

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

In the Matter of:
Authorizing Permissive Use of the "Next
Generation" Broadcast Television Standard
GN Docket No. 16-142

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

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By the Commission: Chairman Pai and Commissioners O'Rielly and Carr issuing separate statements;
Commissioners Clyburn and Rosenworcel dissenting and issuing separate statements.

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**I. INTRODUCTION**

1. In this *Report and Order*, we authorize television broadcasters to use the “Next Generation” broadcast television (Next Gen TV) transmission standard, also called “ATSC 3.0” or “3.0,” on a voluntary, market-driven basis. This authorization is subject to broadcasters continuing to deliver current-generation digital television (DTV) service, using the ATSC 1.0 transmission standard, also called “ATSC 1.0” or “1.0,” to their viewers. ATSC 3.0 is the new TV transmission standard developed by Advanced Television Systems Committee as the world’s first Internet Protocol (IP)-based broadcast transmission platform. It merges the capabilities of over-the-air (OTA) broadcasting with the broadband viewing and information delivery methods of the Internet, using the same 6 MHz channels presently allocated for DTV service. This new TV transmission standard promises to allow broadcasters to innovate, improve service, and use their spectrum more efficiently. It also has the potential to enable broadcasters to provide consumers with a more immersive and enjoyable television viewing experience on both home and mobile screens. In addition, ATSC 3.0 will allow broadcasters to offer enhanced public safety capabilities, such as geo-targeting of emergency alerts to tailor information to particular communities and emergency alerting capable of waking up sleeping devices to warn consumers of imminent emergencies, and advanced accessibility options. With today’s action, we aim to facilitate private sector innovation and promote American leadership in the global broadcast industry.

2. We adopt rules in this Order that will afford broadcasters flexibility to deploy ATSC 3.0-based transmissions, while minimizing the impact on, and costs to, consumers and other industry stakeholders. Among the key decisions we adopt are the following:

- *Voluntary Use.* We authorize voluntary use of the ATSC 3.0 transmission standard, and we explain why 3.0 transmissions meet the definition of “broadcasting” in the Communications Act.
- *Local Simulcasting.* We conclude that local simulcasting is essential to the deployment of Next Gen TV service on a voluntary, market-driven basis for all stakeholders. We therefore require Next Gen TV broadcasters to simulcast the primary video programming stream of their ATSC 3.0 channels in an ATSC 1.0 format, so that viewers will continue to receive ATSC 1.0 service.<sup>1</sup> Broadcasters will meet this requirement by partnering with another station (i.e., a temporary “host” station) in their local market to either: (1) air an ATSC 3.0 channel at the temporary host’s facility, while using their original facility to continue to provide an ATSC 1.0 simulcast channel, or (2) air an ATSC 1.0 simulcast channel at the temporary host’s facility, while converting their original facility to provide an ATSC 3.0 channel.
  - The programming aired on the ATSC 1.0 simulcast channel must be “substantially similar” to the programming aired on the 3.0 channel. This means that the programming must be the same, except for programming features that are based on the enhanced capabilities of ATSC 3.0, advertisements, and promotions for upcoming programs. The substantially similar requirement will sunset in five years from its effective date absent further action by the Commission to extend it.
  - A Next Gen TV broadcaster’s 1.0 simulcast channel must continue to cover its entire community of license. We will consider any loss in 1.0 service resulting from the local simulcast arrangement in determining whether to grant a Next Gen TV license application; however, to the extent that service loss is no more than five percent of the population served by the existing station, we will provide expedited processing of such applications.
  - We will consider requests for waiver of the local simulcasting requirement for full power and Class A television stations on a case-by-case basis (i.e., requests to transition directly from ATSC 1.0 to ATSC 3.0 service without providing a 1.0 simulcast, and requests for waiver of the simulcast coverage requirements). We exempt LPTV and TV translator stations from our local simulcasting requirement and allow these stations to transition directly to 3.0 service without waivers.
- *Licensing:* We require that a 1.0 or 3.0 channel aired on a host station be licensed as a temporary second channel of the originating broadcaster. We adopt a streamlined “one-step” process for reviewing and licensing most such applications.
- *MVPD Carriage.* A Next Gen TV broadcaster’s ATSC 1.0 signal will retain mandatory carriage rights, and a Next Gen TV broadcaster’s 3.0 signal will not have mandatory carriage rights while the Commission requires local simulcasting. Thus, MVPDs will be required to continue to carry broadcasters’ 1.0 signals, but will not be required to carry 3.0 signals. We do not adopt new rules to govern carriage of 3.0 signals pursuant to retransmission consent. We find that voluntary carriage of 3.0 signals is best left to marketplace negotiations between broadcasters and MVPDs.
- *Public Interest Obligations and Consumer Protection.* Television stations transmitting signals in ATSC 3.0 will be subject to the public interest obligations currently applicable to television broadcasters. In addition, we conclude that it is unnecessary to adopt an ATSC 3.0

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<sup>1</sup> For purposes of this Order, a “Next Gen TV” broadcaster or station means a broadcaster or station that has obtained Commission approval and commenced broadcasting its signal using the ATSC 3.0 standard in its local market. *See infra* Section III.B.3

tuner mandate for new television receivers. We require broadcasters to provide advance on-air notifications to educate consumers about Next Gen TV service deployment and simulcasting. Our notice requirements are essentially the same as those we have adopted in the context of the broadcast incentive auction.

- *Technical Issues.* We adopt specific parts of the ATSC 3.0 standard and explain the methodology we will use to calculate interference.

3. In the attached *Further Notice of Proposed Rulemaking*, we seek further comment on three topics. First, we seek comment on issues related to exceptions to and waivers of the local simulcasting requirement. Second, we seek comment on whether we should let full power broadcasters use channels in the television broadcast band that are vacant to facilitate the transition to 3.0. Finally, we tentatively conclude that local simulcasting should not change the significantly viewed status of a Next Gen TV station.

## II. BACKGROUND

4. On April 13, 2016, America’s Public Television Stations, the Advanced Warning and Response Network (AWARN) Alliance, the Consumer Technology Association, and the National Association of Broadcasters (NAB) (collectively, “Petitioners”) filed a joint petition for rulemaking asking the Commission to initiate this proceeding to allow use of the ATSC 3.0 standard on a voluntary basis.<sup>2</sup> Petitioners and other ATSC 3.0 proponents say the Next Gen TV standard will allow broadcasters “to revolutionize the viewing experience.”<sup>3</sup> The record establishes ATSC 3.0’s potential to allow for “a wide range of potential services now and in the future.”<sup>4</sup> ATSC 3.0 will enable delivery of Ultra High Definition (UHD) television, including images with high spatial resolution, wide color gamut, high dynamic range and high frame rate as well as advanced audio systems to provide consumers with more vivid pictures and sound.<sup>5</sup> In addition, ATSC 3.0 proponents say the new standard “will allow broadcasters to offer exciting and innovative services,” including superior reception,<sup>6</sup> mobile viewing capabilities,<sup>7</sup> enhanced public safety capabilities,<sup>8</sup> such as advanced emergency alerting capable of

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<sup>2</sup> See Joint Petition for Rulemaking of America’s Public Television Stations, the AWARN Alliance, the Consumer Technology Association, and the National Association of Broadcasters, GN Docket No. 16-142 (filed Apr. 13, 2016), <https://www.fcc.gov/ecfs/filing/60001667342/document/60001701021> (Petition). On April 26, 2016, the Media Bureau issued a Public Notice seeking comment on the Petition. *Media Bureau Seeks Comment on Joint Petition for Rulemaking of America’s Public Television Stations, the AWARN Alliance, the Consumer Technology Association, and the National Association of Broadcasters Seeking to Authorize Permissive Use of the “Next Generation TV” Broadcast Television Standard*, Public Notice, 31 FCC Rcd 3858 (MB 2016). The Commission received 35 comments and 14 replies to the Petition.

<sup>3</sup> Petitioners Comments at 1.

<sup>4</sup> ATSC Reply at 3.

<sup>5</sup> *Id.* at 1-2.

<sup>6</sup> See, e.g., *id.* at 2 (“[t]he new standard will make signals more robust and reception more reliable.”).

<sup>7</sup> ATSC states that the new standard “supports mobile viewing capabilities on ATSC 3.0-equipped devices such as smartphones and tablets or vehicular infotainment systems. Consumers will be able to watch their favorite broadcast shows, check the local weather, and tune in to breaking news from wherever they are on their tablet or smartphone.” *Id.* at 2.

<sup>8</sup> AWARN Comments at 1 (“Advanced emergency alerting from the [AWARN] will be one of the major public benefits of the ‘Next Generation’ broadcast television (Next Gen TV) transmission standard.... AWARN will enable distribution of geo-targeted, rich media alerts simultaneously to an unlimited number of enabled fixed, mobile, and hand-held devices, indoors and outdoors, across an entire television broadcast contour.... AWARN capabilities will far exceed those available to the American public today.”).

waking up sleeping devices to warn consumers of imminent emergencies,<sup>9</sup> enhanced accessibility features,<sup>10</sup> localized and/or personalized content,<sup>11</sup> interactive educational children’s content,<sup>12</sup> and other enhanced features.<sup>13</sup>

5. On February 24, 2017, the Commission released a Notice of Proposed Rulemaking (*Next Gen TV NPRM*) seeking comment on a proposal that would allow television broadcasters to use the Next Gen TV transmission standard on a voluntary, market-driven basis.<sup>14</sup> The Commission’s rules currently require broadcasters to deliver DTV service using the ATSC 1.0 broadcast television transmission standard, also called “ATSC 1.0” or “1.0.”<sup>15</sup>

### III. AUTHORIZING VOLUNTARY DEPLOYMENT OF ATSC 3.0

#### A. Authorization of Voluntary Use of ATSC 3.0 Transmissions and Treatment under the Act

6. As proposed in the *Next Gen TV NPRM*, we authorize ATSC 3.0 as an optional broadcast television transmission standard.<sup>16</sup> All parties who commented on the issue support our proposal to authorize ATSC 3.0 on a voluntary, market-driven basis.<sup>17</sup> Broadcasters will be permitted, but not

<sup>9</sup> *Id.* at 3 (explaining that ATSC 3.0 “permits receivers to alert people of an emergency even when the receiver is powered off”).

<sup>10</sup> ATSC Reply at 2. For example, ATSC 3.0 may benefit viewers who are deaf, hard of hearing, blind, visually impaired and deaf-blind as it supports various accessibility advances including worldwide closed caption technology, and audio services including video description service and dialog enhancement. *Id.*

<sup>11</sup> ATSC claims that “the new standard offers unprecedented personalization of broadcast television. Utilizing user-friendly tools, consumers will be able to choose alternate versions of the primary content that broadcasters air, including versions in other languages, as well as interact with related secondary content, such as social media posts and content offering a deeper dive into an issue covered by a news program or other show.” *Id.* ONE Media says “ATSC 3.0 broadcasts might include content targeted to different geographic zones, differently stacked newscasts, localized media-rich emergency warnings, or unique content requested by certain viewers, customized advertising/dynamic ad insertion, or IP/web content integration.” ONE Media Comments at 9.

<sup>12</sup> PTV Comments at 4.

<sup>13</sup> For example, GatesAir notes that, in addition to these benefits, ATSC 3.0 will be easily upgradeable. GatesAir Comments at 3 (stating “it can be upgraded readily, and issues and problems can be addressed quickly via a software tweak or upgrade.”).

<sup>14</sup> *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142, Notice of Proposed Rulemaking, 32 FCC Rcd 1670 (2017) (*Next Gen TV NPRM*). Comments were due May 9, 2017 and reply comments were due June 8, 2017. *Comment Deadlines Set for Notice of Proposed Rulemaking on Next Generation Broadcast Television Transmission Standard*, GN Docket No. 16-142, Public Notice, 32 FCC Rcd 1851 (MB 2017).

<sup>15</sup> 47 CFR § 73.682(d). The Commission received 46 comments and 28 reply comments (from 59 separate parties) in response to the *Next Gen TV NPRM*. We identify the list of commenters and reply commenters to this docket in Appendix A. We also received *ex parte* submissions in this docket. All of the filings made in this docket are available to the public online via the Commission’s Electronic Comment Filing System (ECFS) at <http://www.fcc.gov/cgb/ecfs/>.

<sup>16</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1674, para. 5.

<sup>17</sup> Petitioners Comments at 2; ATVA Reply at 21 (stating “the Commission should adopt [all ATVA] proposals designed to ensure that the transition to ATSC 3.0 remains voluntary for all parties.”); CTA Reply at 1; GatesAir Comments at 6; Hatfield Reply at 1; ION Comments at 5 (stating “[t]he FCC should confirm that voluntary adoption of ATSC 3.0 will be the FCC’s permanent policy.”); ITTA Comments at 2-3 (stating they support the proposal in the *Next Gen TV NPRM* to “authorize the ATSC 3.0 transmission standard as an optional standard that can be used by television licensees on a voluntary basis while they continue to deliver current generation ATSC 1.0 service to their communities.”); LG Reply at 1; Lokita Comments at 3; LPTV Spectrum Rights Coalition Reply at 1, 2, 7

(continued....)

required, to transmit ATSC 3.0 signals if they comply with the requirements in this Order and any other relevant rules and statutory provisions. Alternatively, broadcasters may choose to continue transmitting their signals solely in the currently authorized ATSC 1.0 transmission standard.

7. We conclude that stations transmitting ATSC 3.0 signals will be engaged in “broadcasting” within the meaning of the Communications Act. The Act defines “broadcasting” as “the dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations,”<sup>18</sup> and a “broadcast station” as “a radio station equipped to engage in broadcasting.”<sup>19</sup> We proposed to interpret the Act in this manner in the *Next Gen TV NPRM*, and no commenter objects to this reading of the statute.<sup>20</sup> This conclusion applies to stations transmitting both an ATSC 1.0 and an ATSC 3.0 signal pursuant to the local simulcasting requirement we adopt in this Order and stations transmitting only an ATSC 3.0 signal. Accordingly, all of the restrictions and obligations that the Act imposes on television broadcasters, including obligations or restrictions on television broadcast licenses, licensees, stations, or services, will be applicable to broadcasters using the ATSC 3.0 transmission standard.

8. The Act includes, for example, restrictions on foreign ownership of broadcast licenses and licensees<sup>21</sup> and obligations for broadcasters to provide “reasonable access” to candidates for federal elective office and to afford “equal opportunities” to candidates for any public office.<sup>22</sup> Television broadcasters also are subject to statutory obligations to make certain disclosures in connection with advertisements that discuss a “political matter of national importance”<sup>23</sup> and to disclose the identity of program sponsors.<sup>24</sup> In addition, among other requirements, the Act specifies that television broadcasters must air educational programming for children,<sup>25</sup> limit the amount of commercial material they include in

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(LPTV Spectrum Rights Coalition supports the voluntary conversion to ATSC 3.0, agreeing with WatchTV, Petitioners, and Nextstar); Meredith Comments at 2; NAB Reply at 1 (stating “there is a consensus that broadcasters should be allowed to implement ATSC 3.0 on a voluntary basis”); Nexstar comments at 3 (stating “the Commission should authorize the ATSC 3.0 transmission standard as an optional standard that may be deployed by television broadcasters on a voluntary basis.”); ONE Media Comments at 3; Pearl TV Reply at 2 (stating “the Commission should not heed MVPD’s calls for regulation in the ATSC voluntary transition program and impede the market based rule.”) Raycom Comments at 1; TEGNA Comments at 1; T-Mobile Comments at 7 (stating “the ATSC 3.0 deployment should be fully voluntary for broadcasters, manufacturers, and consumers”); Verance Comments at 1; Verizon Comments at 3 (stating “[t]he Commission should ensure that this is truly a consumer and market-driven transition, rather than one prematurely forced by regulation or broadcasters”); WatchTV Comments at 1.

<sup>18</sup> 47 U.S.C. § 153(7).

<sup>19</sup> *Id.* § 153(6); *see also id.* § 153(56)(B) (“The term ‘digital television service’ means television service provided pursuant to the transmission standards prescribed by the Commission in section 73.682(d) of its regulations (47 C.F.R. 73.682(d)).”).

<sup>20</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1698, para. 64.

<sup>21</sup> 47 U.S.C. § 310.

<sup>22</sup> *Id.* § 312(a)(7).

<sup>23</sup> *Id.* § 315. These requirements were added by the Bipartisan Campaign Reform Act of 2002, Pub. L. No. 107-155, 116 Stat. 81 (2002), which amended the political file requirements in Section 315 of the Act.

<sup>24</sup> 47 U.S.C. § 317.

<sup>25</sup> *Id.* § 303b.

programming directed to children,<sup>26</sup> restrict the airing of indecent programming,<sup>27</sup> and comply with provisions relating to the rating of video programming.<sup>28</sup>

9. The Commission has determined that the definition of “broadcasting” in the Act applies to services intended to be received by an indiscriminate public and has identified three indicia of a lack of such intent: (1) the service is not receivable on conventional television sets and requires a licensee or programmer-provided special antennae and/or signal converter so the signal can be received in the home; (2) the programming is encrypted in a way that “makes it unusable by the public” and that is not “enjoyable without the aid of decoders”; and (3) the provider and the viewer are engaged in a private contractual relationship.<sup>29</sup> Based on the rules we adopt in this Order to permit the voluntary use of ATSC 3.0 and the descriptions of ATSC 3.0 transmissions in the record, we find that Next Gen TV service will be intended to be received by all members of the public. We are requiring Next Gen TV stations to provide one free, over-the-air video programming stream broadcast in ATSC 3.0.<sup>30</sup> Thus, the programming on this stream will not require a private contractual agreement between the broadcaster and the viewers. Furthermore, although TV receivers capable of receiving ATSC 3.0 signals without the use of additional equipment are not yet available in the United States, ATSC 3.0 transmissions will be receivable eventually on conventional television sets. We expect that television receivers capable of receiving ATSC 3.0 signals will quickly become available as consumers realize the benefits of Next Gen TV. Accordingly, we conclude that Next Gen TV stations will be engaged in “broadcasting” as defined in the Act.<sup>31</sup>

10. ATVA notes that at some point ATSC 3.0 service may include two-way, interactive service offerings to individual viewers (such as targeted advertising and localized content) and asserts that at some point these service offerings may become so individualized that they no longer constitute “broadcasting” within the meaning of the Act.<sup>32</sup> ATVA suggests that the Commission “consider where that point lies sooner rather than later to avoid uncertainty for broadcasters, MVPDs, and others.”<sup>33</sup> Given that the ATSC 3.0 standard is new and will be deployed on a voluntary basis, it is not yet known precisely what interactive services Next Gen TV broadcasters may offer or the extent to which differentiated

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<sup>26</sup> *Id.* § 303a.

<sup>27</sup> 18 U.S.C. § 1464.

<sup>28</sup> 47 U.S.C. § 303(w).

<sup>29</sup> *Subscription Video Services*, Report and Order, 2 FCC Rcd 1001, 1006, para. 41 (1987) (concluding that subscription TV and DBS services are not “broadcasting” within the meaning of the Communications Act), *aff’d*, *National Association for Better Broadcasting v. FCC*, 849 F.2d 665, 669 (D.C. Cir. 1988). *See also* Letter from Patrick McFadden, Associate General Counsel, National Association of Broadcasters, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142 et al., at 2 (filed Nov. 6, 2017) (NAB Nov. 6, 2017 *Ex Parte* Letter). Although NAB states that “free Next Gen signals may be encrypted,” it also maintains that “viewers will not require special equipment supplied and programmed by the broadcaster to decode Next Gen signals.” *Id.* Programming that is encrypted must not require special equipment supplied and programmed by the broadcaster to decode.

<sup>30</sup> *See infra* para. 80.

<sup>31</sup> ONE Media Comments at 48 (“ATSC 3.0 is broadcasting just as ATSC 1.0 is broadcasting.”); Public Interest Groups Comments at 17-18 (agreeing that Next Gen TV stations are “television stations” engaged in “broadcasting” as those terms are defined under the Act); WatchTV Comments at 6 (“as long as a free and uncontrolled video program stream is provided by a TV station, regardless of format as long as it is not encrypted and receivers are available to the public from outside sources, that station should be deemed to remain a broadcast station”).

<sup>32</sup> ATVA Comments at 50-51. *See also* LPTV Coalition Reply at 9-10.

<sup>33</sup> ATVA Comments at 51. *See also* LPTV Coalition Reply at 9-10.

content may be provided to individual viewers.<sup>34</sup> Moreover, even if Next Gen TV broadcasters offer some two-way interactive services with individualized content, not all viewers may be interested in such individualized services, so we expect that Next Gen TV broadcasters will continue to provide an undifferentiated broadcast service to the general public. We therefore find that it is unnecessary to speculate at this time as to whether certain ATSC 3.0 service offerings may become so individualized that they would no longer meet the definition of “broadcasting.”<sup>35</sup>

## B. Local Simulcasting

11. As originally proposed by Petitioners,<sup>36</sup> and as we proposed in the *Next Gen TV NPRM*,<sup>37</sup> we require Next Gen TV broadcasters to air a local simulcast of the primary video programming stream of their ATSC 3.0 channel in ATSC 1.0 format. We find that local simulcasting is a critical component of the Commission’s authorization of ATSC 3.0 as a voluntary transmission standard. We discuss our local simulcasting requirement below, including what we mean by local simulcasting and the coverage area that must be served by the 1.0 simulcast signal. We also address issues related to the location and coverage area of ATSC 3.0 signals, waivers and exceptions to the simulcasting requirement, and licensing procedures for authorizing Next Gen TV broadcasters.

### 1. Local Simulcasting Requirement

12. Our local simulcasting requirement will be effectuated through partnerships that broadcasters that wish to provide Next Gen TV service must enter into with other broadcasters in their local markets. Specifically, Next Gen TV broadcasters must partner with another television station (*i.e.*, a temporary “host” station) in their local market to either: (1) air an ATSC 3.0 channel at the temporary host’s facility, while using their original facility to continue to provide an ATSC 1.0 simulcast channel, or (2) air an ATSC 1.0 simulcast channel at the temporary host’s facility, while converting their original facility to the ATSC 3.0 standard in order to provide a 3.0 channel.<sup>38</sup> In either case, Next Gen TV broadcasters must simulcast the primary video programming stream of their ATSC 3.0 channel in an ATSC 1.0 format, so that viewers will continue to receive ATSC 1.0 service.

13. We apply our local simulcasting requirement only to the primary video programming stream aired by Next Gen TV broadcasters on their ATSC 3.0 channels.<sup>39</sup> Next Gen TV stations may be able to transmit multiple streams of programming in ATSC 3.0, as many do today in ATSC 1.0. Although we encourage those Next Gen TV broadcasters that elect to air multiple streams of ATSC 3.0 programming to also simulcast more than a single programming stream, we will require them to simulcast

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<sup>34</sup> See Petitioners Comments at 19-20 (“Because the Next Gen standard is new, and will be deployed on a voluntary basis, it is premature to define precisely what services broadcasters will choose to provide using Next Gen and how those services will be delivered.”).

<sup>35</sup> We note, however, that two-way communication may be subject to other provisions of the Communications Act and Commission rules, including those that govern the accessibility of advanced communications services by people with disabilities. 47 U.S.C. § 617 (requiring interconnected VoIP, non-interconnected VoIP, electronic messaging services (such as text messaging and email), and interoperable video conferencing services to be accessible); 47 CFR Part 14.

<sup>36</sup> See Petition at 17.

<sup>37</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1676-77, para. 11.

<sup>38</sup> *Id.* at 17-18.

<sup>39</sup> We note that the term “primary” is also used in the carriage context to refer to the stream for which a station demands mandatory carriage. See *Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission’s Rules*, First Report and Order and FNPRM, 16 FCC Rcd 2598, 2622, para. 57 (2001) (*DTV Must Carry Order*). That stream generally contains network programming for network affiliates or the station’s most popular programming for non-network stations.

only their primary stream in ATSC 1.0 format.<sup>40</sup> Commenters generally agree that any local simulcasting requirement should apply to a Next Gen TV station's primary stream.<sup>41</sup> We give broadcasters discretion to select the primary stream for purposes of our local simulcasting requirement.<sup>42</sup> Because broadcasters have a strong incentive to provide continuity of service to existing viewers, we believe they will elect to simulcast the programming stream that viewers expect to be able to receive, such as a stream containing network programming<sup>43</sup> or the stream that has the largest number of viewers for non-network stations.<sup>44</sup> We will monitor the deployment of ATSC 3.0 and the effectiveness of our local simulcasting requirement in protecting viewers and will reconsider our approach if necessary.<sup>45</sup>

14. The Commission intends that the local simulcasting requirement be temporary.<sup>46</sup> The Commission will monitor the pace of the voluntary deployment of ATSC 3.0 both nationally and market-by-market, including the rollout of 3.0 service by television broadcasters, the penetration of ATSC 3.0-ready TV sets and other converter equipment, and the extent to which MVPDs have deployed 3.0 equipment. As we proposed in the *Next Gen TV NPRM*,<sup>47</sup> we will determine in a later proceeding when it would be appropriate for the Commission to eliminate the requirement that broadcasters continue to provide an ATSC 1.0 signal.<sup>48</sup>

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<sup>40</sup> We also do not require Next Gen TV broadcasters that currently air multicast streams to continue to do so on their ATSC 1.0 simulcast channel. See, e.g., Letter from Ann West Bobeck, Counsel to PBS, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed Oct. 13, 2017) (PBS Oct. 13, 2017 *Ex Parte* Letter) (“due to technical constraints, there is simply insufficient capacity to transmit all multicast channels while sharing facilities, either on the ATSC 1.0 facility or the ATSC 3.0 facility”). The provision of multicast channels is discretionary, and we decline to adopt rules requiring broadcasters who currently air such channels to continue to do so.

<sup>41</sup> See Letter from Patrick McFadden, Associate General Counsel, NAB, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 3 (filed Sept. 8, 2017) (NAB Sept. 8, 2017 *Ex Parte* Letter) (“A television licensee choosing to deploy the Next Gen transmission standard should arrange for the simultaneous transmission of television programming comprising its *primary* video feed on a television station in the same market using the ATSC 1.0 transmission standard.”) (emphasis added); Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 6 (filed Sept. 21, 2017) (ATVA Sept. 21, 2017 *Ex Parte* Letter).

<sup>42</sup> This is consistent with our decision in the context of the transition from analog to digital television. *DTV Must Carry Order*, 16 FCC Rcd at 2622, para. 57.

<sup>43</sup> We note that broadcasters may also have a contractual obligation, through their network affiliation agreements, to continue to provide certain programming to viewers in the current DTV standard.

<sup>44</sup> Broadcasters argue they have a strong economic incentive to continue to serve their viewers. See, e.g., Petitioners Comments at 9 (broadcasters “have strong market incentives to continue to reach their viewers while rolling out Next Gen TV. Stations that do not preserve service coverage or quality will suffer financially due to lost viewership and thus advertising revenue”). See also NAB Reply at 3 (“A broadcaster has no financial incentive to lose current viewers while attempting to develop a market for Next Gen TV.”).

<sup>45</sup> See ATVA Sept. 21, 2017 *Ex Parte* Letter at 6 (“...if a station transmits a FOX affiliate and a home shopping channel on ATSC 3.0, nobody will be happy if the station simulcasts only the home shopping channel on ATSC 1.0”). ATVA also argues that the simulcast stream should be the stream that contains network sports and primetime programming. *Id.*

<sup>46</sup> We anticipate that Next Gen TV broadcasters that initiate 3.0 service at another location will ultimately return to their existing licensed facility and convert that facility from 1.0 to 3.0 technology.

<sup>47</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1683, para. 27.

<sup>48</sup> The commenters who address this issue agree that this issue should be handled in a separate proceeding. See, e.g., Pearl TV Comments at 2, NCTA Comments at 21-24, and Public Interest Groups Comments at 11-12. See also NAB Sept. 8, 2017 *Ex Parte* Letter at 3-4. See also ATVA Sept. 21, 2017 *Ex Parte* Letter at 3 and Letter from Rick Chessen, Senior Vice President, NCTA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed Sept. 22, 2017) (NCTA Sept. 22, 2017 *Ex Parte* Letter). NAB agrees that stations should continue to transmit a 1.0

(continued...)

15. We find that local simulcasting is essential to the deployment of Next Gen TV service on a voluntary, market-driven basis for all stakeholders, and we agree with the many commenters who support a requirement that broadcasters implementing Next Gen TV must continue to air at least one ATSC 1.0 programming stream.<sup>49</sup> Local simulcasting is necessary because ATSC 3.0 service is not backward-compatible with existing TV sets or receivers, which have only ATSC 1.0 and analog tuners. This means that consumers will not be able to view ATSC 3.0 transmissions on their existing televisions without additional equipment. As the Petition recognized and as discussed in the *Next Gen TV NPRM*, local simulcasting is a means to address this challenge.<sup>50</sup> With local simulcasting, viewers will be able to continue to watch a Next Gen TV station's programming without having to purchase new TV sets or converter equipment to receive ATSC 3.0 service.<sup>51</sup> Thus, as Petitioners explain, "local simulcasting will permit uninterrupted service to continue as the American public embraces Next Generation TV reception equipment, and will permit this innovative new standard to be implemented without necessitating new simulcast channels from the Commission."<sup>52</sup>

16. To avoid either forcing viewers to acquire new equipment or depriving them of television service, it is critical that broadcasters continue to provide service using the current ATSC 1.0 standard to deliver DTV service while the marketplace adopts devices compatible with the new 3.0 transmission standard. Television sets capable of receiving ATSC 3.0 signals are currently being developed in South Korea,<sup>53</sup> but are not yet commercially available in the United States. We recognize that 3.0 capable equipment likely will be produced for the U.S. market once the 3.0 standard is approved and that it will be possible for consumers to connect ATSC 3.0 converter devices to many existing newer television sets through HDMI ports.<sup>54</sup> Nevertheless, without a local simulcasting requirement, many consumers would be forced to purchase new sets or other equipment in order to continue viewing over the air television.<sup>55</sup>

17. A simulcast mandate applicable to a Next Gen TV station's primary 3.0 video programming stream will also help ensure that MVPDs can continue to provide the 1.0 signals of Next

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signal until the Commission determines that it is appropriate to sunset that requirement, but argues that the requirement that the 1.0 signal be substantially similar to the 3.0 signal should apply only for three years. *See* NAB Sept. 8, 2017 *Ex Parte* Letter at 3-4.

<sup>49</sup> *See, e.g.*, Petitioners Comments at 6-7; Public Interest Groups Comments at 6; Nexstar Comments at 5; AWARN Comments at 4-5; NCTA Comments at 9; AT&T Comments at 4-5; ATVA Reply at 3. *See also* NAB Sept. 8, 2017 *Ex Parte* Letter at 3 ("A television station licensee choosing to deploy the Next Gen transmission standard should arrange for the simultaneous transmission of television programming comprising its primary video feed on a television station in the same market using the ATSC 1.0 transmission standard") and ATVA Sept. 21, 2017 *Ex Parte* Letter at 1 ("...a properly crafted simulcast requirement is needed to ensure that the ATSC 3.0 transition does not cause widespread loss of television service..."). Next Gen TV broadcasters may voluntarily air more than one ATSC 1.0 programming stream, but are required to air only one ATSC 1.0 simulcast channel.

<sup>50</sup> Indeed, the Petition asserted that "the core of the voluntary, market-driven implementation of ATSC 3.0 will be local simulcasting." Petition at 17.

<sup>51</sup> *Id.* at 3, 17.

<sup>52</sup> *Id.* at 18.

<sup>53</sup> *See* ATVA Reply at 3-4. According to ATVA, ATSC 3.0 receivers will become increasingly available in South Korea this year in advance of 4K Ultra HD broadcasts of the Winter Olympic Games in Korea in February 2018. *Id.* In the United States, ATSC 3.0 is on the air for testing under FCC experimental authority in several markets including Baltimore, Cleveland, and Raleigh.

<sup>54</sup> *See infra* Section III.E.2.

<sup>55</sup> Broadcasters themselves acknowledge the need to continue to provide ATSC 1.0 service while the marketplace adapts over time to ATSC 3.0 technology. *See, e.g.*, ONE Media Comments at 6 ("We agree that, in general, stations deploying ATSC 3.0 should continue to make their primary 1.0 signals available to viewers in their markets.").

Gen TV broadcasters to their subscribers. According to ATVA and NCTA, the equipment used by MVPDs today to receive, transmit, and provide broadcast signals to viewers via set-top boxes is incapable of providing an ATSC 3.0 signal in its native format to subscribers.<sup>56</sup> The continued provision of a 1.0 signal will help ensure that MVPDs can continue to carry the 1.0 signal of stations deploying 3.0 without necessitating MVPDs incur the expense of converting to 3.0 capable equipment or acquiring the equipment necessary to permit reception of an ATSC 3.0 signal and “down converting” that signal to a format compatible with legacy equipment, including set-top boxes.<sup>57</sup> In addition, the local simulcasting requirement will assist MVPDs, especially small and rural cable providers, that rely on OTA reception of broadcast signals to continue retransmitting to their subscribers an uninterrupted ATSC 1.0 OTA signal.<sup>58</sup>

18. We disagree with those commenters who advocate that the Commission refrain from adopting a simulcast mandate on the ground that broadcasters already have incentives to ensure continuity of service to viewers and that they need flexibility to implement 3.0 service.<sup>59</sup> While we recognize that broadcasters have a strong economic incentive to continue to reach their viewers absent a mandate to do so, we conclude that codifying and clarifying this obligation is necessary to provide certainty to consumers, broadcasters, MVPDs, and others who will be affected by the voluntary rollout of 3.0 service. Accordingly, we decline to make the simulcasting obligation a “best efforts” requirement, as advocated by ATBA,<sup>60</sup> or a “reasonable efforts” requirement as proposed by ONE Media.<sup>61</sup> We recognize, however, that some degree of flexibility is necessary to ensure that all stations are able to deploy 3.0 technology, including those that cannot find a simulcasting partner.<sup>62</sup> As discussed below, we will permit LPTV and TV translator stations the option of deploying ATSC 3.0 service without simulcasting (*i.e.*, “transition directly” to ATSC 3.0)<sup>63</sup> without requesting a waiver from the Commission, in recognition of the unique

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<sup>56</sup> NCTA Comments at 3-9; ATVA Comments at 10-13. *See also* NCTA Sept. 22, 2017 *Ex Parte* Letter at 2 (noting that technical requirements have not yet been established for MVPDs to retransmit an ATSC 3.0 signal in a native format and that work is continuing on developing recommended practices for the conversion of ATSC 3.0 services into ATSC 1.0 services). NCTA claims that cable system costs to convert to 3.0 equipment could be “significant.” NCTA Comments at 8. In addition, according to ATVA and NCTA, even if broadcast signals could be passed through in a native ATSC 3.0 format, because of their potentially higher resolution such signals would consume more capacity than signals in 1.0 format. *Id.*; ATVA Comments at 14-15. The impact on capacity would be exacerbated by the need for systems carrying 3.0 signals to also carry and deliver those signals in 1.0 format because MVPD subscribers will continue to have television sets that cannot receive ATSC 3.0 signals for the foreseeable future. NCTA Comments at 8; ATVA Comments at 15-18. ATVA notes that these capacity issues pose a problem in particular for satellite carriers, whose spot beams may be full or nearly full, and small cable system operators, many of which do not have spare capacity to devote to carriage of additional signals in higher-resolution formats. ATVA Comments at 17-18.

<sup>57</sup> ATVA and ACA note that MVPD equipment related to ATSC 3.0 reception is not yet commercially available. ATVA Comments at 11, n.41; ACA Comments at 6.

<sup>58</sup> *See, e.g.*, AT&T Comments at 6; NCTA Comments at 11; ACA Comments at 7-9.

<sup>59</sup> PTV Comments at 6-8 (noting that some public television stations will have unique challenges finding a partner with which to simulcast); Pearl TV Comments at 8-9 (FCC should not impose a one-size-fits-all mandate on all transitioning stations); ONE Media Comments at 7 (the Commission must recognize that simulcasting will not always be practical or possible); TEGNA Comments at 5; and Raycom Comments at 4.

<sup>60</sup> ATBA Comments at 10.

<sup>61</sup> ONE Media Comments at 7.

<sup>62</sup> PTV Comments at 5, 8 (advocating that the FCC afford broadcasters as much flexibility as possible in tailoring local simulcasting arrangements and noting that some NCE broadcasters will have difficulty finding simulcast partners). *See also* ONE Media Comments at 7 (the Commission must recognize that simulcasting will not always be practical or possible); ATBA Comments at 2-3 (an inflexible simulcasting mandate may prevent LPTV stations from deploying 3.0).

<sup>63</sup> In the *Next Gen TV NPRM*, we referred to this practice as a “flash-cut.” 32 FCC Rcd at 1683, para. 26.

difficulties these stations may face in locating a simulcasting partner and to permit these stations to serve as 3.0 “host” stations for other broadcasters.<sup>64</sup> In addition, we will consider requests for waiver of the simulcast requirements on a case-by-case basis, including requests from full power and Class A stations to transition directly from ATSC 1.0 to ATSC 3.0. In the companion *Further Notice of Proposed Rulemaking*, we also seek comment on whether we should permit Class A and NCE television stations to transition directly from ATSC 1.0 to ATSC 3.0 without seeking waivers or adopt a presumptive waiver standard for such stations.

19. We permit all television station classes to participate together in simulcast arrangements. Thus, a full power station could partner with one or more other full power stations or with one or more Class A, LPTV, or TV translator stations. We also permit NCE stations to participate in simulcast arrangements with commercial stations. Any Next Gen TV broadcaster that airs an ATSC 1.0 or ATSC 3.0 signal from a partner host station necessarily must operate that signal using the technical facilities of the host. For example, a Class A, LPTV, or TV translator station airing a 1.0 or 3.0 signal on a full power host station will necessarily operate its 1.0 or 3.0 “guest” signal using the technical facilities of the full power station, including the higher power limit specified in Part 73 of the rules.<sup>65</sup> Conversely, a full power station airing a 1.0 or 3.0 signal on a Class A, LPTV, or TV translator station must operate that signal at the Class A, LPTV, or TV translator’s lower Part 74 power level.<sup>66</sup> Otherwise, stations airing a 1.0 or 3.0 signal on a partner host station will continue to be obligated to comply with the programming and other operational obligations of the station originating the signal (rather than those of the partner host station). Thus, a full power Next Gen TV broadcaster airing a 1.0 simulcast signal on a partner host simulcast station must continue to comply with the programming and operational obligations of a Part 73 licensee.<sup>67</sup> Similarly a Class A station airing a 1.0 or 3.0 signal on a partner host station will continue to be obligated to comply with the programming and other operational obligations of a Class A licensee, including airing a minimum of 18 hours a day and an average of at least three hours per week of locally produced programming each quarter, as required by Section 73.6001 of the rules.<sup>68</sup> A reserved-channel full power NCE licensee, whether it airs a channel on a commercial partner host station or serves as a partner host to a commercial guest channel, will retain its NCE status and must continue to comply with

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<sup>64</sup> See *infra* Section III.B.2.d.

<sup>65</sup> Compare 47 CFR § 73.622(h) with 47 CFR § 74.735(b). An LPTV or TV translator station that airs a “guest” channel on a partner host full power or Class A station will obtain “quasi” primary interference protection for that channel for the duration of the simulcasting arrangement by virtue of the fact that the full power or Class A station is a primary licensee. Although the LPTV or TV translator will continue to be licensed with secondary interference protection status, the primary status of the host full power or Class A station will protect the “guest” channel aired on the partner host station from interference or displacement. See 47 CFR § 73.623. This approach is consistent with our rules for channel sharing between stations with differing technical rules (full power and Class A television stations) in the context of the incentive auction and outside the incentive auction context. See *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, 6855-56, para. 705 (2014) (*Incentive Auction R&O*); *Channel Sharing by Full Power and Class A Stations Outside the Broadcast Television Spectrum Incentive Auction Context*, Report and Order, 32 FCC Rcd 2637, 2657-58, paras. 39-41 (2017) (*Channel Sharing Outside the Auction Context*).

<sup>66</sup> See 47 CFR § 74.735(b). A full power or Class A “guest” station airing a channel on a partner host LPTV or TV translator station will be subject to displacement with respect to that channel because the host has secondary interference protection rights.

<sup>67</sup> See, e.g., 47 CFR § 73.1740(a)(2) (minimum operating hours).

<sup>68</sup> See 47 CFR § 73.6001(b). In addition, a Class A licensee that airs a guest signal on a full power host station will continue to be subject to the restrictions set forth in § 336(f)(7)(B) of the Communications Act. See 47 U.S.C. § 336(f)(7)(B) (requiring modifications of Class A licenses to protect certain LPTV stations).

the rules applicable to NCE licensees. In either case, the NCE full power station's portion of the use of the 6 MHz channel will be reserved for NCE-only use.<sup>69</sup>

20. Simulcast agreements must include provisions outlining each station's rights and responsibilities in the following areas: (i) access to facilities, including whether each licensee will have unrestricted access to the shared transmission facilities; (ii) allocation of capacity within the shared channel; (iii) operation, maintenance, repair, and modification of facilities, including a list of all relevant equipment, a description of each party's financial obligations, and any relevant notice provisions; (iv) the conditions under which the simulcast agreement may be terminated, assigned or transferred; and (v) how a guest's signal may be transitioned off the host station. License applicants must certify that the agreement contains such provisions. By requiring stations to address these issues in their simulcast agreements, we seek to avoid disputes that could lead to a disruption in service to the public and to ensure that each licensee is able to fulfill its independent obligation to comply with all pertinent statutory requirements and our rules.<sup>70</sup>

21. The provisions that we require in simulcast agreements are similar to those we have required in channel sharing agreements (CSAs).<sup>71</sup> We note that simulcast arrangements differ from CSAs in that the former are temporary and because, unlike channel sharing, each guest station can default back to its own licensed facility in the event the parties face irreconcilable differences. Further, unlike in the channel sharing context, the host station in a simulcast arrangement retains the right to resume use of the entire 6 MHz channel, subject to the terms of the simulcast agreement, without prior Commission approval.<sup>72</sup> We do not require that local simulcast agreements be submitted to the Commission as part of a license application, as these arrangements are intended to be temporary. We also conclude that such a requirement would be unnecessarily burdensome as Next Gen TV broadcasters may need to change to a new partner host station, and therefore enter into a new simulcast agreement, or modify existing agreements as the voluntary deployment of ATSC 3.0 becomes more widespread.<sup>73</sup> We do, however, require that broadcasters that enter into local simulcast agreements maintain a written copy of such agreements and provide them to the Commission upon request.

## **2. Definition of Local Simulcasting**

### **a. Programming on the 1.0 and 3.0 channels**

22. We require that, for the time being, the programming aired on the ATSC 1.0 simulcast channel be "substantially similar" to that of the primary video programming stream on the ATSC 3.0

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<sup>69</sup> See *Channel Sharing Outside the Auction Context*, 32 FCC Rcd at 2658, para. 43.

<sup>70</sup> We do not anticipate becoming involved in the resolution of stations' private contractual disputes regarding simulcast arrangements.

<sup>71</sup> We adopted similar provisions for full power and Class A television channel sharing arrangements entered into in conjunction with the incentive auction and outside the auction context, and for secondary-secondary CSAs. See *Incentive Auction R&O*, 29 FCC Rcd at 6852-53, paras. 699-700; *Incentive Auction First Order on Reconsideration*, 30 FCC Rcd 6668, 6677-78, paras. 24-25 (2015); *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Third Report and Order, 30 FCC Rcd 14927, 14963, para. 36 (2015) (*Digital Low Power Third Report and Order*); *Channel Sharing Outside the Auction Context*, 32 FCC Rcd at 2661-62, para. 48.

<sup>72</sup> See *Incentive Auctions First Order on Reconsideration*, 30 FCC Rcd at 6677, para. 25. In addition, the guest station's companion channel aired on a partner host station will be considered part of the guest station's existing license and may not be assigned to a third party separately from the guest station's license. See *infra* note 140.

<sup>73</sup> Pearl TV Comments at 7; Nexstar Comments at 6.

channel.<sup>74</sup> We define this requirement to mean that the programming on the 1.0 simulcast channel and the 3.0 primary stream must be the same, except for programming features that are based on the enhanced capabilities of ATSC 3.0, advertisements, and promotions for upcoming programs.<sup>75</sup> This approach will help ensure that viewers do not lose access to the broadcast programming they receive today, while still providing flexibility for broadcasters to innovate and experiment with new, innovative programming features using Next Gen TV technology.<sup>76</sup> The substantially similar requirement will sunset in five years from its effective date (*i.e.*, the date it is published in the Federal Register) absent further action by the Commission via rulemaking to extend it.<sup>77</sup> While we conclude that this requirement is necessary in the early stages of ATSC 3.0 deployment, it could unnecessarily impede Next Gen TV programming innovations as the deployment of ATSC 3.0 progresses. We intend to monitor the ATSC 3.0 marketplace, and will extend the substantially similar requirement if necessary.

23. *Enhanced Capabilities.* We do not apply the requirement to certain enhanced capabilities that cannot reasonably be provided in ATSC 1.0 format.<sup>78</sup> These capabilities include “hyper-localized” content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news),<sup>79</sup> programming features or improvements created for the 3.0 service (*e.g.*, emergency alert “wake up” ability and interactive programming features), enhanced formats made possible by 3.0 technology (*e.g.*, 4K or HDR), and any personalization of programming performed by the viewer and at the viewer’s discretion.<sup>80</sup>

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<sup>74</sup> See NAB Sept. 8, 2017 *Ex Parte* Letter at 3 (proposing that we require that the programming on the ATSC 1.0 simulcast channels be “substantially similar” to the programming aired on the ATSC 3.0 primary stream).

<sup>75</sup> We also provide an exception for instances where broadcasters are able to obtain the rights to air the 1.0 version of a program but not the 3.0 version of that program. In such cases, broadcasters may air that program on their 1.0 simulcast stream and a different program on their 3.0 primary stream. This exception does not appear to significantly implicate the concern expressed by some that broadcasters would choose to obtain the rights to air the 3.0 version of a program and not the 1.0 version of that program so that the most desired programming could be made available solely on the 3.0 channel. We caution, however, that if this exception somehow is abused to lead to that outcome, the Commission will revisit it. See ONE Media Comments at 9 (stating that broadcasters might not be able to acquire the necessary “[r]ights in programming and program elements (*e.g.*, network and syndicated programming, advertising, sports, music, interstitials, etc.)” to allow stations to provide identical simulcasts).

<sup>76</sup> See *id.* (“...the Commission should adopt a flexible requirement that allows stations to demonstrate the capabilities and advantages of Next Gen TV”). See also ATVA Sept. 21, 2017 *Ex Parte* Letter at 3 (“stations should be able to introduce ATSC 3.0 features that ‘cannot be replicated using ATSC 1.0’”) (citing NAB Sept. 8, 2017 *Ex Parte* Letter at 2-3).

