

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 15, 73, 74, and 76

[GN Docket No. 16–142; FCC 17–158]

Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (FCC or Commission) 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. 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.

DATES: Effective March 5, 2018, except for §§ 73.3801, 73.6029, and 74.782 which contain information collection requirements that are not effective until approved by the Office of Management and Budget (OMB). The Commission will publish a document in the **Federal Register** announcing the effective date for these sections. The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register, as of March 5, 2018.

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SUPPLEMENTARY INFORMATION: This is a summary of the Commission’s *Report and Order* (R&O), FCC 17–158, adopted on November 16, 2017 and released on November 20, 2017. The full text of this document is available electronically via the FCC’s Electronic Document Management System (EDOCS) website at http://fjallfoss.fcc.gov/edocs_public/ or via the FCC’s Electronic Comment Filing System (ECFS) website at <http://fjallfoss.fcc.gov/ecfs2/>. (Documents will

be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.) This document is also available for public inspection and copying during regular business hours in the FCC Reference Information Center, which is located in Room CY–A257 at FCC Headquarters, 445 12th 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. The complete text may be purchased from the Commission’s copy contractor, 445 12th Street SW, Room CY–B402, Washington, DC 20554. Alternative formats are available for people with disabilities (Braille, large print, electronic files, audio format), by sending an email to fcc504@fcc.gov or calling the Commission’s Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (TTY). This document incorporates by reference two ATSC 3.0 standards of the Advanced Television Systems Committee (ATSC): (1) ATSC A/321:2016 “System Discovery & Signaling” (A/321) and (2) A/322:2017 “Physical Layer Protocol” (A/322). These standards are available from ATSC, 1776 K Street NW, 8th Floor, Washington, DC 20006; or at the ATSC website: www.atsc.org/standards/atsc-3-0-standards/.

Synopsis

I. Authorizing Voluntary Deployment of ATSC 3.0

1. In this *Report and Order* (R&O), 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.

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

2. The Commission in this R&O adopts the proposal in the *Next Gen TV Notice of Proposed Rulemaking (Next Gen TV NPRM)*, 82 FR 13285 (March 10, 2017), to authorize ATSC 3.0 as an optional broadcast television transmission standard. All parties who commented on the issue support our proposal to authorize ATSC 3.0 on a voluntary, market-driven basis. Broadcasters will be permitted, but not 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.

3. We conclude that stations transmitting ATSC 3.0 signals will be engaged in “broadcasting” within the meaning of the Communications Act (the “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,” and a “broadcast station” as “a radio station equipped to engage in broadcasting.” 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. 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.

4. The Act includes, for example, restrictions on foreign ownership of broadcast licenses and licensees 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. Television broadcasters also are subject to statutory obligations to make certain disclosures in connection with advertisements that discuss a “political matter of national importance” and to disclose the identity of program sponsors. In addition, among other requirements, the Act specifies that television broadcasters must air educational programming for children, limit the amount of commercial material they include in programming directed to children, restrict the airing of indecent programming, and comply with provisions relating to the rating of video programming.

5. 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.¹ 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. 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

¹ 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.” Programming that is encrypted must not require special equipment supplied and programmed by the broadcaster to decode.

Next Gen TV stations will be engaged in “broadcasting” as defined in the Act.

6. 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. ATVA suggests that the Commission “consider where that point lies sooner rather than later to avoid uncertainty for broadcasters, MVPDs, and others.” 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 content may be provided to individual viewers. 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.”²

B. Local Simulcasting

7. As originally proposed by Petitioners, and as we proposed in the *Next Gen TV NPRM*, 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.

² 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.

1. Local Simulcasting Requirement

8. 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. 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.

9. 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.³ 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 only their primary stream in ATSC 1.0 format.⁴ Commenters generally agree that any local simulcasting requirement should apply to a Next Gen TV station’s primary stream. We give broadcasters discretion to select the primary stream for purposes of our local simulcasting requirement.⁵ 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

³ 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. That stream generally contains network programming for network affiliates or the station’s most popular programming for non-network stations.

⁴ 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. 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.

⁵ This is consistent with our decision in the context of the transition from analog to digital television.

programming⁶ or the stream that has the largest number of viewers for non-network stations.⁷ 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.

10. The Commission intends that the local simulcasting requirement be temporary.⁸ 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*, 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.⁹

11. 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.¹⁰ 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

⁶ 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.

⁷ Broadcasters argue they have a strong economic incentive to continue to serve their viewers.

⁸ 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.

⁹ The commenters who address this issue agree that this issue should be handled in a separate proceeding. NAB agrees that stations should continue to transmit a 1.0 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.

¹⁰ 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.

address this challenge.¹¹ 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. 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."

