMTS blocking threshold.

Table 2: Out-Of-Band Analysis[4]

Description	Emission Mask with No Out-of-Band Roll-Off[5]	Combined FCC/3GPP Emission Mask[6]
Emission Frequency (MHz)	611	611
Single Transmitter EIRP (dBm/10 kHz)	-23	-29.3
Calculated Transmitter to WMTS Distance (m)[7]	245	119
Path Loss Coeffiecient	2	2
Path Los (dB)	76.0	69.7
Excess Loss (Building Attenuation, etc.)	20	20
SAW Filter Attenuation @ 3 Megahertz separation (dB)	0	0
Total Coupling Loss (dB)	96.0	89.7
Received Interference per Exposed WMTS Antenna, per Transmitter (dBm/6 MHz)	-119.0	-119.0
Number of Dominant Transmitters	1	1
Number of Exposed WMTS antenna per Dominant Transmitter	2	2
Overall Aggregation Factor	2	2
Overall Aggregation Factor (dB)	3	3

[4] In the *Incentive Auction R&O*, the Commission conducted the out-of-band analysis for two cases: 1. based on the emission mask provided by the rules requiring attenuation of $43 + 10\text{Log}_{10}(P)$ for 600 MHz operations beyond the channel edge; and 2. Based on a more realistic out-of-band attenuation based on the FCC emission mask and the 3GPP standards. *Incentive Auction R&O*, 29 FCC Rcd at 7007, Technical Appendix at para. 97.

[5] As shown in our initial analysis in the *Incentive Auction R&O*, because only the energy in the channel adjacent to channel 37 is considered, the roll-off from the out-of-band emission mask has no effect on the results of the analysis. *Incentive Auction R&O*, 29 FCC Rcd at 7007, Technical Appendix at para. 101. Therefore, only a single case is shown for each transmitter power here and in the next column.

[6] *See* preceding note.

[7] This is the calculated required distance, using the other parameters in the table, necessary to meet the GEHC provided I/N ratio.

APPENDIX B

Final Rules

PART 73 – RADIO BROADCAST SERVICES

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336 and 339

2. Section 73.3700(c) of the Commission's rules is revised to read as follows:

§ 73.3700 Post-Incentive Auction Licensing and Operation.

* * * *

(c) Consumer education for transitioning stations.

(1) License relinquishment stations that operate on a commercial basis will be required to air at least one Public Service Announcement (PSA) and run at least one crawl in every quarter of every day for 30 days prior to the date that the station terminates operations on its pre-auction channel. One of the required PSAs and one of the required crawls must be run during prime time hours (for purposes of this section, between 8:00 pm and 11:00 pm in the Eastern and Pacific time zones, and between 7:00 pm and 10:00 pm in the Mountain and Central time zones) each day.

(2) Noncommercial educational full power television license relinquishment stations may choose to comply with these requirements in subpart (c)(1) or may air 60 seconds per day of on-air consumer education PSAs for 30 days prior to the station's termination of operations on its pre-auction channel.

(3) Transitioning stations, except for license relinquishment stations, must air 60 seconds per day of on-air consumer education PSAs or crawls for 30 days prior to the station's termination of operations on its pre-auction channel.

(4) Transition crawls.

(i) Each crawl must run during programming for no less than 60 consecutive seconds across the bottom or top of the viewing area and be provided in the same language as a majority of the programming carried by the transitioning station.

(ii) Each crawl must include the date that the station will terminate operations on its pre-auction channel; inform viewers of the need to rescan if the station has received a new post-auction channel assignment; and explain how viewers may obtain more information by telephone or online.

(5) Transition PSAs.

(i) Each PSA must have a duration of at least 15 seconds.

(ii) Each PSA must be provided in the same language as a majority of the programming carried by the transitioning station; include the date that the station will terminate operations on its pre-auction channel; inform viewers of the need to rescan if the station has received a new post-auction channel assignment; explain how viewers may obtain more information by telephone or online; and for stations with new post-auction channel assignments, provide instructions to both over-the-air and MVPD viewers regarding how to continue watching the television station; and be closed-captioned.

(6) Licensees of transitioning stations, except for license relinquishment stations, must place a certification of compliance with the requirements in paragraph (c) of this section in their online public file within 30 days after beginning operations on their post-auction channels. Licensees of license relinquishment stations must include the certification in their notification of discontinuation of service pursuant to § 73.1750 of this chapter.