<sup>77</sup> Some commenters oppose an automatic sunset of the substantially similar requirement absent Commission action, but support Commission review of this requirement in a future rulemaking. See Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 10-11 (filed Nov. 3, 2017) (ATVA Nov. 3, 2017 *Ex Parte* Letter). See also Letter from Michael Calabrese, Director, Wireless Future Project, Open Technology Institute, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142 *et al.*, at 1-2 (filed Nov. 8, 2017) (Consumer Advocates Nov. 8 *Ex Parte* Letter).

<sup>78</sup> While some of these capabilities may be theoretically possible within the ATSC 1.0 framework, they are not currently part of the ATSC 1.0 standards, are unlikely to be included in current consumer equipment, and as such cannot reasonably be provided via ATSC 1.0.

<sup>79</sup> ATSC 3.0 technology permits stations to simultaneously transmit different content to viewers. Thus, a station could simultaneously transmit a Washington, D.C.-focused news program to viewers in Washington, D.C., a Virginia-focused news program to viewers in Virginia, and a Maryland-focused news program to viewers in Maryland. Viewers may also be able to select which of the three programs to view. In terms of its ATSC 1.0 simulcast, the station will determine what programming to air on its ATSC 1.0 programming stream in these circumstances (*i.e.*, one of the three programs or a broader newscast that includes elements of all three).

Further, because ATSC 3.0 technology may enable broadcasters to provide more tailored advertisements or promotions to individual viewers than ATSC 1.0 technology, we also do not apply the requirement to advertisements or promotions for upcoming programming.<sup>81</sup>

24. *Time Shifting.* We do not consider programming that airs at a different time on the 1.0 simulcast channel than on the 3.0 primary channel to be substantially similar.<sup>82</sup> Our goal in this regard is to ensure that popular programming continues to be aired on the 1.0 channel at the time viewers generally expect it to be aired.

25. The goal of our local simulcasting requirement is to preserve a station's existing service to viewers. To ensure that viewers are protected, it is important not only to require that television broadcasters continue to broadcast in the current ATSC 1.0 standard while ATSC 3.0 is being deployed, but also that they continue to air in ATSC 1.0 format the programming that viewers most want and expect to receive. We seek to ensure that broadcasters air their most popular, widely-viewed programming on their 1.0 simulcast channels so that viewers are not forced to purchase 3.0 capable equipment simply to continue to receive this programming rather than because they find the ATSC 3.0 technology particularly attractive.

26. We find that our approach provides both flexibility and clear guidance to broadcasters regarding their simulcasting obligation. We also note that it is consistent with the expectation expressed by broadcasters that Next Gen TV signals will contain programming that is "substantially the same" as the programming carried on the ATSC 1.0 signal, taking into account the ability to enhance the 3.0 programming using the capabilities made possible by the new television standard.<sup>83</sup>

27. We decline to adopt requirements regarding the format of the 1.0 simulcast signal.<sup>84</sup> We recognize that broadcasters may face spectrum constraints that could limit their ability to continue to provide HD programming or other enhanced formats on their 1.0 simulcast signals.<sup>85</sup> Because simulcasting partnerships will require that more stations share the same amount of spectrum, stations may have less capacity for HD programming. Our existing rules do not require broadcasters to provide their signals in HD,<sup>86</sup> and we decline to adopt such rules for purposes of the voluntary deployment of ATSC 3.0 service.<sup>87</sup>

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<sup>80</sup> We agree with NAB and ATVA that the local simulcasting requirement should not apply to "content transmitted by means other than a real-time ATSC 3.0 broadcast transmission" (e.g., a link to programming available over the Internet). See NAB Sept. 8, 2017 *Ex Parte* Letter at 3. See also ATVA Sept. 21, 2017 *Ex Parte* Letter at 5 (agreeing that this content should be excluded from the simulcasting requirement).

<sup>81</sup> See, e.g., Public Interest Groups Comments at 19.

<sup>82</sup> See NCTA Comments at 10 (urging the FCC to require that the 1.0 and 3.0 streams have identical content provided at the same time on both linear OTA streams).

<sup>83</sup> ONE Media Comments at 9 ("During the simulcast period, we expect that Next Gen signals will include programming that is either substantially the same, or that is comparable to the programming carried on the ATSC 1.0 signal, taking into account the ability to enhance that programming using the 3.0 capabilities.").

<sup>84</sup> Similarly, we decline to limit ATSC 1.0 host stations to transmitting only two HD video streams to avoid affecting the signal quality of the streams. See AT&T Comments at 6-7; ACA Comments at 7, n. 16.

<sup>85</sup> ONE Media Comments at 9-10 ("Broadcasters, already severely spectrum constrained, will be far more constrained during the transition.").

<sup>86</sup> DTV broadcasters are required only to transmit in SD. See 47 CFR § 73.624(b) (DTV broadcasters must transmit at least one OTA video program signal on the DTV channel that is "at least comparable in resolution" to the analog signal (i.e., SD)).

<sup>87</sup> We also decline to require stations to disclose any planned change in signal quality as part of their simulcasting application or to permit the Commission to review and approve such changes, as advocated by Consumer

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28. We recognize that if broadcasters that currently transmit in HD switch to standard definition (SD) in order to deploy ATSC 3.0 service, consumers may not receive HD signals.<sup>88</sup> This change could affect both OTA viewers and MVPD subscribers, as MVPDs often rely on OTA reception of broadcast signals to retransmit local programming to their subscribers.<sup>89</sup> Nevertheless, we expect that broadcasters will seek to provide the highest quality signals possible while they voluntarily deploy 3.0, as they do today.<sup>90</sup> That is, while we urge broadcasters to continue to provide high quality/HD service on their 1.0 simulcast channels to the extent possible, we will rely on broadcasters' market-based incentives to do so rather than mandating a specific format for simulcast channels.<sup>91</sup> For the same reasons, we also decline to require broadcasters that choose to convert their ATSC 1.0 simulcast signal from HD to SD, or otherwise change the quality of the signal, to deliver a higher resolution signal to MVPDs.<sup>92</sup>

**b. Coverage requirements for the ATSC 1.0 simulcast signal**

29. We next address the required coverage area for Next Gen TV stations that relocate their 1.0 simulcast signal to a temporary host station (and convert their existing facilities to ATSC 3.0). In particular, we address the extent to which the coverage area of the new 1.0 simulcast signal must overlap

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Advocates. *See* Consumer Advocates Nov. 8 *Ex Parte* Letter at 2. Our rules do not require HD service and we decline to consider the provision of such service as part of our review of simulcasting applications.

<sup>88</sup> *See* Public Interest Groups Comments at 9 (advocating that the FCC require that ATSC 1.0 signals be broadcast in HD while local simulcasting is required). A number of commenters express concern that a broadcaster serving as a host for the ATSC 1.0 simulcasts of other stations will degrade the HD quality of these streams as compared to their current HD programming, or no longer provide HD service at all on the 1.0 simulcasts, in order to minimize the bandwidth the host station must devote to simulcast signals and thereby maximize available space for other broadcast streams. AT&T Comments at 5-6; ATVA Comments at 35. Some commenters also express concern that broadcasters may deliberately degrade ATSC 1.0 signal quality in order to “encourage” ATSC 3.0 adoption. ATVA Comments at 36.

<sup>89</sup> *See* ATVA Comments at 30; ACA Comments at 5-6; AT&T Comments at 6. According to ATVA, many of its members rely on OTA delivery of broadcast signals for more than half of the stations they retransmit and all of its members rely on OTA delivery as a backup to their other method of receiving the signals they retransmit. ATVA Comments at 30. Small rural MVPDs are more likely to rely exclusively on OTA delivery of TV signals. *See* ACA Comments at 8. While MVPDs that rely on OTA delivery could mitigate signal quality issues by obtaining delivery through alternate means, such as fiber, DBS transport, or reception and transcoding/down conversion of the ATSC 3.0 signal, such methods may require significant expenditures that small MVPDs in particular are less able to afford. ACA Comments at 6. *See also* ATVA Comments at 9-10. In addition, even if an ATSC 3.0 signal could be received OTA at the MVPD headend, the equipment necessary to receive that signal off-air and to transcode/down convert it is not yet commercially available. ACA Comments at 6; ATVA Comments at 11.

<sup>90</sup> Most broadcasters who address this issue argue that mandating a specific format for the 1.0 or 3.0 streams during the voluntary deployment of ATSC 3.0 would hamper the deployment of 3.0 service. *See, e.g.,* Pearl TV Comments at 9-10; ONE Media Comments at 9.

<sup>91</sup> *See* ONE Media Comments at 10 (“The Commission can be confident that every broadcaster will seek to provide the highest resolution format for each program stream possible when transitioning to Next Gen...”). Pearl states that “its members intend to keep their primary ATSC 1.0 signal in high definition during the transition” because “consumers expect this programming to be in high definition” and “network affiliation agreements as well as other programming agreements generally require network programming to be transmitted in HD.” Letter from Gerard J. Waldron, Counsel to Pearl TV, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142 *et al.* (filed Nov. 13, 2017).

<sup>92</sup> *See* ACA Comments at 4-5, 7; ATVA Comments at 36-37. ATVA argues that the Commission should not rely on marketplace incentives because broadcasters might have competing economic incentives to take steps to try to drive consumers to buy new equipment for ATSC 3.0, including by degrading ATSC 1.0 signals. *See* ATVA Nov. 3, 2017 *Ex Parte* Letter at 6. In light of broadcasters' representations that they will not take such action, *see supra* note 91, and in the absence of any reliable record evidence to suggest that broadcasters are likely to behave in this manner, we decline to adopt additional restrictions, as requested by ATVA.

with the station's existing ATSC 1.0 coverage area. For full power broadcasters implementing Next Gen TV service in this manner, we require that the station's 1.0 simulcast channel retain and continue to cover the station's community of license and that it be assigned to the same DMA as the originating station.<sup>93</sup> In addition, in evaluating applications filed by stations seeking to air their ATSC 1.0 simulcast signal on a partner host station, we will consider any loss in signal coverage resulting from the simulcast arrangement in determining whether to grant the application. We will consider more favorably simulcast arrangements with a service loss of no more than five percent of the population served by the station and will provide expedited processing of such applications.

30. This coverage requirement is consistent with our goal to minimize disruption to viewers as a result of the voluntary deployment of ATSC 3.0. If a station moves its ATSC 1.0 signal to a simulcast host station with a different transmitter location, existing OTA viewers may no longer be able to receive the signal. In addition, MVPDs that lose OTA reception of the signal at their local headend may no longer be able to carry the station. By requiring stations to continue to provide an ATSC 1.0 signal that covers their current community of license and encouraging them to keep coverage loss to five percent or less of the population currently receiving a 1.0 signal over the air, we will limit the number of current viewers and MVPD headends that will lose access to the OTA 1.0 signal as a result of local simulcasting. Although we agree that broadcasters have a market incentive to continue to reach their viewers during the implementation of ATSC 3.0 service,<sup>94</sup> we do not believe it is appropriate to rely solely on market incentives when it comes to the selection of 1.0 simulcast partners given the potential impact of service loss on OTA viewers as well as MVPDs. We also decline to permit Next Gen TV stations to arrange for the simulcast of their ATSC 1.0 signal on another broadcast facility "serving a substantially similar community of license," as proposed by Petitioners,<sup>95</sup> as that standard would appear to permit a station to temporarily cease providing 1.0 service to its own community of license and could result in a significant reduction or change in the station's coverage area.<sup>96</sup>

31. *Signal Relocation.* Full power broadcasters implementing 3.0 service must continue to provide 1.0 service to the station's existing community of license and comply with our community of license signal requirement. A full power Next Gen TV station that seeks to move its 1.0 signal to a temporary simulcast host must choose a simulcast partner from whose transmitter site the Next Gen TV broadcaster will continue to meet the community of license signal requirement over its current community of license.<sup>97</sup> This approach ensures that full power Next Gen TV broadcasters continue to provide 1.0 service to the local community they were licensed to serve,<sup>98</sup> consistent with the goals underlying Section 307(b) of the Communications Act to ensure the provision of service to local communities.<sup>99</sup>

32. Class A, LPTV, and TV translator stations do not have a community of license signal requirement.<sup>100</sup> For Class A stations that propose to broadcast their ATSC 1.0 signal from a temporary

<sup>93</sup> We will consider stations that are not assigned to a DMA by Nielsen to be assigned to the DMA in which they are located.

<sup>94</sup> See, e.g., Petitioners Comments at 9; ONE Media Comments at 20.

<sup>95</sup> Petition at 17.

<sup>96</sup> See ATVA Comments at 31.

<sup>97</sup> Under the Commission's rules, a full power television station must locate its transmitter at a site from which it can place a principal community contour over its entire community of license. See 47 CFR § 73.625.

<sup>98</sup> See Public Interest Groups Comments at 8 (arguing that, at a minimum, the ATSC 1.0 simulcast signal must cover the entire community of license). See also ATVA Sept. 21, 2017 *Ex Parte* Letter at 10 and NCTA Sept. 22, 2017 *Ex Parte* Letter at 1 (advocating that we require stations to serve the same community of license when simulcasting).

<sup>99</sup> See 47 U.S.C. § 307(b) (requiring the Commission to make a "fair, efficient, and equitable" distribution of television service when considering applications for license).

<sup>100</sup> See *Establishment of a Class A Television Service*, Report and Order, 15 FCC Rcd 6355, 6367, para. 28 (2000).

host facility, we will apply the existing 30-mile and contour overlap restrictions that apply to low power station moves. Thus, a Class A station that proposes to move its 1.0 signal in order to implement 3.0 service: (1) must maintain overlap between the protected contour of its existing and proposed 1.0 signal; and (2) may not relocate its 1.0 simulcast signal more than 30 miles from the reference coordinates of the relocating station's antenna location.

33. As discussed below, we exempt LPTV and TV translator stations from our local simulcasting requirement and permit them to transition directly from ATSC 1.0 to ATSC 3.0 service. If an LPTV or TV translator station elects voluntarily to simulcast, however, and to move its 1.0 signal to a temporary simulcast host in order to implement 3.0 service on its existing facilities, we require that the station comply with the restrictions we adopt above with respect to such moves by a Class A station.<sup>101</sup> This approach is consistent with the goal of our local simulcasting requirement to protect existing viewers. We also note that LPTV and TV translator stations that elect to simulcast will benefit from the licensed simulcast approach we adopt herein that will, for example, permit them to partner with an NCE host station.<sup>102</sup> Thus, we conclude that these stations should meet the same coverage requirements with respect to their ATSC 1.0 signal as other low power stations if they elect to simulcast and to move their 1.0 signal as part of a local simulcasting arrangement.

34. *Expedited Processing.* We provide expedited processing to full power, Class A, LPTV, and TV translator applications if the 1.0 simulcast signal broadcast at the temporary host facility will serve at least 95 percent of the predicted population served by the originating station's 1.0 signal. The Commission has used a 95 percent population coverage threshold for purposes of expedited processing of applications both in the context of the DTV transition and the incentive auction repacking process, and we conclude that it is appropriate to adopt the same standard here.<sup>103</sup> We anticipate that the Media Bureau

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<sup>101</sup> See *supra* para. 32 (30-mile and contour overlap restriction). See also *infra* para. 35 (expedited processing standard). We also require that an LPTV or TV translator station that elects to simulcast comply with the other simulcasting requirements we adopt herein, including the substantially similar programming requirement.

<sup>102</sup> See *infra* Sections III.B.3 and III.D. We note that an LPTV or TV translator station could alternatively choose to enter into a multicasting arrangement with a commercial host station rather than seeking a license to simulcast.

<sup>103</sup> The Commission used a 95% population coverage threshold in the context of the DTV transition for purposes of providing expedited processing to applications for construction of facilities on broadcasters' final, post-DTV transition channels. See *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Report and Order, 23 FCC Rcd 2994, 3060, para. 140 (2007). In addition, in the post-incentive auction repack the Commission provided expedited processing to applications for authorization for repacked facilities that, *inter alia*, are no more than five percent smaller than those specified in the *Channel Reassignment PN* with respect to predicted population served. See *Incentive Auction R&O*, 29 FCC Rcd at 6792, para. 551. Just because an application qualifies for expedited processing does not necessarily mean that the application will be granted. Applications that receive expedited review but that are not readily grantable by the Commission may require further action by the station. We disagree with NAB that expedited processing should apply if a 1.0 simulcast signal aired on a host station covers the originating station's community of license, without reference to loss of predicted population served by the 1.0 signal. NAB claims that such an approach "mirrors the coverage area standard the Commission used during the DTV transition." Letter from Patrick McFadden, Associate General Counsel, NAB to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 3 (filed Nov. 2, 2017) (NAB Nov. 2, 2017 *Ex Parte* Letter). We agree with NCTA that NAB's analogy to the DTV transition is inapt. Letter from Rick Chessen, Senior Vice President, NCTA to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 4 (filed Nov. 6, 2017) (NCTA Nov. 6, 2017 *Ex Parte* Letter) ("Broadcasters misleadingly claim that during the transition to digital broadcasting the Commission only required broadcasters to cover their communities of license rather than replicate their analog service areas."). While the Commission permitted stations to construct initial DTV facilities that served only their community of license, that decision was temporary and was accompanied by a "use-or-lose" deadline for their final DTV facilities by which broadcasters were required either to replicate their analog coverage or lose DTV service protection to any unreplicated areas. See *Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 5946, 5954-56, paras. 18-24 (2001), *on recon.*, *Memorandum Opinion and Order on*

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generally will be able to process applications qualifying for expedited processing within 15 business days after public notice of the filing of such applications. Applications that do not qualify for expedited processing will be considered on a case-by-case basis. We expect generally to process applications that do not qualify for expedited processing within 60 business days after we give notice of the filing of the application in the Daily Digest. In addition to information regarding any population that will lose 1.0 service as a result of the simulcast arrangement, such applications must contain the following information: (1) whether there is another possible simulcast partner(s) in the market that would result in less 1.0 service loss to existing viewers and, if so, why the Next Gen TV broadcaster chose to partner with a station creating a larger service loss; (2) what steps, if any, the station plans to take to minimize the impact of the 1.0 service loss (e.g., providing ATSC 3.0 dongles, set-top boxes, or gateway devices to viewers in the loss area); and (3) the public interest benefits of the simulcast arrangement and a showing of why the station believes the benefit(s) of granting the application outweigh the harm(s).

35. Our approach appropriately balances the need to ensure continued provision of service to viewers while broadcasters voluntarily deploy ATSC 3.0 and permitting broadcasters sufficient flexibility to locate and select a simulcast partner. We believe that the vast majority of broadcasters in today's market should be able to find a simulcast partner that would enable them to qualify for expedited processing under this approach.<sup>104</sup> In markets where it may not be possible for a station seeking to implement ATSC 3.0 service to find a 1.0 simulcast partner that would meet the test for expedited processing,<sup>105</sup> the Next Gen TV broadcaster could seek regular (versus expedited) Commission approval of its simulcasting arrangement<sup>106</sup> with the required additional showings, or seek a waiver of the simulcasting requirement. Broadcasters also have the option to continue to provide 1.0 service on their

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*Reconsideration*, 16 FCC Rcd 20594 (2001). Moreover, because viewers continued to receive analog service until the end of the DTV transition, the initial DTV build-out requirement to which NAB refers was not essential to preserve existing service to viewers. To ensure that existing viewers will continue to receive 1.0 service, the Commission is using the same processing standard for 1.0 simulcast signals that it used for final DTV facilities, not the standard used in the initial DTV build-out.

<sup>104</sup> Commission staff estimates that about 95% of full power stations are in a market where there is at least one other station in the market that could serve as a simulcast host station that would meet our community of license coverage requirement, and that 75% of such stations are in markets where they would have at least four other stations that could serve as a potential simulcast host station under this requirement. In addition, approximately 80% of full power and Class A stations are in markets where there is at least one other station that could serve as a simulcast host that would qualify under our expedited processing standard. We also note that ONE Media "expect[s] the instances in which simulcasting is not feasible to be the rare exception." Letter from Jerald N. Fritz, Executive Vice President, Strategic and Legal Affairs, ONE Media, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 3 (filed July 3, 2017) (ONE Media July 3, 2017 *Ex Parte* Letter). ONE Media attached a list of television markets that will have either one, two, or three stations (after accounting for stations cleared in the incentive auction). *Id.* at 6-7 (stating that at least 5 post-auction DMAs will have one station, at least 14 post-auction DMAs will have at least two stations, and at least 12 post-auction DMAs will have at least three stations).

For purposes of the community of license analysis, the staff did a pairwise study of the contours for all full-power and Class A stations, based on data from TVStudy, to count, for each station, the number of other stations' contours that contained a potential guest's community of license. For the expedited processing analysis, the staff looked at the service of all full-power and Class A stations, based on data from TVStudy, and did a pairwise study to count, for each station, the population of cells that are served by both the potential host station and the potential guest and compared that to the total population served by the potential guest.

<sup>105</sup> See, e.g., PTV Comments at 5, 8 (advocating that the FCC afford broadcasters as much flexibility as possible in tailoring local simulcasting arrangements and noting that some NCE broadcasters will have difficulty finding simulcast partners). See also ONE Media Comments at 7 (the Commission must recognize that simulcasting will not always be practical or possible)

<sup>106</sup> See 47 CFR § 73.1690.

existing facility while implementing 3.0 service on another station.<sup>107</sup>

36. For stations electing to move their 1.0 simulcast channel to a temporary host station, we decline to limit service loss to only 0.5 percent of the station's predicted population served, absent a waiver, as advocated by some commenters.<sup>108</sup> In the context of the incentive auction, the Commission determined that no individual station reassignment made by the Commission pursuant to the repacking process would be permitted to reduce another station's population by more than 0.5 percent.<sup>109</sup> This standard was chosen to implement a statutory requirement to "make all reasonable efforts" to preserve a station's population served during the repacking process.<sup>110</sup> We find that a somewhat less strict standard, that restricts population loss to five percent absent a showing that a greater loss is warranted, is appropriate to permit broadcasters sufficient flexibility to locate a simulcast partner while also protecting viewers from undue service disruption.<sup>111</sup>

37. We also decline to require a station to demonstrate that it has made "reasonable efforts" to continue to air its ATSC 1.0 signal from its existing facility before permitting the station to simulcast that signal from a temporary host facility.<sup>112</sup> Next Gen TV broadcasters have a market-based incentive to continue to serve their existing viewers, and the requirements we adopt herein provide additional incentives and protections to ensure continuity of service when possible. Our approach appropriately balances our goal of protecting existing viewers with the need to provide Next Gen TV broadcasters with flexibility to manage their deployment of ATSC 3.0 based on their station's and market's unique circumstances.

38. In addition, we decline to require that stations that transmit their ATSC simulcast 1.0 signal from a new host facility reach the headends of all MVPDs that rely on OTA delivery or to reimburse MVPDs for the costs associated with reception and processing of an ATSC 1.0 signal delivered from a new location.<sup>113</sup> We note that our ATSC 1.0 simulcast coverage requirement will help MVPDs that rely on OTA reception of TV signals, including many rural small MVPDs,<sup>114</sup> by encouraging stations to maintain ATSC 1.0 signal coverage to most of their existing service contour, thus helping to ensure that these signals continue to reach an MVPD's headend or local receive facility. The Communications

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<sup>107</sup> LPTV and TV translator stations also have the option to transition directly to ATSC 3.0 without simulcasting.

<sup>108</sup> See ATVA Comments at 33; ACA Comments at 9.

<sup>109</sup> See *Incentive Auction R&O*, 29 FCC Rcd at 6649-50, para. 179.

<sup>110</sup> See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6403(b)(2) (codified at 47 U.S.C. § 1452), 126 Stat. 156 (2012) (Spectrum Act).

<sup>111</sup> We decline to adopt a rebuttable presumption that broadcasters that do not meet the 95% standard will have their simulcast applications denied by the Commission, as advocated by Consumer Advocates. See Consumer Advocates Nov. 8 *Ex Parte* Letter at 2. We believe that this proposal would unduly restrict broadcasters' flexibility to find simulcast partners. As noted above, applicants that do not satisfy the 95% standard will be required to make a more detailed showing regarding their proposed simulcasting partnership than those that do meet the standard, and we conclude that this showing will enable Commission staff to adequately analyze these applications.

<sup>112</sup> See ACA Comments at 8-9.

<sup>113</sup> See ATVA Comments at 8-9, 35, 39-40. See also ACA Comments at 9; AT&T Comments at 20-21. These costs include the cost to deliver a signal by alternate means, such as fiber, as well as the cost of new receivers and antennas. If a Next Gen TV broadcaster changes to a new 1.0 simulcast host station, MVPDs could incur some of these costs more than once.

<sup>114</sup> According to ACA, small MVPDs, which are more likely to rely exclusively on OTA delivery of TV signals, are often located in rural areas on the edges of an existing service contour and are thus more likely to lose service. ACA Comments at 8. In addition, these MVPDs are less able to mitigate costs through fiber delivery than their small urban counterparts as they are less likely to be located in areas with existing fiber providers and thus more likely to require deployment of a more-expensive dedicated fiber strand or entire cable. *Id.*

Act requires must-carry stations to assume responsibility for delivery of a good-quality signal to MVPDs<sup>115</sup> and, for retransmission consent stations, leaves allocation of responsibility to the parties.<sup>116</sup> As discussed below, we decline to adopt rules at this time that alter the allocation of financial responsibility during retransmission consent negotiations for purposes of the voluntary deployment of ATSC 3.0.

**c. Coverage requirements for ATSC 3.0 signal**

39. We provide more location and coverage flexibility to Next Gen TV broadcasters that elect to continue broadcasting in ATSC 1.0 from their existing transmitter location<sup>117</sup> and transmit an ATSC 3.0 signal from a temporary host location.<sup>118</sup> We will permit such broadcasters to establish 3.0 service anywhere within the same DMA as the broadcaster's existing station. We also will not consider the extent to which the population served by such stations overlaps with the population served by the existing ATSC 1.0 station.<sup>119</sup> By providing more latitude for the location of the 3.0 signal, we hope to encourage Next Gen TV broadcasters to initiate 3.0 service on another facility initially while maintaining their 1.0 signal at the station's existing location, when possible, thereby avoiding disruption to viewers and MVPDs.<sup>120</sup> We accord this flexibility in order to facilitate the implementation of ATSC 3.0 and because we are less concerned about the provision of Next Gen TV 3.0 service to a station's existing viewers, particularly early in the voluntary deployment of ATSC 3.0, than we are with preserving ATSC 1.0 service to those viewers.

**d. Simulcast exception for LPTV and TV translator stations**

40. We exempt LPTV and TV translator stations from our local simulcasting requirement and allow these stations to elect to transition directly to 3.0 service. LPTV and TV translator stations electing to transition directly must first file an application to convert their facilities to 3.0 operation. In addition, they must comply with the MVPD notification and consumer education requirements adopted herein.

41. We adopt this simulcast exception for LPTV and TV translator stations in recognition of the fact that they face unique challenges in locating a simulcast partner. As a practical matter, many are not located near another LPTV or TV translator station and they may not be attractive simulcast partners for full power stations because of their lower power and coverage area.<sup>121</sup> In addition, because LPTV and TV translator stations are secondary, they are subject to displacement by primary full power and Class A stations, further reducing their desirability as partner host stations. Absent an exemption from our local

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<sup>115</sup> 47 U.S.C. §§ 534(h)(1)(B)(iii), 534(h)(2)(D), 535(g)(4). *See also In the Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Broadcast Signal Carriage Issues*, Report and Order, 8 FCC Rcd 2965, 2991, para. 104 (1993) (*Must Carry Order*); 47 CFR §§ 76.55(c)(3), 76.66(g).

<sup>116</sup> *See Must Carry Order*, 8 FCC Rcd at 2991, para. 104.

<sup>117</sup> By existing transmitter location, we mean a station's licensed transmitter site immediately prior to either implementation of ATSC 3.0 service or initiation of an ATSC 1.0 simulcast signal on a partner simulcast host station.

<sup>118</sup> A Next Gen TV broadcaster that converts to ATSC 3.0 operation on their existing facility must provide 3.0 service to their existing service area. *See infra* paras. 108-110.

<sup>119</sup> We do not establish a separate community of license or coverage requirement for 3.0 "guest" signals because these broadcasters will continue to provide ATSC 1.0 service to their existing community of license.

<sup>120</sup> *See ATVA Comments* at 33 (advocating that the FCC consider ways to encourage broadcasters to use their existing facilities to air ATSC 1.0 signals during the voluntary ATSC 3.0 deployment period).

<sup>121</sup> *See ATBA Comments* at 2 ("many, and perhaps most, LPTV stations do not have substantial contour overlap with another LPTV station" and are unable to provide "meaningful reciprocity of coverage" for full power stations, thereby making it unlikely that LPTV stations will be able to join full power stations in market-wide simulcasting arrangements). *See also ONE Media Comments* at 22, n.34 (noting that a full power station would likely choose to have its 1.0 simulcast channel air on an LPTV facility only "in circumstances in which better options were not available").

simulcasting requirement, LPTV and TV translator stations could be denied the opportunity to implement ATSC 3.0 service until the Commission eliminates the simulcast requirement.<sup>122</sup>

42. We recognize that permitting LPTV and TV translator stations to transition directly to ATSC 3.0 could deprive those OTA viewers without ATSC 3.0 TV sets or converter equipment of the important programming these stations provide.<sup>123</sup> MVPD subscribers could also be affected if MVPDs are not prepared to carry ATSC 3.0 signals on the date of a direct transition.<sup>124</sup> Although we recognize that permitting LPTV and TV translator stations to transition directly may cause some consumer disruption, in light of the unique circumstances faced by LPTV and TV translator stations we conclude that providing these stations with the option to transition directly will best ensure that they are able to deploy ATSC 3.0 technology.

43. Exempting LPTV and TV translator stations from the local simulcasting requirement will have the added benefit of allowing these stations to serve as “lighthouse” stations, thereby providing an ATSC 3.0 host option for other full power, Class A, LPTV, and TV translator stations that wish to partner with them.<sup>125</sup> LPTV stations could, therefore, serve an important role in market-wide simulcast arrangements by permitting other stations to experiment with 3.0 service while maintaining ATSC 1.0 service on their existing facility. As noted above, our goal is to encourage Next Gen TV broadcasters to initiate 3.0 service on another facility initially while maintaining their 1.0 simulcast signal at the station’s existing location, when possible, to help avoid disruption to viewers and MVPDs. LPTV stations that elect to transition directly and to serve as ATSC 3.0 host stations could thus play a significant role in facilitating the conversion to 3.0 technology.<sup>126</sup> While viewers without ATSC 3.0-capable equipment would lose access to LPTV and TV translator stations that elect to transition directly, these stations may also provide innovative 3.0 programming that could help drive consumer adoption of such equipment. Thus, on balance, we believe that the benefit of permitting these stations to transition directly outweighs the potential harm.

44. Finally, our decision to exempt LPTV and TV translator stations from our local simulcasting requirement will ensure that analog LPTV and TV translator stations and stations that have been displaced due to the post-incentive auction repacking process are not forced to build both an ATSC 1.0 and an ATSC 3.0 facility. The Commission has determined that LPTV and TV translator stations must complete their transition to digital service by July 13, 2021.<sup>127</sup> The Commission previously changed

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<sup>122</sup> See ATBA Comments at 3 (arguing that no station should be denied the opportunity to deploy ATSC 3.0 because simulcasting is not feasible); ONE Media Comments at 22, note 35 (arguing that imposing a simulcasting obligation on LPTV stations could mean that many will never deploy ATSC 3.0). See also LPTV Spectrum Rights Coalition Comments at 2 (advocating that Class A and LPTV stations be allowed to transition directly). Other commenters oppose permitting LPTV stations to transition directly to ATSC 3.0. See ATVA Comments at 44-45.

<sup>123</sup> See ATVA Comments at 45.

<sup>124</sup> *Id.* See also ATVA Sept. 21, 2017 *Ex Parte* Letter at 12-13.

<sup>125</sup> A full power station airing a channel on a partner LPTV host station would be limited to the LPTV reduced power level on that channel and would lose its primary interference protections.

<sup>126</sup> NAB does not object to permitting LPTV stations to transition directly to ATSC 3.0 and agrees that these stations can serve an important role in the deployment of Next Gen TV. See NAB Sept. 8, 2017 *Ex Parte* Letter at 4.

<sup>127</sup> In 2015, the Commission extended the deadline for analog LPTV and TV translator stations to complete their transition to digital service. Specifically, the Commission set a digital transition date for analog LPTV and TV translator stations of 12 months after the completion of the 39-month Post-Auction Transition Period (the 39-month period during which full power and Class A stations assigned to new channels in the Incentive Auction repacking process will transition to their new channels). See *Digital Low Power Third Report and Order*, 30 FCC Rcd at 14930-31, para. 6. See also *Incentive Auction R&O*, 29 FCC Rcd at 6783-84, para. 529; 47 CFR § 27.4 (defining Post-Auction Transition Period). The Commission has determined that the 39-month Post-Auction Transition Period will end on July 13, 2020. See *Incentive Auction Closing and Channel Reassignment Public Notice: The Broadcast Television Incentive Auction Closes; Reverse Auction and Forward Auction Results Announced; Final*

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this deadline to ensure that analog LPTV and TV translator stations would not be forced to complete their digital conversion only to find that their newly constructed digital facilities were displaced as a result of the incentive auction repacking process, thus necessitating a significant additional expenditure to locate a new channel and modify their digital facilities accordingly.<sup>128</sup> Many digital LPTV stations will also be required to seek new channels and construct new facilities as a result of the incentive auction. By exempting LPTV and TV translator stations from the simulcasting requirement, we similarly avoid forcing these stations to make significant expenditures in new ATSC 1.0 facilities by July 13, 2021 only later to be faced with a further expenditure of resources if the station chooses to convert those facilities to ATSC 3.0.<sup>129</sup>

45. We decline to restrict the ability of LPTV and TV translator stations affiliated with a broadcast network to directly transition, as advocated by ATVA.<sup>130</sup> We are not persuaded that there is any reasoned basis to give network affiliated stations less flexibility than other secondary stations in this respect.<sup>131</sup> These stations may face the same challenges finding a simulcast partner as other LPTV and TV translator stations, and we believe they should have the same opportunity to serve as potential ATSC 3.0 “lighthouse” stations.<sup>132</sup> We note that we are affording LPTV and TV translator stations with the opportunity to transition directly, but are not requiring them to do so.<sup>133</sup> Thus, any LPTV or TV translator station that wishes to deploy ATSC 3.0 service may elect to air both an ATSC 1.0 and ATSC 3.0 stream by partnering with another station rather than transitioning directly. Stations that transition directly could also consider taking steps to minimize the disruption to viewers, such as offering free converter devices (e.g., an external tuner dongle, set-top box, or gateway device) that enable ATSC 1.0-only receivers to be upgraded to receive ATSC 3.0 transmissions. LPTV and TV translator stations that elect voluntarily to simulcast must comply with the simulcasting requirements we adopt herein, including the substantially similar programming requirement and the coverage requirements related to ATSC 1.0 and 3.0 signals. Applying these requirements to LPTV and TV translator stations that simulcast is consistent with the goal

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*Television Band Channel Assignments Announced; Post-Auction Deadlines Announced*, Public Notice, 32 FCC Rcd 2786, 2804-05, para. 60 (IA MB WTB 2017) (*Incentive Auction Closing and Channel Reassignment Public Notice*). Accordingly, the deadline for analog LPTV and TV translator stations to transition to digital technology is July 13, 2021.

<sup>128</sup> See *Digital Low Power Third Report and Order*, 30 FCC Rcd at 14923, para. 8. Absent a change in the deadline to complete construction of their digital facilities, LPTV and TV translator stations displaced in the repacking process would have been required to find a new channel and modify their new digital facilities or cease operations if they were unable to find a new channel.

<sup>129</sup> The LPTV Spectrum Rights Coalition supports permitting newly authorized LPTV stations not yet constructed to transition directly to ATSC 3.0. LPTV Spectrum Rights Coalition Comments at 2.

<sup>130</sup> ATVA Sept. 21, 2017 *Ex Parte* Letter at 13. ATVA states, however, that it “takes no position” on whether a simulcasting requirement should apply to LPTV stations that are not carried by any MVPD, not required to be carried by any MVPD under the must-carry statute, and remain unaffiliated with any network. *Id.* See also ATVA Reply at 6. ATVA later expressed the view that any exemption from the simulcast requirement should be limited to stations other than the top-six rated stations. See ATVA Nov. 3, 2017 *Ex Parte* Letter at 7-8.

<sup>131</sup> A Commission staff analysis of SNL Kagan data as of Apr. 15, 2017 shows that 42 of 258 LPTV stations are affiliated with a top-four broadcast network (ABC, CBS, NBC, and Fox). See also Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed Sept. 29, 2017) (ATVA Sept. 29, 2017 *Ex Parte* Letter) (noting that there are 55 Class A and low power top-four network affiliate stations).

<sup>132</sup> Network affiliates may also have contractual obligations that limit their ability to transition directly.

<sup>133</sup> We agree with ATVA that LPTV and TV translator stations should have the opportunity to convert to ATSC 3.0 and arrange for the simulcast of their ATSC 1.0 signal on a partner simulcast host station. See ATVA Comments at 45.

of our simulcasting requirement to protect existing viewers and is appropriate in light of the benefits these stations will receive as a result of their simulcast license.

**e. Waiver of the simulcasting and coverage requirements**

46. We will consider requests for waiver of our local simulcasting and coverage requirements on a case-by-case basis. This includes requests from full power and Class A television stations to transition directly from ATSC 1.0 to ATSC 3.0 service on the station's existing facility without providing a 1.0 simulcast as well as requests to air a 1.0 simulcast channel from a host location that does not cover all or a portion of the station's community of license or from which the station can provide only a lower signal threshold over the community than that required by the rules.<sup>134</sup> We are inclined to consider favorably requests for waiver where the Next Gen TV station can demonstrate that it has no viable local simulcasting partner in its market<sup>135</sup> and where the station agrees to make reasonable efforts to preserve 1.0 service to existing viewers in its community of license and/or otherwise minimize the impact on such viewers (for example, by providing free or low cost ATSC 3.0 converters to viewers). In the companion *Further Notice of Proposed Rulemaking*, we seek further comment on two issues related to waivers and exceptions: (1) whether to provide further guidance on how we will evaluate requests for waiver of the local simulcasting requirement; and (2) whether we should exempt NCE and/or Class A stations (as a class) from our local simulcasting requirement or adopt a presumptive waiver standard for such stations.

47. Commenters, including both broadcasters and MVPDs, support waivers of the simulcasting requirement for broadcasters that are unable to enter into simulcasting arrangements.<sup>136</sup> We are aware that some full power and Class A stations may face a unique challenge in meeting our local simulcasting requirement. For example, PTV notes that public television stations are often not sited based on DMA boundaries because many statewide networks licensed to state agencies or commissions are required to serve their entire state regardless of cross-state DMA boundaries.<sup>137</sup> As a result, certain public stations may find it difficult to find a simulcast partner. Other stations in small markets and/or rural areas may face similar challenges in meeting our simulcasting requirement.<sup>138</sup> We also recognize that, as the implementation of Next Gen TV progresses and more stations convert to ATSC 3.0, it may become increasingly difficult for broadcasters to find suitable partners for local simulcasting.<sup>139</sup> Our waiver standard is intended to facilitate the provision of a waiver in these circumstances to ensure that all stations have the opportunity to participate in the voluntary deployment of ATSC 3.0.

**3. Licensing Issues**

**a. Licensed simulcast approach**

48. We require that 1.0 and 3.0 channels aired on a partner host station be licensed as temporary second channels of the originating broadcaster. That is, the ATSC 1.0 and ATSC 3.0 signals

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<sup>134</sup> The Commission may waive its rules if good cause is shown. See 47 CFR § 1.3. We are not inclined to consider favorably requests to change community of license solely to enable simulcasting. We will, however, consider a waiver if necessary for a station to comply with the local simulcasting requirement, based on the facts presented. We note that the required showing to justify waiver of the community of license coverage requirement is different from the showing required by simulcast license applicants that do not qualify for expedited processing, discussed above.

<sup>135</sup> See PTV Comments at 7 (advocating that, in the event the FCC adopts a simulcast mandate, that it adopt a presumptive waiver standard or at least a liberal waiver policy).

<sup>136</sup> See, e.g., NAB Sept. 8, 2017 *Ex Parte* Letter at 4; ATVA Sept. 21, 2017 *Ex Parte* Letter at 13.

<sup>137</sup> PTV Comments at 8.

<sup>138</sup> Single-station markets present the most obvious example of situations in which simulcasting may not be possible.

<sup>139</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1681, para. 23. See also ONE Media Comments at 20; ATVA Comments at 32; ATBA Comments at 10.

of a Next Gen TV broadcaster will be two separately authorized companion channels under the broadcaster's single, unified license.<sup>140</sup> Next Gen TV broadcasters will be required to file an application and obtain Commission approval before a 1.0 simulcast channel or a 3.0 channel aired on a partner host station can go on the air, and before an existing 1.0 station can convert to 3.0 operation or back to 1.0 operation. However, as discussed further below, we adopt a streamlined "one-step" process for reviewing and approving such applications to minimize the burden on both Next Gen TV broadcasters and the Commission.<sup>141</sup>

49. The partner host and guest station(s) in a simulcast arrangement will continue to be licensed separately and each station will have its own call sign. Each licensee will be independently subject to all of the Commission's obligations, rules, and policies. The Commission retains the right to enforce any violation of these requirements against one, more than one, or all parties to a simulcast agreement. As is always the case, the Commission would take into account all relevant facts and circumstances in any enforcement action, including the relevant contractual obligations of the parties involved.

50. We sought comment in the *Next Gen TV NPRM* on whether simulcasts should be separately licensed as second channels of the originating station or treated as multicast streams of the host station.<sup>142</sup> We conclude that a licensed simulcast approach is preferable to a multicast approach for several reasons. First, it will allow NCE stations to serve as hosts to commercial stations' simulcast programming. Section 399B of the Communications Act provides that "[n]o public broadcast station may make its facilities available to any person for the broadcasting of any advertisement."<sup>143</sup> Under a multicast approach, an NCE station would be prohibited from hosting the simulcast programming of a commercial station on a multicast stream because the stream would be aired on the "facilities" of the NCE licensee. Under the licensed simulcast approach we adopt herein, however, the "facilities" are no longer exclusively the facilities of the NCE station, as each station has a right to use the facilities pursuant to its separate license and contractual rights. A commercial stream aired on a partner NCE station will be

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<sup>140</sup> The companion channel aired on a partner host station will be considered part of the guest station's license and may not be separately assigned to a third party. See *In the Matter of Advanced Television Systems and Their Impact on the Existing Television Broadcast Service*, Fifth Report and Order, 12 FCC Rcd 12809, 12833-34, paras.57-59 (1997); *In the Matter of 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*, Report and Order, 19 FCC Rcd 19331, 19389, para. 175, note 363 (2004).

<sup>141</sup> Normally, licensing is a two-step process. A broadcaster must first file an application for a construction permit (CP) and obtain approval from the Commission for the CP and then, once construction is complete, file an application for a license to cover the CP and wait for Commission approval of the license to cover. See 47 CFR §§ 73.3533, 73.3536, 73.3538. We will process applications seeking changes to facilities and licenses that require the filing of a construction permit pursuant to our existing processes. See, e.g., 47 CFR §§ 73.1609, 74.751.

<sup>142</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1677-78, para. 16. As proposed in the NPRM, we establish a new service group code of NGDTV in LMS to signify the various classes of ATSC 3.0 stations, including NGDTV for full-service 3.0, NGDTS for DTS/SFN 3.0, NGLPT for low-power translator 3.0 stations, NGDCA for Class A, and NGLPD for low-power 3.0 stations. *Id.* at para. 15. This means 3.0 channels will receive a "-NG" suffix to their call signs (e.g., WZYX-NG") to contrast to their 1.0 simulcast channels which will keep their suffixes.

<sup>143</sup> 47 U.S.C. § 399(a). The Act defines an advertisement as "any message or other programming material which is broadcast or otherwise transmitted in exchange for any remuneration ...." 47 U.S.C. § 399(b)(2). See also *Ancillary or Supplementary Use of Digital Television Capacity by Noncommercial Licensees*, Report and Order, 16 FCC Rcd 19042, 19052, para. 27 (2001) (concluding that "the Section 399B ban on advertising applies to all broadcast programming streams provided by NCE licensees, but does not apply to ancillary or supplementary services on their DTV channels, such as subscription services or data transmission services, to the extent that such services do not constitute "broadcasting.""). See also *Commission Policy Concerning the Noncommercial Nature of Educational Broadcasting Stations*, Public Notice (1986), republished, 7 FCC Rcd 827 (1992).

separately licensed and authorized to use the host's channel, therefore permitting an NCE station to serve as a host to a commercial stream.

51. Second, the licensed simulcast approach clarifies the carriage rights of simulcast signals. Because multicast signals are not entitled to carriage rights,<sup>144</sup> treating simulcast signals as multicast channels under a host's license raises the question as to whether such signals have mandatory carriage rights.<sup>145</sup> As discussed below, a Next Gen TV broadcaster's licensed ATSC 1.0 signal will be entitled to carriage whether aired on the Next Gen TV broadcaster's own facility or that of a simulcast host.

52. Third, the licensed simulcast approach makes it clear that the originating station (and not the host) is responsible for regulatory compliance regarding its 1.0 simulcast or 3.0 signal being aired on a host station and gives the Commission clear enforcement authority over the originating station in the event of a violation of our rules.<sup>146</sup>

#### **b. Licensing procedure**

53. We require that a Next Gen TV broadcaster file an application with the Commission, and receive approval, before: (1) moving its 1.0 signal to a temporary simulcast host station or moving its 1.0 simulcast to a different host station, or discontinuing a 1.0 guest signal; (2) commencing the airing of a 3.0 channel on a 3.0 host station (that has already converted to 3.0 operation), moving its 3.0 channel to a different host station, or discontinuing a 3.0 guest signal; or (3) converting its existing station to 3.0 operation or from 3.0 back to 1.0. For all of these applications, we adopt a streamlined one-step process that will require the filing of only an application for modification of license (*i.e.*, without first filing an application for a construction permit), provided no other changes are being requested in the application that would require the filing of an application for a construction permit under the Commission's rules.<sup>147</sup> A broadcaster seeking to air a 1.0 signal on a simulcast host station or to air a 3.0 signal on a host station is required to file the appropriate license schedule to FCC Form 2100 identifying, among other information, the station serving as the host and the technical facilities of the host station. Where the broadcaster seeks to air its 1.0 signal on a simulcast host station, the broadcaster must also indicate on the application (1) the predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal, (2) the predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap

<sup>144</sup> See *DTV Must Carry Order*, 16 FCC Rcd 2598, para. 54; *affirmed by Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission's Rules*, Second Report and Order and First Order on Reconsideration, 20 FCC Rcd 4516, 4518, para. 3 (*DTV Must-Carry Second R&O*) (declining to require cable systems to carry a licensee's multicast streams). In the *DTV Must-Carry Second R&O*, the Commission affirmed its decision in the First Report and Order to interpret the statutory term "primary video" to mean only a single programming stream. If a digital broadcaster elects to divide its digital spectrum into several separate programming streams, only one of these streams is entitled to mandatory carriage. *DTV Must-Carry Second R&O*, 20 FCC Rcd at 4530-37, paras. 28-44.