12. 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,¹² 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. 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.¹³

13. 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 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.¹⁴ The continued provision

¹¹ Indeed, the Petition asserted that "the core of the voluntary, market-driven implementation of ATSC 3.0 will be local simulcasting."

¹² 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. 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.

¹³ Broadcasters themselves acknowledge the need to continue to provide ATSC 1.0 service while the marketplace adapts over time to ATSC 3.0 technology.

¹⁴ NCTA claims that cable system costs to convert to 3.0 equipment could be "significant." In

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.¹⁵ 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.

14. 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. 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, or a "reasonable efforts" requirement as proposed by ONE Media. 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. 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)¹⁶ without requesting a waiver from the Commission, in recognition of the

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. 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. 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.

¹⁵ ATVA and ACA note that MVPD equipment related to ATSC 3.0 reception is not yet commercially available.

¹⁶ In the *Next Gen TV NPRM*, we referred to this practice as a "flash-cut."

unique 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. 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 *Further Notice of Proposed Rulemaking* published December 20, 2017 (82 FR 60350), we also sought 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.

15. 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 47 CFR part 73.¹⁷ 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.¹⁸ 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

¹⁷ 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. 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.

¹⁸ 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.

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. 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 47 CFR 73.6001.¹⁹ 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 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.

16. 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.²⁰

17. The provisions that we require in simulcast agreements are similar to those we have required in channel

¹⁹ 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 47 U.S.C. 336(f)(7)(B).

²⁰ We do not anticipate becoming involved in the resolution of stations’ private contractual disputes regarding simulcast arrangements.

sharing agreements (CSAs).²¹ 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.²² 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. 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

18. 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 channel. 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.²³ This approach

²¹ 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.

²² 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.

²³ 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

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. 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.²⁴ 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.

19. *Enhanced Capabilities.* We do not apply the requirement to certain enhanced capabilities that cannot reasonably be provided in ATSC 1.0 format.²⁵ These capabilities include “hyper-localized” content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news),²⁶ 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.²⁷ Further, because ATSC 3.0 technology may enable broadcasters to provide more tailored

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.

²⁴ 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.

²⁵ 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.

²⁶ ATSC 3.0 technology permits stations to simultaneously transmit different content to viewers. Thus, a station could simultaneously transmit a Washington, DC-focused news program to viewers in Washington, DC, 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).

²⁷ 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).

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.

20. *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. 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.

21. 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.

22. 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.²⁸

23. We decline to adopt requirements regarding the format of the 1.0 simulcast signal.²⁹ 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. Because simulcasting partnerships will require that more stations share the same amount of spectrum, stations may have less capacity for HD programming. Our

²⁸ 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.”).

²⁹ 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.

existing rules do not require broadcasters to provide their signals in HD,³⁰ and we decline to adopt such rules for purposes of the voluntary deployment of ATSC 3.0 service.³¹

24. 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.³² 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.³³ Nevertheless, we expect that broadcasters will seek to provide the highest quality signals possible while they voluntarily deploy 3.0, as they do today.³⁴ 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.³⁵ For the same

³⁰ DTV broadcasters are required only to transmit in SD.

³¹ 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 Advocates. 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.

³² 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. Some commenters also express concern that broadcasters may deliberately degrade ATSC 1.0 signal quality in order to “encourage” ATSC 3.0 adoption.

³³ 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. Small rural MVPDs are more likely to rely exclusively on OTA delivery of TV signals. 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. 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.

³⁴ 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.

³⁵ 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.”

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.³⁶

b. Coverage Requirements for the ATSC 1.0 Simulcast Signal

25. 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 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.³⁷ 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.

26. 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

³⁶ 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. In light of broadcasters' representations that they will not take such action, 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.

³⁷ We will consider stations that are not assigned to a DMA by Nielsen to be assigned to the DMA in which they are located.

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, 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, 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.

27. *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.³⁸ 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, consistent with the goals underlying Section 307(b) of the Communications Act to ensure the provision of service to local communities.

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

³⁸ 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.

of the relocating station's antenna location.

29. 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.³⁹ 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.⁴⁰ 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.

30. *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.⁴¹ We anticipate

³⁹ 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.

⁴⁰ 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.

⁴¹ 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. 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. 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

that the Media Bureau 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).

31. 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.⁴² In markets where

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." We agree with NCTA that NAB's analogy to the DTV transition is inapt. 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. 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.

⁴² Commission staff estimates that about 95% of full power stations are in a market where there is

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, the Next Gen TV broadcaster could seek regular (versus expedited) Commission approval of its simulcasting arrangement 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 existing facility while implementing 3.0 service on another station.⁴³

32. 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. 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. 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. 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

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." 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).

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.

⁴³ LPTV and TV translator stations also have the option to transition directly to ATSC 3.0 without simulcasting.

protecting viewers from undue service disruption.⁴⁴

33. 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. 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.