APPENDIX C

Final Regulatory Flexibility Certification for Second Order on Reconsideration

1. The Regulatory Flexibility Act of 1980, as amended (RFA),[1] requires that a regulatory flexibility analysis be prepared for notice-and-comment rule making proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[2] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[3] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[4] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the U.S. Small Business Administration (SBA).[5]

2. In 2012, Congress mandated that the Commission conduct an incentive auction of broadcast television spectrum as set forth in the Middle Class Tax Relief and Job Creation Act of 2012 ("Spectrum Act").[6] The incentive auction will have three major pieces: (1) a "reverse auction" in which full power and Class A broadcast television licensees submit bids to voluntarily relinquish certain broadcast rights in exchange for payments; (2) a reorganization or "repacking" of the broadcast television bands in order to free up a portion of the ultra-high frequency ("UHF") band for other uses; and (3) a "forward auction" of licenses for flexible use of the newly available spectrum.[7] In the *Incentive Auction R&O,* the Commission adopted rules to implement the broadcast television spectrum incentive auction.[8] Among other things, the Commission adopted the use of *TVStudy* software and certain modified inputs in applying the methodology described in OET-69 to evaluate the coverage area and population served by television stations in the repacking process. Pursuant to the RFA, a Final Regulatory Flexibility Analysis ("FRFA") was incorporated into the *Incentive Auction R&O*.[9]

3. The *Second Order on Reconsideration* for the most part affirms the decisions made in the *Incentive Auction R&O*. To the extent the *Second Order on Reconsideration* revises the *Incentive Auction R&O*, it does so in a way that benefits both large and small entities, but without imposing any burdens or costs of compliance on such entities. First, the *Second Order on Reconsideration* modifies two of the input values that the Commission uses when applying the OET-69 methodology. Specifically, the *Second Order on Reconsideration* revises the vertical antenna pattern inputs for Class A stations in the *TVStudy*

[1] The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] 5 U.S.C. § 605(b).

[3] 5 U.S.C. § 601(6).

[4] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[5] 15 U.S.C. § 632.

[6] Pub. L. No. 112-96, §§ 6402, 6403, 126 Stat. 156 (2012).

[7] 47 U.S.C. §§ 1452(a)-(c). *See also id.* §§ 1401(16), (30) (defining "forward auction" and "reverse auction," respectively).

[8] *See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014) ("*Incentive Action R&O*").

[9] *See id.* at 6947-66 Appendix B.

software, which will result in more accurate modeling of the service and interference potential of those stations during the repacking process. It also reduces the minimum effective radiated power ("ERP") values, or power floors, that the *TVStudy* software uses to replicate a television station's signal contours when conducting pairwise interference analysis in the repacking process, which will result in greater accuracy. Second, the *Second Order on Reconsideration* provides that the Commission will make all reasonable efforts to preserve the coverage areas of stations operating pursuant to waivers of the antenna height above average terrain ("HAAT") or ERP limits set forth in the Commission's rules, provided such facilities are otherwise entitled to protection under the *Incentive Auction R&O*. Third, in the *Incentive Auction R&O*, the Commission extended discretionary protection to five stations affected by the destruction of the World Trade Center. In the *Second Order on Reconsideration*, the Commission extends this protection to an additional station, WNJU, Linden, New Jersey. Fourth, we exercise discretion to protect stations that hold a Class A license today and that had an application for a Class A construction permit pending or granted as of February 22, 2012. Fifth, we revise our consumer education requirements to provide stations changing channels as a result of the incentive auction and repacking additional flexibility to determine the timeslots to air their consumer education public service announcements.

4. None of these changes to the *Incentive Auction R&O* adopted in the *Second Order on Reconsideration* will impose additional costs or impose additional record keeping requirements on either small or large entities. Therefore, we certify that the changes adopted in this *Second Order on Reconsideration* will not have a significant economic impact on a substantial number of small entities.

5. The Commission will send a copy of the *Second Order on Reconsideration*, including a copy of this Final Regulatory Flexibility Certification, in a report to Congress pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the *Second Order on Reconsideration* and this certification will be sent to the Chief Counsel for Advocacy of the Small Business Administration, and will be published in the *Federal Register*. *See* 5 U.S.C. § 605(b).

STATEMENT OF
COMMISSIONER AJIT PAI
APPROVING IN PART AND CONCURRING IN PART

Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268.

I am voting to approve in part and concur in part for a couple of reasons. First, while I do not agree with the resolution of every single petition for reconsideration addressed in this *Order*, I do agree with how we dispose of the overwhelming majority of them. And second, working together, we improved the item.

A good example is the decision to make less onerous the consumer education requirements placed on broadcasters. Television stations repacked after the auction will have every incentive to inform their viewers of a channel change in the most effective manner. It will be a matter of economic self-interest.

Similarly, I am pleased that the item makes clear that the Commission will make every reasonable effort to accommodate requests for television stations to operate on temporary facilities if they have not been able to complete construction by the end of the 39-month Post-Auction Transition Period because of a delay caused by international coordination. No television station should be forced to go dark for a reason wholly outside of its control.

Finally, I am glad we now commit to providing forward auction bidders with enough information about our international coordination efforts prior to the start of the auction that they can formulate their bidding strategies.