<sup>145</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1687, para. 34.

<sup>146</sup> See ONE Media Comments at 19; Pearl TV Comments at 5 (supporting making the station originating the programming stream responsible for compliance with the FCC's rules with regard to that stream).

<sup>147</sup> In all other circumstances, a broadcaster must continue to follow existing Commission processes and rules for modifying their existing facility through the filing of a construction permit application followed by an application for license to cover. See, e.g., 47 CFR §§ 73.1690 (identifying the changes to full power and Class A television station facilities that require the filing of a construction permit) and 74.751 (identifying the changes to LPTV and TV translator stations that require the filing of a construction permit application). Broadcasters must also continue to notify the Commission of modifications to their facilities that do not require the filing of a construction permit as otherwise required by the rules. See 47 CFR § 73.1690(c)-(e). By technical or facility changes, we are referring only to changes that are regulated by the Commission and not to other changes (*i.e.*, software) that are not regulated by the Commission.

map,<sup>148</sup> and (3) whether the ATSC 1.0 simulcast signal aired on the host station will serve at least 95 percent of the predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal (that is, whether the application qualifies as a "checklist" application eligible for expedited processing). Alternatively, where a Next Gen TV broadcaster seeks to air a 3.0 signal on a partner host station, the broadcaster must indicate in the application the DMA of the originating broadcaster's facility and the DMA of the host station. The host station does not need to take action in connection with these applications if no technical changes are necessary to its facilities.<sup>149</sup> We anticipate that in most, if not all, cases, no such changes will be required.

54. While a full power station seeking to change its channel normally must first submit a petition to amend the DTV Table of Allotments, as we proposed in *the Next Gen TV NPRM*<sup>150</sup> we do not apply this process in the context of licensed simulcasting. We conclude that amendments to the DTV table are not required for these channel changes as they are temporary and because stations may change locations and hosts multiple times while local simulcasting is required.

55. A broadcaster seeking to convert its existing station to 3.0 transmissions is required to file the appropriate license schedule to FCC Form 2100 and, absent a waiver of the local simulcasting requirement, simultaneously file on the appropriate license schedule to FCC Form 2100 an application to move its 1.0 signal to a simulcast host station. Absent a waiver, these broadcasters may not commence 3.0 operation on their existing facility before their 1.0 simulcast begins airing on the simulcast host station. If a broadcaster seeks to move its 3.0 or 1.0 simulcast signal to a different host station, it is required to file the appropriate license schedule to FCC Form 2100 and wait until it receives Commission approval of the application before airing the signal on the new host facility.

56. The Commission will act on all applications as quickly as possible. Applications will appear on the Media Bureau's Broadcast Applications Public Notice, which appears every day in the Daily Digest.<sup>151</sup> Grant of an application will also appear in the Daily Digest. We expect generally to process applications that qualify for expedited processing within 15 business days after we give notice of the filing of the application in the Daily Digest and within 60 business days after we give notice of the filing of the application in the Daily Digest for applications that do not qualify for expedited processing. A station may commence operations pursuant to its simulcast agreement only after grant of the necessary applications and consistent with any other restrictions placed on stations by the Commission.<sup>152</sup>

57. We will treat applications filed to implement simulcasting and the conversion of a station to ATSC 3.0 operation as applications for modification of license. While a change in channel is normally a major change under our rules, we conclude that it is appropriate to treat channel changes made to comply with the local simulcasting requirement as minor changes to a license because the guest will be assuming the authorized technical facilities of the host station, meaning that compliance with our

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<sup>148</sup> We therefore agree with ACA that stations must include with their applications a contour overlap map identifying the areas of service loss. See Letter from Ross J. Lieberman, Senior Vice President of Government Affairs, ACA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 6 (filed Nov. 9, 2017) (stating stations "should submit 'before and after' coverage maps or other information that clearly specifies and details the areas of coverage loss in an easy-to-understand manner").

<sup>149</sup> A host station must first make any necessary changes to its facilities before a guest station may file an application to air an ATSC 1.0 or 3.0 signal on the host. The Commission will include a note on the host station's license identifying any "guest" ATSC 1.0 or ATSC 3.0 streams being transmitted on the station.

<sup>150</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1678-79, para. 17.

<sup>151</sup> Informal objections may be filed with respect to such applications. See 47 CFR § 73.3587.

<sup>152</sup> Stations will not be permitted to commence ATSC 3.0 or ATSC 1.0 simulcast (on a simulcast host facility) operations pursuant to automatic program test authority. See 47 CFR § 73.1620.

interference and other technical rules would have been addressed in licensing the host station.<sup>153</sup> It also is appropriate to dispense with the requirement that broadcasters file an application for a construction permit<sup>154</sup> in connection with ATSC 3.0 deployment-related changes that do not involve a change in the station's facilities that normally requires prior Commission approval<sup>155</sup> because simulcast arrangements will be temporary and may change over time as more stations convert to 3.0 technology.<sup>156</sup> In addition, we find that the streamlined one-step licensing process we adopt herein is warranted where approval is sought to air a 1.0 or 3.0 signal on an existing host facility operating at established parameters. Similarly, a streamlined process is appropriate for use in connection with a station converting from 1.0 to 3.0 operation where no technical changes requiring Commission approval to an existing, licensed facility are required.<sup>157</sup>

58. This one-step process is only slightly more burdensome for broadcasters than the simple notification procedure, with no Commission approval required, supported by several broadcast commenters.<sup>158</sup> These commenters advocate that broadcasters simply notify the Commission of the station's simulcasting plans, either via a letter or on a form provided by the Commission.<sup>159</sup> We believe that submission of an application followed by Commission review and approval is necessary to ensure compliance with Section 308 of the Communications Act and the local simulcasting and other requirements we adopt herein.<sup>160</sup> Our streamlined one-step process provides sufficient flexibility to broadcasters that may need to modify their simulcasting arrangements as the deployment of ATSC 3.0 progresses.<sup>161</sup> Finally, as noted above, while we require that broadcasters provide their simulcast agreements to the Commission upon request, we do not require them to be filed with their simulcast

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<sup>153</sup> *Channel Sharing Outside the Auction Context*, 32 FCC Rcd at 2655, para. 33. We proposed to treat such channel changes as minor modifications in the *Next Gen TV NPRM*. See *Next Gen TV NPRM*, 32 FCC Rcd at 1678-79, para. 17.

<sup>154</sup> See 47 USC §§ 319(a) (“No license shall be issued under the authority of this chapter for the operation of any station unless a permit for its construction has been granted by the Commission....”) and 319(d) (“With respect to any broadcasting station, the Commission shall not have any authority to waive the requirement of a permit for construction, except that the Commission may by regulation determine that a permit shall not be required for minor changes in the facilities of authorized broadcast stations.”).

<sup>155</sup> While we proposed to require applicants to file a construction permit, see *Next Gen TV NPRM*, 32 FCC Rcd at 1678-79, para. 17, we adopt a different approach for the reasons set forth above. In addition, while the Commission required stations seeking to channel share to apply for a construction permit, we conclude a more streamlined process is appropriate with respect to simulcasting arrangements because they are temporary. See *Incentive Auction First Order on Reconsideration*, 30 FCC Rcd at 6678-79, paras. 26-28; *Digital Low Power Third Report and Order*, 30 FCC Rcd at 14941-42, para. 30; *Channel Sharing Outside the Auction Context*, 32 FCC Rcd at 2654-55, para. 32.

<sup>156</sup> For example, stations may move from one 1.0 simulcast host to another as more stations in the market convert to 3.0 operations.

<sup>157</sup> A station can convert from ATSC 1.0 to ATSC 3.0 in most cases by simply changing the exciter. Most new transmitters available today are already ATSC 3.0 compatible. The interference characteristics of both standards are functionally identical.

<sup>158</sup> See, e.g., ONE Media Comments at 17; Pearl TV Comments at 5-6 (advocating that stations file a letter informing the FCC of simulcasting arrangements with no FCC review or approval).

<sup>159</sup> See, e.g., NAB Reply at 6 (advocating that simulcasting partners notify the FCC of their simulcasting arrangements without FCC approval or review), PBS Comments at 12 (advocating a short-form registration or notification of the station's simulcast arrangement with no application or FCC approval); Pearl TV Comments at 5 (advocating that parties to a simulcasting agreement notify the FCC when a programming stream would begin simulcasting without the need for FCC approval).

<sup>160</sup> 47 U.S.C. § 308(a) (“The Commission may grant construction permits and station licenses, or modifications or renewals thereof, only upon written application therefor received by it”).

<sup>161</sup> See Pearl TV Comments at 7.

applications, thus further simplifying the application process. We delegate authority to the Media Bureau for the narrow purpose of amending FCC Form 2100 as necessary to implement the licensing process adopted herein.

59. In the event a station must make changes that require prior Commission approval as part of the deployment of ATSC 3.0 (*i.e.*, to convert a station from 1.0 to 3.0 technology or back to 1.0, to enable a station to serve as a host for a 1.0 simulcast signal, or to enable a station that has already converted to 3.0 technology to serve as a host for a 3.0 signal), we will use the existing two-step (construction permit and license to cover) application process to approve these changes.<sup>162</sup>

### C. Temporary Use of Vacant Channels

60. We sought comment in the *Next Gen TV NPRM* on whether we should allow broadcasters to use available or vacant in-band channels to establish temporary host facilities for ATSC 1.0 or ATSC 3.0 channels for purposes of local simulcasting.<sup>163</sup> We decline to authorize the use of available channels for this purpose in this Order as we conclude such action raises a number of issues that require further opportunity for comment and Commission consideration. Thus, we seek further comment on this issue in the companion *Further Notice of Proposed Rulemaking*.

### D. MVPD Carriage

61. We discuss in this section the MVPD carriage rights of broadcasters that choose to deploy ATSC 3.0 service. We conclude that a Next Gen TV broadcaster's 1.0 simulcast channel will retain mandatory carriage rights and its 3.0 channel will not have mandatory carriage rights while the Commission requires local simulcasting. ATSC 1.0 channels relocating to a temporary host facility can retain mandatory carriage rights which they were exercising at their original location, provided they continue to qualify for such rights at the host facility location; we do not permit those channels to gain new mandatory carriage rights as a result of their new location. In addition, we require must-carry Next Gen TV broadcasters and retransmission consent Next Gen TV broadcasters relocating their 1.0 simulcast channel to provide notice to affected MVPDs at least 90 days in advance of the move, and 120 days in advance if the move occurs during the incentive auction repacking period. We decline to adopt any additional rules regarding the carriage of ATSC 3.0 pursuant to retransmission consent. Such carriage will be voluntary, and we find that voluntary carriage issues are best left to marketplace negotiations between broadcasters and MVPDs. Finally, in the accompanying *Further Notice of Proposed Rulemaking*, we tentatively conclude that local simulcasting should not change the significantly viewed status of a Next Gen TV station.<sup>164</sup>

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<sup>162</sup> See, e.g., 47 CFR §§ 73.1690, 73.3572, 74.751, 74.787. For example, if a full power host station needs to install a new antenna that would normally require the filing of an application for a construction permit, the station must follow the Commission's usual two-step licensing process. See 47 CFR §§ 73.3538 (application to make changes in an existing facility) and 73.3536 (application for license to cover a construction permit). For example, if the host station needs to adjust its omnidirectional antenna no more than two meters above or four meters below its authorized values (see 47 CFR § 73.1690(c)(1)), it must file only a license modification application. Stations may make such minor license modifications when applying to convert their facility from ATSC 1.0 to 3.0 under the one-step process.

<sup>163</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1677, para. 14.

<sup>164</sup> Until we address this issue in the *Further Notice of Proposed Rulemaking*, we impose a freeze on the filing of any requests to change the significantly viewed status of Next Gen TV stations moving their 1.0 simulcast channel. We note that we need not address here how local simulcasting may impact the ability of stations to exercise their network nonduplication, 47 CFR § 76.92, and syndicated-exclusivity rights, 47 CFR § 76.101, (collectively, exclusivity rules). Because we do not allow Next Gen TV stations to change their communities of license, exclusivity zones of protection should not change. See Note to 47 CFR § 76.92 and 47 CFR § 73.658(m) (network nonduplication) and Note to 47 CFR § 76.101 and 47 CFR § 73.658 (syndicated exclusivity). To the extent a station files for a community of license change solely to enable simulcasting, we will consider the impact on the exclusivity rules on a case-by-case basis. See ATVA Comments at 41-42.

## 1. Mandatory Carriage of Next Gen TV Stations

62. The Communications Act establishes slightly different thresholds for mandatory carriage depending on whether the television station is full power or low-power, or commercial or noncommercial, and also depending on whether carriage is sought from a cable operator or satellite carrier.<sup>165</sup> The carriage rights of commercial stations on cable systems are set forth in Section 614 of the Act.<sup>166</sup> The carriage rights of full power NCE stations on cable systems are set forth in Section 615 of the Act.<sup>167</sup> The carriage rights of full power stations (both commercial and NCE) on satellite carriers are set forth in Section 338 of the Act.<sup>168</sup>

### a. Only 1.0 Channel Has Mandatory Carriage Rights

63. We adopt the proposal in the *Next Gen TV NPRM*<sup>169</sup> that MVPDs must continue to carry Next Gen TV broadcasters' ATSC 1.0 signals, pursuant to their statutory mandatory carriage obligations, and that MVPDs will not be required to carry broadcasters' ATSC 3.0 signals during the period when local simulcasting is required.<sup>170</sup> Most commenters, including Petitioners,<sup>171</sup> other broadcasters,<sup>172</sup> MVPDs<sup>173</sup> and Consumer Groups<sup>174</sup> support this result.

<sup>165</sup> See 47 U.S.C. §§ 338, 534, 535.

<sup>166</sup> *Id.* § 534. Pursuant to Section 614(a), “[e]ach cable operator shall carry, on the cable system of that operator, the signals of local commercial television stations . . . as provided by this section.” *Id.* § 534(a). The term “local commercial television station” means “any full power television broadcast station, other than a qualified noncommercial educational television station . . . licensed and operating on a channel regularly assigned to its community by the Commission that, with respect to a particular cable system, is within the same television market as the cable system.” *Id.* § 534(h)(1)(A). “Television market” is defined by Commission’s rules as a Designated Market Area (DMA). 47 CFR §§ 76.55(e)(2); 47 U.S.C. 534(h)(1)(C)(i). The must-carry rights of low power stations, including Class A stations, on cable systems are set forth in Section 614(c) of the Act. 47 U.S.C. § 534(c). Under very narrow circumstances, such stations can become “qualified” and eligible for must carry. *Id.* § 534(h)(2). Among the several requirements for reaching “qualified” status with respect to a particular cable operator, the station must be “located no more than 35 miles from the cable system’s headend.” *Id.* § 534(h)(2)(D).

<sup>167</sup> 47 U.S.C. § 535. Section 615(a) provides that “each cable operator of a cable system shall carry the signals of qualified noncommercial educational television stations in accordance with the provisions of this section.” *Id.* § 535(a). A qualified noncommercial educational station can be considered “local,” and thus eligible for mandatory carriage on a cable system, in one of two ways. It may either be licensed to a principal community within 50 miles of the system’s headend, or place a “Grade B” (noise-limited service contour) signal over the headend. *Id.* § 535(1)(2).

<sup>168</sup> *Id.* § 338. A full power “television broadcast station” is entitled to request carriage by a satellite carrier any time that carrier relies on the statutory copyright license in 17 U.S.C. § 122 to retransmit the signal of any other “local” station (*i.e.*, one located in the same DMA). 47 U.S.C. § 338(a)(1) (“[e]ach satellite carrier providing . . . secondary transmissions to subscribers located within the local market of a television broadcast station of a primary transmission made by that station shall carry upon request the signals of all television broadcast stations located within that local market. . .”). This is commonly referred to as the “carry one, carry all” requirement. See also 47 U.S.C. § 338(k)(4); 17 U.S.C. § 122(j)(2); 47 CFR § 76.66(e) (defining local market). A “television broadcast station” is defined as “an over-the-air commercial or noncommercial television broadcast station licensed by the Commission.” 47 U.S.C. §§ 338(k)(10), 325(b)(7). Low-power stations, including Class A stations, do not have satellite carriage rights. *Id.* § 338(a)(3).

<sup>169</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1683, para. 28. We note that the Petitioners state that MVPDs “should not be obligated to carry” a Next Gen TV broadcaster’s ATSC 3.0 signal and that MVPDs could satisfy their obligation to carry a Next Gen TV station’s signal by carrying the station’s ATSC 1.0 signal. See Letter from Lonna Thompson, Executive Vice President, Chief Operating Officer and General Counsel, APTS, *et al.*, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed May 26, 2016) (Petitioners’ May 26, 2016 *Ex Parte* Letter).

<sup>170</sup> See Appendix B – Final Rules.

64. We interpret the Communications Act to accord mandatory carriage rights to the signals of ATSC 1.0 simulcast channels, including those that are hosting another 1.0 channel and those that are guest licensees at a temporary host location. Thus, stations broadcasting in the mandatory ATSC 1.0 transmission standard will retain carriage rights. Nothing in the Act requires a station to occupy an entire 6 MHz channel in order to be eligible for must-carry rights; rather, the station must simply be a licensee eligible for carriage under the applicable provision of the Act. Under our local simulcasting rules, guest and host 1.0 simulcast stations will be separately licensed and authorized to operate on the same 6 MHz channel (*i.e.*, the host's original channel). Therefore, each 1.0 station may properly assert mandatory carriage rights under the Act because each will be "licensed and operating on a channel" that is "regularly assigned to its community" by the Commission.<sup>175</sup> This interpretation of the Act is consistent with our decisions authorizing broadcast channel sharing, in which the Commission found that both licensees of a shared channel would have carriage rights.<sup>176</sup> No commenters oppose this conclusion.

65. We also conclude that Next Gen TV broadcasters will have mandatory carriage rights for their 1.0 signals and not their 3.0 signals while the Commission requires local simulcasting. Most commenters agree with this result, even though they may differ on how to achieve it.<sup>177</sup> Thus, a Next Gen TV broadcaster will choose between must carry or retransmission consent for its ATSC 1.0 signal, but may only pursue carriage via retransmission consent for its ATSC 3.0 signal. This approach is consistent with the framework used during the DTV transition. In that context, the Commission found that, with

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<sup>171</sup> Petitioners Comments at 16 ("Broadcast stations electing must carry rights will maintain those rights during the Next Gen deployment only for their ATSC 1.0 signals.").

<sup>172</sup> *See, e.g.*, Network Affiliates Associations Reply at 9 ("Broadcasters electing must-carry rights will maintain those rights only for their ATSC 1.0 signals."); ION Reply at 2 ("While there may be a time in the future when considering MVPD carriage issues for ATSC 3.0 signals is appropriate, for now, it is enough for the FCC to emphasize that MVPDs' mandatory carriage obligations for ATSC 1.0 signals will not change."); Meredith Comments at 3 ("[T]he FCC does not need to mandate ... must carry for ATSC 3.0 signals."); Nexstar Comments at 7, n.10 ("[T]he must-carry and retransmission consent obligations should remain linked to the ATSC 1.0 programming stream (or streams) of each applicable licensee."); Pearl TV Comments at 10 (supporting the *Next Gen TV NPRM* proposal); Univision Comments at 9 ("Both broadcasters and the Commission ... are proposing a voluntary only transition.").

<sup>173</sup> *See, e.g.*, NCTA Comments at 18 ("MVPDs' mandatory carriage obligations should be limited to the 1.0 simulcast, and not the voluntary 3.0 signal, of a local broadcast station"); AT&T Reply at 11 ("the Commission should reject One Media's ATSC 3.0 must-carry proposal and make clear that carriage obligations attach only to ATSC 1.0 signals"); ATVA Reply at i-ii ("strenuously object[ing]" to "extend[ing] must-carry obligations to ATSC 3.0 signals"); DISH Comments at 12 (agreeing with *Next Gen TV NPRM*'s proposal and adding "it is inappropriate to impose any mandatory carriage obligations upon MVPDs for carriage of a broadcasters' ATSC 3.0 signal at this time"); ITTA Comments at 3 (supporting *Next Gen TV NPRM* proposal); Verizon Comments at 13 ("The ATSC 1.0 signal should be the only signal subject to must-carry obligations, unless and until the Commission adopts a mandatory transition date.").

<sup>174</sup> Public Interest Groups Comments at 7 ("the Commission must ensure that mandatory carriage rights only be afforded to the ATSC 1.0 signal, and not the ATSC 3.0 signal").

<sup>175</sup> *See, e.g.*, 47 U.S.C. § 534(h)(1)(A).

<sup>176</sup> *Channel Sharing Outside Auction Context Order*, 32 FCC Rcd at 2646-47, para. 16 ("Sections 614, 615, and 338, ... accord carriage rights to licensees without regard to whether they occupy a full 6 MHz channel or share a channel with another licensee. Nothing in the Act requires a station to occupy an entire 6 MHz channel in order to be eligible for must-carry rights; rather, the station must simply be a licensee eligible for carriage under the applicable provision of the Act."). Section 534 of the Act defines a "local commercial television station" as any commercial full power station "licensed and operating on a channel regularly assigned to its community by the Commission ...." 47 U.S.C. § 534(h)(1)(A).

<sup>177</sup> *See, e.g.*, Petitioners Comments at 16.

regard to licensees that were simultaneously broadcasting analog and digital signals, analog signals would have mandatory carriage rights during the DTV transition and digital signals would not.<sup>178</sup> That is, a broadcaster would choose between must carry or retransmission consent for its analog signal but could only pursue carriage via retransmission consent for its digital signal.<sup>179</sup> The Commission concluded that the Communications Act did not require cable operators to carry both the digital and analog signals (also referred to as “dual carriage”) of a DTV broadcaster during the DTV transition when television stations were still broadcasting analog signals.<sup>180</sup>

66. We make the analogous finding here that the Act does not require carriage of both an ATSC 1.0 and an ATSC 3.0 signal of the same broadcaster.<sup>181</sup> Because of the local simulcasting requirement, there will be a redundancy of basic content between the 1.0 and the 3.0 signals. If we imposed a must carry requirement for both signals, cable operators could be required to carry double the number of television signals of virtually identical content. Moreover, at the initial stages of the voluntary deployment of 3.0, consumers likely will not have the equipment to allow them to display the 3.0 signals. Requiring carriage of such signals therefore would not further the objective of must-carry requirements to promote the availability of OTA broadcasting. Thus, we agree with NCTA and other MVPD commenters that “requiring carriage of the 3.0 signal *in addition to* the 1.0 signal would result in virtually no incremental viewership of broadcast programming while seriously compounding the burden on cable operators’ available bandwidth.”<sup>182</sup>

67. In addition, a Next Gen TV broadcaster will not be able to exercise mandatory carriage rights with respect to its 3.0 signal *instead of* its 1.0 signal, nor will it have mandatory carriage rights even if its 3.0 signal is the *only* signal being broadcast. In other words, under no circumstances will we recognize mandatory carriage rights for 3.0 signals while the Commission requires local simulcasting.<sup>183</sup> The Act does not specify whether there can be mandatory carriage rights in circumstances where a

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<sup>178</sup> *DTV Must Carry Order*, 16 FCC Rcd at 2610, para. 27.

<sup>179</sup> *Id.*

<sup>180</sup> *Id.* at 2600, para. 2 (“the statute neither mandates nor precludes the mandatory simultaneous carriage of both a television station’s digital and analog signals (“dual carriage”)”); *aff’d*, *Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission’s Rules*, Second Report and Order and First Order on Reconsideration, 20 FCC Rcd 4516, 4518, 4522-24, paras. 2, 13, 15 (2005) (*DTV Must-Carry Second R&O*). The Commission explained that the Act is ambiguous on the issue of dual carriage and concluded that mandating dual carriage was not necessary either to advance the governmental interests identified by Congress in enacting the must carry statute or to effectuate the DTV transition. *See DTV Must-Carry Second R&O*, 20 FCC Rcd at 4522-24, para. 13, 15 (2005). The Commission observed that doubling the carriage rights of must carry stations would substantially increase the burdens on cable operators’ free speech. *Id.* at 4524, para. 15. The Commission concluded, in the absence of a clear statutory requirement for dual carriage, it would not impose such burdens on cable operators’ free speech. *Id.* at 4530, para. 27.

<sup>181</sup> As the Commission found in the DTV transition context, we likewise find here that the Communications Act is ambiguous on the issue of dual carriage of 1.0 and 3.0 signals and conclude that mandating dual carriage is not necessary to either advance the governmental interests identified by Congress in enacting the must carry statute or to effectuate voluntary 3.0 deployment.

<sup>182</sup> *See, e.g.*, NCTA Comments at 18-19 (“It is hard to imagine how such a dual carriage requirement would serve any legitimate policy interest, much less survive First Amendment scrutiny under the standard set forth in *Turner Broadcasting*.”); ATVA Reply at 11 (agreeing with NCTA).

<sup>183</sup> As discussed above, we require Next Gen TV stations to simulcast, except for LPTV stations and TV translator stations. Section 614(h)(2)(D) requires LPTV stations to deliver a “good quality” over-the-air signal to the cable headend, which the LPTV station cannot cure through alternate means. Central Ohio Ass’n of Christian Broadcasters, Memorandum Opinion and Order, 28 FCC Rcd 5271, 5272, para. 4 & n.12 (MB Policy Div. 2013). We interpret a “good quality” to not include a 3.0 signal at the present time given the lack of receive equipment and the MVPD costs to receive it. Thus, a 3.0-only LPTV station could not qualify for mandatory carriage.

broadcaster has made a voluntary choice to stop broadcasting using the mandatory transmission standard. In addition, the Act gives the Commission discretion to “establish any changes in the signal carriage requirements” for purposes of advancements in technology.<sup>184</sup> We find that mandating any MVPD carriage of the 3.0 signal at this time would be antithetical to a voluntary and market-driven 3.0 deployment for all stakeholders and would not advance the interests under the must-carry regime.<sup>185</sup> The record shows that MVPDs would need to purchase new equipment to receive 3.0 signals<sup>186</sup> and down convert them to 1.0 so they can redistribute them to their subscribers.<sup>187</sup> If MVPDs were required to receive *and* redistribute the 3.0 signals (without down conversion) to subscribers, then MVPDs would also face burdens on system capacity.<sup>188</sup> Thus, allowing a broadcaster to demand mandatory carriage of its 3.0 signal *instead of* its 1.0 signal would impose significantly greater costs and burdens on MVPDs. We find that it would not be reasonable to interpret the Act in a manner that would compel MVPDs to incur these added costs.<sup>189</sup>

<sup>184</sup> 47 U.S.C. 534(b)(4)(B). Section 614(b)(4)(B) requires the Commission “to ensure cable carriage of such broadcast signals of local commercial television stations which have been changed....” 47 U.S.C. 534(b)(4)(B). However, until there is widespread adoption of 3.0 technology by OTA viewers, mandatory carriage of 3.0 signals would not serve the goals of promoting OTA broadcasting. In addition, MVPDs currently are not capable of receiving and retransmitting the 3.0 signal and will incur significant costs to obtain such capabilities when 3.0 technology does become available.

<sup>185</sup> In *Turner II*, a majority of the Supreme Court recognized that the must-carry provisions serve the important and interrelated governmental interests of: (1) “preserving the benefits of free, over-the-air broadcast television,” and (2) promoting “the widespread dissemination of information from a multiplicity of sources.” *Turner Broadcasting Systems, Inc. v. FCC*, 520 U.S. 180, 189-90 (1997) (*Turner II*) (quoting *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 662 (1994) (*Turner I*)). See also, e.g., NCTA Comments at 18 (“[I]f cable operators were required to carry the 3.0 signal in lieu of the 1.0 signal, that would undermine the ostensible purpose of the mandatory carriage provisions of the Communications Act, which was to ensure that over-the-air broadcast stations retained sufficient potential viewership on cable to remain viable and available to the diminishing number of over the-air viewers. Carrying only ATSC 3.0 signals to 3.0-equipped receivers would surely diminish broadcast viewership on cable systems.”).

<sup>186</sup> ATVA provides information about the costs and burdens that may be imposed on MVPDs to receive and process 3.0 signals. ATVA Comments at 10-18. ATVA explains that MVPDs would incur some costs to receive and process ATSC 3.0 signals regardless of how stations deliver them. For example, ATVA says such costs could include the purchase of new receivers, transcoders, and demultiplexers. *Id.* at 11. ATVA also explains that MVPDs would incur additional costs to receive ATSC 3.0 signals over-the-air. These may include engineering studies and tower upgrades to support over-the-air reception of new ATSC 3.0 signals and new demodulators. *Id.* at 12. See also, e.g., NCTA Comments at 18 (“Requiring carriage of the 3.0 signal at a time when cable households are not equipped to receive and cable systems are not equipped to carry such a signal would be enormously costly and disruptive at best, forcing operators to incur substantial costs while causing customers to lose access to broadcast signals unless they purchased expensive new receivers or adapters.”); Midco Comments at 5 (saying Midco is “simply not prepared to carry such [3.0] signals and the additional equipment, short timeframe and the labor to switch to ATSC 3.0 would be a tremendous burden and, most likely, disruptive to customers”).

<sup>187</sup> ATVA explains: “In theory, broadcasters could deliver ATSC 3.0 signals to MVPDs, who would then receive them and transcode them, potentially including downconversion. This would subject the MVPDs to all of the costs associated with ATSC 3.0 carriage, ... as well as any additional costs for the equipment necessary to perform such processing.” ATVA Comments at 10.

<sup>188</sup> ATVA explains that “[c]arriage of ATSC 3.0 would also impose costs on MVPDs in terms of the additional capacity required if broadcasters choose to transmit in higher-resolution formats.” ATVA Comments at 14-16 (“This would prove a real burden for all MVPDs, but it would particularly harm satellite carriers and small cable system operators.”). See also, e.g., ACA Comments at 2. Thus, we agree that obligating MVPDs to carry 3.0 signals would substantially increase the burdens on their free speech.

<sup>189</sup> See ATVA Comments at 10 (“Unlike the costs associated with ATSC 1.0 simulcasts, MVPDs cannot yet quantify the costs associated with ATSC 3.0 carriage. Much of the necessary equipment does not yet exist.”). We also

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68. Although the Commission did recognize mandatory carriage rights for digital-only stations during the DTV transition, that transition was mandated by statute.<sup>190</sup> By contrast, the decision to broadcast a 3.0 signal is strictly voluntary, and it remains uncertain if all broadcasters will ultimately choose to provide 3.0 service. We disagree with ONE Media that we should accord mandatory carriage rights to a 3.0-only station if that station could not find a viable simulcast partner.<sup>191</sup> Even in circumstances where a station is unable to find a 1.0 simulcast partner, deployment of 3.0 service is a voluntary choice on the part of the broadcaster and 3.0 carriage would require MVPDs to incur the significant costs and burdens described above. Given that 3.0 deployment is intended to be voluntary for all stakeholders, we find that a broadcaster's decision to operate only in ATSC 3.0 must not require MVPDs to incur costs associated with receiving and processing the 3.0 signals before the MVPD is ready and willing to do so.

69. In support of its argument that 3.0-only stations should be entitled to mandatory carriage rights, ONE Media also contends that "ATSC 3.0 decoders will be readily available by the time stations initiate 3.0 broadcasts."<sup>192</sup> Even assuming this is true, carriage of an ATSC 3.0 signal would still require the MVPDs to buy such 3.0 decoders. Although some MVPDs may choose to purchase 3.0 decoders if it becomes a more effective and/or less costly way to redistribute must-carry signals to their subscribers, we find that MVPDs must not be required to do so as a result of the voluntary deployment of ATSC 3.0. We

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observe that the ATSC working group called TG3/S37, the "Specialist Group on Conversion and Redistribution of ATSC 3.0 Service" has not yet completed its work. Specifically, ATSC is developing two recommended practices related to MVPD redistribution of ATSC 3.0 signals: (1) The Recommended Practice on ATSC 3.0 Conversion and Redistribution (A/370) describes recommended practices for the conversion of ATSC 3.0 services into ATSC 1.0 services so that hardware or software products can be built to implement conversions to formats suitable for ATSC 1.0 redistribution systems or ATSC 1.0 over the air broadcast, including conversion methods for transport, audio, video and ancillary data formats; (2) The Recommended Practice on Redistribution/ Delivery of ATSC 3.0 (A/371) will focus on how to deliver 3.0 services to MVPDs for direct redistribution. ATSC states that "[b]oth of these ATSC RPs are moving through our process and are expected to be completed in 2018." Letter from Mark Richer, President, Advanced Television Systems Committee, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed Oct. 24, 2017).

<sup>190</sup> *DTV Must Carry Order*, 16 FCC Red at 2605, para. 12 (clarifying that "broadcast stations operating only with digital signals are entitled to mandatory carriage under the Act" and finding that "the burden on a cable operator to carry such stations is *de minimis*, with regard to new digital-only stations, and is essentially a trade-off in the case of a station substituting its digital signal in the place of its analog signal").

<sup>191</sup> ONE Media Comments at 24 ("We disagree with the tentative conclusion that ATSC 3.0 signals should not be accorded mandatory carriage rights, particularly in light of the fact that simulcasting may not be possible in all cases."); *id.* at 23-24 ("No changes to the long-established Must-Carry regime are required by the adoption of a voluntary new transmission standard. A Must-Carry station that airs an ATSC 3.0 signal will retain Must-Carry rights with respect to the same geographic area and the same MVPDs as it had when it operated with ATSC 1.0, and will still have the obligation to deliver a good quality signal to the MVPD. In most cases, at least initially, signal delivery would be accomplished via the 1.0 simulcast. Ultimately, however, if the broadcaster delivers a signal level that qualifies as a good quality signal under the Commission's rules and using a broadcast transmission standard approved by the Commission, it remains the responsibility of the MVPD to receive and retransmit that signal.").

<sup>192</sup> ONE Media Comments at 24. The Independent Television Group (ITG) also expresses concern that not providing stations with ATSC 3.0 must-carry rights "will frustrate and delay adoption [of ATSC 3.0] in small and medium markets." Letter from Jack N. Goodman, Counsel to the Independent Television Group (ITG), to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 6 (filed Nov. 8, 2017). ITG, thus, suggests that the Commission "defer a decision on carriage rights" until after consumer equipment becomes available rather than for the duration of the mandatory local simulcasting period. As explained herein, we find that a broadcaster's decision to operate in ATSC 3.0 must not require MVPDs to incur costs associated with receiving and processing the 3.0 signals before the MVPD is ready and willing to do so. *See also* Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed Nov. 9, 2017).

also disagree with NAB that a 3.0-only station could “retain the same carriage rights it would have at its location if it were transmitting using ATSC 1.0, but must arrange for the delivery of its signal to any MVPDs required to carry the station’s signal in a format the MVPD is capable of receiving.”<sup>193</sup> We agree with ATVA that broadcasters cannot secure mandatory carriage rights “by promising to deliver signals ‘in a format the MVPD is capable of receiving.’”<sup>194</sup> As explained by ATVA, “[b]roadcasters can, of course, deliver signals *for which they have must carry rights* using alternative means. But if a broadcaster transmits only in ATSC 3.0, there is no off-air signal for which the broadcaster has must-carry rights. How a broadcaster chooses to deliver that signal has no legal relevance.”<sup>195</sup>

#### b. Rights of Relocated 1.0 Simulcast Channel

70. Having established that mandatory carriage rights will attach only to an ATSC 1.0 signal, we now turn to the issue of whether, and, if so, to what extent, 1.0 mandatory carriage rights move to the temporary host location, if the broadcaster opts to relocate its 1.0 simulcast channel to a host’s facility.<sup>196</sup> We find that, to assert 1.0 mandatory carriage rights, the 1.0 channel must continue to qualify for such rights at the temporary location from which it will transmit the 1.0 signal; however, we interpret the statute to not allow such a temporary move to provide the station with new or expanded carriage rights not previously held and exercised by the 1.0 station. Our conclusion here interprets the must-carry statute to minimize the burdens on MVPDs to only those necessary to advance the interests of the must-carry regime. Allowing expansion of 1.0 mandatory carriage rights through local simulcasting also would be inconsistent with the purpose of our local simulcasting requirement, which is to maintain 1.0 service to existing viewers.<sup>197</sup>

71. A Next Gen TV broadcaster’s 1.0 mandatory carriage rights will be determined based on the location from which the 1.0 signal is being transmitted.<sup>198</sup> We recognize that, in certain situations,

<sup>193</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 4.

<sup>194</sup> ATVA Sept. 21, 2017 *Ex Parte* Letter at 11 (citing NAB Sept. 8, 2017 *Ex Parte* Letter at 4).

<sup>195</sup> ATVA Sept. 21, 2017 *Ex Parte* Letter at 11.

<sup>196</sup> In the *Next Gen TV NPRM*, based on the proposed approach in the *Channel Sharing Outside Auction Context NPRM*, the Commission proposed that a broadcaster’s mandatory carriage rights would track its relocated ATSC 1.0 simulcast channel. *Next Gen TV NPRM*, 32 FCC Rcd at 1686, para. 33. Under the approach we adopt here (*i.e.*, declining to require carriage of 3.0 signal), a Next Gen TV broadcaster’s mandatory carriage rights will not change as a result of the Next Gen TV deployment if the 1.0 simulcast channel remains at the Next Gen TV broadcaster’s existing facility (assuming no changes to the existing facility).

<sup>197</sup> Our conclusion is also consistent with the Commission’s recent order authorizing channel sharing outside the auction context. *See Channel Sharing Outside Auction Context Order*, 32 FCC Rcd at 2650, para. 24 (“[A]lthough we allow all secondary stations to become sharee stations outside the auction context, we do not permit secondary stations to enter into channel sharing arrangements solely as a means to newly obtain must-carry rights.”).

<sup>198</sup> Full-power commercial stations generally are entitled to mandatory carriage throughout their local market area, so a shift in coverage area, community of license, or transmitter of a full-power commercial station is unlikely to change which cable systems must carry the station, provided there is no change in DMA and the station agrees to bear the costs to deliver a good quality signal to the cable operator. *See* 47 U.S.C. §§ 534 (cable carriage of full-power commercial stations), 338 (satellite carriage of full-power commercial stations), 47 CFR §§ 76.66(e), 76.55(e)(2). Noncommercial educational (NCE) stations’ cable carriage rights are determined based on whether the relevant cable headend is located within 50 miles of the station’s community of license or if the headend is located within the station’s noise limited service contour (NLSC). *See* 47 U.S.C. § 535(l)(2) (cable carriage of NCE stations); 47 CFR §§ 76.55(b)(1)-(2). NCE station’s satellite carriage rights, however, are based on their local market area. 47 U.S.C. § 338 (satellite carriage of NCE stations); 47 CFR § 76.66(e). Cable carriage rights of a Class A and LPTV station depend on, among other things, if (i) it is not located in the same county or other political subdivision (of a State) as a full-power station; (ii) its transmitter is within 35 miles of the cable system’s principal headend; and (iii) it delivers a good quality signal to that headend (although, unlike NCE and full power commercial stations, it will have no right to improve the quality of its signal to meet the signal quality threshold). *See* 47 U.S.C.

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stations may no longer qualify for mandatory carriage rights at a temporary host location; however, we find that it would be inconsistent with the must-carry statute and unduly burdensome for MVPDs to require them to carry a 1.0 signal based on carriage rights at a different location from that which the signal is being broadcast. Because full-power commercial stations must remain within their DMA<sup>199</sup> and must retain and continue to serve their current communities of license with their 1.0 simulcast channel, their carriage rights are unlikely to change.<sup>200</sup> By contrast, the 1.0 cable carriage rights of NCE, Class A and LPTV stations may be affected in certain situations. For example, an NCE station that qualifies for carriage based on its contour encompassing the cable headend cannot continue to qualify for carriage rights at the temporary host location if the shift in contour means the station can no longer cover the cable headend.<sup>201</sup> Similarly, Class A and LPTV stations may no longer qualify for cable carriage at the temporary location if the change in transmitter location means the station will be located more than 35 miles from the cable system's headend, or if the shift in coverage area means the station can no longer deliver a good quality 1.0 signal to the cable headend.<sup>202</sup>

72. We disagree with Petitioners and other broadcasters that, in 1.0 channel relocation situations, 1.0 mandatory carriage rights could and should remain unchanged and be determined based on the original facility.<sup>203</sup> Petitioners argue that, under a licensed simulcast approach, which we adopt above,

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§§ 534(h)(2) (cable carriage of qualified low power stations); 47 CFR § 76.55(d)(4) & (6); 47 CFR § 76.55 (d)(4). Class A and LPTV stations do not have satellite carriage rights. *See* 47 U.S.C. § 338(a)(3); 47 CFR § 76.66(a)(4). Therefore, a change in coverage area, community of license, or transmitter location could affect which cable systems must carry an NCE, Class A or LPTV station.

<sup>199</sup> We agree with ATVA that 1.0 simulcast channels must remain within their same DMA to avoid complications with carriage rights. ATVA Comments at 41. Consistent with the channel sharing context, we find that disallowing DMA changes would minimize the potential impact of local simulcasting on MVPDs because carriage rights on a particular MVPD system generally depend on the station's DMA. "Because satellite and cable carriage rights on a particular MVPD system generally depend on the station's DMA, prohibiting moves that would result in a change of DMA will minimize the potential impact of channel sharing on MVPDs." *Incentive Auction R&O*, 29 FCC Rcd at 6728, para. 377. We also agree with ATVA that "[p]ermitting an ATSC 1.0 signal to move to a different local market could trigger additional copyright royalties as well." ATVA Comments at 41, n.128; *see* 17 U.S.C. § 111(f)(4) (definition of "local service area of a primary transmitter").

<sup>200</sup> We note that a full-power commercial station's priority for cable carriage with respect to other in-market stations affiliated with the same network may be affected if we allow the station to change its 1.0 channel's community of license via a waiver. Based on existing carriage rules, in the event the 1.0 simulcast channel does not reach the cable headend or satellite local receive facility, the Next Gen TV broadcaster must deliver a good quality 1.0 signal to the MVPD either over-the-air or by alternate means, or must agree to bear the costs associated with the delivery of such good quality 1.0 signal to the MVPD. *See* 47 CFR §§ 76.60(a), 76.66(g).

<sup>201</sup> 47 U.S.C. § 535 (l)(2)(B). In addition, we note that an NCE station that qualifies for mandatory carriage because the relevant cable headend is located within 50 miles of its community of license cannot continue to qualify for mandatory carriage at the temporary host location if the station is allowed to change its community of license via a waiver to outside of the 50 miles from the headend. *Id.* § 535 (l)(2)(A).

<sup>202</sup> *Id.* § 534(h)(2)(D).

<sup>203</sup> Petitioners Comments at 17; PTV Comments at 12 ("The origination approach would establish a regulatory framework whereby the Commission would ascribe each broadcast feed to the originating licensee rather than to the transmitting licensee."); Pearl TV Reply at 3 (supporting "the origination proposal put forth by the public broadcasting community"); Pearl TV Comments at 5-8 ("Although must-carry treatment would not be accorded to ATSC 3.0 streams, we note that current law on must-carry for legacy ATSC 1.0 streams would not be affected by implementing this model."); Raycom Comments at 3 ("The ATSC 1.0 and 3.0 simulcast signals used throughout the transition should be treated as operating under the license of the originating station, not the transmitting station."); TEGNA Comments at 3-4; Univision Comments at 4 (supporting a "'light' licensing model whereby an ATSC 3.0 stream is attributable to the originating licensee that also is transmitting in ATSC 1.0"). *See also* NAB Sept. 8, 2017 *Ex Parte* Letter at 4 (saying a Next Gen TV station broadcasting only in 3.0 "should retain the same carriage rights it

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because both the 1.0 and 3.0 signal will be under the same license, the broadcaster can designate its 1.0 channel as its “primary video stream” entitled to mandatory carriage rights, even if that signal is relocated to a new location.<sup>204</sup> This argument does not recognize that the 1.0 and 3.0 signals are each a distinct signal transmitted on separate channels and are not two programming streams transmitted together on the same channel.<sup>205</sup> Although the 1.0 signal is a separately authorized channel under the originating station’s license, it is not on, or otherwise considered part of, the same channel as the originating station’s 3.0 signal.

73. To minimize carriage burdens on MVPDs that could result from a 1.0 station’s temporary move, we also interpret the statute to not allow a station’s temporary move to a 1.0 host facility to provide the station with new or expanded mandatory carriage rights.<sup>206</sup> Allowing a 1.0 simulcast channel to gain new or expanded mandatory carriage rights due to the temporary and voluntary relocation of the 1.0 signal to a host station’s facility could pose significant burdens on MVPDs that would not advance the interests of the must-carry regime nor the purpose of local simulcasting. In the channel sharing context, the Commission determined that carriage rights would be based on the shared location and observed that certain stations may gain carriage on some cable systems, but lose carriage on others, as a result of the movements of their facilities or the changes in their communities of license.<sup>207</sup> Unlike the channel sharing context, Next Gen TV broadcasters are not relinquishing the station at their original channel, but rather will continue to operate on it and will ultimately return to it when the local simulcasting requirement ends. Moreover, broadcasters may need to relocate 1.0 simulcast channels multiple times while local simulcasting is required, thus further burdening MVPDs if carriage rights could expand at every move.<sup>208</sup> Finally, any expansion of 1.0 service due to such relocations will be temporary and will not serve to maintain existing 1.0 service or to preserve over-the-air broadcast viewership. Therefore, we find that a guest licensee’s 1.0 simulcast channel moved to a temporary host facility may assert mandatory carriage rights only if it (1) qualified for, and has been exercising, mandatory carriage rights at its original location and (2) continues to qualify for mandatory carriage at the host facility,<sup>209</sup> including (but not limited to)

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would have at its location if it were transmitting using ATSC 1.0, but must arrange for the delivery of its signal to any MVPDs required to carry the station’s signal in a format the MVPD is capable of receiving”).

<sup>204</sup> Petitioners Comments at 17 (“[A] must carry station’s license would include both its transmission from its own facility and its transmission from its simulcasting partner’s facility, and the station would continue to designate one stream as its primary stream entitled to mandatory carriage.”).

<sup>205</sup> We note that the reference to a broadcaster’s “primary video stream” in the DTV context relates to the question of whether multicast streams should be entitled to mandatory carriage and not the question of whether the analog and digital signal should be carried (dual carriage) during the DTV transition. *See, e.g., DTV Must Carry Order*, 16 FCC Rcd at 2622, para. 51 (seeking to define “‘primary video’ if a broadcaster chooses to broadcast multiple standard definition digital television streams, or a mixture of high definition and standard definition digital television streams”). As discussed above, we are not treating a 1.0 simulcast signal as a multicast stream, but rather as a second companion channel of the Next Gen TV licensee, based on the DTV transition context.

<sup>206</sup> *See, e.g.,* ATVA Comments at 40; ATVA Reply at 17-18 (saying local simulcasting must “not create additional carriage obligations”); NCTA Comments at 20, n.47 (“[T]he FCC should also make clear that a broadcast station cannot use local simulcasting as a shortcut to gain or expand carriage rights simply by moving its 1.0 simulcast stream to a new host location.”).