34. 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.⁴⁵ 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,⁴⁶ 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 Act requires must-carry stations to assume responsibility

⁴⁴ 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. 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.

⁴⁵ 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.

⁴⁶ 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.

for delivery of a good-quality signal to MVPDs and, for retransmission consent stations, leaves allocation of responsibility to the parties. 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 Simulcast Signal

35. 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 location⁴⁷ and transmit an ATSC 3.0 signal from a temporary host location.⁴⁸ 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.⁴⁹ 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. 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 Exceptions for LPTV and TV Translator Stations

36. 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

⁴⁷ 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.

⁴⁸ 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.

⁴⁹ 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.

MVPD notification and consumer education requirements adopted herein.

37. 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. 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 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.⁵⁰

38. 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. MVPD subscribers could also be affected if MVPDs are not prepared to carry ATSC 3.0 signals on the date of a direct transition. 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.

39. 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.⁵¹ 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

⁵⁰ Other commenters oppose permitting LPTV stations to transition directly to ATSC 3.0.

⁵¹ 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.

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.⁵² 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.

40. 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, 2021.⁵³ The Commission previously changed 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.⁵⁴ 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

⁵² 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.

⁵³ 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). The Commission has determined that the 39-month Post-Auction Transition Period will end on July 13, 2020. Accordingly, the deadline for analog LPTV and TV translator stations to transition to digital technology is July 13, 2021.

⁵⁴ 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.

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 3.0.⁵⁵

41. We decline to restrict the ability of LPTV and TV translator stations affiliated with a broadcast network to directly transition, as advocated by ATVA.⁵⁶ We are not persuaded that there is any reasoned basis to give network affiliated stations less flexibility than other secondary stations in this respect.⁵⁷ 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.⁵⁸ 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.⁵⁹ 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 of our

⁵⁵ The LPTV Spectrum Rights Coalition supports permitting newly authorized LPTV stations not yet constructed to transition directly to ATSC 3.0.

⁵⁶ 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. ATVA later expressed the view that any exemption from the simulcast requirement should be limited to stations other than the top-six rated stations.

⁵⁷ 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).

⁵⁸ Network affiliates may also have contractual obligations that limit their ability to transition directly.

⁵⁹ 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.

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 Local Coverage Requirements

42. 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.⁶⁰ 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 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 *Further Notice of Proposed Rulemaking*, we sought 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.

43. Commenters, including both broadcasters and MVPDs, support waivers of the simulcasting requirement for broadcasters that are unable to enter into simulcasting arrangements. 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

⁶⁰ The Commission may waive its rules if good cause is shown. 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.

licensed to state agencies or commissions are required to serve their entire state regardless of cross-state DMA boundaries. 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.⁶¹ 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. 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

44. 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 of a Next Gen TV broadcaster will be two separately authorized companion channels under the broadcaster’s single, unified license.⁶² 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.⁶³

45. 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

⁶¹ Single-station markets present the most obvious example of situations in which simulcasting may not be possible.

⁶² 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.

⁶³ 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. We will process applications seeking changes to facilities and licenses that require the filing of a construction permit pursuant to our existing processes.

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.

46. 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.⁶⁴ 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."⁶⁵ 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 separately licensed and authorized to use the host's channel, therefore permitting an NCE station to serve as a host to a commercial stream.

47. Second, the licensed simulcast approach clarifies the carriage rights of simulcast signals. Because multicast signals are not entitled to carriage rights, treating simulcast signals as multicast channels under a host's license raises the question as to whether such signals have mandatory carriage rights. 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.

⁶⁴ 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. 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.

⁶⁵ The Act defines an advertisement as "any message or other programming material which is broadcast or otherwise transmitted in exchange for any remuneration. . . ."

48. 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.

b. Licensing Procedure

49. 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.⁶⁶ 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

⁶⁶ 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. (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. 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.

service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map,⁶⁷ 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.⁶⁸ We anticipate that in most, if not all, cases, no such changes will be required.

50. 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* 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.

51. 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.

52. The Commission will act on all applications as quickly as possible.

⁶⁷ We therefore agree with ACA that stations must include with their applications a contour overlap map identifying the areas of service loss.

⁶⁸ 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.

Applications will appear on the Media Bureau's Broadcast Applications Public Notice, which appears every day in the Daily Digest.⁶⁹ 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.⁷⁰

53. 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 interference and other technical rules would have been addressed in licensing the host station.⁷¹ It also is appropriate to dispense with the requirement that broadcasters file an application for a construction permit 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 approval⁷² because simulcast arrangements will be temporary and may change over time as more stations convert to 3.0 technology.⁷³ 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.

⁶⁹ Informal objections may be filed with respect to such applications.