<sup>207</sup> *See Incentive Auction R&O*, 29 FCC Rcd at 6857-58, para. 709.

<sup>208</sup> ATVA Comments at 9 (“There is no guarantee that simulcast stations will not change hosts in the future. Thus, such costs could be incurred again and again.”).

<sup>209</sup> NCTA Comments at 20, n.47 (“[A]n ATSC 1.0 simulcast at a host station should be entitled to must-carry only if it (1) qualified for, and has been exercising, must-carry rights in its original location and (2) continues to meet must-carry criteria in the new location.”); ATVA Sept. 21, 2017 *Ex Parte* Letter at 11, n.42.

delivering a good quality 1.0 signal to the cable system principal headend or satellite carrier local receive facility, or agreeing to be responsible for the costs of delivering such 1.0 signal to the MVPD.<sup>210</sup>

74. *Market Modification.* The relocation of a 1.0 simulcast channel to a temporary host facility (even though it would remain within the station's DMA) raises the possibility that the station may be able to reach new communities outside of its DMA. We are unlikely to rule favorably on a request by a full power commercial station that relocates its 1.0 simulcast channel to modify its market<sup>211</sup> to add new communities outside of its DMA based on a temporary shift in its 1.0 service contour.<sup>212</sup> This approach is consistent with our conclusion above that stations will not be able to expand the mandatory carriage rights of an ATSC 1.0 signal by relocating to a temporary 1.0 host facility. As discussed above, any expansion of 1.0 service due to such relocations will be temporary and will not serve to maintain existing 1.0 service

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<sup>210</sup> Under our existing must-carry rules, broadcasters are required to bear the costs of delivering a good quality signal to MVPDs. See 47 CFR §§ 76.60(a), 76.66(g). The rules, however, do not apply to the costs on MVPDs of receiving and redistributing the signal to their subscribers and so MVPDs generally assume these costs. Such costs are generally viewed as the costs of doing business as MVPDs. MVPDs, however, ask us to require Next Gen TV broadcasters to reimburse MVPDs for the costs associated with the reception and processing of 1.0 simulcasts. See, e.g., ATVA Comments at iv, 7-9, 39 (“The Commission should require both must-carry and retransmission consent broadcasters to reimburse MVPDs for costs generated by ATSC 1.0 simulcasts... Broadcasters, not MVPDs, should accept responsibility for these costs.”); AT&T Comments at 19-20 (“Broadcasters also should be required to reimburse MVPDs for any costs associated with implementing channel sharing arrangements during the ATSC 3.0 transition and, relatedly, to continue delivering good-quality signals to MVPDs... [W]hen a broadcaster chooses to simulcast on another station's channel, MVPDs necessarily will incur certain equipment, labor, and administrative costs . . . [and] [a]bsent Commission intervention, MVPDs will bear the burden of these costs, with no prospect of corresponding benefit.”). We decline to do so. We agree with PTV that receiving and redistributing broadcast signals are “a basic cost of doing business for an MVPD.” PTV Reply at 5-6 (“Receiving and retransmitting broadcast signals is a basic cost of doing business for an MVPD, and the Commission should reject requests to shift that cost to public television stations.”). We recognize that we reimbursed such costs to MVPDs in the incentive auction context. The reimbursement of MVPDs in connection with the incentive auction was mandated by statute. 47 U.S.C. § 1452(b)(4)(A)(ii) (requiring the Commission to reimburse costs reasonably incurred by MVPDs in order to continue to carry the signals of broadcast television licensees that change channels as a result of the auction and repacking process). The costs incurred due to local simulcasting will occur on a market-driven basis and are properly borne by the MVPDs.

<sup>211</sup> Market modification is a process established by statute that allows the Commission to modify the boundaries of a particular full power commercial station's local television market assignment for cable or satellite carriage purposes. Each full power commercial television station is assigned to a local market defined by the Designated Market Area (DMA) in which it is located, as determined by the Nielsen Company (Nielsen). Sections 338(l) and 614(h)(1)(C) of the Communications Act permit the Commission, in response to a written request to add communities to, or delete communities from, a station's local market to better reflect marketplace conditions. 47 U.S.C. §§ 338(l)(1), 534(h)(1)(C). The Commission determines whether to grant a market modification based on consideration of five statutory factors that allow petitioners to demonstrate that a particular station provides or does not provide local service to a specific community. See *id.* §§ 338(l)(2)(B)(i)-(v); § 534(h)(1)(C)(ii)(I)-(V). Full power commercial television stations and cable systems may file cable market modification petitions and full power commercial television stations, satellite carriers, and county governments may file satellite market modification petitions. See 47 CFR § 76.59. We note that market modifications are not available to NCE, Class A or LPTV stations.

<sup>212</sup> We note that the scope of a station's signal is only one aspect of our analysis under factor two, which is one of five statutory factors which the Commission must consider in deciding whether to grant or deny a market modification request. See 47 U.S.C. §§ 338(l)(2)(B)(i)-(v); § 534(h)(1)(C)(ii)(I)-(V). Whether a full power commercial station loses its ability to exercise its carriage rights in particular communities depends on whether a market modification is sought and the application of these statutory factors and other relevant considerations. In this context, the temporary nature of local simulcasting and the availability of a 3.0 signal in the community at issue are appropriate additional considerations for evaluating a station's local connection to the community.

or to preserve over-the-air broadcast viewership.<sup>213</sup> In addition, because 1.0 service relocations will be temporary, we will disfavor a request by a cable system or satellite carrier to modify a 1.0 simulcast station's market to delete communities based on the temporary shift in the 1.0 station's service contour.

## 2. Notice to MVPDs About Relocation of 1.0 Simulcast Channel

75. We require all Next Gen TV broadcasters relocating their 1.0 simulcast channel (e.g., moving to a temporary host facility, subsequently moving to a different host, or returning to its original facility) to provide notice to those MVPDs that: (1) no longer will be required to carry the station's 1.0 signal due to the relocation; or (2) currently carry the station's 1.0 signal from the existing location and will continue to be obligated to carry the station's 1.0 signal from the new location.<sup>214</sup> The *Next Gen TV NPRM* sought comment on what appropriate notice to MVPDs would be, noting that the Petition proposed that must-carry broadcasters should give notice to MVPDs at least 60 days in advance of relocating their 1.0 simulcast channel to a temporary host facility.<sup>215</sup> As suggested by AT&T, we require all broadcasters to give notice to MVPDs: (1) at least 120 days in advance of relocating their 1.0 simulcast channel to a temporary host facility if the relocation occurs during the post-incentive auction transition period,<sup>216</sup> and (2) at least 90 days in advance of relocating their 1.0 simulcast channel to a temporary host facility if the relocation occurs after the post-incentive auction transition period.<sup>217</sup> The 90-day notice requirement is consistent with the rules adopted by the Commission in the channel sharing context,<sup>218</sup> and we are persuaded by AT&T and other MVPDs that additional time is needed during the 39-month repacking period because of the added complications and burdens during that period.<sup>219</sup> If the

<sup>213</sup> In other words, we conclude that any increase in mandatory carriage obligations on MVPDs would not be warranted to advance the interests of the must-carry regime or local simulcasting. Local simulcasting is intended to preserve 1.0 viewership, not permanently expand such viewership.

<sup>214</sup> Our rules here are similar to those adopted by the Commission in the channel sharing context outside of the incentive auction. See *Channel Sharing Outside Auction Context Order*, 32 FCC Rcd at 2663-64, para. 51. In this regard, as the notice provision in the channel sharing context applies to all broadcasters, we agree with ATVA that this notice requirement for local simulcasting must apply to all broadcasters. See ATVA Nov. 3, 2017 *Ex Parte* Letter at 11-12. We also agree with ATVA that a "single set of rules for all broadcasters would promote efficiency and prevent consumer disruption." *Id.* at 12.

<sup>215</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1688, para 37. See Petition at 19 ("Must-carry broadcasters should give notice to all MVPDs at least sixty days in advance of shifting ATSC 1.0 signals to another facility. Generally, must-carry obligations will not require MVPDs to purchase new equipment at this time, as they will continue to receive signals in the current digital standard via the simulcasting agreements....").

<sup>216</sup> The Commission has determined that the 39-month Post-Auction Transition Period will end on July 13, 2020. *Incentive Auction Closing and Channel Reassignment Public Notice*, 32 FCC Rcd at 2804-05, para. 60.

<sup>217</sup> AT&T Comments at 22-23.

<sup>218</sup> *Channel Sharing Outside Auction Context Order*, 32 FCC Rcd at 2663-64, para. 51. See, e.g., WTA Comments at 13 ("Sixty days is likely too short of a time period for small MVPDs to investigate, understand, and implement any changes that may be required of them as a result of a local simulcast arrangement, particularly for MVPDs that must engage a third-party contractor for technical assistance. The Commission should instead require must-carry broadcast stations to provide at least 90 days notice to MVPDs similar to the notice requirements in the Commission's incentive auction repacking procedures."); Letter from Amanda E. Potter, Assistant Vice President – Senior Legal Counsel, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed Sept. 29, 2017) (AT&T Sept. 29, 2017 *Ex Parte* Letter) (explaining that "when a station's ATSC 1.0 signal switches frequency bands (UHF to VHF, or vice versa), such a change requires a site visit in every instance.").

<sup>219</sup> AT&T Comments at 22 ("AT&T's engineering and network management resources, like those of the broadcasters, will be stretched during the post-auction transition period. A broadcaster's decision to transition to ATSC 3.0 transmissions at the same time the repack process is ongoing will only add to the potential complications and burdens of the repack. Thus, to the extent any broadcaster seeks to transition to ATSC 3.0 transmissions while the 39-month repack process is ongoing, such a broadcaster should be required to provide affected MVPDs with more notice than the Commission might otherwise require."). See also, e.g., ATVA Comments at 37; Verizon

(continued....)

anticipated date of the 1.0 service relocation changes, the station must send a further notice to affected MVPDs informing them of the new anticipated date for 1.0 service relocation.<sup>220</sup>

76. Consistent with the channel sharing context and AT&T's proposal,<sup>221</sup> the notice must contain the following information: (1) date and time of the 1.0 channel change; (2) the 1.0 channel occupied by the station before and after commencement of local simulcasting; (3) modification, if any, to antenna position, location, or power levels; (4) stream identification information, including program numbers for each programming stream; and (5) engineering staff contact information. If any of this information changes, an amended notification must be sent. Stations may choose whether to provide notice via a letter notification<sup>222</sup> or electronically via email, if pre-arranged with the relevant MVPD.<sup>223</sup>

### 3. Retransmission Consent Issues

77. Beyond the notice requirement mentioned above, we do not adopt any rules related to voluntary carriage of 3.0 signals through retransmission consent at this time. The *Next Gen TV NPRM* sought comment on issues related to the voluntary carriage of ATSC 3.0 signals through the retransmission consent process.<sup>224</sup> MVPD commenters express the concern that Next Gen TV broadcasters could use the retransmission consent process to compel carriage of 3.0 signals before consumer demand and market circumstances warrant.<sup>225</sup> To address those concerns, they request that we

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Comments at 13; AT&T Sept. 29, 2017 *Ex Parte* Letter at 2-3 (“The additional burdens associated with accommodating ATSC 1.0 signal relocations during the repack process warrant additional lead time for MVPDs, particularly for nationwide satellite distributors like AT&T. Indeed, the administrative burden of managing signal relocations during this time cannot be overstated, given the potential need to coordinate among repacking stations, channel sharing stations, and ATSC 3.0 transition stations simultaneously and across the nation. AT&T, for example, will be required to coordinate the channel reassignments of approximately 1,000 local stations during the repack to ensure that its DIRECTV and U-verse networks continue to receive, transcode, and retransmit broadcast signals seamlessly to customers.”). We are not persuaded by NCTA that six months’ advance notice is generally warranted, but we will consider waivers requesting additional time if good cause is shown. NCTA Comments at 17-18. We note that ONE Media disagreed with any advance notice requirement, but their position was premised on mandatory carriage rights remaining at the original facility, which we decided will not occur in 1.0 relocation situations.

<sup>220</sup> Letter from Leora Hochstein, Executive Director, Federal Regulatory and Legal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 3 (filed Aug. 18, 2017) (Verizon Aug. 18, 2017 *Ex Parte* Letter).

<sup>221</sup> *Channel Sharing Outside Auction Context Order*, 32 FCC Rcd at 2663-64, para. 51; AT&T Comments at 23-24.

<sup>222</sup> Letter notifications to MVPDs must be sent by certified mail, return receipt requested to the MVPD’s address in the FCC’s Online Public Inspection File (OPIF), if the MVPD has an online file. For cable systems that do not have an online file, notices must be sent to the cable system’s official address of record provided in the system’s most recent filing in the FCC’s Cable Operations and Licensing System (COALS). For MVPDs with no official address in OPIF or COALS, the letter must be sent to the MVPD’s official corporate address registered with their State of incorporation.

<sup>223</sup> See AT&T Comments at 24 (“AT&T typically relies on (and prefers) email to communicate with local broadcast stations but believes that individual MVPDs should be free to mutually agree to communicate by alternative means.”).

<sup>224</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1689-90, para. 39.

<sup>225</sup> See, e.g., AT&T Reply at 12 (“[AT&T is] concerned that broadcasters will seek to force carriage of ATSC 3.0 signals through retransmission consent negotiations.”); Midco Comments at 5 (“Against the backdrop of facilitating an ‘experimental’ ATSC 3.0 standard, coupled with increasing system costs and limited system capacity, we expect that the broadcasters will use retransmission consent negotiations to require us to carry the ATSC 3.0 signal and shift the significant cost of transition to us and to our customers.”); ATVA Comments at i (“Broadcasters should not obtain MVPD carriage of ATSC 3.0 signals (in which viewers may have little interest) by threatening existing television service (in which viewers have a great deal of interest).”); Verizon Comments at 8 (“[B]roadcasters have

(continued....)

require parties to (1) negotiate for carriage of 3.0 signals separately from carriage of 1.0 signals, (2) nullify existing contractual clauses that would require MVPDs to carry 3.0 signals, and (3) in the event of a good faith complaint, subpoena negotiation-related documents under a protective order to overcome any non-disclosure provisions.<sup>226</sup> NTCA requests that we prohibit carriage of ATSC 3.0 signals via retransmission consent.<sup>227</sup> Broadcasters, on the other hand, urge us to allow the marketplace to resolve voluntary carriage issues without adopting any new retransmission consent rules.<sup>228</sup>

78. We conclude that it is premature to address any issues that may arise with respect to the voluntary carriage of ATSC 3.0 signals before broadcasters begin transmitting in this new voluntary standard.<sup>229</sup> Therefore, we decline to adopt any new rules regarding retransmission consent in this proceeding and will allow these issues at the outset to be addressed through marketplace negotiations. We make clear, however, that MVPDs are under no statutory or regulatory obligation to carry any 3.0 signals and remind parties of the statutory requirement that they negotiate in good faith.<sup>230</sup>

### **E. FCC Public Interest Obligations and Other FCC Rules**

79. In this section, we address several additional topics related to the voluntary deployment of Next Gen TV. First, we explain that Next Gen TV broadcasters are subject to our broadcast rules. Second, we decline to adopt a requirement that television broadcast receivers include ATSC 3.0-compatible receivers. Third, we require broadcasters to notify the public about their deployment of Next Gen TV service. Fourth, we decline to change the fees that we charge broadcasters that offer ancillary services at this time.<sup>231</sup> And finally, we reiterate that the Commission will not use the TV Broadcaster Relocation Fund to reimburse costs associated with ATSC 3.0 capability.

#### **1. Applicability of Public Interest Obligations and Other Broadcast Rules to**

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already signaled that ATSC 3.0 broadcasts will be part of retransmission consent negotiations, even prior to adoption of rules permitting use of the ATSC 3.0 standard and before distribution of ATSC 3.0-capable TVs.”).

<sup>226</sup> ACA Comments at 10-13; ATVA Comments at 25-28; AT&T Comments at 16-19; DISH Comments at 4-6; ITTA Comments at 9-10; Verizon Comments at 8-11. Although commenters argue that we have the legal authority to adopt retransmission consent rules related to carriage, no commenter argues that the statute compels us to adopt such rules.

<sup>227</sup> NTCA Comments at 4-5 (“[T]he only practical means to ensure the retransmission consent regime is not misused to coerce small providers to expend scarce resources to accommodate ATSC 3.0 signals is to prohibit ATSC 3.0 carriage provisions in retransmission consent arrangements, at least in the case of small and rural MVPDs.”).

<sup>228</sup> Petitioners Comments at 16 (“For those stations electing retransmission consent, carriage issues will be resolved by marketplace negotiations between broadcasters and MVPDs wishing to resell those broadcasters’ programming.”). NAB Reply at 13 (accusing MVPD commenters of trying “to leverage any opportunity to secure regulatory advantage in retransmission consent negotiations”).

<sup>229</sup> ACA requests that the Commission “clarify that cable operators and broadcasters can lawfully agree in retransmission consent agreements to the downconversion of ATSC 3.0 signals, notwithstanding the ‘material degradation’ provisions in the Communications Act.” Letter from Ross J. Lieberman, American Cable Ass’n, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142 et al., at 1 (filed Nov. 9, 2017). See 47 U.S.C. 614(b)(4)(A), 615(g)(2). As we state above, 3.0 signals do not have must-carry rights, and an MVPD’s decision as to whether or not to carry an ATSC 3.0 signal via retransmission consent can be resolved through marketplace negotiations.

<sup>230</sup> See 47 U.S.C. § 325(b)(3)(C); 47 CFR § 76.65(b)(1).

<sup>231</sup> We note that three commenters expressed concern about today’s action implicating consumer privacy, but none offered any evidence or substantiation to support their speculative assertions about such harm or any alternatives to address the alleged harm. See Public Interest Groups Comments at 18-20; Public Interest Groups Reply at 28-29; see also Sean Settle Nov. 14, 2017 *Ex Parte* at 1; Marc Rumsey Nov. 15, 2017 *Ex Parte* at 1. In the absence of such evidence, we decline to alter today’s action to address their conclusory assertions.

### Next Gen TV

80. We require Next Gen TV broadcasters to comply with all of our broadcast rules, including, but not limited to, our rules regarding foreign ownership, political broadcasting, children's programming, equal employment opportunities, public inspection file, indecency, sponsorship identification, contests, the CALM Act, the Emergency Alert System (EAS), and accessibility for people with disabilities.<sup>232</sup> As television stations engaged in "broadcasting" under the Act,<sup>233</sup> Next Gen TV stations will be public trustees with a responsibility to serve the "public interest, convenience, and necessity."<sup>234</sup> In the Petition, Petitioners suggest that broadcasters implementing ATSC 3.0 should remain subject to all relevant Commission rules,<sup>235</sup> and commenters overwhelmingly support applying the same public interest obligations that apply to broadcasters transmitting under the current ATSC 1.0 standard to those transmitting using the ATSC 3.0 standard.<sup>236</sup> We agree and conclude that all of our broadcast rules that currently apply when a broadcaster is providing a free, over-the-air video stream

<sup>232</sup> See, e.g., 47 CFR §§ 73.1940, 73.1941, and 73.1942 (political broadcasting); 73.670, 73.671, and 73.673 (children's programming); 73.2080 (EEO); 73.1943, 73.3526, 73.3527 (public and political file); 73.1125 (main studio); 73.3999 (indecency); 73.1212 (sponsorship id); 73.1216 (contest rules); 47 CFR 73.682(d) (incorporating ATSC A/65C:2006 into our rules) and Appendix B (adopting new Section 73.682(f)(2), which will require broadcasters to maintain their major channel numbers); 73.682(e) and 73.8000 (loud commercials) (We understand that ATSC 3.0 signals that do not use the AC-3 audio codec for audio compression will refer to Annex K of the A/85 recommended practice, which describes actions to ensure that all non-AC-3 programming is consistently matched to a target loudness level.); 11.1 *et seq.* & 73.1250 (EAS); 79.1 *et seq.* (e.g., closed captioning, televised emergency information, and video description). See also 47 U.S.C. § 310 and 47 CFR §§ 1.5000-5004 (foreign ownership). We note that one potential interactive feature of ATSC 3.0 is the ability for viewers to purchase a product displayed on a television screen during programming. In a 2008 NPRM on sponsorship identification and embedded advertising, the Commission noted that embedded advertising in children's programming would run afoul of its long-standing separation policy, which requires broadcasters to use separations or "bumpers" between programming and commercials during children's programming to help children distinguish between advertisements and program content and sought comment on whether to make that prohibition explicit in the rules. *Sponsorship Identification Rules and Embedded Advertising*, Notice of Inquiry and Notice of Proposed Rulemaking, 23 FCC Rcd 10682, 10691-92, para. 16 (2008). To date, the Commission has not issued an order in that proceeding.

<sup>233</sup> See *supra* paras. 7-9. Next Gen TV stations also will be considered "television broadcast stations" under the Commission's rules. 47 CFR § 73.681 (defining a "television broadcast station" as "a station in the television broadcast band transmitting simultaneous visual and aural signals intended to be received by the general public").

<sup>234</sup> 47 U.S.C. § 307(c).

<sup>235</sup> Petition at 13 ("Television licensees implementing Next Generation TV [will] remain simply television broadcasters subject to the Commission's existing regulatory structure.").

<sup>236</sup> Petitioners Comments at 18-19 ("[P]etitioners seek no changes to the Commission's existing rules regarding public interest obligations. The same public service obligations that apply to stations transmitting using the current standard will also apply to stations transmitting using the Next Gen TV standard, and the Commission need not make any changes to its rules to accommodate Next Gen services."); AWARN Comments at 6 ("The Petitioners, including the AWARN Alliance, are not advocating that broadcasters be relieved of any public interest obligations."); Public Interest Groups Comments at 23 (urging the Commission "to state explicitly that all public interest obligations that apply currently to the primary, free video stream in ATSC 1.0 will apply equally to the primary, free video stream broadcast in ATSC 3.0."); Consumer Groups Comments at 1-2 (noting that "the petition underlying the NPRM supports the technology-neutral nature of broadcasters' public interest obligations. We see no reason to depart from this approach in the context of closed captions and urge the Commission to adopt the NPRM's proposal."); Public Interest Groups Reply at 25 (urging the Commission to clarify that "as consumers transition from today's TVs, with tuners that receive only ATSC 1.0 signals, to future devices that receive only ATSC 3.0 signals, stations must be required ... to maintain all of the current public interest obligations regardless of the standard that a viewer's device uses to receive that content."). *But see* CBC Reply at 4-7 (arguing that the full panoply of public interest obligations should not apply to stations using ATSC 3.0 and that regulatory forbearance will speed the adoption of innovative service).

broadcast in ATSC 1.0 will apply equally when it is providing a free, over-the-air video stream broadcast in ATSC 3.0.<sup>237</sup>

81. With respect to accessibility of Next Gen TV programming, we emphasize that broadcasters that choose to deploy ATSC 3.0 are expected to comply fully with all relevant Part 79 requirements.<sup>238</sup> Among other requirements, these rules require television broadcasters to ensure that all new, nonexempt English language and Spanish language programming distributed on their channels is closed captioned;<sup>239</sup> that closed captioning contained in all programming received from video programming providers is passed through;<sup>240</sup> and that local emergency information is accessible to persons who are deaf or hard of hearing and to persons who are blind or have visual disabilities.<sup>241</sup> These rules also require local TV station affiliates of ABC, CBS, Fox and NBC located in the top 60 TV markets to provide a specified number of hours per calendar quarter of video-described prime time and/or children's programming.<sup>242</sup> In addition, Next Gen TV receivers and other equipment with ATSC 3.0 tuners must comply with all applicable Part 79 rules, including closed captioning decoder requirements, video description and emergency information accessibility requirements, and requirements for user interfaces, programming guides, and menus.<sup>243</sup>

82. As the Consumer Groups recommend, we clarify that MVPDs that agree to carry ATSC 3.0 signals must comply with Section 79.1(c), which spells out the requirements for video programming

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<sup>237</sup> See Consumer Groups Comments at 2 (requesting that we clarify that Next Gen TV broadcasters will be expected to comply with the closed captioning rules on both their ATSC 3.0 transmissions and their ATSC 1.0 simulcasts). We note that the public interest obligations and other broadcast rules will apply to all ATSC 3.0 video programming streams, except that Next Gen TV broadcasters will be required to use A/322 only with respect to the primary video programming stream. See *infra* para. 98. Given that the local simulcasting requirement adopted herein is temporary, we will not apply the broadcast ownership rules in any situation where airing an ATSC 3.0 signal or an ATSC 1.0 simulcast on a temporary host station's facility would result in a potential violation of those rules. See 47 CFR § 73.3555.

<sup>238</sup> See 47 CFR §§ 79.1-79.4.

<sup>239</sup> *Id.* § 79.1(b).

<sup>240</sup> *Id.* § 79.1(c).

<sup>241</sup> *Id.* § 79.2.

<sup>242</sup> *Id.* § 79.3. Currently, commercial television broadcast stations that are affiliated with ABC, CBS, Fox, and NBC and located in the top 60 TV markets must provide 50 hours of video description per calendar quarter during prime time or children's programming. *Id.* § 79.3(b)(1). Beginning July 1, 2018, covered stations must also provide an additional 37.5 hours of video description per calendar quarter between 6 A.M. and midnight. *Id.*

<sup>243</sup> *Id.* §§ 79.100-110. As noted in the *NPRM*, the Petition stated that the ATSC 3.0 transmission standard offers a different format for closed caption data from that used by the DTV standard and indicated that data in this format is compliant under Section 79.4 of the Commission's rules, 47 CFR § 79.4. Petition at 20. NAB explains that the Petition's reference to Section 79.4, which addresses IP closed captioning, was intended to refer to Section 79.4(c)(1)(i)'s safe harbor to provide captioning files in Society of Motion Picture and Television Engineers Timed Text (SMPTE-TT) format in order to show that the Commission previously has approved technologies closely related to ATSC 3.0 for closed captions. Letter from Patrick McFadden, Associate General Counsel, National Association of Broadcasters, to Marlene H. Dortch, Secretary, FCC, at 1 (filed July 17, 2017) (NAB July 17, 2017 *Ex Parte* Letter). See 47 CFR § 79.4(c)(1)(i) (providing that in the context of IP closed captioning if a video programming owner provides captions to a video programming distributor or provider using the SMPTE-TT format, then the VPO has fulfilled its obligation to deliver captions to the video programming distributor or provider in an acceptable format). NAB states that the reference to Section 79.4 was not intended to ignore the requirements of Section 79.1 with respect to the types of programming that must be captioned or the obligation to caption such programming. NAB July 17, 2017 *Ex Parte* Letter at 1. NAB also asserts that the ATSC 3.0 standard includes the accessibility tools necessary to comply with the Commission's rules and that Next Gen TV devices will fully meet their accessibility obligations. *Id.*

distributors to pass through and maintain the quality of closed captions.<sup>244</sup> We also clarify that the use of image overlays or rasterized textual content will not relieve Next Gen TV broadcasters of their obligation to provide textual closed captions in accordance with Part 79 of the Commission's rules.<sup>245</sup>

## 2. Next Gen TV Tuner Mandate

83. We revise our rules to make clear that there is no Next Gen TV tuner mandate. TV receivers capable of receiving ATSC 3.0 signals are not yet available in the U.S.<sup>246</sup> Without revising our existing rules, television receivers would be required to include ATSC 3.0 tuners when broadcasters begin transmitting ATSC 3.0 signals. Specifically, Section 15.117(b), the rule implementing the Commission's authority under the 1962 All Channel Receiver Act (ACRA),<sup>247</sup> provides that "TV broadcast receivers shall be capable of adequately receiving all channels allocated by the Commission to the television broadcast service."<sup>248</sup> Section 303(s) of the Act, as codified by ACRA, grants the Commission "from time to time, as public convenience, interest, or necessity requires" the "authority to require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting."<sup>249</sup> This provision leaves it to the Commission's discretion when to require that television receivers be capable of receiving all television broadcast frequencies. We conclude that a tuner mandate is unnecessary at this time given that the deployment of ATSC 3.0 will be voluntary and market-driven and that broadcasters will continue to transmit ATSC 1.0 signals indefinitely.<sup>250</sup> We agree with commenters that consumer demand will drive the inclusion of ATSC 3.0 tuners in television receivers.<sup>251</sup> Accordingly, we are revising Section 15.117(b) to make clear that this rule does not apply to ATSC 3.0.

<sup>244</sup> Consumer Groups Comments at 3. See 47 CFR §79.1(c) ("All video programming distributors shall deliver all programming received from the video programming owner or other origination source containing closed captioning to receiving television households with the original closed captioning data intact in a format that can be recovered and displayed by decoders meeting the standards of this part unless such programming is recaptioned or the captions are reformatted by the programming distributor.").

<sup>245</sup> As noted by Consumer Groups, the ATSC 3.0 standard for closed captioning contemplates the use of image overlays in addition to text in closed captions. Consumer Groups Comments at 3 (citing ATSC Standard: Captions and Subtitles (A/343) at 4 (Dec. 21, 2016), <http://atsc.org/wp-content/uploads/2016/12/A343-2016-Captions-and-Subtitles.pdf>).

<sup>246</sup> LG recently introduced ATSC 3.0-enabled 4K Ultra HD TVs in South Korea in preparation for South Korea's nationwide deployment of Next Gen TV service this year ahead of the 2018 Winter Olympics. LG Comments at 9. See also Deborah D. McAdams, 'All' LG 4KTVs Sold in South Korea to Soon Feature ATSC 3.0, TVTechnology, May 16, 2017 (noting that LG Electronics will include ATSC 3.0 tuners in all of its new 4K TVs sold in South Korea beginning later this year), <http://www.tvtechnology.com/atsc3/0031/lg-to-add-atsc-30-tuners-to-all-tvs-this-year/281038>.

<sup>247</sup> All Channel Receiver Act of 1962, P.L. No. 87-529, 76 Stat. 150 (codified at 47 U.S.C. § 303(s)).

<sup>248</sup> 47 CFR § 15.117(b). The term "TV broadcast receivers" includes "devices, such as TV interface devices and set-top devices that are intended to provide audio-video signals to a video monitor, that incorporate the tuner portion of a TV broadcast receiver and that are equipped with an antenna or antenna terminals that can be used for off-the-air reception of TV broadcast signals, as authorized under part 73 of this chapter." *Id.* § 15.117(a).

<sup>249</sup> 47 U.S.C. § 303(s).

<sup>250</sup> Petitioners Comments at 22; AWARD Comments at 7; Public Interest Groups Comments at 10; CTIA Comments at 6; GatesAir Comments at 10; Verance Comments at 2.

<sup>251</sup> Petitioners Comments at 22 ("Broadcasters and the consumer electronics industry are confident the market will address the need for Next Gen-compatible devices as Next Gen deployment spreads and consumers realize the benefits of the new standard."); LG Comments at 10 (noting that "4K Ultra HD TVs, with 3840 x 2160 resolution, are gaining popularity and will likely drive consumer demand for ATSC 3.0-enabled sets capable of taking advantage of the higher resolution and higher dynamic range broadcast signals enabled by ATSC 3.0."); Public Interest Groups Comments at 10 (stating that it agrees with broadcasters that "that 'consumer demand' for over-the-

(continued....)

84. We are not persuaded by ATBA's argument that a Next Gen TV tuner mandate for all television receivers, as well as smartphones and other mobile devices designed to receive and display television signals, is critical to the preservation of LPTV service.<sup>252</sup> ATBA asserts that repacking following the incentive auction will displace thousands of LPTV stations and the more flexible characteristics of Next Gen TV may allow displaced LPTV stations to find spectrum in places where a displacement channel would otherwise be impossible.<sup>253</sup> ATBA further asserts that LPTV stations may wish to be early adopters of Next Gen TV to distinguish their service and ensuring that Next Gen TV tuners are in all receive devices will enhance the service that LPTV stations can provide to the public.<sup>254</sup> Although we are exempting LPTV stations from the local simulcasting requirement and allowing them to transition directly to ATSC 3.0 service,<sup>255</sup> we do not believe that a Next Gen TV tuner mandate is necessary to ensure the survival of the LPTV service. As discussed above, we expect that once broadcasters begin transmitting in ATSC 3.0, consumer demand for the advanced features of Next Gen TV will propel the manufacture and distribution of TV receivers with ATSC 3.0 tuners.<sup>256</sup> We also agree with commenters that the incorporation of ATSC 3.0 tuners into smartphones and other mobile devices should be driven by consumer demand.<sup>257</sup>

85. We agree with commenters that it is unnecessary to require that all TV receivers sold after a specified date have an HDMI port to permit attachment of a converter device, such as an external tuner dongle, set-top box, or gateway device, that would enable the receivers to be easily upgradeable to

(Continued from previous page) \_\_\_\_\_

air Next Gen TV will better inform receiver manufacturers and broadcasters as to whether the televisions of the future should include the equivalent of an ATSC 3.0 tuner.”); AWARN Comments at 8 (asserting that its reliance on market forces is “grounded in the proposition that, as Americans become aware that AWARN alerts can provide lifesaving information instantaneously to their homes, worksites, schools, and to mobile devices literally at their fingertips, consumers will demand the service and manufacturers and service providers will respond for competitive purposes.”); GatesAir Comments at 10 (“Next Generation TV will succeed because consumers will recognize its tremendous benefits, creating demand for receivers capable of receiving an ATSC 3.0 signal”); Verance Comments at 2 (“[T]he entire package of Next Gen TV benefits is sufficiently compelling to spur market-driven adoption of the Next Gen TV standard without a tuner mandate.”); CTA Reply at 6 (“Consumer demand should drive tuners inclusion and adoption.”). *See also* Letter from Julie M. Kearney, Vice President, Regulatory Affairs, Consumer Technology Association, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed July 13, 2017) (noting that “the South Korean transition to ATSC 3.0 is driving industry to deploy televisions with dual 1.0-3.0 tuners”).

<sup>252</sup> ATBA Comments at 3-4. *See also* LPTV Spectrum Rights Coalition Reply at 3 (agreeing with ATBA that ATSC 3.0 capability must be included in all television receivers, including mobile devices).

<sup>253</sup> ATBA Comments at 3.

<sup>254</sup> *Id.* at 4.

<sup>255</sup> *See supra* para. 40.

<sup>256</sup> *See supra* para. 83 and n. 251.

<sup>257</sup> Letter from Dean R. Brenner, Senior Vice President, Spectrum Strategy & Technology Policy, Qualcomm Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed Sept. 19, 2017); Letter from Brian Hendricks, Government Relations, Nokia, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 3 (filed Sept. 15, 2017); Letter from Jeffrey Harper, Vice President, Motorola Mobility, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 5 (filed Sept. 12, 2017). *See also* Letter from Sebastian Rowson Ph.D., Chief Scientist, Ethertronics Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed Sept. 19, 2017) (submitting a report examining the substantial challenges of incorporating both 600 MHz LTE and ATSC 3.0 technologies in a single device); Letter from Steve B. Sharkey, Vice President, Government Affairs, Technology and Engineering Policy, T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed Sept. 11, 2017) (opposing a mandate to include ATSC 3.0 in mobile devices and attaching a technical white paper discussing the significant issues associated with implementing ATSC 3.0 mobile device reception capability).

receive ATSC 3.0 transmissions.<sup>258</sup> The Public Interest Groups observe that in the past three years in which *Consumer Reports* has been testing new televisions, all of the tested devices contained at least one HDMI port.<sup>259</sup> The Public Interest Groups assert that a consumer would be hard-pressed to purchase a new television today or in the future that did not have an HDMI port.<sup>260</sup> Moreover, NAB suggests that an HDMI port requirement could be counterproductive and harmful to consumers, locking manufacturers into an unnecessary cost associated with a specific technology regardless of marketplace developments.<sup>261</sup>

### 3. On-Air Notice to Consumers About Deployment of ATSC 3.0 Service and ATSC 1.0 Simulcasting

86. As discussed below, we are adopting consumer education requirements modeled on the consumer education requirements adopted in connection with the incentive auction for broadcasters that will transition to new channels post-auction.<sup>262</sup> Consumer education will be crucial to the successful deployment of Next Gen TV service and simulcasting of ATSC 1.0 service. Consumers will need to be informed if stations they view will be changing channels and encouraged to rescan their receivers for new channel assignments. Although we agree that broadcasters will be motivated to inform viewers of the availability and features of Next Gen TV and how to continue to receive their ATSC 1.0 signals during simulcasting,<sup>263</sup> we conclude that consumer education requirements are needed to ensure that broadcasters provide adequate notice to viewers and to minimize any potential disruption to viewers.<sup>264</sup>

87. All stations that relocate their ATSC 1.0 signals (*e.g.*, moving to a host station's facility, subsequently moving to a different host, or returning to its original facility) must air daily on-air consumer education PSAs or crawls,<sup>265</sup> beginning 30 days prior to the date that the stations will terminate ATSC 1.0 operations on their existing facilities. Stations will have the option of choosing between PSAs and crawls or may air a mix of PSAs and crawls. Stations will also have the discretion to choose the timeslots in which their PSAs or crawls will air. Crawls must be provided in the same language as a majority of the programming carried by the station.<sup>266</sup> Although we are not mandating specific language, crawls must provide all pertinent information to consumers.

88. We conclude that this will ensure that viewers are apprised of the potential impact of the voluntary deployment of ATSC 3.0 service on them. PSAs must also be provided in the same language

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<sup>258</sup> GatesAir Comments at 10; LG Comments at 9; Petitioners Comments at 22-3; Public Interest Groups Comments at 10 (all arguing that an HDMI port requirement is unnecessary).

<sup>259</sup> Public Interest Groups Comments at 10.

<sup>260</sup> *Id.*

<sup>261</sup> Petitioners Comments at 23.

<sup>262</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Second Order on Reconsideration, 30 FCC Rcd 6746, 6819-30, paras. 164-65 (2015) (modifying the consumer education requirements for "transitioning stations" but declining to modify the requirements for stations that relinquish their licenses); 47 CFR § 73.3700(c).

<sup>263</sup> Petitioners Comments at 23; One Media Comments at 53.

<sup>264</sup> Public Interest Groups Comments at 12 (asserting that "[e]specially where some over-the-air consumers may lose their ATSC 1.0 signal because of simulcasting during the transition, it is crucially important affected consumers are informed of the transition, and of the steps they can take to avoid signal loss.").

<sup>265</sup> A "crawl" is "text that advances very slowly across the bottom or top of the screen." *Review of the Emergency Alert System*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625, 18657 n.222 (2005). Stations may use alternative forms of crawls, including a text "flipper," which is a message on the screen that flips to a new line of text instead of crawling across the screen.

<sup>266</sup> The crawls should not block any closed captioning or emergency information. *See* 47 CFR § 79.2(b)(3) (prohibiting closed captioning from blocking emergency information, and vice versa).

as a majority of the programming carried by the station, provide all pertinent information to consumers, and be closed captioned.<sup>267</sup>

89. We will also require LPTV stations and any other stations that transition directly to ATSC 3.0 to provide on-air notifications to ensure that viewers are aware that they will no longer be able to receive the signals of these stations in ATSC 1.0 and that they may need to obtain new equipment to receive the ATSC 3.0 transmissions of these stations. Stations that transition directly to ATSC 3.0 must provide on-air notifications beginning 30 days prior to the date that they terminate their ATSC 1.0 operations. Such crawls or PSAs must provide all pertinent information to consumers. To the extent that such equipment is available, we encourage stations to include in their on-air notices and on their websites information about the availability of external tuner dongles and gateway devices that can be used to upgrade viewers' TV receivers to receive ATSC 3.0 transmissions. These stations must otherwise comply with the same on-air notification requirements set forth above for stations that relocate their ATSC 1.0 signals.

90. The Commission will support broadcasters' consumer education efforts by, among other things, responding to consumer questions regarding the deployment of Next Gen TV and ATSC 1.0 simulcasting and providing consumer assistance on rescanning TVs.<sup>268</sup> In addition, the Commission will update its website ([www.fcc.gov](http://www.fcc.gov)) to provide additional information and guidance to consumers on Next Gen TV.

#### 4. Ancillary and Supplementary Services

91. We decline to reexamine the fee that broadcasters must pay to offer ancillary and supplemental services at this time, as requested by several commenters.<sup>269</sup> Broadcasters currently must remit an annual fee equal to five percent of the gross revenues derived from any ancillary or supplementary services for which viewers must pay a subscription fee, or for which the broadcaster directly or indirectly receives compensation from a third party in exchange for the transmission of material provided by the third party (other than commercial advertisements used to support broadcasting for which a fee is not required).<sup>270</sup> Under Section 336 of the Act, the Commission is required to set the ancillary services fee so as to (1) recover for the public a portion of the value of the public spectrum made available for ancillary or supplemental use by broadcasters, (2) avoid unjust enrichment of broadcasters, and (3) recover for the public an amount that equals the amount that would have been recovered at auction.<sup>271</sup> In addition, the Commission must adjust the ancillary services fee periodically to ensure that these requirements continue to be met.<sup>272</sup> Some commenters suggest that a higher fee may be warranted

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<sup>267</sup> We recognize that our rules exempt PSAs that are shorter than 10 minutes in duration from the captioning requirements. *See id.* § 79.1(d)(6). Given the importance of the information to be included in these PSAs, however, we expressly require that these PSAs be closed captioned regardless of their duration.

<sup>268</sup> ONE Media Comments at 53 (supports the FCC call center providing assistance to consumers on rescanning their TVs).

<sup>269</sup> ATVA Comments at 49-50; CTIA Comments at 8-9; ONE Media Comments at 52; Sinclair Comments at 12-13. *Cf.* NAB Reply at 5 (urging the Commission to reject requests to reexamine fees associated with ancillary services).

<sup>270</sup> 47 CFR § 73.624(g). *See Fees for Ancillary or Supplemental Use of Digital Television Spectrum Pursuant to Section 336(e)(1) of the Telecommunications Act of 1996*, Report and Order, 14 FCC Rcd 3259, 3267, para. 20 (1998) (*Fees for Ancillary or Supplemental Use of DTV Spectrum*).

<sup>271</sup> 47 U.S.C. § 336(e)(2)(A)-(B). *See Fees for Ancillary or Supplemental Use of DTV Spectrum*, 14 FCC Rcd at 3262-63, para. 6.

<sup>272</sup> 47 U.S.C. § 336(e)(2)(C). *See Fees for Ancillary or Supplemental Use of DTV Spectrum*, 14 FCC Rcd at 3274-75, para. 51.

to ensure compliance with the statutory directive,<sup>273</sup> while others assert that the fee should be reduced to ensure that it does not thwart innovation by Next Gen TV broadcasters.<sup>274</sup>

92. We conclude that it would be premature at this time to adjust the fee associated with ancillary services. It is not clear from the record which ATSC 3.0-based services and features will be “ancillary services” within the meaning of our rules or which such services will be feeable.<sup>275</sup> Moreover, we note that compared to other revenue sources, ancillary services today remain an insignificant portion of total station revenue.<sup>276</sup> Once Next Gen TV broadcasters have implemented ancillary and supplementary services, the Commission will be in a better position to assess whether adjustment of the ancillary services fee is warranted and may revisit this issue.<sup>277</sup>

## 5. Interplay with Post-Incentive Auction Transition / Repack

93. Authorizing the deployment of Next Gen TV on a voluntary basis concurrently with the post-incentive auction transition is likely to create efficiencies for repacked stations that want to upgrade to ATSC 3.0.<sup>278</sup> In particular, commenters point out that the incremental cost of adding Next Gen TV capability as part of a station’s equipment reconfiguration or upgrade during the repack process will be significantly less than the cost of upgrading equipment twice, once for the repack and once for the deployment of ATSC 3.0 service.<sup>279</sup> We reiterate that all requests for reimbursement from the TV Broadcaster Relocation Fund (Reimbursement Fund), including those for ATSC 3.0 capable equipment, will be evaluated consistent with the standards set forth in the *Incentive Auction Report and Order*.<sup>280</sup> In

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<sup>273</sup> ATVA Comments at 49-50 (asserting that auction valuations have changed dramatically since the Commission last set the fee for ancillary services 18 years ago and urging the Commission to consider whether the five percent figure remains consistent with the statutory directive); CTIA Comments at 8-9 (urging the Commission to revisit the ancillary service rules to ensure that the fee is set to ensure regulatory parity with analogous regulated services and reflect broadcasters’ evolving business ambitions).

<sup>274</sup> ONE Media Comments at 52 (“Since broadcasters voluntarily deploying the Next Gen standard will assume all costs associated with the deployment and will assume all business risks in providing these innovative services, the rationale for a significant payment to the government associated with gross revenues of ancillary services requires reassessment. . . . The Commission should take this opportunity to reduce this requirement substantially and ensure that it truly does not dissuade innovation.”); Sinclair Comments at 13 (asserting that the Commission should reduce the fee for ancillary services since broadcasters are assuming all the cost and risk of deployment of Next Gen TV).

<sup>275</sup> 47 CFR § 73.624(c) (“DTV broadcast stations are permitted to offer services of any nature, consistent with the public interest, convenience, and necessity, on an ancillary or supplementary basis.”). Ancillary or supplementary services include, but are not limited to, computer software distribution, data transmissions, teletext, interactive materials, aural messages, paging services, audio signals, and subscription video. Any video broadcast signal provided at no direct charge to viewers is not considered to be ancillary or supplementary. *Id.* See also *Fees for Ancillary or Supplemental Use of DTV Spectrum*, 14 FCC Rcd at 3270, para. 32 (noting that not all ancillary and supplementary services are feeable).

<sup>276</sup> *Annual Assessment of the Status of Competition for the Delivery of Video Programming*, Eighteen Report, 32 FCC Rcd 568, 615 n.372 (2017). Total revenues from ancillary services were approximately \$160,000 in 2015 and the Commission collected approximately \$8,000 in fees from these revenues. *Id.*

<sup>277</sup> See *Fees for Ancillary or Supplemental Use of DTV Spectrum*, 14 FCC Rcd at 3275, para. 52 (“The program established here concerns services which are not yet available to consumers. Once digital television licensees have implemented ancillary or supplementary services, the Commission and the licensees will have a better concept of what these services might include and of the profit-making capacity of these services . . . [and] we may adjust our fee program as necessary to continue to comply with the requirements of the statute.”).

<sup>278</sup> GatesAir Comments at 7; ONE Media Comments at 54; Pearl TV Comments at 10; TEGNA Comments at 6.

<sup>279</sup> GatesAir Comments at 7; Petitioners Comments at 23-4; PMC Comments at 7-8; Univision Comments at 8; Network Affiliates Reply at 7.

<sup>280</sup> See *Incentive Auction R&O*, 29 FCC Rcd at 6812-6833, paras. 598-654.

that order, the Commission recognized that replacement of equipment eligible for reimbursement from the Reimbursement Fund “necessarily may include improved functionality,”<sup>281</sup> but stated “[w]e do not ... anticipate providing reimbursement for new, optional features in equipment unless the station or MVPD documents that the feature is already present in the equipment that is being replaced. Eligible stations and MVPDs may elect to purchase optional equipment capability or make other upgrades at their own cost, but only the cost of the equipment without optional upgrades is a reimbursable expense.”<sup>282</sup> Thus, for example, broadcasters will be allowed to seek reimbursement for equipment that facilitates ATSC 3.0 capability (such as higher transmitter power or horizontal/elliptical antenna polarization), but any costs associated with the ATSC 3.0 capability will not be reimbursable (i.e., broadcasters will be responsible for the difference between the cost of the ATSC 3.0-capable equipment and the equipment needed to broadcast using the ATSC 1.0 standard).<sup>283</sup> We will also monitor the filing of license applications filed by stations that seek to deploy ATSC 3.0 and the Media Bureau may seek information it deems necessary from broadcasters to ensure this voluntary transition does not negatively impact or delay the mandatory post-incentive auction transition.

## F. Technical Issues

94. In this section, we resolve technical issues that the authorization of ATSC 3.0 raises. First, we incorporate certain parts of the ATSC 3.0 standard by reference into our rules. Next, we adopt our proposal to calculate Next Gen TV interference to DTV signals using the methodology and planning factors specified OET-69.<sup>284</sup> Finally, we conclude that broadcast television stations may operate ATSC 3.0 Single Frequency Networks pursuant to our current rules that authorize Distributed Transmission Systems.

### 1. Incorporation by Reference of Technical Standards

95. We incorporate two parts of the ATSC 3.0 “physical layer” standard into our rules: (1) ATSC A/321:2016 “System Discovery & Signaling” (A/321), which is the standard used to communicate the RF signal type that the ATSC 3.0 signal will use, and (2) A/322:2017 “Physical Layer Protocol” (A/322), which is the standard that defines the waveforms that ATSC 3.0 signals may take. With respect to A/322, we apply the standard only to a Next Gen TV station’s primary free over-the-air video programming stream and incorporate it by reference into our rules for a period of five years from the date of publication in the Federal Register.<sup>285</sup> We do not incorporate any other of the ATSC 3.0 standards; broadcasters are authorized, but not required, to use any other elements of ATSC 3.0.

96. The ATSC 3.0 suite of standards is split into multiple parts under a unifying parent standard.<sup>286</sup> The ATSC 3.0 standards are structured into three layers: (1) the physical layer, (2) the management and protocols layer, and (3) the applications and presentation layer. Each of the standards fits into only one layer, making it possible to develop and update each part independently. The physical layer includes the definition of the radio frequency (RF) waveform used in ATSC 3.0, as well as the

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<sup>281</sup> *Id.* at 6822, para. 624.

<sup>282</sup> *Id.*

<sup>283</sup> NAB asserts that “current generation equipment that will be deployed during repacking is, in many cases, already Next Gen compatible, or capable of being easily upgraded to be Next Gen-compatible. To the extent there are any cost differences between equipment that is Next Gen-compatible and equipment that is not, NAB has stated that it is committed to assisting the FCC in ensuring that repacking funds are not directed to unwarranted or unnecessary upgrades.” NAB Reply at 9. *See also* Petitioners Comments at 23; Pearl TV Comments at 10.

<sup>284</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1691-97, paras. 43-59.

<sup>285</sup> As we discuss below in paragraphs 100-101, this requirement will sunset at the end of the five-year period unless extended by the Commission via rulemaking.

<sup>286</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1674-5, para. 6.

coding and error correction that determine the robustness of the signal to noise and interference. The management and protocols layer organizes data bits into streams and files and establishes the protocol for the receiver to direct those streams to the proper destinations. The applications and presentation layer includes audio and video compression technologies, captions and descriptive audio, emergency alerts, parental controls, and interactive applications. It also specifies how the station is displayed to viewers.

97. *A/321*. We adopt our proposal to incorporate by reference and make mandatory for Next Gen TV broadcasting the ATSC A/321 standard. Commenters broadly support this action.<sup>287</sup> As the entry point to the physical layer of the ATSC 3.0 standards, A/321 defines a brief robust “bootstrap” signal followed by a window for data transmission that is periodic and contains information to help Next Gen TV receivers quickly locate and understand the RF formats of the data portions of the Next Gen TV signal. The bootstrap signal can indicate that the remainder of the signal is one of many different RF signal types.<sup>288</sup> This gives the broadcast industry the ability to later define additional signal types while using a consistent bootstrap signal that can indicate to Next Gen TV receivers that they can ignore portions of the signal that are not compatible with that particular receiver. The bootstrap further serves to split the overall signal into segments that can follow different standards and/or use different robustness parameters. The bootstrap signal also includes data that can wake a receiver from standby mode to receive and display emergency information. By incorporating and making mandatory the A/321 standard, we ensure that the RF waveforms of the bootstrap portion of broadcasters’ Next Gen TV signals will be fully defined.

98. *A/322*. We also incorporate by reference the ATSC A/322 standard and require that broadcasters’ primary free over-the-air Next Gen TV video programming stream adhere to the standard, for a period of five years from the effective date of the rule incorporating this standard.<sup>289</sup> In the *Next Gen TV NPRM*, we sought comment on whether to incorporate this component of the physical layer into our rules.<sup>290</sup> Some commenters, including CTA, urge us to incorporate A/322 to provide certainty to television receiver manufacturers and consumers that their televisions will be able to receive Next Gen TV signals.<sup>291</sup> They suggest that A/322 is necessary to complete the definition of the interference environment of Next Gen TV as well as to protect consumers and other stakeholders from purchasing equipment that is unable to receive over-the-air broadcasts.<sup>292</sup> Some broadcasters, however, claim that if we require them to adhere to A/322, they will not be able to innovate and offer services other than fixed television broadcasting.<sup>293</sup> In an effort to balance our goals of protecting consumers while promoting innovation, we conclude that requiring Next Gen TV broadcasters to adhere to A/322 for an appropriate

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<sup>287</sup> See, e.g., LG Comments at 3; Petitioners Comments at 4; PTV Comments at 15-16; NAB Sept. 8, 2017 *Ex Parte* Letter at 1.

<sup>288</sup> At the time of this Order, only one such signal type is standardized and mentioned within the record, and it is described by ATSC A/322.

<sup>289</sup> See Appendix B (adopting Section 73.682(f)). We discuss the ATSC 3.0 channel’s primary video programming stream for purposes of this proceeding in paragraphs 12-13 above.

<sup>290</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1675, para. 8.

<sup>291</sup> LG Comments at 4-6; LG Reply at 3-7.

<sup>292</sup> LG Comments at 5; Microsoft Comments at 8, NCTA Comments at 15; Letter from Julie M. Kearney Vice President, Regulatory Affairs, and Brian Markwalter, Senior Vice President, Research and Technology, Consumer Technology Association, to Ajit Pai, Chairman, Mignon Clyburn, Commissioner, Michael O’Rielly, Commissioner, Brendan Carr, Commissioner, and Jessica Rosenworcel, Commissioner, FCC, GN Docket No. 16-142, at 2 (filed Oct. 19, 2017).

<sup>293</sup> ONE Media Comments at 5.

transitional period, and only on their primary video programming stream, appropriately addresses the concerns raised in the record and will best serve the public interest.<sup>294</sup>

99. Requiring Next Gen TV broadcasters to broadcast their primary video programming stream in accordance with A/322 for a limited period will benefit consumers and other stakeholders. As LG explains, device manufacturers and MVPDs may not be able to reliably predict what signal modulation a broadcaster is using unless broadcasters are required to follow A/322.<sup>295</sup> This uncertainty could cause manufacturers to inadvertently build equipment that cannot receive Next Gen TV broadcasts or could render MVPDs unable to receive and retransmit the signals of Next Gen TV stations. These outcomes would harm consumers. We note that although NAB was originally opposed to the Commission adopting A/322, more recently it has acknowledged that “adopting the full physical layer of the Next Gen standard, including A/322” may “ensure that consumer electronics manufacturers can build television receivers with confidence.”<sup>296</sup> One of the primary reasons we adopted the ATSC 1.0 standard for DTV was “to ensure that all affected parties have sufficient confidence and certainty in order to promote the smooth introduction of a free and universally available digital broadcast television service.”<sup>297</sup> We similarly find here that adopting A/322, with the limitations set forth herein, is necessary to ensure adequate certainty with respect to the voluntary deployment of ATSC 3.0.

100. We are persuaded, however, that it is not appropriate at this time to require broadcasters to adhere to A/322 indefinitely. As the record indicates, the ATSC 3.0 standard could evolve, and stagnant Commission rules could prevent broadcasters from taking advantage of that evolution.<sup>298</sup> NAB proposes, with respect to the one free over-the-air video programming stream that Next Gen TV broadcasters will be required to provide, “that broadcasters rely on both components of the physical layer, that is, A/321 and A/322,” and that the “requirement to incorporate A/322 sunset automatically after a period of three years unless extended by the Commission following a rulemaking proceeding.”<sup>299</sup> We agree with the basic principle of NAB’s proposal. In particular, we agree that the Commission “...can provide the certainty the consumer electronics industry desires with the flexibility broadcasters seek while

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<sup>294</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 2; LG Reply at 3-7.

<sup>295</sup> LG Reply at 8 (“A/322 is critical to MVPD operators that receive broadcast signals over the air because if MVPDs do not know or cannot reliably predict what signal modulation method a broadcaster is using, they may not be able to properly receive the broadcaster’s signal. Without a set modulation standard, device manufacturers will not know what demodulation technology to incorporate into devices. The consequence is consumer harm.”). See also NCTA Comments at 15 (“To avoid interference, cable operators that receive broadcast signals off-air may find broadcasters’ adherence to [A/322] to be crucially important, especially if they receive ATSC 1.0 signals that are on channels adjacent to ATSC 3.0 transmissions.”).

<sup>296</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 1-2. In the *ex parte* letter, NAB “proposes that this requirement to incorporate A/322 sunset automatically after a period of three years unless extended by the Commission following a rulemaking proceeding.” As we discuss below in paragraphs 100-101, we believe that a five-year sunset is more appropriate.

<sup>297</sup> *Advanced Television Systems and their Impact upon the Existing Television Broadcast Service*, Fourth Report and Order, 11 FCC Rcd 17771, 17787, para. 30 (1996) (*Fourth DTV Report and Order*). The issues we address here are similar to those faced in the *Fourth DTV Report and Order*. At that time, we based our decision to adopt and incorporate the ATSC 1.0 standard upon four goals: (1) to ensure that all affected parties have sufficient confidence and certainty in order to promote the smooth introduction of a free and universally available digital broadcast television service; (2) to increase the availability of new products and services to consumers through the introduction of digital broadcasting; (3) to ensure that our rules encourage technological innovation and competition; and (4) to minimize regulation and assure that any regulations we do adopt remain in effect no longer than necessary.

<sup>298</sup> ONE Media Comments at 5 (“A/322 would limit broadcasters’ ability to customize service and evolve for future services”); NAB Sept. 8, 2017 *Ex Parte* Letter at 1.

<sup>299</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 2.

minimizing regulatory burdens” by incorporating A/322 into our rules for a transitional period. After that transitional period, the requirement will sunset if it not reinstated by the Commission via rulemaking before the end of the transitional period.<sup>300</sup>

101. We conclude that five years, rather than three years, is the appropriate amount of time to require broadcasters to use the A/322 standard for their primary video programming stream. Three years, as proposed by NAB, would sunset the requirement within (or only shortly after) the incentive auction repacking period and likely before many stations have had a reasonable opportunity to implement Next Gen TV broadcasting.<sup>301</sup> We find that a time and scope-limited adoption of A/322 strikes an appropriate balance of all interests reflected in the record. Our approach will let broadcasters develop new ancillary services outside the boundaries of A/322. It will also establish a period of certainty for manufacturers, MVPDs, and consumers that will prevent broadcasting standards from splintering and will speed the overall adoption of ATSC 3.0.<sup>302</sup> Requiring Next Gen TV broadcasters to use A/322 only with respect to the primary video programming stream leaves significant ability for broadcasters to innovate with regard to ancillary services.<sup>303</sup> Thus, we conclude that the requirement that broadcasters adhere to the A/322 standard requirement will sunset five years from its effective date (*i.e.*, the date it is published in the Federal Register), unless the Commission extends the requirement via rulemaking.

102. We find that the benefits of requiring broadcasters’ primary video programming stream to adhere to A/322 outweigh the burdens, particularly because A/322 gives broadcasters many choices. As commenters explain, the A/322 standard enables a significant amount of broadcaster flexibility, allowing broadcasters to choose from tens of thousands of different robustness operating points.<sup>304</sup> The parameters that determine these operating points allow broadcasters to customize the payload, interference susceptibility, and mobile performance of their primary video signal, and allow broadcasters to design their signals to support a range that extends all the way from very robust mobile video to very high quality Ultra-High Definition and High Dynamic Range video.<sup>305</sup> In addition, we are not adopting at this time any of the other ATSC 3.0 standards, so broadcasters that choose to deploy Next Gen TV service will have considerable flexibility to innovate.

103. We disagree with suggestions, however, that incorporating A/322 into our rules is necessary to make interference calculations more certain and predictable. LG and others assert that A/321 defines only a small portion of the ATSC 3.0 RF waveform,<sup>306</sup> but an engineering study performed by

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<sup>300</sup> We will also use this period to monitor how the marketplace handles patent royalties for essential patents, but we will not require reasonable and non-discriminatory (RAND) licensing at this time. Some commenters request that we (1) “clearly impose RAND requirements and state clearly that it will play a role in enforcing RAND pricing,” (2) “require RAND pricing . . . for all patents essential to use [ATSC 3.0] standards,” and (3) “clarify that charging MVPDs per-subscriber retransmission royalties for [a video codec] would violate the RAND obligation.” ATVA Comments at 45-49; *see also* NCTA Comments at 23; Verizon Comments at 14-15. As Pearl TV notes, “The Advanced Television Systems Committee, which standardized ATSC 3.0, requires patent owners to disclose that they hold [relevant] patents and to commit to licensing them on fair, reasonable and non-discriminatory (‘RAND’) terms.” Pearl TV Comments at 11. With no evidence of patent licensing issues, we believe it is premature to impose regulations on the private licensing marketplace.

<sup>301</sup> *See Incentive Auction Closing and Channel Reassignment Public Notice*, 32 FCC Rcd at 2807, para 68. *See also* ONE Media Comments at 5 (“as a practical matter we expect that A/322 will be used universally for broadcasting for the foreseeable future.”).

<sup>302</sup> *See supra* note 297.

<sup>303</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 2.

<sup>304</sup> LG Reply at 3-4.

<sup>305</sup> Petition at 11.

<sup>306</sup> LG Comments at 5 (A/322 “defines the interference characteristics of the ATSC 3.0 signal and ensures that it does not interfere with ATSC 1.0 signals or other 3.0 signals”); Microsoft Comments at 8; NCTA Comments at 15

(continued....)

MSW showed that the A/322 waveform is sufficiently noise-like to be considered in the interference environment in the same the way the DTV waveform is.<sup>307</sup> So we expect that any coded orthogonal frequency-division multiplexing signal likely to be used by broadcasters,<sup>308</sup> as accommodated by the A/321 bootstrap signal, will be noise-like. We agree with NAB's suggestion that "... the Commission should seek to minimize regulatory burdens by requiring only that any digital transmissions are randomized and noise like and do not cause harmful interference by staying within the constraints of Section 73.622(h) of the Commission's rules."<sup>309</sup> Therefore, ATSC 3.0 signals are prohibited from causing harmful interference under Section 73.622(h) regardless of whether we require broadcasters to adhere to A/322.

104. Although ONE Media argues that requiring broadcasters to adhere to A/322 will limit the mobile reception performance of the ATSC 3.0 standard,<sup>310</sup> the record suggests that this concern is overstated. LG performed mobile reception tests pursuant to an ATSC 3.0 experimental license, and the report resulting from those tests indicates that the ATSC 3.0 standard, including A/322, allows for "[h]ighly reliable in-vehicle mobile reception."<sup>311</sup> Although the Commission has limited data to rely on at this time, it appears that the performance of the ATSC 3.0 standard will allow broadcasters to confidently implement mobile services, even while they adhere to A/322. Moreover, because we require broadcasters to adhere to A/322 only with respect to the primary video programming stream that the Next Gen TV broadcaster transmits, broadcasters will be able to innovate outside the bounds of A/322 with the rest of the spectrum they are licensed to use.

## 2. Service and Interference Protection

105. In this section, we adopt the service and interference protection rules that we proposed in the *Next Gen TV NPRM*. In the *NPRM*, we raised three potential interference issues with respect to the adoption of the ATSC 3.0 transmission standard: (1) interference caused by ATSC 3.0 signals to ATSC 1.0 (DTV) signals, (2) interference caused by DTV or ATSC 3.0 signals to other ATSC 3.0 signals, and (3) interference-related concerns arising with respect to ATSC 3.0 signals and non-television services that operate within or adjacent to the TV band. We proposed to use the same technical parameters as we use for DTV signals when evaluating interference caused by or from an ATSC 3.0 signal.<sup>312</sup> We also proposed to update our rules to allow updated population inputs when evaluating a broadcaster's application for a new or modified facility.<sup>313</sup>

(Continued from previous page) \_\_\_\_\_

("The ATSC A/322 standard defines the signal's modulation methods and its occupied bandwidth; consequently, this specification determines the amount of co-channel, adjacent channel, and adjacent band interference.")

<sup>307</sup> Letter from Robert D. Weller, P.E., Vice President for Spectrum Policy, National Association of Broadcasters, to Martin Doczkat, P.E., Technical Analysis Branch Chief, Office of Engineering and Technology, FCC, GN Docket No. 16-142, at Attach. at 7 (filed Nov. 4, 2016).

<sup>308</sup> Coded orthogonal frequency-division multiplexing, or COFDM, is the scheme used to modulate ATSC 3.0 signals. It replaces the 8-VSB modulation scheme upon which the ATSC 1.0 standard relies. *See id.*

<sup>309</sup> NAB Sept. 8, 2017 *Ex Parte* Letter at 2 (emphasis added).

<sup>310</sup> ONE Media Comments at 5-6.

<sup>311</sup> Letter from John M. Burgett, Counsel to LG Electronics, Inc., Zenith Electronics LLC, and GatesAir, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, Attach. at 10-11 (filed Nov. 23, 2016).

<sup>312</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1691-6, para. 44-58.

<sup>313</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1696-7, para. 59.

**a. Interference Protection of ATSC 1.0 (DTV) Signals**

106. As we proposed in the *Next Gen TV NPRM*, we will use our existing methodology and planning factors to calculate how ATSC 3.0 signals will interfere with ATSC 1.0 signals.<sup>314</sup> In the *NPRM*, we proposed to apply the methodology and planning factors specified in OET Bulletin No. 69 to calculate interference from ATSC 3.0 to DTV signals, and we sought comment on whether DTV operations would be sufficiently protected by the OET Bulletin No. 69 methodology and planning factors when applied to interference predictions from ATSC 3.0 signals. The Petition included laboratory measurements that suggested that RF emission mask and effective radiated power limits for the ATSC 3.0 signal could remain unchanged from existing limits for DTV signals.<sup>315</sup> Based on those measurements, we proposed to calculate interference from ATSC 3.0 signals in accordance with Section 73.622, 73.623 and 74.703 of the Commission's rules and as implemented by OET Bulletin No. 69. We solicited specific measurement results in response to the Petitioners' claim that ATSC 3.0 and DTV signals should be considered equivalent in terms of potential interference to DTV signals, but received no additional reports or measurements to either support or refute the claim that ATSC 3.0 signals could be treated the same as DTV signals when considering interference from ATSC 3.0 to DTV signals. However, all commenters who addressed the issue supported our proposed approach, and no alternative methodologies or planning factors were proposed.<sup>316</sup> We accordingly adopt the use of the methodology and planning factors specified in Sections 73.622, 73.624 and 74.703 of the Commission's rules and in OET Bulletin No. 69 to calculate interference from ATSC 3.0 to DTV signals, and we make no modifications to these rules or to the RF emission mask and effective radiated power limits.

**b. Service and Interference Protection of ATSC 3.0 Signals**

107. We also adopt our proposals regarding service and interference protection of ATSC 3.0 signals; we will use the same methodology and planning factors defined for DTV when defining the service area of an ATSC 3.0 signal and define the ATSC 3.0 interference criteria for co- and adjacent channel interfering signals at the same levels as specified in OET Bulletin No. 69 for DTV signals. The DTV transmission standard has fixed transmission and error correction parameters and a single associated minimum signal strength threshold (or signal-to-noise-ratio/SNR threshold) for service.<sup>317</sup> The minimum SNR threshold is used as a basis for determining where a DTV broadcast television station's signal can be received. Whether a DTV broadcast television station is considered to have service and receive protection from interference is determined in part by this threshold. The minimum expected signal level for an ATSC 3.0 signal is much more dynamic. The ATSC 3.0 standard enables broadcasters to choose from multiple modulation and error correction parameters, which have the effect of allowing them to adjust data rates and corresponding minimum SNR thresholds.<sup>318</sup> Further, ATSC 3.0 enables broadcasters to transmit multiple program streams with different parameters simultaneously. This means that, as a practical matter, the actual area where the signal of a television station broadcasting an ATSC 3.0 signal can be received may not necessarily match up to the same area defined by the single minimum SNR threshold of DTV. The SNR threshold for the ATSC 3.0 transmission standard will be variable and

<sup>314</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1691-2, para. 44.

<sup>315</sup> Petition at Attachment B.

<sup>316</sup> Petitioners Comments at 20 (supporting "the proposal to rely on OET-69 to determine the protection Next Gen [TV] signals should receive and to define the interference criteria for co- and adjacent channel interference at the same levels as specified in OET-69."); WatchTV Comments at 5 (citing the FCC's TVStudy software implementing OET Bulletin No. 69, and stating that "TVStudy will provide sufficient, if not excess, protection to and from stations operating in the same 3.0 format or in different 1.0 and 3.0 formats."); LPTV Spectrum Rights Coalition Reply at 2.

<sup>317</sup> See ATSC A/53, Part 2:2007, "ATSC Digital Television Standard – Part 2: RF/Transmission System Characteristics" at 8-41 (2007), [http://atsc.org/wp-content/uploads/2015/03/a\\_53-Part-1-6-2007.pdf](http://atsc.org/wp-content/uploads/2015/03/a_53-Part-1-6-2007.pdf).

<sup>318</sup> See ATSC A/322:2016 "Physical Layer Protocol" at 31-68 (2016), <http://atsc.org/wp-content/uploads/2016/10/A322-2016-Physical-Layer-Protocol.pdf>.

station-specific, enabling tradeoffs depending on each station's programming offerings and quality of service goals. In consideration of the dynamic nature of ATSC 3.0 transmission standard, our rules will maintain the status quo for interference protection and allow us to calculate the coverage areas of ATSC 3.0 stations with certainty. We discuss each aspect of Service and Protection of ATSC 3.0 signals below.

**(i) Preservation of Service**

108. We require Next Gen TV broadcasters to offer at least one free ATSC 3.0 video programming stream comparable to a DTV signal and to provide a signal with a chosen modulation/coding scheme that requires a SNR of no more than would be required of a DTV signal.<sup>319</sup> This requirement will preserve service to existing OTA viewers, all else being equal (*i.e.*, an ATSC 3.0 transmission from the same antenna, location, and power level, received by equipment with the same performance as a DTV transmission will cover the same area as a comparable DTV signal).

109. We adopt our proposal to mandate Next Gen TV broadcasters to offer at least one free ATSC 3.0 video programming stream that requires a SNR of no more than 15 dB (streams requiring a lower SNR would also qualify).<sup>320</sup> By adopting this requirement, we guarantee that any station beginning ATSC 3.0 operation will continue to provide at least one free video programming stream to viewers within the ATSC 1.0-equivalent service area who choose to upgrade their receiver equipment to the Next Gen TV standard. Generally, commenters support this approach,<sup>321</sup> but AT&T and ATVA suggest that the proposal “does not go far enough.”<sup>322</sup> We believe that mandating a lower threshold for ATSC 3.0 signals, as suggested by AT&T and ATVA, is unnecessary because a lower threshold would potentially encompass a larger audience than an equivalent DTV signal.<sup>323</sup> At the same time, to the extent that broadcasters want to offer a video programming stream in the manner suggested by AT&T and ATVA, a signal with a 0 dB minimum SNR would satisfy our requirement because 0 dB is less than the 15 dB service threshold ceiling for minimum SNR being adopted here. Therefore, we adopt a SNR that balances the need for OTA viewers throughout an ATSC 3.0 station's contour to receive television broadcast services when stations choose to voluntarily transmit ATSC 3.0 signals with the desire of broadcasters to flexibly offer various programming streams in ATSC 3.0 in addition to the minimum single free program stream required for DTV signals by section 73.624 of our rules.

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<sup>319</sup> OET Bulletin No. 69 defines service of a DTV signal as those locations where the SNR is 15 or greater. This would be the same threshold applied to the free ATSC 3.0 video programming stream to achieve a “DTV-equivalent” service.

<sup>320</sup> As discussed in Section III.F.1 above, the single free ATSC 3.0 video programming stream must comply with the ATSC A/322 standard for a period of five years from the date of publication in the Federal Register

<sup>321</sup> Public Interest Groups support the proposal and Dish, without specifically citing this proposal, argues that “the Commission should require that a broadcaster that transitions to ATSC 3.0 must provide service to the same geographic area it provides 1.0 service today.” Public Interest Groups Comments at 27; Dish Comments at 11-12. *See also* ONE Media Comments at 45-46 (“advances in technology have precluded the need to provide two separate but otherwise identical programming streams for mobile and household reception,” and therefore “specifying that the free video stream needs to be provided at a comparable threshold of visibility to [ATSC 1.0] (that is the 15 dB C/N value) minimum, no [rule] changes are needed”).

<sup>322</sup> Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed July 28, 2017) (asserting that we should set the minimum SNR to 0 dB in order to “require a broadcast station to deploy its free, over-the-air ATSC 3.0 broadcast stream [] in a manner that maximizes the consumers served by such service.”); AT&T Comments at 10-13.

<sup>323</sup> Additionally, if an HD video stream requires about 3 Mbps with ATSC 3.0, then assuming the entire signal uses the 15 dB SNR value and thus about 25 Mbps is available in total, then most of the capacity of the signal would remain available, therefore making the impact of this requirement minimal.

**(ii) Next Gen TV Service Area**

110. We will use the methodology and planning factors defined in OET Bulletin No. 69 to define an ATSC 3.0 “DTV-equivalent” service area in which the ATSC 3.0 signal is protected from interference, as we proposed in the *Next Gen TV NPRM*.<sup>324</sup> Historically, we have relied upon this methodology and these planning factors to determine service for DTV with satisfactory results, and many commenters support the proposal.<sup>325</sup> ONE Media is the only commenter that does not support the proposal, suggesting that, “except for cases in which other Commission rules require reference to a service area (e.g., community of license coverage), the Commission should abandon efforts to define service areas and instead should provide broadcasters flexibility to deploy in whatever manner the market demands.”<sup>326</sup> We elect not to adopt ONE Media’s proposal because such a significant shift would not align with the Commission’s current goal to minimize the potential impact to viewers of stations that voluntarily choose to switch to ATSC 3.0.

**(iii) Interference Protection**

111. We will use a protection threshold for Next Gen TV signals that would provide an equivalent level of protection as provided to a DTV signal, as we proposed in the *Next Gen TV NPRM*.<sup>327</sup> Under this approach, an ATSC 3.0 signal will be protected from co-channel and adjacent channel interference as defined in OET Bulletin No. 69.<sup>328</sup> Commenters generally support the proposal to use the OET-69 thresholds to protect ATSC 3.0 signals from interference. TV White space proponents generally oppose any protections that would allow broadcasters to expand their service areas beyond the existing DTV service area definition.<sup>329</sup> NAB states that “the Commission need not consider modifications to the methodology or planning factors in OET-69.”<sup>330</sup> One Ministries requests that we “relax the adjacent channel D/U ratio for all receivers (not just ATSC 3.0 receivers) to be 33 dB or higher,”<sup>331</sup> but no other commenters discuss this issue. Public Interest Groups support maintaining the existing interference protections and oppose any expansion of the service area.<sup>332</sup>

112. We have not been given sufficient information to conclude, nor do we have any reason to believe, that ATSC 3.0 receivers will perform any differently than DTV receivers perform today. In addition, as discussed above, the measurement tests provided by the Petitioners, while performed on DTV receivers, demonstrate that the adjacent channel emissions of ATSC 3.0 signals are equivalent, and therefore are not expected to reduce the sensitivity of ATSC 3.0 receivers. Adopting the same interference protection requirements as we have today will provide regulatory certainty while

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<sup>324</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1693-4, paras. 49-51; 47 CFR § 73.622(e).

<sup>325</sup> Petitioners Comments at 21; LPTV Spectrum Rights Coalition Reply at 5; Microsoft Comments at 7; Wi-Fi Alliance Comments at 6.

<sup>326</sup> ONE Media Comments at 46.

<sup>327</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1694, para. 52.

<sup>328</sup> See also 47 CFR § 73.616(e)(1): The threshold levels at which interference is considered to occur are: (i) For co-channel stations, the D/U ratio is + 15 dB. This value is only valid at locations where the signal-to-noise ratio is 28 dB or greater. At the edge of the noise-limited service area, where the signal-to-noise (S/N) ratio is 16 dB, this value is + 23 dB. At locations where the S/N ratio is greater than 16 dB but less than 28 dB, D/U values are computed from the following formula:  $D/U = 15 + 10\log_{10}[1.0/(1.0-10^{-x/10})]$  Where  $x = S/N - 15.19$  (minimum signal to noise ratio) (ii) For interference from a lower first-adjacent channel, the D/U ratio is -28 dB. (iii) For interference from an upper first-adjacent channel, the D/U ratio is -26 dB.

<sup>329</sup> Microsoft Comments at 7; DSA Comments at 1.

<sup>330</sup> Petitioners Comments at 21.

<sup>331</sup> One Ministries Comments at 1.

<sup>332</sup> Public Interest Groups Comments at 28.

broadcasters voluntarily deploy ATSC 3.0. Nevertheless, if we receive additional information or conduct our own receiver tests, we may revisit whether either the co-channel or adjacent channel interference protection criteria for ATSC 3.0 should be any different from the interference protections provided for DTV in OET Bulletin No. 69.

**c. Interference Protection Affecting Other Services**

113. We do not revise our current interference-related rules with respect to the other services in the TV band or adjacent bands. In the *Next Gen TV NPRM*, we sought comment on whether there would be any interference-related issues that arise with respect to services and operations in the TV Band other than those of full-power, Class A, LPTV and TV translator stations, as well as whether there could be any such issues in other adjacent bands.<sup>333</sup> The record reflects that as long as the emission mask, power limits, and the methodology and protection criteria in OET Bulletin No. 69 are maintained, no rule changes are necessary to protect full-power, Class A, LPTV and TV translator services.<sup>334</sup> National Public Radio (NPR) raised concerns about potential interference between ATSC 3.0 transmissions on TV channel 6 and FM band operations.<sup>335</sup> But as the Petitioners explain, the ATSC 3.0 emission mask will remain unchanged,<sup>336</sup> and therefore we see no need to require additional protections for TV channel 6 adjacent to the FM broadcast service. We also reject the Wi-Fi Alliance's requests to protect only the primary video programming stream of ATSC 3.0 signals and avoid requirements to protect single frequency networks (SFNs).<sup>337</sup> White space devices (WSDs) must protect the television service, as defined by current rules, regardless of how many streams are being offered or which stream is primary, just as WSDs are required to protect the multiple DTV programming streams that many television stations offer today. In addition, to the extent that a DTV station makes a request today to deploy a distributed transmission system (DTS) or SFN, WSDs must continue to protect those licensed service areas. No comments were filed with respect to potential interference-related issues pertaining to LPAS or unlicensed wireless microphones operating in the TV bands, or with respect to WMTS or RAS services in the adjacent band, and therefore, as proposed, we do not adopt any changes to those rules.

**d. Station Interference Protection Population Inputs**

114. We adopt the rule change we proposed in the *Next Gen TV NPRM* to evaluate interference that will result from applications for new or modified facilities using the latest official U.S. Census figures.<sup>338</sup> The Commission has calculated the degree of permissible interference to populations served based on the 2000 U.S. Census population data<sup>339</sup> with one exception: for purposes of the incentive auction and repacking process, the Commission uses 2010 U.S. Census population data for interference calculations.<sup>340</sup> We conclude that it is most reasonable to rely on the most up-to-date U.S. Census information for these calculations, an approach that the DC Circuit upheld in its decision to allow

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<sup>333</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1694-6, paras. 54-58.

<sup>334</sup> Petitioners Comments at 21; DSA Comments at 2.

<sup>335</sup> NPR Comments at 4.

<sup>336</sup> Petition at Attachment B. Specifically, the report indicates that RF emission mask characteristics will remain unchanged for Next Gen TV, that effective radiated power limits for stations may be retained to maintain protections for co-channel and adjacent channel interference, and that its modulation characteristics are inherently noise-like. *Id.* at 15.

<sup>337</sup> Wi-Fi Alliance Comments at 6.

<sup>338</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1696-7, para. 59. The Bureau will incorporate the statistics as they become available and it is able to incorporate the statistics into the Commission's licensing processing systems

<sup>339</sup> 47 CFR § 73.616(e)(1) (requiring use of 2000 U.S. Census population data in processing applications).

<sup>340</sup> *Incentive Auction R&O*, 29 FCC Rcd at 6636-7, paras. 148-149 (adopting use of 2010 U.S. Census population data for the repacking process).

the Commission to apply 2010 U.S. census population during the incentive auction.<sup>341</sup> We update our rules to permit the Media Bureau to use the most recent U.S. Census statistics. We direct the Media Bureau to announce when updated U.S. Census statistics have been incorporated into our licensing systems and the date upon which such updated inputs will be applied at least 60 days before they are used for application processing purposes.<sup>342</sup> Thus, after the repacking process is complete, any broadcast television service or interference calculations will be based on 2010 U.S. Census statistics, until after 2020, when the next U.S. Census statistics are scheduled to become available and the Media Bureau subsequently announces the date of application of such data.

### 3. Next Gen TV Single Frequency Networks (SFNs)

115. As proposed in the *Next Gen TV NPRM*, we conclude that broadcast television stations may operate ATSC 3.0 Single Frequency Networks (SFNs)<sup>343</sup> pursuant to our current rules authorizing Distributed Transmission Systems (DTS).<sup>344</sup> Commenters support the authorization of SFNs for Next Gen TV broadcasters, and emphasize the importance of such networks to the successful deployment of ATSC 3.0 broadcasting.<sup>345</sup> We also adopt our proposal to require that all transmitters under a single DTS license follow the same broadcast television transmission standard.<sup>346</sup> Finally, as proposed, we decline to adopt a synchronization standard specific to ATSC 3.0.<sup>347</sup>

116. As explained in the *Next Gen TV NPRM*, broadcasters traditionally have used a single transmission site, and have provided fill-in service using separately licensed secondary transmission sites that typically use different RF channels.<sup>348</sup> However, a broadcaster using a DTS provides television service to its area by two or more transmission sites using an identical signal on the same RF channel, synchronized to manage self-interference.<sup>349</sup> The rules established in the *DTS Report and Order* describe the authorized service area, maximum service area, station reference point, coverage determination, protection from interference, and application requirements for DTS stations.<sup>350</sup>

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<sup>341</sup> See *National Association of Broadcasters v. FCC*, 789 F.3d 165, 173-175 (D.C. Cir. 2015).

<sup>342</sup> See Appendix B (modifying 47 CFR § 73.616(e)(1)).

<sup>343</sup> SFNs are a technique that broadcasters use to transmit signals on the same frequency from multiple antennas in a local geographic area where it is not practical to serve the entire area with a single antenna. See Lokita Solutions Revised Comments at 3; WatchTV Comments at 2. Certain parts of that local area will receive signals from both of those antennas, and unless those signals are coordinated as discussed below in footnote 349, they will interfere with one another.

<sup>344</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1697, para. 60; 47 CFR § 73.626.

<sup>345</sup> Petitioners Comments at 21; WatchTV Comments at 2; MWG Comments at 2.

<sup>346</sup> Appendix B (adopting new Section 73.626(g)).

<sup>347</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1697-8, para. 62.

<sup>348</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1697, para. 60.

<sup>349</sup> Radio waves require a certain amount of time to travel any given distance. In the case of a DTS network, this means that a location in the service area of the station will most likely receive the signals from the different transmitters at different times, because the transmitters are different distances away from that location. TV receivers are typically designed to handle a certain range of time differences to accommodate signal reflections. If a received DTS time difference falls outside that range, to the receiver the signals appear to be co-channel interference. Because the timing difference is predictable based on distance, precise synchronization of the signals from the different transmitters allows a station to offset the broadcast times with high precision, so that the areas where large timing differences occur can be redirected to low-impact regions.

<sup>350</sup> See *Digital Television Distributed Transmission System Technologies*, Report and Order, 23 FCC Rcd 16731 (2008) (*DTS Report and Order*).

117. Commenters claim that broadcasters that deploy ATSC 3.0 will have the ability to efficiently form SFNs, which for the purposes of broadcast television is a term that is synonymous with DTS. No commenters oppose the idea that broadcasters that opt to deploy ATSC 3.0 should be able to use SFNs.<sup>351</sup> MWG points out that ATSC 3.0 “uses a form of modulation that is designed to support SFNs in DTS-style operations,” and that “...with ATSC 3.0, signals from several transmitters can be allowed to overlap, and the overlap can be compensated. Indeed, the overlap can help to improve reception.”<sup>352</sup> The record thus suggests that providing broadcasters with the ability to use SFNs has the potential to make Next Gen TV services more robust.

118. We adopt our tentative conclusion in the *Next Gen TV NPRM* that the rules the Commission already has established to authorize a DTS station generally are adequate to authorize an ATSC 3.0 SFN station.<sup>353</sup> Several commenters request that we amend the service area rules applicable to DTS to enable Next Gen TV stations to expand the area that an ATSC 3.0 SFN license could cover.<sup>354</sup> Other commenters oppose changes to the current service area rules without further public comment.<sup>355</sup> The record generally does not address the technical complexities that could be raised if we adopt this proposal or the effect that changes to authorized DTS service areas could have on any of our other rules that depend on station service areas. While we recognize that the changes suggested by commenters could potentially facilitate Next Gen TV deployment, no commenters state that the proposed changes are necessary for broadcasters to begin using SFNs with the ATSC 3.0 standard. As such, we find that the record does not support changes to the authorized service areas for Next Gen TV SFNs, and we decline to make any such changes at this time. The Commission will monitor the deployment of ATSC 3.0 in the marketplace and will reconsider this issue in the future if appropriate.<sup>356</sup>

119. We also adopt our tentative conclusion that there is no need to implement a specific synchronization standard for ATSC 3.0 SFNs.<sup>357</sup> In the *DTS Report and Order*, the Commission found that it was not necessary for a DTS station to use a specific synchronization system as long as (1) the synchronization used by a station is effective in minimizing interference within the system, (2) the station otherwise provides service to the population within its service area consistent with Commission rules, and (3) the station complies with the technical standard adopted by the Commission. Thus, although ATSC had developed the A/110 “ATSC Standard for Transmitter Synchronization,” the Commission determined that it was not necessary to incorporate this standard into our rules and that DTS stations should have flexibility with regard to transmitter synchronization.<sup>358</sup> We agree with commenters that we should take the same approach for ATSC 3.0 SFNs,<sup>359</sup> and note that no commenters contested our proposal to adopt this approach. As MWG explains, “there are many ways in which such synchronization can be obtained,

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<sup>351</sup> Microsoft Comments at 9 (“In theory, Microsoft supports this development, as it presents a more spectrally efficient way to fill in coverage gaps than existing translator stations.”). *See also* GatesAir Comments at 9-10; WatchTV Comments at 2; Petitioners Comments at 21; ONE Media Comments at 30.

<sup>352</sup> MWG Comments at 4.

<sup>353</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1697, para. 61.

<sup>354</sup> ONE Media Comments at 30-31; MWG Comments at 27-28; WatchTV Comments at 5; GatesAir Comments at 9.

<sup>355</sup> LPTV Spectrum Rights Coalition Comments at 5; Microsoft Comments at 9.

<sup>356</sup> We note that stations that are interested in pursuing a change to their DTS service area may file for waiver of our DTS rules pursuant to our general waiver standard. *See* 47 CFR § 1.3.

<sup>357</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1697-8, para. 62.

<sup>358</sup> *See DTS Report and Order*, 23 FCC Rcd at 16759, para 50. The Commission further noted that this approach avoided implication of any specific intellectual property held by companies participating in the proceeding. *Id.* at 16760, para. 51.

<sup>359</sup> LG Comments at 8; GatesAir Comments at 9. MWG Comments at 28.

and while the ATSC has developed an approach to transmitter synchronization that is being standardized to facilitate interoperability of equipment obtained from different manufacturers, there is no reason for the Commission to constrain the choices that a broadcaster can make.”<sup>360</sup>

120. Finally, we adopt our proposed rule to require all DTS transmitters under the same license to follow the same digital television broadcasting transmission standard.<sup>361</sup> No one commented on this proposal. This simple measure is meant to ensure that stations do not attempt to mix ATSC 1.0 and ATSC 3.0 transmissions within a DTS network. Doing so would introduce significant self-interference within the station’s service area and would be harmful to consumers.

#### IV. FURTHER NOTICE OF PROPOSED RULEMAKING

##### A. Introduction

121. In this Further Notice of Proposed Rulemaking, we seek further comment on three topics related to the rules adopted in the companion Report and Order. First, we seek further comment on issues related to exceptions to and waivers of the local simulcasting requirement. Second, we seek comment on whether we should let full power broadcasters use channels in the television broadcast band that are vacant to facilitate the transition to 3.0. Finally, we tentatively conclude that local simulcasting should not change the significantly viewed status of a Next Gen TV station.

##### B. Discussion

###### 1. Local Simulcasting Waivers and Exceptions

122. *Simulcast Waivers.* In the Report and Order, we explain that we will consider requests for waiver of our local simulcasting requirement on a case-by-case basis, including (1) requests seeking to transition directly from 1.0 to 3.0 service on the station’s existing facility without simulcasting in 1.0 and (2) requests to air a 1.0 simulcast channel from a host location that does not cover all or a portion of the station’s community of license or from which the station can provide only a lower signal threshold over the community than that required by the rules.<sup>362</sup> With respect to such requests, we state: “We are inclined to consider favorably requests for waiver of our local simulcasting requirement where the Next Gen TV station can demonstrate that it has no viable local simulcasting partner in its market and where the station agrees to make reasonable efforts to preserve 1.0 service to existing viewers in its community of license and/or otherwise minimize the impact on such viewers (for example, by providing free or low cost ATSC 3.0 converters to viewers).”

123. We seek comment on what further guidance we should provide about the circumstances in which we will grant a waiver of the local simulcasting requirement. How should we determine if a station has a “viable” simulcast partner? Given that we specify in the Report and Order that a Next Gen TV broadcaster’s 1.0 simulcast channel must continue to cover its entire community of license, should we consider a station to have no viable partner only if there is no potential simulcasting partner in the same DMA that can cover the station’s entire community of license? Alternatively, should we consider

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<sup>360</sup> MWG Comments at 28. We also note that the A/322 standard, which we incorporate into our rules as discussed in paragraphs 98-104 above, does not include a synchronization standard, nor does it implicate any specific synchronization standards. A/322 is an enabling standard for SFNs in that it describes interference-rejection methods that allow an ATSC 3.0 SFN to work, but it does not establish a particular synchronization standard for SFNs. LG Comments at 8. MWG points out that “the document that [describes how to synchronize and manage multiple transmitters in a network] is ATSC A/324 – Scheduler/Studio to Transmitter Link.” MWG Comments at 29. Therefore, the incorporation of the A/322 standard into our rules does not implicate a synchronization standard.

<sup>361</sup> See *Next Gen TV NPRM*, 32 FCC Rcd at 1698, para. 63; Appendix B (modifying 47 CFR § 73.626(g)).

<sup>362</sup> The Commission may waive its rules if good cause is shown. See 47 CFR § 1.3. We explain in the Report and Order that we are not inclined to consider favorably requests to change community of license solely to enable simulcasting.

adopting a broader definition of viability? For example, should we specify that waiver applicants located in DMAs in which there are fewer than a threshold number of full power and/or Class A or LPTV broadcasters will be considered to have no viable partner? If so, what threshold should we adopt? How should we consider cases in which there are no stations that can cover a station's community of license, and therefore serve as an ATSC 1.0 simulcast host under our rules, but there are stations in the DMA that are transitioning to ATSC 3.0 and therefore could potentially serve as a 3.0 lighthouse? If there is a potential partner in the same DMA, are there other circumstances that would make such potential partner not viable, such as, for example, if the potential partner refused to agree to being a simulcasting partner? Should we have different levels of scrutiny for waiver requests depending on whether the petition seeks to transition directly as opposed to simulcast from a facility that will not cover its community of license? For stations that seek to simulcast from a facility that will not cover its community of license, should a factor be how far the host location is from the petitioner's community of license? Are there special circumstances we should consider for NCE stations, including those that are in isolated areas or are not centrally located in DMAs?<sup>363</sup> We seek comment on the same issues for Class A stations if they cannot find a host that allows them to satisfy the simulcasting requirements in the Report and Order. We also seek comment on the potential impact that any definition of viability would have on local viewers.

124. In addition, we seek comment on what type of "reasonable efforts" we should require a waiver applicant to undertake in order to preserve 1.0 service to existing viewers in its community of license and/or otherwise minimize the impact on viewers in its coverage area. Should it be favorable to our determination if waiver applicants volunteer to provide free or low cost ATSC 3.0 converters to viewers in their coverage area? Should we require such a commitment as a condition for waiver? Are there other efforts to minimize disruption to consumers that we should consider or require? We also invite comment on other circumstances in which we should consider granting waivers of the local simulcasting requirement.

125. *Simulcast Exceptions.* We also seek comment on whether to exempt NCE and/or Class A stations as a class from our local simulcasting requirement or adopt a presumptive waiver standard for such stations. In the Report and Order, we exempt LPTV and TV translator stations from our local simulcasting requirement and allow these stations to transition directly to 3.0 service. Class A and NCE stations could also face more difficulty than commercial full power stations face when seeking a local simulcasting partner. Could allowing Class A and NCE stations to transition directly to 3.0 make them more attractive "lighthouse" candidates? We seek comment on whether, as a general matter, allowing NCE and Class A stations to transition directly would serve the public interest. Under what circumstances would direct transitions be appropriate? What effect would this have on consumers and on MVPDs? What criteria distinguish these stations from full power commercial broadcasters to justify disparate treatment?

## 2. Temporary Use of Vacant Channels

126. In the *Next Gen TV NPRM*, we asked whether we should "consider allowing broadcasters [that wish to deploy ATSC 3.0 service] to use vacant in-band channels remaining in the market after the incentive auction repack to serve as temporary host facilities for ATSC 1.0 or 3.0 programming by multiple broadcasters."<sup>364</sup> ONE Media requests that in markets with vacant channels, the Commission

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<sup>363</sup> Several commenters express concern that some broadcasters would not be able to satisfy a local simulcasting requirement because of the lack of availability of potential simulcasting partners. For example, PBS states that "[p]ublic stations may be unable to share facilities with another station, particularly in rural and isolated communities, because they are often not centrally located in a television market..." PBS Oct. 13 *Ex Parte* at 1. PBS further explains that this is because "noncommercial educational must-carry rights are not tied to Designated Market Areas, so such stations are not necessarily sited near their commercial counterparts, and given that 16 states are covered by statewide public television networks that are designed to serve their entire state regardless of DMA boundaries." *Id.*

<sup>364</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1677, para. 14.

should allow full power broadcasters to use the vacant channels as “dedicated transition channels to ensure maximum continuity of service, just as it did during the transition from analog to digital.”<sup>365</sup> It suggests that these vacant channels should be made available during the post-auction transition period, and that only after the full power broadcaster has vacated the channel should the channel be made available to others, such as displaced LPTV and translator license applicants.<sup>366</sup> ONE Media asserts that as primary users in the television band, full power licensees have priority to obtain licenses for vacant channels over any LPTV and translator licensees, and therefore full power licensees should be able to use such a channel as a transition channel during the voluntary ATSC 3.0 deployment period, even if it is the only channel to which a displaced LPTV or translator station could relocate.<sup>367</sup> The LPTV Spectrum Rights Coalition opposes ONE Media’s proposal on the ground that it would diminish LPTV licensing rights in the middle of the displacement process.<sup>368</sup> The Wi-Fi Alliance, Microsoft, the Consumers Union et al., and Dynamic Spectrum Alliance also oppose any approach that would expand broadcasters’ spectrum rights in conjunction with ATSC 3.0 deployment, and they express concern about damaging the potential success of white space use in the television bands.<sup>369</sup>

127. Given the diversity of comments on this issue, we seek additional comment on the extent to which we should allow full power broadcasters to use vacant channels in the television broadcast band to facilitate the transition to 3.0, and, if so, when they should be able to use these channels, and what procedures we should use to authorize that use. As a threshold matter, how should we define a “vacant” channel for this purpose? We seek specific comment on ONE Media’s proposal, and how it potentially would affect the post-incentive auction transition/repacking process and the various other users in the repacked television band.<sup>370</sup> That is, given that vacant channels might be needed by stations transitioning to new channel assignments,<sup>371</sup> how does ONE Media’s proposal impact that and the post-auction process

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<sup>365</sup> ONE Media Comments at 13. *See also* ONE Media July 3, 2017 *Ex Parte* Letter at 2.

<sup>366</sup> ONE Media Comments at 14.

<sup>367</sup> ONE Media Reply at 6-8.

<sup>368</sup> LPTV Spectrum Rights Coalition Reply at 3-4.

<sup>369</sup> Wi-Fi Alliance Comments at 3-5 (the Commission should not take action that would limit the use of vacant channels for innovative white space devices); Microsoft Reply at 2-5 (opposes granting broadcasters the right to claim exclusive rights to additional channels, contending that this would complicate and add uncertainty to the repacking process, and requests that the Commission preserve one vacant channel in each TV market for unlicensed use); Public Interest Groups Reply at 16-23 (ATSC 3.0 should not be a pretext for providing additional spectrum to broadcasters or foreclose unlicensed access to vacant channels); Letter from Kalpak Gude, President, DSA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 1 (filed May 9, 2017).

<sup>370</sup> *Next Gen TV NPRM*, 32 FCC Rcd at 1671, para 2 (“In this proceeding, we seek to adopt rules that will afford broadcaster flexibility to deploy ATCS 3.0-based transmissions, while minimizing the impact on, and costs to, consumers and other stakeholders.”). In the *Incentive Auction R&O*, the Commission provided for a 39-month post-incentive auction transition pertaining to the various secondary broadcast and unlicensed operations in the TV bands – including LPTV and TV translator stations, broadcast auxiliary service, wireless microphones, and unlicensed white space devices – with the goal of promoting a smooth and effective transition process. *See generally Incentive Auction R&O*, 29 FCC Rcd at 6782-6847 (“Post-Incentive Auction Transition”). *See also The Incentive Auction Task Force and Media Bureau Announce Procedures for Low Power Television, Television Translator and Replacement Translator Stations During the Post-Incentive Auction Transition*, Public Notice, DA 17-442 (rel. May 12, 2017) (describing procedures for a Special Displacement Window for operating low power television, analog-to-digital replacement translator, and TV translator stations that are displaced as a result of the broadcast incentive auction and repacking process).

<sup>371</sup> *See Incentive Auction Task Force and Media Bureau Adopt a Post-Incentive Auction Transition Scheduling Plan*, Public Notice, 32 FCC Rcd 89, 915-17 (IATF/MB 2017) (permitting reassigned Class A and full power stations to make a request to operate on a temporary channel either on an individual or joint basis and stating that the Media Bureau in evaluating such requests will examine the impact on the post-auction transition schedule).

in general? For example, if we allow usage of vacant channels, should we only allow temporary access to a vacant channel after the repacking process is completed? Or, should we permit such access after the LPTV displacement window is closed?

128. If we were to permit full power licensees priority to use vacant channels as dedicated transition channels, we seek comment on the process for doing so. Specifically, how would broadcasters apply for an authorization to use a vacant channel? Should the request be for Special Temporary Authority (STA)? Should we instead consider a request for a temporary channel to be a minor change of the station's existing license and require a minor change application?<sup>372</sup> If we treat these requests as minor changes, should we process such requests on a first-come, first-served basis? Should we open a window for such requests? How should we resolve competing requests for temporary channels? What should we require a broadcaster to show to demonstrate that it needs a temporary channel, and how long should the authorization last? What effect would this proposal have on other users in the repacked band, including wireless microphone users and white space device operations?<sup>373</sup> We also seek input on how we should address MVPD carriage issues related to usage of vacant channels.<sup>374</sup> How would the Commission handle loss of service when the full power broadcaster ceases its temporary operation – and moves back to its original facility? We seek specific comment on the effects on small entities: (1) would allowing broadcasters to use these vacant channels help small broadcasters transition, (2) would allowing broadcasters to use these vacant channels impose carriage burdens on small MVPDs, and (3) what can we do to ease the burdens on those entities? We seek comment on these and any other issues that we would need to address if we allow full power broadcasters to use vacant channels as temporary transition channels.

### 3. Significantly Viewed Status of Next Gen TV Stations

129. We tentatively conclude that the significantly viewed status of a Next Gen TV station should not change if it moves its 1.0 simulcast channel to a temporary host facility.<sup>375</sup> Under our proposal, a commercial television station that relocates its 1.0 simulcast channel could not seek to gain significantly viewed status in new communities or counties and such station could not lose significantly viewed status in communities or counties for which it qualified prior to the move of its 1.0 simulcast channel. We seek comment on this tentative conclusion. In the Report and Order, we impose a freeze on the filing of any requests to change the significantly viewed status of a Next Gen TV station that is moving its 1.0 simulcast channel to avoid confusion while we consider this issue.<sup>376</sup>

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<sup>372</sup> See *supra* Section. III.B.3.b (explaining that we will treat temporary 1.0 channels as minor changes and that they are part of a single, unified license).

<sup>373</sup> We note that the Commission has an open proceeding seeking comment on whether to preserve a vacant channel in every area for white space device and wireless microphone use. *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*, Notice of Proposed Rulemaking, 30 FCC Rcd 6711 (2015).

<sup>374</sup> See *supra* Section. III.D.

<sup>375</sup> Significantly viewed stations are commercial television stations that the Commission has determined have “significant” over-the-air (*i.e.*, non-cable and non-satellite) viewing and are thus treated as local stations in certain respects with regard to a particular community in another television market. See 47 CFR §§ 76.5(i), 76.54. The Significantly Viewed Stations List is maintained on Commission's website at <https://transition.fcc.gov/mb/significantviewedstations061817.pdf>.

<sup>376</sup> We note that, in order to obtain a waiver of the network nonduplication and syndicated-exclusivity rules (collectively, “exclusivity rules”), petitioners seeking to reassert exclusivity rights on significantly viewed stations are required to demonstrate for two consecutive years that a station was no longer significantly viewed, based either on community-specific or system-specific over-the-air viewing data, following the methodology set forth in 47 CFR § 76.54(b). See, *e.g.*, *Media General*, 31 FCC Rcd 1225 (MB, 2016); *KCST-TV, Inc.*, CSR-1270, Memorandum Opinion and Order, 103 FCC 2d 407 (1986).

130. Stations that vary their signal strength or change their location as a result of moving their 1.0 signal to simulcast raise the question of how this change may affect their status as “significantly viewed” in certain communities or counties under sections 76.5(i) and 76.54 of our rules.<sup>377</sup> Significantly viewed status allows the significantly viewed station (1) to be carried by a satellite carrier in such community in the other market;<sup>378</sup> (2) to be carried in such community by cable and satellite operators at the reduced copyright payment applicable to local (in-market) stations;<sup>379</sup> and (3) to be exempt in such community from another station’s assertion of its network non-duplication or syndicated exclusivity rights.<sup>380</sup> We tentatively agree with ATVA that we should maintain the status quo in the significantly viewed context with respect to 1.0 simulcast signals.<sup>381</sup> We note that our tentative conclusion differs from how we addressed this issue in the channel sharing context. In the *Incentive Auction Report and Order*, the Commission found that because significantly viewed status is largely a function of signal availability, a station moving to a new channel should lose its status at the relinquished location.<sup>382</sup> But unlike the channel sharing context, Next Gen TV broadcasters are not relinquishing their original channel, but rather will continue to operate on it and will ultimately return to it when the local simulcasting period ends. That is, the relocation of the 1.0 signal is temporary and a Next Gen TV broadcaster will continue to reach the communities or counties in which it is significantly viewed with an over-the-air signal, albeit in 3.0.<sup>383</sup>

131. We recognize that broadcasters would not soon be able to demonstrate “significant viewing”<sup>384</sup> with their 3.0 signals, but expect they will eventually be able to do so once Next Gen TV service takes hold in the marketplace. In the meantime, we tentatively conclude that maintaining the status quo with respect to eligibility for significantly viewed carriage would avoid some complications and disruptions to cable and satellite television viewers who have come to rely on such signals,<sup>385</sup> while

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<sup>377</sup> See 47 CFR §§ 76.5(i), 76.54.

<sup>378</sup> See 47 U.S.C. § 340. Significantly viewed status is an exception to the “no distant where local” requirement which prohibits satellite carriage of distant (out-of-market) stations. See 47 U.S.C. § 339(a)(2); 17 U.S.C. § 119(a)(3).

<sup>379</sup> See 17 U.S.C. § 122(a)(2).

<sup>380</sup> See 47 CFR §§ 76.92(f) and 76.106(a) (significantly viewed exception to cable network nonduplication and syndicated exclusivity for cable); 47 CFR §§ 76.122(j) and 76.123(k) (significantly viewed exception to satellite network nonduplication and syndicated exclusivity for satellite).

<sup>381</sup> See ATVA Comments at 41. We note that ATVA argues the Commission should “prohibit simulcasts that reduce a station’s eligibility for ‘significantly viewed’ carriage” and urges that the Commission “not adopt the approach it took to channel sharing.” *Id.* Although we do not restrict simulcasts in the manner sought by ATVA, we tentatively agree with ATVA in this *FNPRM* to the extent that ATVA seeks to maintain the status quo with respect to significantly viewed carriage while local simulcasting is required.

<sup>382</sup> *Incentive Auction R&O*, 29 FCC Rcd at 6860, para. 711 (“Because significantly viewed status is largely a function of signal availability, once a full power commercial station is permitted to move in order to channel share, or to modify the shape or strength of its over-the-air signal, it will lose its status as ‘significantly viewed’ in those counties and communities it can no longer reach with its over-the-air signal, and it will have to apply for such status in counties or communities it will be able to reach with the new scope of its signal.”).

<sup>383</sup> We tentatively conclude that the availability of the 3.0 signal to the station’s existing viewers at its original location is relevant in the significantly viewed context. Moreover, considering 3.0 service in this regard will not impose additional mandatory carriage obligations on MVPDs (because MVPD carriage of significantly viewed stations is voluntary).

<sup>384</sup> See 47 CFR §§ 76.5(i), 76.54(b).

<sup>385</sup> See ATVA Comments at 42 (stating that following the approach in the channel sharing context “may have been acceptable ... where relatively few stations (and even fewer network affiliates) were expected to participate. It cannot be acceptable here, where every station could eventually simulcast. Suppose, for example, that WTTG (Fox’s Washington DC affiliate) decides to simulcast from a host that is not significantly viewed in Anne Arundel

(continued....)

not imposing added mandatory carriage burdens on MVPDs.<sup>386</sup> We likewise tentatively conclude that expansion of eligibility for significantly viewed carriage due to the relocation of the 1.0 simulcast channel is not consistent with the purposes of local simulcasting, which includes maintaining existing television service to viewers within the station's original coverage area but does not include expanding service into new areas. We seek comment on our proposal and tentative conclusions. We also seek comment on what effect our proposal and tentative conclusions would have on small broadcasters and MVPDs.

## V. PROCEDURAL MATTERS

### A. Regulatory Flexibility Act (RFA)

132. Final RFA Analysis. As required by the Regulatory Flexibility Act of 1980 (RFA),<sup>387</sup> the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA). The FRFA is attached as Appendix C.

133. Initial RFA Analysis. As required by the Regulatory Flexibility Act of 1980 (RFA),<sup>388</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA). The IRFA is attached as Appendix D. Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the first page of this document. The Commission will send a copy of this document, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

### B. Paperwork Reduction Act (PRA)

134. Final Paperwork Reduction Act Analysis. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA).<sup>389</sup> The requirements 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 will be invited to comment on the information collection requirements contained in this proceeding. The Commission will publish a separate document in the *Federal Register* at a later date seeking these comments. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002 (SBPRA),<sup>390</sup> we will seek specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

135. Initial Paperwork Reduction Act Analysis. This *FNPRM* may result in new or modified information collection requirements. If the Commission adopts any new or modified information

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County, which is assigned to the Baltimore DMA. Under the channel sharing approach, Anne Arundel County MVPD subscribers would lose Redskins games on WTTG because of that decision. And it would not be any comfort to Anne Arundel County viewers that WTTG's host might subsequently file its own application to become significantly viewed there.”).

<sup>386</sup> We note that significantly viewed status does not confer mandatory carriage rights to the station, but rather only allows carriage of the station via retransmission consent. *See, e.g.*, 47 U.S.C. § 340(d). Thus, maintaining the status quo with respect to eligibility for significantly viewed carriage presents no mandatory carriage burdens on MVPDs.

<sup>387</sup> *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601, *et seq.*, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996). The SBREFA was enacted as Title II of the Contract with America Advancement Act of 1996 (CWAAA).

<sup>388</sup> *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601, *et seq.*, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996). The SBREFA was enacted as Title II of the Contract with America Advancement Act of 1996 (CWAAA).

<sup>389</sup> The Paperwork Reduction Act of 1995 (PRA), Pub. L. No. 104-13, 109 Stat. 163 (1995) (codified in Chapter 35 of title 44 U.S.C.).

<sup>390</sup> The Small Business Paperwork Relief Act of 2002 (SBPRA), Pub. L. No. 107-198, 116 Stat. 729 (2002) (codified in Chapter 35 of title 44 U.S.C.). *See* 44 U.S.C. § 3506(c)(4).

collection requirements, the Commission will publish a notice in the Federal Register inviting the public to comment on such requirements, as required by the Paperwork Reduction Act of 1995 (PRA).<sup>391</sup> In addition, pursuant to the Small Business Paperwork Relief Act of 2002,<sup>392</sup> the Commission will seek specific comment on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

### C. Congressional Review Act

136. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office, pursuant to the Congressional Review Act.<sup>393</sup>

### D. Ex Parte Rules

137. We remind interested parties that this proceeding is treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.<sup>394</sup> *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. Memoranda must contain a summary of the substance of the *ex parte* presentation and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with Section 1.1206(b) of the rules. In proceedings governed by Section 1.49(f) of the rules or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

### E. FNPRM Comment Filing Procedures

138. Pursuant to sections 1.415 and 1.419 of the Commission’s rules,<sup>395</sup> interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS).<sup>396</sup>

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<sup>391</sup> The Paperwork Reduction Act of 1995 (PRA), Pub. L. No. 104-13, 109 Stat 163 (1995) (codified in Chapter 35 of title 44 U.S.C.).

<sup>392</sup> The Small Business Paperwork Relief Act of 2002 (SBPRA), Pub. L. No. 107-198, 116 Stat. 729 (2002) (codified in Chapter 35 of title 44 U.S.C.); *see* 44 U.S.C. § 3506(c)(4).

<sup>393</sup> *See* 5 U.S.C. § 801(a)(1)(A).

<sup>394</sup> *See* 47 CFR § 1.1206 (Permit-but-disclose proceedings); *see also id.* §§ 1.1200 *et seq.*

<sup>395</sup> *See id.* §§ 1.415, 1419.

<sup>396</sup> *See Electronic Filing of Documents in Rulemaking Proceedings*, GC Docket No. 97-113, Report and Order, 13 FCC Red 11322 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

139. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

140. Availability of Documents. Comments and reply comments will be publicly available online via ECFS.<sup>397</sup> These documents will also be available for public inspection during regular business hours in the FCC Reference Information Center, which is located in Room CY-A257 at FCC Headquarters, 445 12<sup>th</sup> Street, SW, Washington, DC 20554. The Reference Information Center is open to the public Monday through Thursday from 8:00 a.m. to 4:30 p.m. and Friday from 8:00 a.m. to 11:30 a.m.

#### F. Additional Information

141. For additional information, contact John Gabrysch, [John.Gabrysch@fcc.gov](mailto:John.Gabrysch@fcc.gov), of the Media Bureau, Engineering Division, at (202) 418-7152, Evan Baranoff, [Evan.Baranoff@fcc.gov](mailto:Evan.Baranoff@fcc.gov), of the Media Bureau, Policy Division, (202) 418-7142, or Matthew Hussey, [Matthew.Hussey@fcc.gov](mailto:Matthew.Hussey@fcc.gov), of the Office of Engineering and Technology, (202) 418-3619. Direct press inquiries to Janice Wise at (202) 418-8165.

#### VI. ORDERING CLAUSES

142. **IT IS ORDERED**, pursuant to the authority found in Sections 1, 4, 7, 301, 303, 307, 308, 309, 316, 319, 325(b), 336, 338, 399b, 403, 534, and 535 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154, 157, 301, 303, 307, 308, 309, 316, 319, 325(b), 336, 338, 399b, 403, 534, and 535, this Report and Order and Further Notice of Proposed Rulemaking **IS HEREBY ADOPTED**, effective thirty (30) days after the date of publication in the *Federal Register*.

143. **IT IS FURTHER ORDERED** that the Commission's rules **ARE HEREBY AMENDED** as set forth in Appendix B and **WILL BECOME EFFECTIVE** 30 days after publication in the Federal Register, except for 47 C.F.R. §§ 73.3801, 73.6029, and 74.782 which contain new or modified information collection requirements that require approval by the OMB under the PRA and

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<sup>397</sup> Documents will generally be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

which shall become effective after the Commission publishes a notice in the *Federal Register* announcing OMB approval and the effective date of the rules.

144. **IT IS FURTHER ORDERED** that, pursuant to 47 U.S.C. 155(c), the Chief, Media Bureau, is granted delegated authority for the narrow purpose of amending FCC Form 2100 as necessary to implement the licensing process adopted herein.

145. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this Report and Order and Further Notice of Proposed Rulemaking, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX A****List of Commenters and Reply Commenters****A. List of Commenters**

1. Advanced Television Broadcasting Alliance (ATBA)
2. America's Public Television Stations (APTS), Advanced Warning and Response Network Alliance (AWARN Alliance), Consumer Technology Association (CTA) and National Association of Broadcasters (NAB) (Petitioners)
3. American Cable Association (ACA)
4. American Television Alliance (ATVA)
5. AT&T Services Inc. (AT&T) (including DIRECTV)
6. AWARN Alliance (AWARN)
7. Brey, Ronald J. (Brey)
8. Cohen, Dippell and Everist, P.C. (CDE)
9. Consumers Union (CU), Public Knowledge (PK), and Open Technology Institute at New America (Public Interest Groups)
10. CTIA
11. DISH Network L.L.C. (DISH)
12. Dynamic Spectrum Alliance (DSA)
13. Entravision Communications Corporation (Entravision)
14. GatesAir Inc. (GatesAir)
15. ION Media Networks, Inc. (ION)
16. ITTA – The Voice of America's Broadband Providers (ITTA)
17. LG Electronics, Inc. (LG)
18. Lokita Solutions, RTP Holdings (Lokita)
19. LPTV Spectrum Rights Coalition
20. LS telcom, Inc. and RadioSoft, Inc. (LS telcom)
21. Mediacom Communications Corporation (Mediacom)
22. Meredith Corporation (Meredith)
23. Merrill Weiss Group LLC (MWG)
24. Microsoft Corporation (Microsoft)
25. Midcontinent Communications (Midco)
26. Monroe Electronics, Inc. (Monroe)
27. National Public Radio, Inc. (NPR)
28. NCTA - The Internet & Television Association (NCTA)
29. Nexstar Broadcasting, Inc. (Nexstar)
30. NTCA-The Rural Broadband Association (NTCA)
31. ONE Media, LLC (ONE Media)
32. One Ministries, Inc.
33. Pearl TV
34. Public Broadcasting Service, Corporation for Public Broadcasting, America's Public Television Stations (PTV)
35. Public Media Company (PMC)
36. Raycom Media, Inc (Raycom)

37. Rolando Bettancourt, Marvin A. Sirbu
38. TEGNA Inc. (TEGNA)
39. Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), the National Association of the Deaf (NAD), the Hearing Loss Association of America (HLAA), the Association of Late-Deafened Adults (ALDA), the Cerebral Palsy and Deaf Organization (CPADO), the California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), the National Association of State Agencies of the Deaf and Hard of Hearing (NASADHH), the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN), and the Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC) (Consumer Groups)
40. T-Mobile, Inc. (T-Mobile)
41. Univision Communications Inc. (Univision)
42. Verance Corporation (Verance)
43. Verizon
44. WatchTV, Inc. (WatchTV)
45. Wi-Fi Alliance
46. WTA-Advocates for Rural Broadband (WTA)

**B. List of Reply Commenters**

1. ABC, CBS, FBC, and NBC Affiliates (Network Affiliates)
2. American Television Alliance (ATVA)
3. APCO International (APCO)
4. AT&T Services, Inc. (AT&T)
5. Cocola Broadcasting Companies, LLC (CBC)
6. Cohen, Dippell and Everist, P.C. (CDE)
7. Consumer Technology Association (CTA)
8. Free Access & Broadcast Telemedia, LLC
9. Hank Bovis
10. Hatfield & Dawson Consulting Engineers, LLC
11. INSP, LLC
12. ION Media Networks
13. LG Electronics, Inc.
14. LPTV Spectrum Rights Coalition
15. Merrill Weiss Group LLC
16. Microsoft Corporation
17. National Association of Broadcasters (NAB)
18. National Center for Missing and Exploited Children
19. NCTA – The Internet & Television Association
20. NTCA-The Rural Broadband Association
21. ONE Media, LLC
22. Open Technology Institute, Public Knowledge, Consumers Union
23. Pearl TV
24. Public Broadcasting Service, Corporation for Public Broadcasting, America’s Public Television Stations
25. Sinclair Broadcast Group, Inc. (Sinclair)

- 26. The Advanced Television Systems Committee, Inc. (ATSC)
- 27. TV One
- 28. Verizon

## APPENDIX B

## Final Rules

The Federal Communications Commission proposes to amend Parts 15 and 73 of Title 47 of the Code of Federal Regulations (CFR) as set forth below:

**PART 15– Radio Frequency Devices**

1. The authority citation for Part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 304, 307, 336, 544a, and 549.

2. Amend §15.117 by revising paragraph (b) to read as follows:

**§ 15.117 TV broadcast receivers.**

\* \* \* \* \*

(b) TV broadcast receivers shall be capable of adequately receiving all channels allocated by the Commission to the television broadcast service that broadcast digital signals using the DTV transmission standard in §73.682(d) of this chapter, but need not be capable of receiving analog signals or signals using the Next Gen TV transmission standard in §73.682(f) of this chapter.

\* \* \* \* \*

**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. Amend §73.616 by revising paragraph (e)(1) and adding a new paragraph (g) to read as follows:

**§ 73.616 Post-transition DTV station interference protection.**

\* \* \* \* \*

(e) \* \* \*

(1) For evaluating compliance with the requirements of this paragraph, interference to populations served is to be predicted based on the most recent official decennial U.S. Census population data as identified by the Media Bureau in a Public Notice issued not less than 60 days prior to use of the data for a specific year in application processing, and otherwise according to the procedure set forth in OET Bulletin No. 69: “Longley-Rice Methodology for Evaluating TV Coverage and Interference” (February 6, 2004) (incorporated by reference, see §73.8000), including population served within service areas determined in accordance with §73.622(e), consideration of whether F(50,10) undesired signals will exceed the following desired-to-undesired (D/U) signal ratios, assumed use of a directional receiving antenna, and use of the terrain dependent Longley-Rice point-to-point propagation model. Applicants may request the use of a cell size other than the default of 2.0 km per side, but only requests for cell sizes of 1.0 km per side or 0.5 km per side will be considered. The threshold levels at which interference is considered to occur are:

\* \* \* \* \*

(g) The interference protection requirements contained in this section apply to television station operations under both the DTV transmission standard in §73.682(d) and the Next Gen TV transmission standard in §73.682(f).

3. Amend § 73.624(b) by adding a new paragraph (3) to read as follows:

**§ 73.624 Digital television broadcast stations.**

\* \* \* \* \*

(b) \* \* \*

(3) DTV licensees or permittees that choose to broadcast an ATSC 3.0 signal (using the Next Gen TV transmission standard in §73.682(f)) shall transmit at least one free over the air video programming stream on that signal that requires at most the signal threshold of a comparable received DTV signal. DTV licensees or permittees that choose to broadcast an ATSC 3.0 signal (using the Next Gen TV transmission standard in §73.682(f)) shall also simulcast the primary video programming stream on its ATSC 3.0 signal by broadcasting an ATSC 1.0 signal (using the DTV transmission standard in §73.682(d)) from another broadcast television facility within its local market in accordance with the local simulcasting requirement in §§73.3801, 73.6029 and 74.782.

\* \* \* \* \*

4. Amend §73.626 by adding a new paragraph (g) to read as follows:

**§ 73.626 DTV Distributed Transmission Systems.**

\* \* \* \* \*

(g) All transmitters operating under a single DTS license must follow the same digital broadcast television transmission standard.

5. Amend §73.682 by adding new a paragraph (f) to read as follows:

**§ 73.682 TV transmission standards.**

\* \* \* \* \*

(f) Next Gen TV broadcast television transmission standard authorized.

(1) As an alternative to broadcasting only an ATSC 1.0 signal using the DTV transmission standard set forth in paragraph (d) of this section, DTV licensees or permittees may choose to broadcast an ATSC 3.0 signal using the Next Gen TV transmission standard set forth in this paragraph (f), provided it also broadcasts a simulcast signal in ATSC 1.0 (using the DTV transmission standard in §73.682(d)).

(2) Effective [insert date of publication in the Federal Register], transmission of Next Gen TV broadcast television (ATSC 3.0) signals shall comply with the standards for such transmissions set forth in ATSC A/321:2016, "System Discovery and Signaling" (March 23, 2016) (incorporated by reference, see §73.8000). To the extent that virtual channels (specified in the DTV transmission standard referenced in ATSC A/65C:2006 in §73.682(d) of this section) are used in the transmission of Next Gen TV broadcasting, major channel numbers shall be assigned as required by ATSC A/65C:2006 Annex B (incorporated by reference, see §73.8000). In addition, until [insert date 5 years from publication in the

Federal Register], such signals shall also comply with the standards set forth in ATSC A/322:2017 “Physical Layer Protocol” (June 6, 2017) (incorporated by reference, see §73.8000) with respect to the transmission of at least one free over the air primary video programming stream.

6. Add §73.3801 to subpart H to read as follows:

**§ 73.3801 Full Power Television Simulcasting During the ATSC 3.0 (Next Gen TV) Transition**

(a) Simulcasting Arrangements. For purposes of compliance with the simulcasting requirement in paragraph (b), a full power television station may partner with one or more other full power stations or with one or more Class A, LPTV, or TV translator stations in a simulcasting arrangement for purposes of airing either an ATSC 1.0 or ATSC 3.0 signal on a host station’s (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities. Noncommercial educational television stations may participate in simulcasting arrangements with commercial stations.

(1) A full power television station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a Class A host station must comply with the rules governing power levels and interference applicable to Class A stations, and must comply in all other respects with the rules and policies applicable to full power television stations set forth in Part 73 of this chapter.

(2) A full power television station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a low power television or TV translator host station must comply with the rules of Part 74 of this chapter governing power levels and interference applicable to low power television or TV translator stations, and must comply in all other respects with the rules and policies applicable to full power television stations set forth in Part 73 of this chapter.

(3) A full power noncommercial educational television (NCE) station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a commercial television host station must comply with the rules applicable to NCE licensees.

(b) Simulcasting Requirement. A full power television station that chooses to air an ATSC 3.0 signal must simulcast the primary video programming stream of that signal in an ATSC 1.0 format. This requirement does not apply to any multicast streams aired on the ATSC 3.0 channel.

(1) The programming aired on the ATSC 1.0 simulcast signal must be "substantially similar" to that aired on the ATSC 3.0 primary video programming stream. For purposes of this section, "substantially similar" means that the programming must be the same except for advertisements, promotions for upcoming programs, and programming features that are based on the enhanced capabilities of ATSC 3.0. These enhanced capabilities include:

(i) hyper-localized content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news);

(ii) programming features or improvements created for the ATSC 3.0 service (*e.g.*, emergency alert "wake up" ability and interactive program features);

(iii) enhanced formats made possible by ATSC 3.0 technology (*e.g.*, 4K or HDR); and

(iv) personalization of programming performed by the viewer and at the viewer's discretion.

(2) For purposes of paragraph (b)(1), programming that airs at a different time on the ATSC 1.0 simulcast signal than on the primary video programming stream of the ATSC 3.0 signal is not considered "substantially similar."

(c) Coverage Requirements for the ATSC 1.0 Simulcast Signal. For full power broadcasters that elect temporarily to relocate their ATSC 1.0 signal to the facilities of a host station for purposes of deploying ATSC 3.0 service (and that convert their existing facilities to ATSC 3.0), the ATSC 1.0 simulcast signal must continue to cover the station's entire community of license (*i.e.*, the station must choose a host from whose transmitter site the Next Gen TV station will continue to meet the community of license signal requirement over its current community of license, as required by 47 CFR 73.625) and the host station must be assigned to the same Designated Market Area (DMA) as the originating station (*i.e.*, the station whose programming is being transmitted on the host station).

(d) Coverage Requirements for ATSC 3.0 Signals. For full power broadcasters that elect to continue broadcasting in ATSC 1.0 on the station's existing facilities and transmit an ATSC 3.0 signal on the facilities of a host station, the ATSC 3.0 signal must be established on a host station assigned to the same DMA as the originating station.

(e) Simulcasting Agreements.

(1) Simulcasting agreements must contain provisions outlining each licensee's rights and responsibilities regarding:

(i) Access to facilities, including whether each licensee will have unrestrained access to the host station's transmission facilities;

(ii) Allocation of bandwidth within the host station's channel;

(iii) Operation, maintenance, repair, and modification of facilities, including a list of all relevant equipment, a description of each party's financial obligations, and any relevant notice provisions;

(iv) Conditions under which the simulcast agreement may be terminated, assigned or transferred; and

(v) How a guest station's (*i.e.*, a station originating programming that is being transmitted using the facilities of another station) signal may be transitioned off the host station.

(2) Broadcasters must maintain a written copy of any simulcasting agreement and provide it to the Commission upon request.

(f) Licensing of Simulcasting Stations and Stations Converting to ATSC 3.0 Operation.

(1) Each station participating in a simulcasting arrangement pursuant to this section shall continue to be licensed and operated separately, have its own call sign, and be separately subject to all applicable Commission obligations, rules, and policies. ATSC 1.0 and ATSC 3.0 signals aired on the facilities of a host station will be licensed as temporary second channels of the originating station. The Commission will include a note on the originating station's license identifying any ATSC 1.0 or ATSC 3.0 signal being aired on the facilities of a host station. The Commission will also include a note on a host station's license identifying any ATSC 1.0 or ATSC 3.0 guest signal(s) being aired on the facilities of the host station.

(2) Application Required. A full power broadcaster must file an application (FCC Form 2100) with the Commission, and receive Commission approval, before: (i) moving its ATSC 1.0 signal to the facilities of a host station, moving that signal from the facilities of an existing host station to the facilities of a different host station, or discontinuing an ATSC 1.0 guest signal; (ii) commencing the airing of an ATSC

3.0 signal on the facilities of a host station (that has already converted to ATSC 3.0 operation), moving its ATSC 3.0 signal to the facilities of a different host station, or discontinuing an ATSC 3.0 guest signal; or (iii) converting its existing station to transmit an ATSC 3.0 signal or converting the station from ATSC 3.0 back to ATSC 1.0 transmissions.

(3) Streamlined Process. With respect to any application in paragraph (2), a full power broadcaster may file only an application for modification of license, provided no other changes are being requested in such application that would require the filing of an application for a construction permit as otherwise required by the rules (*see, e.g.*, 47 CFR §§ 73.1690).

(4) Host Station. A host station must first make any necessary changes to its facilities before a guest station may file an application to air a 1.0 or 3.0 signal on such host.

(5) Expedited Processing. An application filed in accordance with the streamlined process in paragraph (3) will receive expedited processing provided, for stations requesting to air an ATSC 1.0 signal on the facilities of a host station, the station will provide ATSC 1.0 service to at least 95 percent of the predicted population within the noise limited service contour of its original ATSC 1.0 facility.

(6) Required Information.

(i) An application in paragraph (2) must include the following information: (A) the station serving as the host, if applicable, (B) the technical facilities of the host station, if applicable, (C) the DMA of the originating broadcaster's facility and the DMA of the host station, if applicable, and (D) any other information deemed necessary by the Commission to process the application.

(ii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station, the broadcaster must, in addition to the information in paragraph (6)(i), also indicate on the application: (A) the predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal, (B) the predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map, and (C) whether the ATSC 1.0 simulcast signal aired on the host station will serve at least 95 percent of the population in paragraph (6)(ii)(A).

(iii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station and does not meet the 95 percent standard in paragraph (6)(ii), the application must contain, in addition to the information in paragraphs (6)(i) and (6)(ii), the following information: (A) whether there is another possible host station(s) in the market that would result in less service loss to existing viewers and, if so, why the next Gen TV broadcaster chose to partner with a host station creating a larger service loss; (B) what steps, if any, the station plans to take to minimize the impact of the service loss (*e.g.*, providing ATSC 3.0 dongles, set-top boxes, or gateway devices to viewers in the loss area); and (C) the public interest benefits of the simulcasting arrangement and a showing of why the benefit(s) of granting the application would outweigh the harm(s). These applications will be considered on a case-by-case basis.

(g) Consumer education for Next Gen TV stations.

(1) Commercial and noncommercial educational stations that relocate their ATSC 1.0 signals (*e.g.*, moving to a host station's facility, subsequently moving to a different host, or returning to its original facility) are required to air daily Public Service Announcements (PSAs) or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations on their existing facilities. Stations that transition directly to ATSC 3.0 will be required to air daily PSAs or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations.

(2) PSAs. Each PSA must be provided in the same language as a majority of the programming carried by the transitioning station and be closed-captioned.

(3) Crawls. Each crawl must be provided in the same language as a majority of the programming carried by the transitioning station.

(4) Content of PSAs or Crawls.

(i) For stations relocating their ATSC 1.0 signals or transitioning directly to ATSC 3.0, each PSA or crawl must provide all pertinent information to consumers.

(h) Notice to MVPDs.

(1) Next Gen TV stations relocating their ATSC 1.0 signals (*e.g.*, moving to a temporary host station's facilities, subsequently moving to a different host, or returning to its original facility) must provide notice to MVPDs that:

(i) No longer will be required to carry the station's ATSC 1.0 signal due to the relocation; or

(ii) carry and will continue to be obligated to carry the station's ATSC 1.0 signal from the new location.

(2) The notice required by this section must contain the following information:

(i) Date and time of any ATSC 1.0 channel changes;

(ii) The ATSC 1.0 channel occupied by the station before and after commencement of local simulcasting;

(iii) Modification, if any, to antenna position, location, or power levels;

(iv) Stream identification information; and

(v) Engineering staff contact information.

(3) If any of the information in paragraph (h)(2) of this section changes, an amended notification must be sent.

(4) Next Gen TV stations must provide notice as required by this section: (i) at least 120 days in advance of relocating their ATSC 1.0 signals if the relocation occurs during the post-incentive auction transition period; or (ii) at least 90 days in advance of relocating their ATSC 1.0 signals if the relocation occurs after the post-incentive auction transition period (*see* 47 CFR 27.4). If the anticipated date of the ATSC 1.0 signal relocation changes, the station must send a further notice to affected MVPDs informing them of the new anticipated date.

(5) Next Gen TV stations may choose whether to provide notice as required by this section either by a letter notification or electronically via email if the relevant MVPD agrees to receive such notices by email. Letter notifications to MVPDs must be sent by certified mail, return receipt requested to the MVPD's address in the FCC's Online Public Inspection File (OPIF), if the MVPD has an online file. For cable systems that do not have an online file, notices must be sent to the cable system's official address of record provided in the system's most recent filing in the FCC's Cable Operations and Licensing System (COALS). For MVPDs with no official address in OPIF or COALS, the letter must be sent to the MVPD's official corporate address registered with their State of incorporation.

7. Add §73.6029 to subpart J to read as follows:

**§ 73.6029 Class A Television Simulcasting During the ATSC 3.0 (Next Gen TV) Transition**

(a) Simulcasting Arrangements. For purposes of compliance with the simulcasting requirement in paragraph (b), a Class A television station may partner with one or more other Class A stations or with one or more full power, LPTV, or TV translator stations in a simulcasting arrangement for purposes of airing either an ATSC 1.0 or ATSC 3.0 signal on a host station's (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities.

(1) A Class A television station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a full power host station must comply with the rules of Part 73 of this chapter governing power levels and interference, and must comply in all other respects with the rules and policies applicable to Class A television stations, as set forth in §§ 73.6000 *et seq.*

(2) A Class A television station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a low power television or TV translator host station must comply with the rules of Part 74 of this chapter governing power levels and interference that are applicable to low power television or TV translator stations, and must comply in all other respects with the rules and policies applicable to Class A television stations, as set forth in §§ 73.6000 *et seq.*

(b) Simulcasting Requirement. A Class A television station that chooses to air an ATSC 3.0 signal must simulcast the primary video programming stream of that signal in an ATSC 1.0 format. This requirement does not apply to any multicast streams aired on the ATSC 3.0 channel.

(1) The programming aired on the ATSC 1.0 simulcast signal must be "substantially similar" to that aired on the ATSC 3.0 primary video programming stream. For purposes of this section, "substantially similar" means that the programming must be the same except for advertisements, promotions for upcoming programs, and programming features that are based on the enhanced capabilities of ATSC 3.0. These enhanced capabilities include:

(i) hyper-localized content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news);

(ii) programming features or improvements created for the ATSC 3.0 service (*e.g.*, emergency alert "wake up" ability and interactive program features);

(iii) enhanced formats made possible by ATSC 3.0 technology (*e.g.*, 4K or HDR); and

(iv) personalization of programming performed by the viewer and at the viewer's discretion.

(2) For purposes of paragraph (b)(1), programming that airs at a different time on the ATSC 1.0 simulcast signal than on the primary video programming stream of the ATSC 3.0 signal is not considered "substantially similar."

(c) Coverage Requirements for the ATSC 1.0 Simulcast Signal. For Class A broadcasters that elect temporarily to relocate their ATSC 1.0 signal to the facilities of a host station for purposes of deploying ATSC 3.0 service (and that convert their existing facilities to ATSC 3.0), the station: (1) must maintain overlap between the protected contour (47 CFR 73.6010(c)) of its existing signal and its ATSC 1.0 simulcast signal; (2) may not relocate its ATSC 1.0 simulcast signal more than 30 miles from the reference coordinates of the relocating station's existing antenna location; and (3) must select a host station assigned to the same DMA as the originating station (*i.e.*, the station whose programming is being transmitted on the host station).

(d) Coverage Requirements for ATSC 3.0 Signals. For Class A broadcasters that elect to continue broadcasting in ATSC 1.0 from the station's existing facilities and transmit an ATSC 3.0 signal on the facilities of a host station, the ATSC 3.0 signal must be established on a host station assigned to the same DMA as the originating station.

(e) Simulcasting Agreements.

(1) Simulcasting agreements must contain provisions outlining each licensee's rights and responsibilities regarding:

(i) Access to facilities, including whether each licensee will have unrestrained access to the host station's transmission facilities;

(ii) Allocation of bandwidth within the host station's channel;

(iii) Operation, maintenance, repair, and modification of facilities, including a list of all relevant equipment, a description of each party's financial obligations, and any relevant notice provisions;

(iv) Conditions under which the simulcast agreement may be terminated, assigned or transferred; and

(v) How a guest station's (*i.e.*, a station originating programming that is being transmitted using the facilities of a host station) signal may be transitioned off the host station.

(2) Broadcasters must maintain a written copy of any simulcasting agreement and provide it to the Commission upon request.

(f) Licensing of Simulcasting Stations and Stations Converting to ATSC 3.0 Operation

(1) Each station participating in a simulcasting arrangement pursuant to this section shall continue to be licensed and operated separately, have its own call sign, and be separately subject to all applicable Commission obligations, rules, and policies. ATSC 1.0 and ATSC 3.0 signals aired on the facilities of a host station will be licensed as temporary second channels of the originating station. The Commission will include a note on the originating station's license identifying any ATSC 1.0 or ATSC 3.0 signal being aired on the facilities of a host station. The Commission will also include a note on a host station's license identifying any ATSC 1.0 or ATSC 3.0 guest signal(s) being aired on the facilities of the host station.

(2) Application Required. A Class A broadcaster must file an application (FCC Form 2100) with the Commission, and receive Commission approval, before: (i) moving its ATSC 1.0 signal to the facilities of a host station, moving that signal from the facilities of an existing host station to the facilities of a different host station, or discontinuing an ATSC 1.0 guest signal; (ii) commencing the airing of an ATSC 3.0 signal on the facilities of a host station (that has already converted to ATSC 3.0 operation), moving its ATSC 3.0 signal to the facilities of a different host station, or discontinuing an ATSC 3.0 guest signal; or (iii) converting its existing station to transmit an ATSC 3.0 signal or converting the station from ATSC 3.0 back to ATSC 1.0 transmissions.

(3) Streamlined Process. With respect to an application in paragraph (2), a Class A broadcaster may file only an application for modification of license provided no other changes are being requested in such application that would require the filing of an application for a construction permit as otherwise required by the rules (*see, e.g.*, 47 CFR § 73.1690).

(4) Host Station. A host station must first make any necessary changes to its facilities before a guest station may file an application to air a 1.0 or 3.0 signal on such host.

(5) Expedited Processing. An application filed in accordance with the streamlined process in paragraph (3) will receive expedited processing provided, for stations requesting to air an ATSC signal on the facilities of a host station, the station will provide ATSC 1.0 service to at least 95 percent of the predicted population within the noise limited service contour of its original ATSC 1.0 facility.

(6) Required Information.

(i) An application in paragraph (2) must include the following information: (A) the station serving as the host, if applicable, (B) the technical facilities of the host station, if applicable, (C) the DMA of the originating broadcaster's facility and the DMA of the host station, if applicable, and (D) any other information deemed necessary by the Commission to process the application.

(ii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station, the broadcaster must, in addition to the information in paragraph (6)(i), also indicate on the application: (A) the predicted population within the protected contour served by the station's original ATSC 1.0 signal, (B) the predicted population within the protected contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map, and (C) whether the ATSC 1.0 simulcast signal aired on the host station will serve at least 95 percent of the population in paragraph (6)(ii)(A).

(iii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station and does not meet the 95 percent standard in paragraph (6)(ii), the application must contain, in addition to the information in paragraphs (6)(i) and 6(ii), the following information: (A) whether there is another possible host station(s) in the market that would result in less service loss to existing viewers and, if so, why the next Gen TV broadcaster chose to partner with a host station creating a larger service loss; (B) what steps, if any, the station plans to take to minimize the impact of the service loss (*e.g.*, providing ATSC 3.0 dongles, set-top boxes, or gateway devices to viewers in the loss area); and (C) the public interest benefits of the simulcasting arrangement and a showing of why the benefit(s) of granting the application would outweigh the harm(s). These applications will be considered on a case-by-case basis.

(g) Consumer education for Next Gen TV stations.

(1) Class A stations that relocate their ATSC 1.0 signals (*e.g.*, moving to a host station's facilities, subsequently moving to a different host, or returning to its original facility) will be required to air daily Public Service Announcements (PSAs) or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations on their existing facilities. Stations that transition directly to ATSC 3.0 will be required to air daily PSAs or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations.

(2) PSAs. Each PSA must be provided in the same language as a majority of the programming carried by the transitioning station and be closed-captioned.

(3) Crawls. Each crawl must be provided in the same language as a majority of the programming carried by the transitioning station.

(4) Content of PSAs or Crawls.

(i) For stations relocating their ATSC 1.0 signals or transitioning directly to ATSC 3.0, each PSA or crawl must provide all pertinent information to consumers.

(h) Notice to MVPDs.

(1) Next Gen TV stations relocating their ATSC 1.0 signals (*e.g.*, moving to a temporary host station's facilities, subsequently moving to a different host, or returning to its original facility) must provide notice to MVPDs that:

(i) No longer will be required to carry the station's ATSC 1.0 signal due to the relocation; or

(ii) carry and will continue to be obligated to carry the station's ATSC 1.0 signal from the new location.

(2) The notice required by this section must contain the following information:

(i) Date and time of any ATSC 1.0 channel changes;

(ii) The ATSC 1.0 channel occupied by the station before and after commencement of local simulcasting;

(iii) Modification, if any, to antenna position, location, or power levels;

(iv) Stream identification information; and

(v) Engineering staff contact information.

(3) If any of the information in paragraph (h)(2) of this section changes, an amended notification must be sent.

(4) Next Gen TV stations must provide notice as required by this section: (i) at least 120 days in advance of relocating their ATSC 1.0 signals if the relocation occurs during the post-incentive auction transition period; or (ii) at least 90 days in advance of relocating their ATSC 1.0 signals if the relocation occurs after the post-incentive auction transition period. If the anticipated date of the ATSC 1.0 signal relocation changes, the station must send a further notice to affected MVPDs informing them of the new anticipated date.

(5) Next Gen TV stations may choose whether to provide notice as required by this section either by a letter notification or electronically via email if the relevant MVPD agrees to receive such notices by email. Letter notifications to MVPDs must be sent by certified mail, return receipt requested to the MVPD's address in the FCC's Online Public Inspection File (OPIF), if the MVPD has an online file. For cable systems that do not have an online file, notices may be sent to the cable system's official address of record provided in the system's most recent filing in the FCC's Cable Operations and Licensing System (COALS). For MVPDs with no official address in OPIF or COALS, the letter must be sent to the MVPD's official corporate address registered with their State of incorporation.

8. Amend §73.8000(b) by adding paragraphs (6) and (7) to read as follows:

**§73.8000 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

(6) A/321:2016, "System Discovery and Signaling" (March 23, 2016), IBR approved for § 73.682.

(7) ATSC A/322:2017 “Physical Layer Protocol” (June 6, 2017), IBR approved for § 73.682.

9. Add §74.782 to subpart G to read as follows:

**§ 74.782 Low Power Television and TV Translator Simulcasting During the ATSC 3.0 (Next Gen TV) Transition**

(a) Simulcasting Arrangements. While broadcasters are voluntarily deploying ATSC 3.0, a low power television (LPTV) or TV translator station may partner with one or more other LPTV or TV translator stations or with one or more full power or Class A stations in a simulcasting arrangement for purposes of airing either an ATSC 1.0 or ATSC 3.0 signal on a host station’s (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities.

(1) An LPTV or TV translator station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a full power host station must comply with the rules of Part 73 of this chapter governing power levels and interference, and must comply in all other respects with the rules and policies applicable to low power television or TV translator stations set forth in Part 74 of this chapter.

(2) An LPTV or TV translator station airing an ATSC 1.0 or ATSC 3.0 signal on the facilities of a Class A host station must comply with the rules governing power levels and interference applicable to Class A television stations, and must comply in all other respects with the rules and policies applicable to LPTV or TV translator stations as set forth in Part 74 of this chapter.

(b) Simulcasting Requirement. An LPTV or TV translator station that elects voluntarily to simulcast while broadcasters are voluntarily deploying ATSC 3.0 must simulcast the primary video programming stream of their ATSC 3.0 signal in an ATSC 1.0 format. This requirement does not apply to any multicast streams aired on the ATSC 3.0 channel.

(1) The programming aired on the ATSC 1.0 simulcast signal must be "substantially similar" to that aired on the ATSC 3.0 primary video programming stream. For purposes of this section, "substantially similar" means that the programming must be the same except for advertisements, promotions for upcoming programs, and programming features that are based on the enhanced capabilities of ATSC 3.0. These enhanced capabilities include:

(i) hyper-localized content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news):

(ii) programming features or improvements created for the ATSC 3.0 service (*e.g.*, emergency alert "wake up" ability and interactive program features);

(iii) enhanced formats made possible by ATSC 3.0 technology (*e.g.*, 4K or HDR); and

(iv) personalization of programming performed by the viewer and at the viewer's discretion.

(2) For purposes of paragraph (b)(1), programming that airs at a different time on the ATSC 1.0 simulcast signal than on the primary video programming stream of the ATSC 3.0 signal is not considered "substantially similar."

(c) Transitioning directly to ATSC 3.0. LPTV and TV translator stations may transition directly from ATSC 1.0 to ATSC 3.0 operation without simulcasting.

(d) Coverage Requirements for the ATSC 1.0 Simulcast Channel. For LPTV and TV translator stations that elect voluntarily to simulcast and temporarily to relocate their ATSC 1.0 signal to the facilities of a

host station for purposes of deploying ATSC 3.0 service (and that convert their existing facilities to ATSC 3.0), the station: (1) must maintain overlap between the protected contour of its existing facilities and its ATSC 1.0 simulcast signal; (2) may not relocate its ATSC 1.0 simulcast signal more than 30 miles from the reference coordinates of the relocating station's existing antenna location; and (3) must select a host station assigned to the same Designated Market Area as the originating station (*i.e.*, the station whose programming is being transmitted on the host station).

(e) Coverage Requirements for ATSC 3.0 Signals. For LPTV and TV translator stations that elect voluntarily to simulcast and to continue broadcasting in ATSC 1.0 from the station's existing facilities and transmit an ATSC 3.0 signal from a host location, the ATSC 3.0 signal must be established on a host station assigned to the same DMA as the originating station.

(f) Simulcasting Agreements.

(1) Simulcasting agreements must contain provisions outlining each licensee's rights and responsibilities regarding:

(i) Access to facilities, including whether each licensee will have unrestrained access to the host station's transmission facilities;

(ii) Allocation of bandwidth within the host station's channel;

(iii) Operation, maintenance, repair, and modification of facilities, including a list of all relevant equipment, a description of each party's financial obligations, and any relevant notice provisions;

(iv) Conditions under which the simulcast agreement may be terminated, assigned or transferred; and

(v) How a guest's station's (*i.e.*, a station originating programming that is being transmitted using the facilities of a host station) signal may be transitioned off the host station.

(2) LPTV and TV translators must maintain a written copy of any simulcasting agreement and provide it to the Commission upon request.

(g) Licensing of Simulcasting Stations and Stations Converting to ATSC 3.0 Operation

(1) Each station participating in a simulcasting arrangement pursuant to this section shall continue to be licensed and operated separately, have its own call sign, and be separately subject to all applicable Commission obligations, rules, and policies. ATSC 1.0 and ATSC 3.0 signals aired on the facilities of a host station will be licensed as temporary second channels of the originating station. The Commission will include a note on the originating station's license identifying any ATSC 1.0 or ATSC 3.0 signal being aired on the facilities of a host station. The Commission will also include a note on a host station's license identifying any ATSC 1.0 or ATSC 3.0 guest signal(s) being aired on the facilities of the host station.

(2) Application Required. An LPTV or TV translator broadcaster must file an application (FCC Form 2100) with the Commission, and receive Commission approval, before: (i) moving its ATSC 1.0 signal to the facilities of a host station, moving that signal from the facilities of an existing host station to the facilities of a different host station, or discontinuing an ATSC 1.0 guest signal; (ii) commencing the airing of an ATSC 3.0 signal on the facilities of a host station (that has already converted to ATSC 3.0 operation), moving its ATSC 3.0 signal to the facilities of a different host station, or discontinuing an ATSC 3.0 guest signal; or (iii) converting its existing station to transmit an ATSC 3.0 signal or converting the station from ATSC 3.0 back to ATSC 1.0 transmissions.

(3) Streamlined Process. With respect to an application in paragraph (2), an LPTV or TV translator broadcaster may file only an application for modification of license provided no other changes are being requested in such application that would require the filing of an application for a construction permit as otherwise required by the rules (*see, e.g.*, 47 CFR §§ 74.751 and 74.787).

(4) Host Station. A host station must first make any necessary changes to its facilities before a guest station may file an application to air a 1.0 or 3.0 signal on such host.

(5) Expedited Processing. An application filed in accordance with the streamlined process in paragraph (3) will receive expedited processing provided, for LPTV and TV translator stations seeking voluntarily to simulcast and to air an ATSC 1.0 signal on the facilities of a host station, the station will provide ATSC 1.0 service to at least 95 percent of the predicted population within the protected contour of its original ATSC 1.0 facility.

(6) Required Information.

(i) An application in paragraph (2) must include the following information: (A) the station serving as the host, if applicable, (B) the technical facilities of the host station, if applicable, (C) the DMA of the originating broadcaster's facility and the DMA of the host station, if applicable, and (D) any other information deemed necessary by the Commission to process the application.

(ii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station, the LPTV or TV translator broadcaster must also indicate on the application: (A) the predicted population within the protected contour served by the station's original ATSC 1.0 signal, (B) the predicted population within the protected contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map, and (C) whether the ATSC 1.0 simulcast signal aired on the host station will serve at least 95 percent of the population in paragraph (6)(ii)(A).

(iii) If an application in paragraph (2) includes a request to air an ATSC 1.0 signal on the facilities of a host station and does not meet the 95 percent standard in paragraph (6)(ii), the application must contain, in addition to the information in paragraphs (6)(i) and (6)(ii), the following information: (A) whether there is another possible host station(s) in the market that would result in less service loss to existing viewers and, if so, why the next Gen TV broadcaster chose to partner with a host station creating a larger service loss; (B) what steps, if any, the station plans to take to minimize the impact of the service loss (*e.g.*, providing ATSC 3.0 dongles, set-top boxes, or gateway devices to viewers in the loss area); and (C) the public interest benefits of the simulcasting arrangement and a showing of why the benefit(s) of granting the application would outweigh the harm(s). These applications will be considered on a case-by-case basis.

(h) Consumer Education for Next Gen TV stations.

(1) LPTV and TV translator stations that elect voluntarily to simulcast and that relocate their ATSC 1.0 signals (*e.g.*, moving to a host station's facilities, subsequently moving to a different host, or returning to its original facility) will be required to air daily Public Service Announcements (PSAs) or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations on their existing facilities. LPTV and TV translator stations that transition directly to ATSC 3.0 will be required to air daily Public Service Announcements (PSAs) or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations.

(2) PSAs. Each PSA must be provided in the same language as a majority of the programming carried by the transitioning station and be closed-captioned.

(3) Crawls. Each crawl must be provided in the same language as a majority of the programming carried by the transitioning station.

(4) Content of PSAs or Crawls.

(i) For stations relocating their ATSC 1.0 signals or transitioning directly to ATSC 3.0, each PSA or crawl must provide all pertinent information to consumers.

(i) Notice to MVPDs.

(1) Next Gen TV stations relocating their ATSC 1.0 simulcast signals (e.g., moving to a temporary host station's facilities, subsequently moving to a different host, or returning to its original facility) must provide notice to MVPDs that:

(i) No longer will be required to carry the station's ATSC 1.0 signal due to the relocation; or

(ii) carry and will continue to be obligated to carry the station's ATSC 1.0 signal from the new location.

(2) The notice required by this section must contain the following information:

(i) Date and time of any ATSC 1.0 channel changes;

(ii) The ATSC 1.0 channel occupied by the station before and after commencement of local simulcasting;

(iii) Modification, if any, to antenna position, location, or power levels;

(iv) Stream identification information; and

(v) Engineering staff contact information.

(3) If any of the information in paragraph (f)(2) of this section change, an amended notification must be sent.

(4) Next Gen TV stations must provide notice as required by this section: (i) at least 120 days in advance of relocating their ATSC 1.0 simulcast signals if the relocation occurs during the post-incentive auction transition period; or (ii) at least 90 days in advance of relocating their 1.0 simulcast signals if the relocation occurs after the post-incentive auction transition period. If the anticipated date of the ATSC 1.0 service relocation changes, the station must send a further notice to affected MVPDs informing them of the new anticipated date.

(5) Next Gen TV stations may choose whether to provide notice as required by this section either by a letter notification or electronically via email if the relevant MVPD agrees to receive such notices by email. Letter notifications to MVPDs must be sent by certified mail, return receipt requested to the MVPD's address in the FCC's Online Public Inspection File (OPIF), if the MVPD has an online file. For cable systems that do not have an online file, notices must be sent to the cable system's official address of record provided in the system's most recent filing in the FCC's Cable Operations and Licensing System (COALS). For MVPDs with no official address in OPIF or COALS, the letter must be sent to the MVPD's official corporate address registered with their State of incorporation.

## **PART 76 – MULTICHANNEL VIDEO AND CABLE TELEVISION SERVICE.**

1. The authority citation for Part 76 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152, 153, 154, 301, 302, 302a, 303, 303a, 307, 308, 309, 312, 315, 317, 325, 338, 339, 340, 341, 503, 521, 522, 531, 532, 534, 535, 536, 537, 543, 544, 544a, 545, 548, 549, 552, 554, 556, 558, 560, 561, 571, 572, 573.

2. Amend §76.56 by adding paragraph (h) to read as follows:

**§76.56 Signal carriage obligations.**

\* \* \* \* \*

(h) *Next Gen TV carriage rights.*

(1) A broadcast television station that chooses to deploy Next Gen TV service, see §73.682(f) of this chapter, may assert mandatory carriage rights under this section only with respect to its ATSC 1.0 signal and may not assert mandatory carriage rights with respect to its ATSC 3.0 signal.

(2) With respect to a Next Gen TV station that moves its 1.0 simulcast signal to a host station's (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities, the station may assert mandatory carriage rights under this section only if it (1) qualified for, and has been exercising, mandatory carriage rights at its original location and (2) continues to qualify for mandatory carriage at the host station's facilities, including (but not limited to) delivering a good quality 1.0 signal to the cable system principal headend, or agreeing to be responsible for the costs of delivering such 1.0 signal to the cable system.

3. Amend §76.66 by adding paragraph (o) to read as follows:

**§76.66 Satellite broadcast signal carriage.**

\* \* \* \* \*

(o) *Next Gen TV carriage rights.*

(1) A broadcast television station that chooses to deploy Next Gen TV service, see §73.682(f) of this chapter, may assert mandatory carriage rights under this section only with respect to its ATSC 1.0 signal and may not assert mandatory carriage rights with respect to its ATSC 3.0 signal.

(2) With respect to a Next Gen TV station that moves its 1.0 simulcast signal to a host station's (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities, the station may assert mandatory carriage rights under this section only if it (1) qualified for, and has been exercising, mandatory carriage rights at its original location and (2) continues to qualify for mandatory carriage at the host station's facilities, including (but not limited to) delivering a good quality 1.0 signal to the satellite carrier local receive facility, or agreeing to be responsible for the costs of delivering such 1.0 signal to the satellite carrier.

## APPENDIX C

**Final Regulatory Flexibility Analysis for the *Report and Order***

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking in this proceeding.<sup>2</sup> The Federal Communications Commission (Commission) sought written public comment on the proposals in the NPRM, including comment on the IRFA. The Commission received one comment on the IRFA, while some other commenters discussed the effect of the proposals on smaller entities, as discussed below. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.<sup>3</sup>

**A. Need for, and Objectives of, the Report and Order**

2. In this *Report and Order*, we authorize television broadcasters to use the “Next Generation” broadcast television (Next Gen TV) transmission standard, also called “ATSC 3.0” or “3.0,” on a voluntary, market-driven basis. This authorization is subject to broadcasters continuing to deliver current-generation digital television (DTV) service, using the ATSC 1.0 transmission standard, also called “ATSC 1.0” or “1.0,” to their viewers. ATSC 3.0 is the new TV transmission standard developed by Advanced Television Systems Committee as the world’s first Internet Protocol (IP)-based broadcast transmission platform. It merges the capabilities of over-the-air (OTA) broadcasting with the broadband viewing and information delivery methods of the Internet, using the same 6 MHz channels presently allocated for DTV service.

3. The Next Gen TV transmission standard promises to allow broadcasters to innovate, improve service, and use their spectrum more efficiently. The record shows ATSC 3.0’s potential to allow for “a wide range of potential services now and in the future.”<sup>4</sup> ATSC 3.0 will enable broadcast delivery of Ultra High Definition (UHD) television, including images with high spatial resolution, wide color gamut, high dynamic range and high frame rate as well as advanced audio systems to provide consumers with more vivid pictures and sound.<sup>5</sup> In addition, ATSC 3.0 proponents say the new standard “will allow broadcasters to offer exciting and innovative services,” including superior reception,<sup>6</sup> mobile viewing capabilities,<sup>7</sup> enhanced public safety capabilities,<sup>8</sup> such as advanced emergency alerting capable

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<sup>1</sup> See 5 U.S.C. § 603. 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). The SBREFA was enacted as Title II of the Contract With America Advancement Act of 1996 (CWAAA).

<sup>2</sup> *Authorizing Permissible Use of the “Next Generation” Broadcast Television Standard*, Notice of Proposed Rulemaking, 32 FCC Rcd 1670 (NPRM).

<sup>3</sup> See 5 U.S.C. § 604.

<sup>4</sup> ATSC Reply at 3.

<sup>5</sup> *Id.* at 1-2.

<sup>6</sup> See, e.g., *id.* at 2 (“[t]he new standard will make signals more robust and reception more reliable.”).

<sup>7</sup> ATSC states that the new standard “supports mobile viewing capabilities on ATSC 3.0-equipped devices such as smartphones and tablets or vehicular infotainment systems. Consumers will be able to watch their favorite broadcast shows, check the local weather, and tune in to breaking news from wherever they are on their tablet or smartphone.” *Id.* at 2.

<sup>8</sup> AWARN Comments at 1 (“Advanced emergency alerting from the [AWARN] will be one of the major public benefits of the ‘Next Generation’ broadcast television (Next Gen TV) transmission standard.... AWARN will enable distribution of geo-targeted, rich media alerts simultaneously to an unlimited number of enabled fixed, mobile, and hand-held devices, indoors and outdoors, across an entire television broadcast contour.... AWARN capabilities will far exceed those available to the American public today.”).

of waking up sleeping devices to warn consumers of imminent emergencies,<sup>9</sup> enhanced accessibility features,<sup>10</sup> localized and/or personalized content,<sup>11</sup> interactive educational children’s content,<sup>12</sup> and other enhanced features.<sup>13</sup>

4. The Report and Order adopts rules that will afford broadcasters flexibility to deploy Next Gen TV service, while minimizing the impact on, and costs to, consumers and other industry stakeholders.<sup>14</sup> A summary of the key decisions adopted is in paragraph 2 of the Report and Order.

#### **B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA**

5. NTCA was the only party to file comments in direct response to the IRFA.<sup>15</sup> NTCA’s comments focused on two key burdens it says will be imposed on its members and other small MVPDs as a result of broadcasters’ voluntary deployment of ATSC 3.0 service. First, NTCA contends that small MVPDs will bear the significant costs associated with 3.0 carriage (even if carriage of 3.0 signals is not mandatory) because broadcasters will be able to use their market power to compel small MVPDs to carry 3.0 signals through the retransmission consent process.<sup>16</sup> To address this issue, NTCA requests that we prohibit carriage of ATSC 3.0 signals via retransmission consent.<sup>17</sup> Second, NTCA contends that small MVPDs will bear costs associated with carriage of 1.0 simulcast signals which are moved to a host

<sup>9</sup> *Id.* at 3 (explaining that ATSC 3.0 “permits receivers to alert people of an emergency even when the receiver is powered off”).

<sup>10</sup> ATSC Reply at 2. For example, ATSC 3.0 may benefit viewers who are deaf, hard of hearing, blind, visually impaired and deaf-blind as it supports various accessibility advances including worldwide closed caption technology, and audio services including video description service and dialog enhancement. *Id.*

<sup>11</sup> ATSC claims that “the new standard offers unprecedented personalization of broadcast television. Utilizing user-friendly tools, consumers will be able to choose alternate versions of the primary content that broadcasters air, including versions in other languages, as well as interact with related secondary content, such as social media posts and content offering a deeper dive into an issue covered by a news program or other show.” *Id.* ONE Media says “ATSC 3.0 broadcasts might include content targeted to different geographic zones, differently stacked newscasts, localized media-rich emergency warnings, or unique content requested by certain viewers, customized advertising/dynamic ad insertion, or IP/web content integration.” ONE Media Comments at 9.

<sup>12</sup> PTV Comments at 4.

<sup>13</sup> For example, GatesAir notes that, in addition to these benefits, ATSC 3.0 will be easily upgradeable. GatesAir Comments at 3 (stating “it can be upgraded readily, and issues and problems can be addressed quickly via a software tweak or upgrade.”).

<sup>14</sup> We discuss the efforts to minimize costs and impact on small entities in Section F. of this FRFA.

<sup>15</sup> NTCA Comments at 1; NTCA Reply at 1.

<sup>16</sup> NTCA Comments at 1-2 (“the retransmission consent process in its current form could be leveraged to compel such smaller firms to bear unknown costs and suffer other harms to accommodate carriage of ATSC 3.0 signals prematurely, notwithstanding the NPRM’s goal of voluntary experimentation on the part of broadcasters.”). *See also, e.g.*, NTCA Comments at 4 (“The all-too-common abuse of forcing MVPDs to take unwanted content, or place it in specific tiers, in order to access content necessary to operate, is known as “forced tying.” Small and rural MVPDs, lacking economies of scale and market power, are specifically subject to forced tying, as the Commission itself has accurately recognized for the past decade.”); ACA Comments at 10-13 (“if broadcasters can coerce large MVPDs, they have even more power to coerce small MVPDs. The calculus here is familiar: a broadcaster does not need small MVPD carriage to reach the majority of its audience, while the small MVPD needs the broadcaster in order to provide ‘must-have’ programming to its subscribers (and avoid losing them to larger competitors.)”); ITTA Comments at 6-10; Midco Comments at 5-6; WTA Comments at 7-12; ATVA Comments at 18-29; NCTA Comments at 18-21.

<sup>17</sup> NTCA Comments at 4-5 (“[T]he only practical means to ensure the retransmission consent regime is not misused to coerce small providers to expend scarce resources to accommodate ATSC 3.0 signals is to prohibit ATSC 3.0 carriage provisions in retransmission consent arrangements, at least in the case of small and rural MVPDs.”).

station's facility.<sup>18</sup> Finally, NTCA argues that the IRFA is “deficient” because “it provides no estimates of expenses or burdens that small MVPDs may encounter as a result of ATSC 1.0 simulcasting.”<sup>19</sup>

6. *Response to NTCA's arguments.* The R&O responds to these arguments proffered by NTCA and other small MVPDs. First, the R&O makes clear that MVPDs are under no statutory or regulatory obligation to carry any 3.0 signals.<sup>20</sup> Because MVPDs are not obligated by rule or law to carry ATSC 3.0 signals, any costs to MVPDs of 3.0 carriage are voluntary. Thus, the rules adopted do not impose direct costs on MVPDs. In addition, the R&O concludes that it is premature to address any issues that may arise with respect to the voluntary carriage of ATSC 3.0 signals before broadcasters begin transmitting in ATSC 3.0.<sup>21</sup> Therefore, the R&O declines to adopt any new rules regarding retransmission consent in this proceeding and will allow these issues at the outset to be addressed through marketplace negotiations. Second, the R&O observes that, under the existing must-carry rules, broadcasters are required to bear the costs of delivering a good quality 1.0 signal to MVPDs. This remains true for stations relocating their 1.0 simulcast channel to a host facility. The existing rules, however, do not apply to the costs on MVPDs of receiving and redistributing the signal to their subscribers and so MVPDs generally assume these costs. Such costs are generally viewed as the costs of doing business as MVPDs. The R&O does not change this understanding. The R&O finds that the costs incurred due to local simulcasting will occur on a market-driven basis and are properly borne by the MVPDs. Finally, we disagree with NTCA's claim that the IRFA was deficient, but respond to this claim in Section F. of this FRFA because it relates to the sufficiency of the alternatives considered to minimize costs and burdens on small MVPDs.

### **C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration**

7. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.<sup>22</sup> The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

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<sup>18</sup> NTCA Reply at 4 (“The record highlights extensive concerns regarding costs ... associated with maintaining consumer access to quality ATSC 1.0 signals that may be simulcast along with ATSC 3.0 signals, particularly those that may be relocated from the original transmission site.”); *and* at 2 (“small MVPDs and their customers must not be subject to onerous new expenses to maintain access to the ATSC 1.0 signals, at the same level of quality, that they have today. The rules must either ensure small MVPDs do not lose access to current signals, or include provisions for small MVPDs to be compensated for any expenses needed to maintain their current level of service to customers.”) Other small MVPDs raised this concern as well. *See, e.g.*, ACA Comments at 2-5.

<sup>19</sup> NTCA Reply at 6-7.

<sup>20</sup> The Report and Order also reminds parties of the statutory requirement that they negotiate in good faith.

<sup>21</sup> We note that no data is available to quantify the costs associated with ATSC 3.0 carriage. *See* ATVA Comments at 10 (“Unlike the costs associated with ATSC 1.0 simulcasts, MVPDs cannot yet quantify the costs associated with ATSC 3.0 carriage. Much of the necessary equipment does not yet exist.”). Although ATVA speculates that “broadcasters will insist on ATSC 3.0 carriage once the Commission adopts ATSC 3.0 rules,” ATVA representatives explain that to date, they have generally been able to reach agreements that delayed immediate carriage of ATSC 3.0. *See* Letter from Michael Nilsson, Counsel to the American Television Alliance, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 16-142, at 2 (filed Oct. 25, 2017). (ACA, an association of small cable operators, is a member of ATVA.)

<sup>22</sup> 5 U.S.C. § 604(a)(3).

**D. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply**

8. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.<sup>23</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>24</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>25</sup> 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 SBA.<sup>26</sup> Below, we provide a description of such small entities, as well as an estimate of the number of such small entities, where feasible.

9. Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”<sup>27</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>28</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>29</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

10. Cable Companies and Systems (Rate Regulation). The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers nationwide.<sup>30</sup> Industry data indicate that there are currently 4,600 active cable systems in the United States.<sup>31</sup> Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.<sup>32</sup> In addition, under the Commission’s rate regulation rules, a “small system” is a cable system serving 15,000 or fewer

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<sup>23</sup> 5 U.S.C. § 603(b)(3).

<sup>24</sup> *Id.* § 601(6).

<sup>25</sup> *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in 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 U.S.C. § 601(3).

<sup>26</sup> 15 U.S.C. § 632.

<sup>27</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>28</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>29</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?\\_af=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_af=ECN_2012_US_51SSSZ2&prodType=table).

<sup>30</sup> 47 CFR § 76.901(e).

<sup>31</sup> Media Bureau estimates were based on data contained in the Commission’s Cable Operations and Licensing System (COALS) as of August 15, 2015. See [www.fcc.gov/coals](http://www.fcc.gov/coals).

<sup>32</sup> See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

subscribers.<sup>33</sup> Current Commission records show 4,600 cable systems nationwide.<sup>34</sup> Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.<sup>35</sup> Thus, under this standard as well, we estimate that most cable systems are small entities.

11. Cable System Operators (Telecom Act Standard). The Communications Act also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”<sup>36</sup> There are approximately 52,403,705 cable video subscribers in the United States today.<sup>37</sup> Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.<sup>38</sup> Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.<sup>39</sup> We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.<sup>40</sup> Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

12. Direct Broadcast Satellite (“DBS”) Service. DBS Service is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic “dish” antenna at the subscriber’s location. DBS is now included in SBA’s economic census category “Wired Telecommunications Carriers.” The Wired Telecommunications Carriers industry is defined in paragraph 6, *supra*. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.<sup>41</sup> The SBA determines that a wireline business is small if it has fewer than 1,500 employees.<sup>42</sup> Census data for 2012 indicate that 3,117 wireline firms were operational during that year. Of that number, 3,083 operated with fewer than 1,000 employees.<sup>43</sup> Based on that data, we conclude that the majority of wireline firms are small under the applicable standard. However, based on more recent data developed internally by the FCC, currently only two entities provide DBS service, which requires a great deal of capital for operation: DIRECTV and

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<sup>33</sup> 47 CFR § 76.901(c).

<sup>34</sup> See footnote 15, *supra*.

<sup>35</sup> See *id.*

<sup>36</sup> 47 CFR § 76.901 (f) and notes ff. 1, 2, and 3.

<sup>37</sup> See SNL KAGAN at [www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx](http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx).

<sup>38</sup> 47 CFR § 76.901(f) and notes ff. 1, 2, and 3.

<sup>39</sup> See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>40</sup> The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission’s rules. See 47 CFR § 76.901(f).

<sup>41</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>42</sup> NAICS code 517110; 13 CFR § 121.201.

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[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ5&prodTtype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodTtype=table).

DISH Network.<sup>44</sup> Accordingly, we must conclude that internally developed FCC data are persuasive that in general DBS service is provided only by large firms.

13. Satellite Master Antenna Television (SMATV) Systems, also known as Private Cable Operators (PCOs). SMATV systems or PCOs are video distribution facilities that use closed transmission paths without using any public right-of-way. They acquire video programming and distribute it via terrestrial wiring in urban and suburban multiple dwelling units such as apartments and condominiums, and commercial multiple tenant units such as hotels and office buildings. SMATV systems or PCOs are now included in the SBA's broad economic census category, Wired Telecommunications Carriers,<sup>45</sup> which was developed for small wireline businesses. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>46</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>47</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

14. Home Satellite Dish (HSD) Service. HSD or the large dish segment of the satellite industry is the original satellite-to-home service offered to consumers, and involves the home reception of signals transmitted by satellites operating generally in the C-band frequency. Unlike DBS, which uses small dishes, HSD antennas are between four and eight feet in diameter and can receive a wide range of unscrambled (free) programming and scrambled programming purchased from program packagers that are licensed to facilitate subscribers' receipt of video programming. Because HSD provides subscription services, HSD falls within the SBA-recognized definition of Wired Telecommunications Carriers.<sup>48</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>49</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>50</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

15. Open Video Services. The open video system (OVS) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.<sup>51</sup> The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,<sup>52</sup> OVS falls within the SBA small business size standard covering cable services, which is Wired

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<sup>44</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, 10507, para. 27 (2013). As of June 2012, DIRECTV is the largest DBS operator and the second largest MVPD in the United States, serving 19.9 million subscribers. DISH Network is the second largest DBS operator and the third largest MVPD operator, serving 14 million subscribers. *Id.* at 10507, 10546, paras. 27, 110-11.

<sup>45</sup> This category is defined in paragraph 6, *supra*.

<sup>46</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>47</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>48</sup> This category is defined in paragraph 6, *supra*.

<sup>49</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>50</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>51</sup> 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*13<sup>th</sup> Annual Competition Report*).

<sup>52</sup> See 47 U.S.C. § 573.

Telecommunications Carriers.<sup>53</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>54</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>55</sup> Thus, under this size standard, the majority of firms in this industry can be considered small. In addition, we note that the Commission has certified some OVS operators, with some now providing service.<sup>56</sup> Broadband service providers (BSPs) are currently the only significant holders of OVS certifications or local OVS franchises.<sup>57</sup> The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

16. Wireless Cable Systems – Broadband Radio Service and Educational Broadband Service. Wireless cable systems use the Broadband Radio Service (BRS)<sup>58</sup> and Educational Broadband Service (EBS)<sup>59</sup> to transmit video programming to subscribers. In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.<sup>60</sup> The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.<sup>61</sup> After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.<sup>62</sup> The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not

<sup>53</sup> This category is defined in paragraph 6, *supra*.

<sup>54</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>55</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>56</sup> A list of OVS certifications may be found at <https://www.fcc.gov/general/current-filings-certification-open-video-systems#block-menu-block-4>.

<sup>57</sup> See 13<sup>th</sup> Annual Competition Report, 24 FCC Rcd at 606-07, para. 135. BSPs are newer businesses that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

<sup>58</sup> BRS was previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS). See *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

<sup>59</sup> EBS was previously referred to as the Instructional Television Fixed Service (ITFS). See *id.*

<sup>60</sup> 47 CFR § 21.961(b)(1).

<sup>61</sup> 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1,500 or fewer employees.

<sup>62</sup> *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.<sup>63</sup> Auction 86 concluded in 2009 with the sale of 61 licenses.<sup>64</sup> Of the 10 winning bidders, two bidders that claimed small business status won four licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

17. In addition, the SBA's placement of Cable Television Distribution Services in the category of Wired Telecommunications Carriers is applicable to cable-based Educational Broadcasting Services. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers, which was developed for small wireline businesses. This category is defined in paragraph 6, *supra*. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>65</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>66</sup> Thus, under this size standard, the majority of firms in this industry can be considered small. In addition to Census data, the Commission's internal records indicate that as of September 2012, there are 2,241 active EBS licenses.<sup>67</sup> The Commission estimates that of these 2,241 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.<sup>68</sup>

18. Incumbent Local Exchange Carriers (ILECs) and Small Incumbent Local Exchange Carriers. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. ILECs and small ILECs are included in the SBA's economic census category, Wired Telecommunications Carriers.<sup>69</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>70</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>71</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

19. Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. These entities are included in the SBA's economic census category, Wired Telecommunications Carriers.<sup>72</sup> The SBA

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<sup>63</sup> *Id.* at 8296.

<sup>64</sup> *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

<sup>65</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>66</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>67</sup> <http://wireless2.fcc.gov/UlsApp/UlsSearch/results.jsp>.

<sup>68</sup> The term "small entity" within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6).

<sup>69</sup> This category is defined in paragraph 6, *supra*.

<sup>70</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>71</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>72</sup> That category is defined in paragraph 6, *supra*.

has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>73</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>74</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

20. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.<sup>75</sup> The Small Business Administration has established a size standard for this industry of 750 employees or less.<sup>76</sup> Census data for 2012 show that 841 establishments operated in this industry in that year. Of that number, 819 establishments operated with less than 500 employees.<sup>77</sup> Based on this data, we conclude that a majority of manufacturers in this industry are small.

21. Audio and Video Equipment Manufacturing. This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicles, and public address and musical instrument amplification. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.<sup>78</sup> The SBA has established a size standard for this industry, in which all firms with 750 employees or less are small.<sup>79</sup> According to U.S. Census data for 2012, 466 audio and video equipment manufacturers were operational in that year. Of that number, 465 operated with fewer than 500 employees.<sup>80</sup> Based on this Census data and the associated size standard, we conclude that the majority of such manufacturers are small.

22. Television Broadcasting. This economic Census category “comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public.”<sup>81</sup> These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studio, from an affiliated network, or from external sources. The SBA has created the following small business size standard for Television Broadcasting firms: those having \$38.5 million or less in annual receipts.<sup>82</sup> The 2012 economic Census reports that 751 television broadcasting

<sup>73</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>74</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>75</sup> <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>76</sup> 13 CFR § 121.201, NAICS Code 334220

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[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_31SG2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31SG2&prodType=table).

<sup>78</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>79</sup> 13 CFR 121.201, NAICS Code 334310.

<sup>80</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_31SG3&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_31SG3&prodType=table).

<sup>81</sup> U.S. Census Bureau, 2012 NAICS Code Economic Census Definitions, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>82</sup> 13 CFR § 121.201, NAICS code 515120.

firms operated during that year. Of that number, 656 had annual receipts of less than \$25 million per year. Based on that Census data we conclude that a majority of firms that operate television stations are small. We therefore estimate that the majority of commercial television broadcasters are small entities.

23. We note, however, that in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included.<sup>83</sup> Our estimate, therefore, likely overstates the number of small entities that might be affected by our action because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an element of the definition of “small business” is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive to that extent.

24. In addition, the Commission has estimated the number of licensed noncommercial educational (NCE) television stations to be 395.<sup>84</sup> These stations are non-profit, and therefore considered to be small entities.<sup>85</sup>

25. There are also 2,344 LPTV stations, including Class A stations, and 3689 TV translator stations.<sup>86</sup> Given the nature of these services, we will presume that all of these entities qualify as small entities under the above SBA small business size standard.

#### **E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements**

26. Because the deployment of ATSC 3.0 service by Next Gen TV stations is purely voluntary, the rules related to the provision of 3.0 service apply only to stations who choose to participate. That is, there are no new mandatory reporting, recordkeeping, or other compliance requirements for stations that choose not to participate.

27. For broadcasters that choose to deploy ATSC 3.0 service, there are reporting, recordkeeping, or other compliance requirements. Stations that elect to broadcast using the Next Gen TV standard must provide one free, over-the-air video stream broadcast in ATSC 3.0. In addition, Next Gen TV broadcasters must air a local simulcast of the primary video programming stream of their ATSC 3.0 channel in ATSC 1.0 format. The local simulcasting requirements are detailed in Section III.B of the R&O.

28. *License application process:* A Next Gen TV broadcaster must file an application to modify its license with the Commission, and receive prior Commission approval, before: (1) moving its 1.0 signal to a temporary simulcast host station or moving its 1.0 simulcast to a different host station; (2) commencing the airing of a 3.0 channel on a 3.0 host station (that has already converted to 3.0 operation) or moving its 3.0 channel to a different host station; or (3) converting its existing station to 3.0 technology or from 3.0 back to 1.0. For all of these applications, the R&O adopts a streamlined “one-step” process that will apply if no technical changes are necessary to the facilities of either the originating or the host station that would normally require the filing of an application for a construction permit under the Commission's rules. The license procedure and application requirements are detailed in Section III.B.3.

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<sup>83</sup> “[Business concerns] are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.” 13 CFR § 121.103(a)(1).

<sup>84</sup> See FCC News Release, Broadcast Station Totals as of March 31, 2015 (rel. Apr. 8, 2015).

<sup>85</sup> See generally 5 U.S.C. § 601(4), (6).

<sup>86</sup> See FCC News Release, Broadcast Station Totals as of March 31, 2015 (rel. Apr. 8, 2015).

of the R&O. Among other things, applicants must file the appropriate schedule(s) to FCC Form 2100<sup>87</sup> and must provide a copy of the local simulcasting agreement to the Commission upon request.

29. *Notice to Consumers:* Next Gen TV stations must provide advance on-air notifications to consumers about 3.0 service deployment and 1.0 simulcasting. The on-air notice requirements are detailed in Section III.E.3. of the R&O. Among other things, stations that relocate their ATSC 1.0 signals to a host station's facilities are required to air daily on-air consumer education Public Service Announcements (PSAs) or crawls<sup>88</sup> every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations on their existing facilities.<sup>89</sup>

30. *Notice to MVPDs:* Next Gen TV broadcasters relocating their 1.0 simulcast channel must provide notice to MVPDs that: (1) no longer will be required to carry the station's 1.0 signal due to the relocation; or (2) currently carry the station's 1.0 signal from the existing location and will continue to be obligated to carry the station's 1.0 signal from the new location. Broadcasters must give notice to MVPDs: (1) at least 120 days in advance of relocating their 1.0 simulcast channel if the relocation occurs during the post-incentive auction transition period; and (2) at least 90 days in advance of relocating their 1.0 simulcast channel if the relocation occurs after the post-incentive auction transition period. The MVPD notice requirements are detailed in Section III.D.2. of the R&O.

#### **F. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

31. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities."<sup>90</sup> The NPRM invited comment on the benefits and burdens of the approach we adopt herein on all entities, including small entities.

32. *Broadcasters.* The R&O allows broadcasters to implement the Next Gen TV standard (ATSC 3.0) on a voluntary, market-driven basis. This means, broadcasters decide whether (and if so when) to deploy ATSC 3.0 service. Because the decision is voluntary, all broadcasters, including small entities, do not need to undertake any costs or burdens associated with ATSC 3.0 service unless they

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<sup>87</sup> For example, a broadcaster seeking to air a 1.0 signal on a simulcast host station or to air a 3.0 signal on a host station will be required to file the appropriate schedule to FCC Form 2100 identifying, among other required information, the station originating the signal, the station serving as the host, and the technical facilities of the host station. Where the broadcaster seeks to air its 1.0 signal on a simulcast host station, the broadcaster must also indicate on the application the predicted population served by the originating broadcaster's facility and whether the 1.0 simulcast channel aired on the host station will serve at least 95 percent of this population (that is, whether the application qualifies as a "checklist" application eligible for expedited processing). Alternatively, where a Next Gen TV broadcaster seeks to air a 3.0 signal on a partner host station, the broadcaster must indicate in the application the DMA of the originating broadcaster's facility and the DMA of the host station.

<sup>88</sup> A "crawl" is "text that advances very slowly across the bottom or top of the screen." *Review of the Emergency Alert System*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625, 18657 n.222 (2005). Stations may use alternative forms of crawls, including a text "flipper," which is a message on the screen that flips to a new line of text instead of crawling across the screen.

<sup>89</sup> Stations will have the option of choosing between PSAs and crawls or may air a mix of PSAs and crawls. Stations will also have the discretion to choose the timeslots in which their PSAs or crawls will air. Crawls must run during programming for no less than 60 consecutive seconds across the bottom or top of the viewing area and must be provided in the same language as a majority of the programming carried by the station.

<sup>90</sup> 5 U.S.C. § 603(c)(1)-(c)(4).

choose to do so. While the Order adopts a local simulcasting requirement for full power and Class A stations that voluntarily choose to deploy ATSC 3.0, the Order exempts from this requirement all LPTV and TV translator stations, all of whom we presume qualify as small entities under the SBA small business size standard, thus allowing these stations to transition directly to 3.0 service without waivers should they voluntarily choose to do so.

33. *MVPDs*. ATSC 1.0 signals will retain mandatory carriage rights and ATSC 3.0 signals will not have mandatory carriage rights while the Commission requires local simulcasting. Thus, MVPDs will be required to continue to carry broadcasters' 1.0 signals, but will not be required to carry broadcasters' 3.0 signals. In addition, 1.0 simulcast channels relocated to a host facility must continue to qualify for mandatory carriage rights at the host location from which it will transmit the 1.0 signal; but we do not allow such a temporary move to provide the station with new or expanded carriage rights not previously held and exercised by the 1.0 station.<sup>91</sup> Therefore, no new mandatory carriage obligations will be imposed on any MVPDs, including small entities, as a result of ATSC 3.0 deployment. In addition, the local simulcasting requirement for full power and Class A stations that voluntarily choose to deploy ATSC 3.0 service will assist MVPDs, especially small and rural cable providers, that rely on over-the-air reception of full power and Class A stations to continue retransmitting to their subscribers an uninterrupted ATSC 1.0 over-the-air signal.

34. MVPDs, including NTCA as discussed in Section B. of this FRFA, explain that they may bear costs associated with receiving and redistributing 1.0 simulcast signals moved to a host facility. Under the existing must-carry rules, broadcasters are required to bear the costs of delivering a good quality 1.0 signal to MVPDs. The rules, however, do not apply to the costs on MVPDs of receiving and redistributing the signal to their subscribers and so MVPDs generally assume these costs. MVPDs, however, ask us to require Next Gen TV broadcasters to reimburse MVPDs for the costs associated with the reception and processing of 1.0 simulcasts.<sup>92</sup> We decline to do so. We agree with PTV that receiving and redistributing broadcast signals are "a basic cost of doing business for an MVPD."<sup>93</sup> We recognize that we reimbursed such costs to MVPDs in the incentive auction context, but such reimbursement of MVPDs in connection with the incentive auction was mandated by statute.<sup>94</sup> The costs incurred due to local simulcasting will occur on a market-driven basis and as such are properly borne by the MVPDs.

35. MVPDs, including NTCA as discussed in Section B. of this FRFA, express the concern that Next Gen TV broadcasters could use the retransmission consent process to compel carriage of 3.0 signals before consumer demand and market circumstances warrant. To address those concerns, they request that we require parties to (1) negotiate for carriage of 3.0 signals separately from carriage of 1.0 signals, (2) nullify existing contractual clauses that would require MVPDs to carry 3.0 signals, and (3) in the event of a good faith complaint, subpoena negotiation-related documents under a protective order to

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<sup>91</sup> Our conclusion interprets the must-carry statute to minimize the burdens on MVPDs to only those necessary to advance the interests of the must-carry regime.

<sup>92</sup> See, e.g., ATVA Comments at iv, 7-9, 39 ("The Commission should require both must-carry and retransmission consent broadcasters to reimburse MVPDs for costs generated by ATSC 1.0 simulcasts... Broadcasters, not MVPDs, should accept responsibility for these costs."); AT&T Comments at 19-20 ("Broadcasters also should be required to reimburse MVPDs for any costs associated with implementing channel sharing arrangements during the ATSC 3.0 transition and, relatedly, to continue delivering good-quality signals to MVPDs... [W]hen a broadcaster chooses to simulcast on another station's channel, MVPDs necessarily will incur certain equipment, labor, and administrative costs . . . [and] [a]bsent Commission intervention, MVPDs will bear the burden of these costs, with no prospect of corresponding benefit." ).

<sup>93</sup> PTV Reply at 5-6 ("Receiving and retransmitting broadcast signals is a basic cost of doing business for an MVPD, and the Commission should reject requests to shift that cost to public television stations.").

<sup>94</sup> 47 U.S.C. § 1452(b)(4)(A)(ii) (requiring the Commission to reimburse costs reasonably incurred by MVPDs in order to continue to carry the signals of broadcast television licensees that change channels as a result of the auction and repacking process).

overcome any non-disclosure provisions. In addition, NTCA requests that we prohibit carriage of ATSC 3.0 signals via retransmission consent. Broadcasters, on the other hand, urge us to allow the marketplace to resolve voluntary carriage issues without adopting any new retransmission consent rules. We considered these various alternatives to minimize burdens on small entities, but ultimately declined to adopt them in this R&O. The R&O makes clear that MVPD carriage of 3.0 signals is voluntary; that is, MVPDs are under no statutory or regulatory obligation to carry any 3.0 signals.<sup>95</sup> Because MVPDs are not obligated by rule or law to carry ATSC 3.0 signals, any costs to MVPDs of 3.0 carriage are voluntary. Thus, the rules adopted do not impose direct costs on MVPDs. In addition, the R&O concludes that it is premature to address any issues that may arise with respect to the voluntary carriage of ATSC 3.0 signals before broadcasters begin transmitting in ATSC 3.0.<sup>96</sup> Therefore, the R&O declines to adopt any new rules regarding retransmission consent in this proceeding and will allow these issues at the outset to be addressed through marketplace negotiations.

36. NTCA claims that the IRFA was deficient, alleging the Commission did not present a sufficiently detailed analysis about the foreseeable costs on small MVPDs as a result of ATSC 3.0 deployment and local simulcasting of 1.0 signals<sup>97</sup> and that “[i]f these costs cannot be avoided, the Commission must craft effective rules that require broadcasters to bear the responsibility of taking steps to keep quality signals available, or provide for funding mechanisms to ensure that new rules will not result in new burdens for small MVPDs and their customers.”<sup>98</sup> We reject NTCA’s claim that the IRFA was deficient. The RFA does not require the Commission to quantify the expenses or burdens that small MVPDs will face as a result of ATSC 3.0 deployment and local simulcasting of 1.0 signals. Rather, the RFA requires that the agency describe “any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.”<sup>99</sup> The NPRM sought comment from MVPDs about the costs associated with carrying ATSC 3.0 signals and ATSC 1.0 simulcasts<sup>100</sup> and also sought specific comment about the

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<sup>95</sup> The Report and Order also reminds parties of the statutory requirement that they negotiate in good faith.

<sup>96</sup> We note that no data is available to quantify the costs associated with ATSC 3.0 carriage. *See* ATVA Comments at 10 (“Unlike the costs associated with ATSC 1.0 simulcasts, MVPDs cannot yet quantify the costs associated with ATSC 3.0 carriage. Much of the necessary equipment does not yet exist.”). Although ATVA speculates that “that broadcasters will insist on ATSC 3.0 carriage once the Commission adopts ATSC 3.0 rules,” ATVA representatives explain that to date, they have generally been able to reach agreements that delayed immediate carriage of ATSC 3.0. (ACA, an association of small cable operators, is a member of ATVA.)

<sup>97</sup> NTCA Reply at 6 (“While the IRFA solicits comment on ‘a number of issues related to the implementation of local simulcasting,’ it provides no cost or burden estimate upon which to comment, or that might serve as the basis of any cost-benefit analysis. Rather, the IRFA transfers this responsibility to the public, merely noting that the NPRM seeks comment on various issues, ‘with the goal of easing the economic burdens of the new rules and policies on small entities.’”).

<sup>98</sup> NTCA Reply at 7 (“While the IRFA considers a limited ‘alternative approach of prohibiting MVPD carriage of ATSC 3.0 signals through retransmission consent’ to ease burdens on MVPDs, there is no mention of steps or alternatives considered to estimate and account for the costs and burdens that may be imposed on small MVPDs that would then be required to carry relocated simulcast ATSC 1.0 signals. Similarly, there is no estimate or discussion of potential costs MVPDs might incur to prevent their customers from receiving lower-quality signals than they currently enjoy. It is incumbent upon the Commission to account for these costs and, preferably, decline to issue new rules that would impose them. If these costs cannot be avoided, the Commission must craft effective rules that require broadcasters to bear the responsibility of taking steps to keep quality signals available, or provide for funding mechanisms to ensure that new rules will not result in new burdens for small MVPDs and their customers.”).

<sup>99</sup> 5 U.S.C. § 603(c).

<sup>100</sup> *See, e.g.*, NPRM, 32 FCC Rcd at 1683, para. 29 (“In particular, MVPDs ask us to ensure that they do not bear the costs associated with carrying ATSC 3.0 signals and ATSC 1.0 simulcasts, even when such carriage occurs pursuant to retransmission consent negotiations.”); at 1686, para. 33 (“We also seek comment on the implications of

(continued....)

unique circumstances faced by small, rural, and capacity-constrained MVPDs.<sup>101</sup> In response to the NPRM, we received comments from MVPDs about the costs associated with carrying ATSC 3.0 signals and ATSC 1.0 simulcasts.<sup>102</sup> We considered various alternatives to minimize burdens on small entities, such as temporarily prohibiting carriage of ATSC 3.0 signals via retransmission consent and new retransmission consent good faith rules.<sup>103</sup> We subsequently considered a variety of alternatives suggested in response to the NPRM. Ultimately, as explained in the preceding paragraphs, we declined to adopt these alternatives. With respect to 3.0 carriage, because MVPDs are not obligated by rule or law to carry ATSC 3.0 signals, we find any costs to MVPDs of 3.0 carriage result from the voluntary decision of an MVPD to enter into a private contract with the broadcaster in order to resell the broadcaster's signal and, thus, our rules do not impose direct costs on MVPDs. With respect to carriage of 1.0 simulcast signals, we find receiving and redistributing broadcast signals are a basic cost of doing business for an MVPD, which is reselling the broadcaster's signal and, presumably, profiting from the arrangement.<sup>104</sup>

37. *Equipment Manufacturers.* The R&O declines to adopt a Next Gen TV (ATSC 3.0) tuner mandate. In deciding to rely on market forces in lieu of the alternative of a tuner mandate, the Order lessens potential burdens that equipment manufacturers, including small entities, otherwise might face. When making this determination, the Commission considered arguments raised by parties like ATBA who supported the alternative of a tuner mandate for all television receivers, including smartphones and

(Continued from previous page)

mandatory carriage rights following the ATSC 1.0 simulcast to a new location, especially in situations involving a significant shift in the ATSC 1.0 coverage area or change in transmitter location or community of license."); at 1687-88, para. 35 ("Can we interpret the statute to require broadcasters to deliver their signals to MVPDs in a manner that minimizes burdens for MVPDs?").

<sup>101</sup> See NPRM, 32 FCC Rcd at 1690, para. 40 ("We seek comment on whether small, rural, and capacity-constrained MVPDs would face unique circumstances with regard to the voluntary provision of ATSC 3.0 that we should consider in this proceeding....? In particular, to what extent, if any, could the retransmission consent process be used by broadcasters to compel MVPDs, particularly smaller MVPDs, to carry an ATSC 3.0 stream as a condition for obtaining carriage of a 1.0 feed?").

<sup>102</sup> See, e.g., ACA Comments at 2-3 (explaining that MVPDs would incur a wide variety of new costs "to carry ATSC 1.0 simulcasts when such simulcasts come from new 'host' facilities. These include costs to receive and process ATSC 1.0 simulcast signals regardless of how they are delivered (such as new receivers), costs to receive such signals over-the-air (such as new antennas), and costs to receive such signals by other means (such as fiber delivery and DBS 'transport' service)"). ACA states that "MVPDs will incur simulcast-related costs involuntarily because must-carry elections and existing retransmission consent agreements require them to carry simulcasts." *Id.* We note that broadcaster's 1.0 simulcast channels must continue to qualify for mandatory carriage at its new location, which includes delivering a good quality 1.0 signal to the MVPD, or agreeing to be responsible for the costs of delivering such 1.0 signal to the MVPD.

<sup>103</sup> NPRM, 32 FCC Rcd at 1689-90, para. 39 ("We seek comment on these MVPD concerns, including whether and/or how the good faith rules concerning retransmission consent should and/or could be applied and/or adapted to address them."); *and* at 1691, para. 42 ("[S]hould we consider prohibiting MVPD carriage of ATSC 3.0 signals through retransmission consent negotiations until the ATSC Specialist Group on Conversion and Redistribution of ATSC 3.0 Service produces its initial report, which is expected later this year?").

<sup>104</sup> We note that ACA contends that "many small MVPDs already find it difficult to maintain a profitable 'video service.' They have thus focused their investments on broadband, a line of business they see as the key to their long-term survival. Indeed, some small MVPDs find themselves having to subsidize their video services through broadband revenues." ACA Comments at 2-3. ACA further explains that "small MVPDs will have to maintain their existing video business for some time, both because many existing customers demand such service and because programmers have not yet made sufficient programming available online." *Id.* at n.9. ACA asserts that "[b]roadcasters should not be permitted to burden small MVPDs with costs that run counter to what the marketplace requires of them." However, marketplace demand seems to be the reason small MVPDs are willing to bear these costs.

other mobile devices, but ultimately agreed with those commenters who argued consumer demand will drive the inclusion of ATSC 3.0 tuners in television receivers.

**G. Report to Congress**

38. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.<sup>105</sup> In addition, the Commission will send a copy of the Order, including this FRFA, to the Chief Counsel for Advocacy of the SBA. The Order and FRFA (or summaries thereof) will also be published in the Federal Register.<sup>106</sup>

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<sup>105</sup> See 5 U.S.C. § 801(a)(1)(A).

<sup>106</sup> See *id.* § 604(b).

## APPENDIX D

**Initial Regulatory Flexibility Analysis for the *Further Notice of Proposed Rulemaking***

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> the Federal Communications Commission (Commission) has prepared this present Initial Regulatory Flexibility Analysis (IRFA) concerning the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the *Further Notice of Proposed Rulemaking (FNPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the item. The Commission will send a copy of the *FNPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>2</sup> In addition, the *FNPRM* and IRFA (or summaries thereof) will be published in the Federal Register.<sup>3</sup>

**H. Need for, and Objectives of, the Proposed Rules**

2. In this Further Notice of Proposed Rulemaking, we seek further comment on three topics related to the rules adopted in the companion Report and Order, which authorizes television broadcasters to use the “Next Generation” broadcast television (Next Gen TV) transmission standard, also called “ATSC 3.0” or “3.0,” on a voluntary, market-driven basis. Next Gen TV broadcasters will continue to deliver current-generation digital television (DTV) service, using the ATSC 1.0 transmission standard, also called “ATSC 1.0” or “1.0,” to their viewers via “local simulcasting.”

3. *Simulcast Waivers and Exceptions.* First, we seek further comment on issues related to exceptions to and waivers of the local simulcasting requirement. In the Report and Order, we explain that we will consider requests for waiver of our local simulcasting requirement on a case-by-case basis, including (1) requests seeking to transition directly from 1.0 to 3.0 service on the station’s existing facility without simulcasting in 1.0 and (2) requests to air a 1.0 simulcast channel from a host location that does not cover all or a portion of the station’s community of license or from which the station can provide only a lower signal threshold over the community than that required by the rules.<sup>4</sup> With respect to such requests, we state: “We are inclined to consider favorably requests for waiver of our local simulcasting requirement where the Next Gen TV station can demonstrate that it has no viable local simulcasting partner in its market and where the station agrees to make reasonable efforts to preserve 1.0 service to existing viewers in its community of license and/or otherwise minimize the impact on such viewers (for example, by providing free or low cost ATSC 3.0 converters to viewers).” In this *FNPRM*, we seek comment on what further guidance we should provide about the circumstances in which we will grant a waiver of the local simulcasting requirement. Among other things, we ask how we should determine if a station has a “viable” simulcast partner and whether there are special circumstances we should consider for NCE and/or Class A stations.

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<sup>1</sup> See 5 U.S.C. § 603. 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). The SBREFA was enacted as Title II of the Contract With America Advancement Act of 1996 (CWAAA).

<sup>2</sup> See 5 U.S.C. § 603(a).

<sup>3</sup> See *id.*

<sup>4</sup> The Commission may waive its rules if good cause is shown. See 47 CFR § 1.3. We explain in the Report and Order that we are not inclined to consider favorably requests to change community of license solely to enable simulcasting.

4. *Simulcast Exceptions.*<sup>5</sup> In the Report and Order, we exempt LPTV and TV translator stations from our local simulcasting requirement and allow these stations to transition directly to 3.0 service. In this FNPRM, we also seek comment on whether to exempt NCE and/or Class A stations as a class from our local simulcasting requirement or adopt a presumptive waiver standard for such stations. Class A and NCE stations could also face more difficulty than commercial full power stations face when seeking a local simulcasting partner.

5. *Temporary Use of Vacant Channels.* Second, we seek comment on whether we should let full power broadcasters use channels in the television broadcast band that are vacant to facilitate the transition to 3.0. In the *Next Gen TV NPRM*, the Commission asked whether we should “consider allowing broadcasters [that wish to deploy ATSC 3.0 service] to use vacant in-band channels remaining in the market after the incentive auction repack to serve as temporary host facilities for ATSC 1.0 or 3.0 programming by multiple broadcasters.” ONE Media requests that in markets with vacant channels, the Commission should allow full power broadcasters to use the vacant channels as “dedicated transition channels to ensure maximum continuity of service, just as it did during the transition from analog to digital.” The LPTV Spectrum Rights Coalition opposes ONE Media’s proposal on the ground that it would diminish LPTV licensing rights in the middle of the displacement process. The Wi-Fi Alliance, Microsoft, the Consumers Union et al., and Dynamic Spectrum Alliance also oppose any approach that would expand broadcasters’ spectrum rights in conjunction with ATSC 3.0 deployment, and they express concern about damaging the potential success of white space use in the television bands.

6. *Significantly Viewed Status of Next Gen TV Stations.* Finally, we tentatively conclude that local simulcasting should not change the significantly viewed status of a Next Gen TV station. Stations that vary their signal strength or change their location as a result of moving their 1.0 signal to simulcast raise the question of how this change may affect their status as “significantly viewed” in certain communities or counties under sections 76.5(i) and 76.54 of our rules. Significantly viewed status allows the significantly viewed station (1) to be carried by a satellite carrier in such community in the other market; (2) to be carried in such community by cable and satellite operators at the reduced copyright payment applicable to local (in-market) stations; and (3) to be exempt in such community from another station’s assertion of its network non-duplication or syndicated exclusivity rights. Under our proposal, a commercial television station that relocates its 1.0 simulcast channel could not seek to gain significantly viewed status in new communities or counties and such station could not lose significantly viewed status in communities or counties for which it qualified prior to the move of its 1.0 simulcast channel.

#### **I. Legal Basis**

7. The proposed action is authorized pursuant to Sections 1, 4, 301, 303, 307, 308, 309, 316, 319, 325(b), 336, 338, 399b, 403, 534, and 535 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154, 301, 303, 307, 308, 309, 316, 319, 325(b), 336, 338, 399b, 403, 534, and 535.

#### **J. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply**

8. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>6</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>7</sup> In addition, the term “small business” has the

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<sup>5</sup> Unlike waivers which are considered on a case-by-case basis, exceptions or class waivers do not require the filing of a waiver request.

<sup>6</sup> 5 U.S.C. § 603(b)(3).

<sup>7</sup> *Id.* § 601(6).

same meaning as the term “small business concern” under the Small Business Act.<sup>8</sup> 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 SBA.<sup>9</sup> Below, we provide a description of such small entities, as well as an estimate of the number of such small entities, where feasible.

9. Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”<sup>10</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>11</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>12</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

10. Cable Companies and Systems (Rate Regulation). The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving 400,000 or fewer subscribers nationwide.<sup>13</sup> Industry data indicate that there are currently 4,600 active cable systems in the United States.<sup>14</sup> Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.<sup>15</sup> In addition, under the Commission’s rate regulation rules, a “small system” is a cable system serving 15,000 or fewer subscribers.<sup>16</sup> Current Commission records show 4,600 cable systems nationwide.<sup>17</sup> Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.<sup>18</sup> Thus, under this standard as well, we estimate that most cable systems are small entities.

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<sup>8</sup> *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in 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 U.S.C. § 601(3).

<sup>9</sup> 15 U.S.C. § 632.

<sup>10</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>11</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>12</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>13</sup> 47 CFR § 76.901(e).

<sup>14</sup> Media Bureau estimates were based on data contained in the Commission’s Cable Operations and Licensing System (COALS) as of August 15, 2015. See [www.fcc.gov/coals](http://www.fcc.gov/coals).

<sup>15</sup> See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>16</sup> 47 CFR § 76.901(c).

<sup>17</sup> See footnote 15, *supra*.

<sup>18</sup> See *id.*

11. Cable System Operators (Telecom Act Standard). The Communications Act also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”<sup>19</sup> There are approximately 52,403,705 cable video subscribers in the United States today.<sup>20</sup> Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.<sup>21</sup> Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.<sup>22</sup> We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.<sup>23</sup> Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

12. Direct Broadcast Satellite (“DBS”) Service. DBS Service is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic “dish” antenna at the subscriber’s location. DBS is now included in SBA’s economic census category “Wired Telecommunications Carriers.” The Wired Telecommunications Carriers industry is defined in paragraph 6, *supra*. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.<sup>24</sup> The SBA determines that a wireline business is small if it has fewer than 1,500 employees.<sup>25</sup> Census data for 2012 indicate that 3,117 wireline firms were operational during that year. Of that number, 3,083 operated with fewer than 1,000 employees.<sup>26</sup> Based on that data, we conclude that the majority of wireline firms are small under the applicable standard. However, based on more recent data developed internally by the FCC, currently only two entities provide DBS service, which requires a great deal of capital for operation: DIRECTV and DISH Network.<sup>27</sup> Accordingly, we must conclude that internally developed FCC data are persuasive that in general DBS service is provided only by large firms.

13. Satellite Master Antenna Television (SMATV) Systems, also known as Private Cable Operators (PCOs). SMATV systems or PCOs are video distribution facilities that use closed transmission paths without using any public right-of-way. They acquire video programming and distribute it via

<sup>19</sup> 47 CFR § 76.901 (f) and notes ff. 1, 2, and 3.

<sup>20</sup> See SNL KAGAN at [www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx](http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx).

<sup>21</sup> 47 CFR § 76.901(f) and notes ff. 1, 2, and 3.

<sup>22</sup> See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>23</sup> The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission’s rules. See 47 CFR § 76.901(f).

<sup>24</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>25</sup> NAICS code 517110; 13 CFR § 121.201.

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[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ5&prodT ype=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ5&prodT ype=table).

<sup>27</sup> See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, 10507, para. 27 (2013). As of June 2012, DIRECTV is the largest DBS operator and the second largest MVPD in the United States, serving 19.9 million subscribers. DISH Network is the second largest DBS operator and the third largest MVPD operator, serving 14 million subscribers. *Id.* at 10507, 10546, paras. 27, 110-11.

terrestrial wiring in urban and suburban multiple dwelling units such as apartments and condominiums, and commercial multiple tenant units such as hotels and office buildings. SMATV systems or PCOs are now included in the SBA's broad economic census category, Wired Telecommunications Carriers,<sup>28</sup> which was developed for small wireline businesses. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>29</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>30</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

14. Home Satellite Dish (HSD) Service. HSD or the large dish segment of the satellite industry is the original satellite-to-home service offered to consumers, and involves the home reception of signals transmitted by satellites operating generally in the C-band frequency. Unlike DBS, which uses small dishes, HSD antennas are between four and eight feet in diameter and can receive a wide range of unscrambled (free) programming and scrambled programming purchased from program packagers that are licensed to facilitate subscribers' receipt of video programming. Because HSD provides subscription services, HSD falls within the SBA-recognized definition of Wired Telecommunications Carriers.<sup>31</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>32</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>33</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

15. Open Video Services. The open video system (OVS) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.<sup>34</sup> The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,<sup>35</sup> OVS falls within the SBA small business size standard covering cable services, which is Wired Telecommunications Carriers.<sup>36</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>37</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>38</sup> Thus, under this size standard, the majority of firms in this industry can be considered small. In addition, we note that the Commission has certified some OVS

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<sup>28</sup> This category is defined in paragraph 6, *supra*.

<sup>29</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>30</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>31</sup> This category is defined in paragraph 6, *supra*.

<sup>32</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>33</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>34</sup> 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*13<sup>th</sup> Annual Competition Report*).

<sup>35</sup> See 47 U.S.C. § 573.

<sup>36</sup> This category is defined in paragraph 6, *supra*.

<sup>37</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>38</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

operators, with some now providing service.<sup>39</sup> Broadband service providers (BSPs) are currently the only significant holders of OVS certifications or local OVS franchises.<sup>40</sup> The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

16. Wireless Cable Systems – Broadband Radio Service and Educational Broadband Service. Wireless cable systems use the Broadband Radio Service (BRS)<sup>41</sup> and Educational Broadband Service (EBS)<sup>42</sup> to transmit video programming to subscribers. In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.<sup>43</sup> The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.<sup>44</sup> After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.<sup>45</sup> The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.<sup>46</sup> Auction 86 concluded in 2009 with the sale of 61 licenses.<sup>47</sup> Of the 10 winning bidders, two bidders that claimed small business status won four licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

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<sup>39</sup> A list of OVS certifications may be found at <https://www.fcc.gov/general/current-filings-certification-open-video-systems#block-menu-block-4>.

<sup>40</sup> See *13<sup>th</sup> Annual Competition Report*, 24 FCC Rcd at 606-07, para. 135. BSPs are newer businesses that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

<sup>41</sup> BRS was previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS). See *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

<sup>42</sup> EBS was previously referred to as the Instructional Television Fixed Service (ITFS). See *id.*

<sup>43</sup> 47 CFR § 21.961(b)(1).

<sup>44</sup> 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1,500 or fewer employees.

<sup>45</sup> *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

<sup>46</sup> *Id.* at 8296.

<sup>47</sup> *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

17. In addition, the SBA's placement of Cable Television Distribution Services in the category of Wired Telecommunications Carriers is applicable to cable-based Educational Broadcasting Services. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers, which was developed for small wireline businesses. This category is defined in paragraph 6, *supra*. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>48</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>49</sup> Thus, under this size standard, the majority of firms in this industry can be considered small. In addition to Census data, the Commission's internal records indicate that as of September 2012, there are 2,241 active EBS licenses.<sup>50</sup> The Commission estimates that of these 2,241 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.<sup>51</sup>

18. Incumbent Local Exchange Carriers (ILECs) and Small Incumbent Local Exchange Carriers. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. ILECs and small ILECs are included in the SBA's economic census category, Wired Telecommunications Carriers.<sup>52</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>53</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>54</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

19. Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. These entities are included in the SBA's economic census category, Wired Telecommunications Carriers.<sup>55</sup> The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.<sup>56</sup> Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.<sup>57</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

20. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these

<sup>48</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>49</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>50</sup> <http://wireless2.fcc.gov/UlsApp/UlsSearch/results.jsp>.

<sup>51</sup> The term "small entity" within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6).

<sup>52</sup> This category is defined in paragraph 6, *supra*.

<sup>53</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>54</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

<sup>55</sup> That category is defined in paragraph 6, *supra*.

<sup>56</sup> See 13 CFR § 120.201, NAICS Code 517110.

<sup>57</sup> [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_51SSSZ2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table).

establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.<sup>58</sup> The Small Business Administration has established a size standard for this industry of 750 employees or less.<sup>59</sup> Census data for 2012 show that 841 establishments operated in this industry in that year. Of that number, 819 establishments operated with less than 500 employees.<sup>60</sup> Based on this data, we conclude that a majority of manufacturers in this industry are small.

21. Audio and Video Equipment Manufacturing. This industry comprises establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment, motor vehicles, and public address and musical instrument amplification. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.<sup>61</sup> The SBA has established a size standard for this industry, in which all firms with 750 employees or less are small.<sup>62</sup> According to U.S. Census data for 2012, 466 audio and video equipment manufacturers were operational in that year. Of that number, 465 operated with fewer than 500 employees.<sup>63</sup> Based on this Census data and the associated size standard, we conclude that the majority of such manufacturers are small.

22. Television Broadcasting. This economic Census category “comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public.”<sup>64</sup> These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studio, from an affiliated network, or from external sources. The SBA has created the following small business size standard for Television Broadcasting firms: those having \$38.5 million or less in annual receipts.<sup>65</sup> The 2012 economic Census reports that 751 television broadcasting firms operated during that year. Of that number, 656 had annual receipts of less than \$25 million per year. Based on that Census data we conclude that a majority of firms that operate television stations are small. We therefore estimate that the majority of commercial television broadcasters are small entities.

23. We note, however, that in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included.<sup>66</sup> Our estimate, therefore, likely overstates the number of small entities that might be affected by our action because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an

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<sup>58</sup> <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>59</sup> 13 CFR § 121.201, NAICS Code 334220

<sup>60</sup>

[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2012\\_US\\_31SG2&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31SG2&prodType=table).

<sup>61</sup> <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>62</sup> 13 CFR 121.201, NAICS Code 334310.

<sup>63</sup>

[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN\\_2007\\_US\\_31SG3&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_31SG3&prodType=table).

<sup>64</sup> U.S. Census Bureau, 2012 NAICS Code Economic Census Definitions, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>65</sup> 13 CFR § 121.201, NAICS code 515120.

<sup>66</sup> “[Business concerns] are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.” 13 CFR § 121.103(a)(1).

element of the definition of “small business” is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive to that extent.

24. In addition, the Commission has estimated the number of licensed noncommercial educational (NCE) television stations to be 395.<sup>67</sup> These stations are non-profit, and therefore considered to be small entities.<sup>68</sup>

25. There are also 2,344 LPTV stations, including Class A stations, and 3689 TV translator stations.<sup>69</sup> Given the nature of these services, we will presume that all of these entities qualify as small entities under the above SBA small business size standard.

#### **K. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements**

26. The *FNPRM* does not propose any new reporting, recordkeeping, or compliance requirements. However, if the Commission decides to allow the use of unused channels, there may be new reporting requirements, such as the filing of an application with the Commission. Additionally, if the Commission decides to adopt specific criteria for its waiver standard, these may be considered new compliance requirements.

#### **L. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

27. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.”<sup>70</sup>

28. *Local Simulcasting Waivers and Exceptions.* The *FNPRM* seeks comment on two issues related to waivers of the local simulcasting requirement: (1) the circumstances in which we should grant a waiver of our local simulcasting requirement for full power and Class A stations; and (2) whether we should permit NCE and Class A stations to transition directly from ATSC 1.0 to 3.0. As noted in Section C. of this IRFA, NCE and Class A stations are considered small entities. Waiver of, or exemption from, the local simulcasting requirement may afford more flexibility to broadcasters, including small entities, that may face unique challenges in finding a suitable simulcasting partner. This added flexibility may reduce costs for such small entities.

29. *Temporary Use of Vacant Channels.* The *FNPRM* seeks comment on whether we should allow full power broadcasters to use vacant channels in the television broadcast band to facilitate the transition to 3.0, and, if so, when they should be able to use these channels, and what procedures we should use to authorize that use. We seek specific comment on the effects on small entities: (1) would allowing broadcasters to use these vacant channels help small broadcasters transition to 3.0?<sup>71</sup> (2) would

<sup>67</sup> See FCC News Release, Broadcast Station Totals as of March 31, 2015 (rel. Apr. 8, 2015).

<sup>68</sup> See generally 5 U.S.C. § 601(4), (6).

<sup>69</sup> See FCC News Release, Broadcast Station Totals as of March 31, 2015 (rel. Apr. 8, 2015)

<sup>70</sup> 5 U.S.C. § 603(c)(1)-(c)(4).

<sup>71</sup> For example, NCTA opposes temporary use of vacant channels in the television broadcast band for ATSC 1.0 simulcast signals. NCTA Reply at 8. NCTA explains that “[a]llowing use of a ‘temporary’ channel for these

allowing broadcasters to use these vacant channels impose carriage burdens on small MVPDs?, and (3) what can we do to ease the burdens on those small entities?

30. *Significantly Viewed Status of Next Gen TV Stations.* The *FNPRM* tentatively concludes that the significantly viewed status of a Next Gen TV station should not change if it moves its 1.0 simulcast channel to a temporary host facility. Under this proposal, a commercial television station that relocates its 1.0 simulcast channel could not seek to gain significantly viewed status in new communities or counties and such station could not lose significantly viewed status in communities or counties for which it qualified prior to the move of its 1.0 simulcast channel. We tentatively conclude that maintaining the status quo with respect to eligibility for significantly viewed carriage would avoid some complications and disruptions to MVPDs and their subscribers, who have come to rely on such signals. We seek comment on what effect our proposal and tentative conclusion would have on small broadcasters and MVPDs.

**M. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rule**

31. None.

(Continued from previous page) \_\_\_\_\_

purposes would impose new, unreimbursed costs on cable operators. Operators might need to purchase and install new equipment – or at a minimum, incur the labor costs and burdens of re-pointing receive antennas at the headend – to be able to continue to receive a station transmitting on this new frequency.” *Id.*

**STATEMENT OF  
CHAIRMAN AJIT PAI**

Re: *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN  
Docket No. 16-142

Today is a promising day for consumers, an exciting day for technological innovation, and a historic day for the broadcast business. By authorizing the rollout of the next generation broadcast television standard (Next Gen TV) on a voluntary, market-driven basis, we open the door to a substantially improved, free, over-the-air television broadcast service, and fiercer competition in the video marketplace.

As the world’s first IP-based broadcast transmission platform, Next Gen TV has the potential to bring a wide range of benefits to American consumers. It will enable broadcasters to provide Ultra High Definition video and immersive audio. It will allow them to offer innovative services, including TV on smartphones and enhanced accessibility features for Americans with hearing or visual impairments. And perhaps most importantly, it will enhance our public safety capabilities. For instance, Next Gen TV will enable advanced emergency alerting that could wake up sleeping devices to warn consumers of imminent emergencies. It will also allow for localized, emergency alerts in a variety of languages, and enhanced datacasting to serve law enforcement and first responders more efficiently.

In particular, Next Gen TV could be a boon to public television broadcasters and viewers. Public broadcasters are strong supporters of Next Gen TV. They’re eager to employ it to deliver interactive educational children’s content, including the distribution of over-the-air learning materials that viewers without broadband otherwise can’t access. Public television stations have also told us that Next Gen TV could enable them to provide innovative distance learning; imagine teachers and students having customized course materials, lectures, class discussions, and virtual field trips.

Another important point: this is going to be a voluntary, market-driven transition. Following this *Order*, no broadcaster will be required to use the Next Gen TV standard. No consumer will be required to buy a new television or dongle for his or her current television that will allow them to receive Next Gen TV programming. The choice will be up to them. Broadcasters deploying the Next Gen TV standard will be required to simulcast programming using the current digital television (DTV) standard—in other words, their current viewers, with their current TVs, will be unaffected. This is precisely the kind of technological innovation the FCC should champion.

But of course, not everyone does. When confronted with change, there are always those who stubbornly cling to the past, who choose fear and opportunism over freedom and opportunity. And we’ve seen that in spades in this proceeding. These naysayers have asked us to impose extensive government regulation in order to strangle Next Gen TV in its infancy. They call for delays that they’d never conceive or countenance were the innovation pioneered by, say, Silicon Valley instead of the TV industry. They stoke false fears about having to buy new equipment to see your favorite show. They seek a categorical viewer-impact standard they themselves have rejected in this agency’s pending vacant channel proceeding.

In sum, they follow in the tired tradition of those who have sought to unleash the regulatory process to block progress. This opposition echoes what took place at the dawn of the automobile age. Many back then demanded a requirement that a car be preceded by a person carrying a red flag to warn people that the car was coming. Even worse, one state legislature actually passed a mandate that motorists stop, disassemble their vehicle, and conceal the parts in bushes if the car frightened a passing horse. Would these rules have kept pedestrians and equine safer? Perhaps marginally so. But they ultimately would’ve extracted such a staggering social cost that the very impulse now rightly strikes

reasonable people as completely absurd. So I'm glad we're rejecting this attempt to block technological progress.

It's also worth noting that Next Gen TV could boost competition in the video marketplace. Through expanded service offerings and new features, Next Gen TV should enhance the free, over-the-air television service that many Americans rely on, and make it a stronger competitor to pay-TV services. That would be good for all Americans, and particularly for low-income television viewers.

In sum, what is a vote to approve this item? Among other things, it's a vote for innovation. It's a vote for competition. It's a vote for better picture quality and sound quality. It's a vote for public safety. It's a vote for better educational content for children. It's a vote for enhanced accessibility features. It's a vote for public television. And for all of these reasons, it's a vote that I am proud to cast.

Thank you to the dedicated staff who worked on this item: Evan Baranoff, Kathy Berthot, Steven Broeckaert, Michelle Carey, John Gabrysch, Martha Heller, Tom Horan, Kim Matthews, Mary Beth Murphy, and Brendan Murray from the Media Bureau; Mark Colombo, Martin Doczkat, Matthew Hussey, Walter Johnston, Julie Knapp, Paul Murray, and Barbara Pavon from the Office of Engineering and Technology; and Susan Aaron and Dave Konczal from the Office of General Counsel.

**DISSENTING STATEMENT OF  
COMMISSIONER MIGNON L. CLYBURN**

Re: *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142

Nine months ago, when I voted to approve the Notice of Proposed Rulemaking (NPRM) that informed this Order, I stated that “few things would please me more, than to be excited about the prospects of a voluntarily implemented next generation standard, and how it might enhance the consumer viewing experience.”

Included in that statement was a series of questions that needed to be answered on how this item would affect consumers and those who choose not to make the transition. The answers I sought – as I reviewed this order -- fell unfortunately short or were not to be found at all in this Report and Order and Further Notice of Proposed Rulemaking.

First, I asked for assurances that consumers would not be burdened with unwanted, unexpected costs. No such assurances can be found anywhere in this Order. Next Gen TV, also known as ATSC 3.0, is not backwards compatible, which means to those who do not speak this language, that your existing television set and cable equipment will not be able to receive a Next Gen signal. If you are an over-the-air viewer, you will either need to purchase a new television or some sort of a converter, and if you are a pay-TV viewer, you will need to purchase a new set top box. What will this cost you, the viewer? I don't know. No answer can be found anywhere in this order.

Next Gen supporters tell us not to worry, viewers can continue to receive the existing 1.0 signal, and for five years after this Order appears in our Federal Register, that signal will be “substantially similar.” Five years after this Order appears in our Federal Register, that requirement sunsets. Translation: that mandate goes away. They no longer have to send you that similar signal. Now late yesterday, the Chairman's Office revised the Order to include an exception to this requirement. Without a requirement to make programming substantially similar, broadcasters are free to create two different tiers of television. Why is this problematic? Why am I uneasy? This could actually create an unacceptable, unjustified and unwanted digital television divide for those with limited financial means.

My second question in the NPRM asked whether consumers that do not upgrade will continue to receive high definition programming through the existing 1.0 simulcast signal? Again, no reassurances given. While several broadcasters have stated that they intend to provide this highly popular service, they oppose any requirement to do so. Why? Just as troubling, is that the Order anticipates some level of service loss, meaning some viewers might not lose just HD, but their broadcast signal altogether. Broadcasters 2, consumers 0.

My third question was whether the higher-resolution carriage requirements of Next Gen TV come at the expense of channel placement for independent programmers or multicast streams. Again, cause for concern. We are again told to trust that our regulatees will do the right thing, but that we cannot create any requirements. Broadcasters 3, consumers 0.

Finally, I asked about fees, and ensuring that we do not disadvantage smaller businesses, both broadcasters and pay-TV providers. At the risk of sounding like a broken record, many concerns remain. We know that pay-TV providers are worried about how this new standard will affect the retransmission consent process, especially those smaller providers. Instead of providing guidelines for this process, we are told that this is best left to marketplace negotiations. Because this will undoubtedly lead to increased costs to consumers, the tally is now broadcasters 4, consumers 0.

In addition to all of the concerns I noted in my statement to the NPRM back in February, this item did not mention the word privacy even once until 9:43 this morning, despite questions about privacy being included in the NPRM. These questions are important, in light of the two-way IP-based nature of this technology, and the plans to use it to enable targeted advertising. In fact, Representative Debbie Dingell recently asked the Chairman how consumers' demographic information will be gathered, and what privacy protections will be in place. I appreciate those questions and the attention to this issue, as I am concerned that viewers are not and will not ever be aware that this is something they need to think about. Cable subscribers have the protections in Section 631 of the Communications Act. Should there be similar protections for broadcast viewers?

Despite my misgivings and the ever growing tally, let me be clear: I do not make presumptions about Next Gen TV. I do not know if it is bad, or inferior to the status quo, as some claim. It could very well bring about all of the advantages it purports, including 4K, and advanced emergency alerts. I also must say that I appreciate that this item does not set a date for eliminating the 1.0 service, and that it has included some consumer education requirements (although those have been scaled back in the final Order at a cost to the viewer).

But at the end of the day, I must affirm this: my charge, my responsibility as a regulator is to strike the appropriate balance. If it is not clear how an item, standard or transaction meets our public interest requirement, if I cannot clearly see that an item protects and enhances the consumer experience, then there is only one decision I left for me to render. This is not about politics or the inability to separate or differentiate one docket from another, my 19 years of public service speaks for itself. It is about upholding that solemn promise I took over eight years ago.

In sum, this Order is not ready for primetime. It will do more for existing broadcasters than for the future of the industry and it will do much more for those companies' bottom line than for the nation's unsuspecting viewers.

That the main objective is giving the industry a lot of flexibility in deploying Next Gen TV gives me pause, not because I am against robust opportunities, but because millions of viewers will be at risk and millions could be thrust in the digital television badlands. And for a Commission that touts the importance of cost benefit analyses...yet again, there is absolutely no showing that this item has attempted to weigh the costs to consumers – both in loss of services and access costs -- against the touted benefits, none of which are required by this Order. This Order does absolutely nothing to resolve any of the concerns I offered up nine months ago, and fails to put the public's interest first. I dissent.

My thanks begin with Holly Saurer for taking the lead in advising me on this Order and to the Chairman's office for allowing this arrangement. Additionally, my most sincere appreciation to the Media Bureau and Office of Engineering and Technology for your effort on this item. Even though I cannot support this item, what is clear is that you have done a great deal of work in a short amount of time. You are committed public servants and I sincerely appreciate your efforts.

**STATEMENT OF  
COMMISSIONER MICHAEL P. O'RIELLY**

Re: *Authorizing Permissive Use of the "Next Generation" Broadcast Television Standard*, GN Docket No. 16-142

I am pleased to support today's item, which introduces ATSC 3.0 with a consumer-driven, market-centered, flexible, and voluntary approach. These provisions are vital to the success of any possible transition to 3.0 and I will address each in turn.

*Consumer-driven.* The purpose of this item is to allow our nation's broadcasters to bring a suite of innovative services to consumers, ultimately allowing the consumer to decide what ATSC 3.0 actually looks like in the future. Will consumers want 4K and heightened audio quality? Will a more personalized experience and hyper local content bring local news to a new generation of viewers? Will the enhanced public safety features enable more people to get out of harm's way? Will this, like so many other things, become a more mobile experience, as consumers are increasingly on the go and expect access to information and entertainment anytime and anywhere? No one knows the answers to these questions quite yet, but I am looking forward to seeing where consumers drive ATSC 3.0. For these reasons, there are issues in this item that we do not address at this time. That does not mean we will never address them or that I am completely unsympathetic to the arguments that have been made. It simply means it is too early to do so.

Some have tried to take us down memory lane on Congressional action regarding the DTV transition in order to argue against our action today. Let me correct some of the record, since I was there at the time. The law that passed in 2005 was not the first DTV related provision enacted by Congress. In fact, Congress provided the first structural provisions in the 1996 Telecommunications Act, answering who could get DTV licenses and the revenue impacts of ancillary or supplementary services offered. Further, Congress returned to the issue as part of the Balanced Budget Act of 1997 to define for the first time when analog TV licenses would need to be returned, along with other issues. Thus, for those who argue that everything regarding ATSC 3.0 must be decided ahead of time as part of one big package, Congressional history does not support your claim. Indeed, our action today is entirely consistent with the multi-stage approach Congress and the Commission followed for the DTV transition.

*Market-centered.* One thing we do know is that the broadcasters have every incentive to ensure that this transition is successful. That is why I am pleased the Chairman's office worked with my office to eliminate prescriptive consumer education requirements in the original draft item. I agree that consumer education is an important element of the transition. However, I believe it should be the broadcaster, and not the bureaucrat, that decides how best to achieve this. Since the black and white television set, broadcasters have figured out ways to best market to the consumer. One broadcaster recently announced "bite-sized" commercials during its Thanksgiving Day NFL telecast.<sup>1</sup> These six-second spots—which have proven in the past to produce recall rates 70 percent greater than the same advertisers' own NFL norm and 25 percent higher than primetime norms—will run during the live telecast of the game. Yet, a few days before this experiment, the FCC suggested mandating 15 second ad spots for ATSC 3.0. That doesn't make sense and I am pleased to see that requirement eliminated in the item we will vote on today.

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<sup>1</sup> *Competitive Info: Fox Attempts Six-Second NFL Game Spots*, Inside Radio (Oct. 31, 2017), available at [http://www.insideradio.com/free/competitive-info-fox-attempts-six-second-nfl-game-spots/article\\_03377dc8-bdf6-11e7-b59a-036af8ef7f25.html](http://www.insideradio.com/free/competitive-info-fox-attempts-six-second-nfl-game-spots/article_03377dc8-bdf6-11e7-b59a-036af8ef7f25.html).

*Flexibility.* I have some reservations about the technical standards that we are incorporating into our regulations. It is not lost on me that this process is unique to broadcasters. Wireless carriers are not forced to come to the Commission when they transition from 3G to 4G and now to 5G. As a result, the rapid pace of innovation in that space has greatly served the consumer. Similar to how we handle the latest wireless standard, I had hoped that the Commission would avoid adopting stringent standards and mandates governing this transition in our rules. The Commission did not exactly heed this advice. Instead, it is mandating A/321 permanently and A/322 for a period of five years, arguing that this certainty is necessary for device manufacturers. Although many suggest this is an appropriate balance, I fear that five years can be an eternity in a space as rapidly evolving as this one. For this reason, I will be monitoring this closely throughout the transition. Ultimately, broadcasters need incredible flexibility so that the consumer and the market, and not the Commission, drives this transition.

*Voluntary.* Throughout the course of this preceding the Commission has made clear that any use of the new standard will be completely voluntary to *all* participants. This means voluntary to the broadcasters, who should have the opportunity to make this transition. For this reason, I appreciate the Chairman's willingness to work with me to put a timeframe of 60 days on applications filed with the Commission that do not receive expedited review. Just because a broadcaster does not qualify for the HOV lane at the Commission, does not mean it should be stuck in standstill traffic.

This also means voluntary to the distributors. While for the most part the Commission opts to let the market play out regarding negotiations between the broadcasters and MVPDs, I think it is worth nothing that attempts to make this transition involuntary could violate the obligation for broadcasters to negotiate in good faith. This is another issue I will be watching and the Commission may need to revisit as there becomes concrete examples to examine.

Finally, this means voluntary for consumers. Some have suggested ATSC 3.0 will be a tax on consumers. I believe this item has taken great care to ensure that *not* to be the case. Indeed, if this is a consumer tax, so is every new tablet or smartphone a consumer decides to purchase due to its enhanced and updated features. Unfortunately, as this proceeding has unfolded, and most recently in the last few weeks, some have offered up a parade of horrors and hypotheticals that could happen as a result of this transition. The problem with most of these hypotheses is they are divorced from market realities because broadcasters have every incentive in the world to make sure their viewers do not lose signal during and after any transition to 3.0.

Again, this will not be our last word on ATSC 3.0 and I will continue to monitor the transition closely. For now, I'll celebrate the step we take today as well as the timeliness of the item, which comes very close to my self-imposed deadline of Halloween.

**STATEMENT OF  
COMMISSIONER BRENDAN CARR**

Re: *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN  
Docket No. 16-142

When it comes to technology, the United States has led the world in innovation. And our greatest advancements have developed free from the heavy-hand of government intervention. For its part, the FCC has been moving steadily away from dictating the use of particular technologies or intervening in the standards-setting process.

We see this perhaps most prominently in the wireless sector. The Commission has adopted flexible use licenses, allowed providers to sunset their analog networks, let them shut down devices after transition periods, and steered clear of mandating the use of specific technologies. This approach has proven to be a tremendous success for American consumers by allowing providers the flexibility to deploy the latest wireless technologies. The results of this pro-innovation approach speak for themselves.

Today, we move slowly in that direction by allowing broadcasters to use a new standard for Next Generation TV, known as ATSC 3.0. By granting their request, we give broadcasters the freedom to innovate—a freedom that their competitors and many others in the tech sector already enjoy. And we enable consumers to realize the benefits of this innovation. The Next Generation TV standard has the potential to dramatically improve free over-the-air television service by delivering higher quality picture and sound, advanced emergency alerts that can provide time-sensitive warnings to consumers, and new accessibility features. That is why a broad range of stakeholders from the Consumer Technology Association to public television stations support the flexibility we provide with today’s decision.

Now, some have tried to stoke fears at the last minute, suggesting that today’s Order will foist increased costs on consumers in the form of new TVs or higher cable bills. But these bogeymen are just that. Here’s the reality: in this item, we adopt numerous measures that protect consumers and other stakeholders. And we ensure that this voluntary transition will be driven by market forces and consumer demand, not an FCC mandate. We do not force consumers to buy new equipment. Instead, we require broadcasters to continue transmitting their signals in the existing ATSC 1.0 standard, so consumers can keep using their existing TVs. We do not mandate that MVPDs carry ATSC 3.0 signals. Rather, we make clear that MVPDs are under no statutory or regulatory obligation to carry such signals. And we do not adopt a Next Generation TV tuner requirement. Instead, we rely on consumer demand to determine when and if ATSC 3.0 tuners will be included in TVs or other devices.

I look forward to the innovation to come, and this Order has my support. I thank the staff of the Media Bureau and the Office of Engineering and Technology for their diligent work on this item.

**STATEMENT OF  
COMMISSIONER JESSICA ROSENWORCEL,  
DISSENTING**

Re: *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*,  
GN Docket No. 16-42, Report and Order and Further Notice of Proposed Rulemaking  
(November 16, 2017)

If we want to discuss the future of television, I think we need to make a nod to the not too distant past. I think we need to talk about 2005.

Technology had a moment in 2005. It was the year that Apple introduced the iPod nano, YouTube came on the scene, and gaming got a boost with the introduction of the Xbox 360. So much about these technologies still informs our world today. In 2005 Stephen Colbert also coined the term “truthiness.” I think it’s fair to say that this, too, has some relevance in our world right now.

In 2005 Congress passed the Digital Television Transition and Public Safety Act. This law set up the future of television. It laid out a framework for the move from analog to digital broadcasting. But it did more than introduce a new standard with improved sound and picture quality, known as ATSC 1.0, because it created a schedule. As part of this schedule, it featured an end date for a nationwide transition and a program to help ensure existing television sets would continue to work after this technology change. The FCC then took its cues from Congress and worked to ready the nation for the transition. It selected Wilmington, North Carolina as a test market to fully transition nine months early. Then it took the lessons learned in this test and proceeded to do a statewide version in Hawaii before any change on a national level.

I think we can learn a lot about how to forge the future of television from what happened back in 2005. This effort featured three essential things. First, Congress led the way and set the framework. Second, a program was put in place to ensure no consumer was left behind or stuck with the full cost of buying a new television set or equipment. Third, the FCC explored the transition in test markets before unleashing this change nationwide.

Fast forward to the present. Today the FCC is authorizing Next Generation Television and the introduction of a new standard—ATSC 3.0. Yes, we’re doing it again.

There is a lot to be excited about with this new standard—Ultra High Definition picture quality and immersive audio, advanced emergency alerts, and innovative interactive services. This is good stuff. It could mean real innovation for broadcasting—on par with new services that have emerged on so many other screens all around us. But what we do today is rush this standard to market with an ugly disregard for the consumer consequences.

Let’s be very clear about this: This standard is not backwards compatible with current television devices. That means every one of us will need to replace our television sets or buy new equipment. The FCC calls this approach market driven. That’s right—because will all be forced into the market for new television sets or devices.

To be clear, this won’t happen immediately, because for the time being the FCC calls the new standard voluntary. While it’s voluntary, however, stations will have the right to negotiate with cable and satellite companies for the simultaneous carriage of ATSC 1.0 and ATSC 3.0 signals. That means consumers could find their bills going up because they will be stuck paying for two signals—even though their current television set can only receive one. That sounds a lot like paying more and getting less.

I think the way the FCC plans to proceed is no great boon for consumers. So let's call it what it is: It's a tax on every household with a television.

I think the FCC needs to go back to the drawing board and find a less disruptive way to facilitate broadcast innovation. There's a way to do it. It's right there in the 2005 playbook.

First, there is no congressional mandate. What we have instead is a few unelected FCC officials deciding you need to buy new televisions, get new equipment, and locate the HDMI port on the back of your set.

Second, there is no program to defray the cost of the new devices, equipment, or television sets that consumers will need to purchase.

Third, there is no test community or sandbox to understand and learn from our polices before unleashing them on a national scale. We should be testing ATSC 3.0 in every household in a single market—and learning from it—*before* giving the green light nationwide.

If we do this, there will be plenty to study. Because there are still big questions about this new standard. For starters, I think we need to better understand the consumers at risk of being left behind. I also think we need to better understand targeted advertising on television and the implications for privacy, the use of encrypted signals, the collection of audience data, and the susceptibility to hacking and malware. While we're at it we had better make sure that the High Definition signals we are now accustomed to when we watch a football game or our favorite film are not downgraded to Standard Definition in order to ensure broadcasters experimenting with ATSC 3.0 can simulcast two signals—one of which we can't even see.

In addition, the FCC needs to better understand the patent issues involved. When the agency adopted the ATSC 1.0 standard, it made clear that reasonable and nondiscriminatory terms were part of the package. In today's order, this issue is addressed in no more than a footnote. Moreover, we know that Sinclair Broadcasting—which holds essential patents for ATSC 3.0—has been one of the biggest champions of this new standard. We also know that they have pending before the agency the biggest broadcasting transaction in our nation's history. Before we authorize billions for patent holders and saddle consumers with the bills, we better understand how these rights holders will not take advantage of the special status conferred upon them by the FCC.

Change is coming at all of us at lighting speed. I think broadcasters can and should be part of that innovative rush. But I think what the FCC is doing here is irresponsibly imprecise and cavalier in its disregard for the expenses it imposes on consumers. I believe the next transition should leave no viewer worse off, and leave all of us better off. Because this decision fails that test, I dissent.