⁷⁰ 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.

⁷¹ We proposed to treat such channel changes as minor modifications in the *Next Gen TV NPRM*.

⁷² While we proposed to require applicants to file a construction permit, 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.

⁷³ For example, stations may move from one 1.0 simulcast host to another as more stations in the market convert to 3.0 operations.

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.⁷⁴

54. 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. 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. 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. 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. 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 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.

55. 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.⁷⁵

⁷⁴ 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.

⁷⁵ 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. 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, it must file only a license modification application. Stations may make such minor license modifications when applying to convert their

C. Temporary Use of Vacant Channels

56. 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. 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.

D. MVPD Carriage

57. 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 *Further Notice of Proposed Rulemaking*, we tentatively concluded that local simulcasting should not change the significantly viewed status of a Next Gen TV station.⁷⁶

facility from ATSC 1.0 to 3.0 under the one-step process.

⁷⁶ Until we address this issue raised 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 and syndicated-exclusivity rights (exclusivity rules). Because we do not allow Next Gen TV stations to change their communities of license, exclusivity zones of protection should not change. To the extent a station files for a community of license change solely to enable

1. Mandatory Carriage of Next Gen TV Stations

58. 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. The carriage rights of commercial stations on cable systems are set forth in Section 614 of the Act.⁷⁷ The carriage rights of full power NCE stations on cable systems are set forth in Section 615 of the Act.⁷⁸ The carriage rights of full power stations (both commercial and NCE) on satellite carriers are set forth in Section 338 of the Act.⁷⁹

simulcasting, we will consider the impact on the exclusivity rules on a case-by-case basis.

⁷⁷ Pursuant to 47 U.S.C. 534(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.” 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.” “Television market” is defined by Commission’s rules as a Designated Market Area (DMA). 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. Under very narrow circumstances, such stations can become “qualified” and eligible for must carry. 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.”

⁷⁸ 47 U.S.C. 535(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.” 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.

⁷⁹ 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. A “television broadcast station” is defined as “an over-the-air commercial or noncommercial television broadcast station licensed by the Commission.” Low-power stations, including Class A stations, do not have satellite carriage rights.

a. Only 1.0 Has Mandatory Carriage Rights

59. We adopt the proposal in the *Next Gen TV NPRM*⁸⁰ 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. Most commenters, including Petitioners, other broadcasters, MVPDs and Consumer Groups support this result.

60. 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. 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.⁸¹ No commenters oppose this conclusion.

61. 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. 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 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. 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. 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.⁸²

62. 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.⁸³ 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

⁸² The Commission explained that the Communications 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. The Commission observed that doubling the carriage rights of must carry stations would substantially increase the burdens on cable operators’ free speech. 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.

⁸³ 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.

⁸⁰ 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.

⁸¹ 47 U.S.C. 534, 535, 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 Communications 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 Communications Act. 47 U.S.C. 534 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”

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.”

63. 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.⁸⁴ The Act does not specify whether there can be mandatory carriage rights in circumstances where a 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.⁸⁵ 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.⁸⁶ The record shows that MVPDs would need to purchase new equipment to receive 3.0 signals and down convert them to 1.0 so they can redistribute them to their subscribers. If MVPDs were required to receive *and* redistribute the 3.0 signals (without down conversion) to subscribers, then MVPDs would also face burdens on

⁸⁴ As discussed above, we require Next Gen TV stations to simulcast, except for LPTV stations and TV translator stations. 47 U.S.C. 534(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. 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.

⁸⁵ 47 U.S.C. 534(b)(4)(B) requires the Commission “to ensure cable carriage of such broadcast signals of local commercial television stations which have been changed” 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.

⁸⁶ 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.”

system capacity. 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.

64. Although the Commission did recognize mandatory carriage rights for digital-only stations during the DTV transition, that transition was mandated by statute. 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. 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.

65. 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.”⁸⁷ 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 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

⁸⁷ 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.” 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.

delivery of its signal to any MVPDs required to carry the station’s signal in a format the MVPD is capable of receiving.” 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.’” 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.”

b. Rights of Relocated 1.0 Simulcast Channel

66. 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.⁸⁸ 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.⁸⁹

67. 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.⁹⁰ We recognize that, in

⁸⁸ 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. 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).

⁸⁹ Our conclusion is also consistent with the Commission’s recent order authorizing channel sharing outside the auction context.

⁹⁰ Full-power commercial stations generally are entitled to mandatory carriage throughout their local market area, so a shift in coverage area,

certain situations, 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 DMA⁹¹ 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.⁹² 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

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. 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). NCE station's satellite carriage rights, however, are based on their local market area. 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). Class A and LPTV stations do not have satellite carriage rights. 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.

⁹¹ We agree with ATVA that 1.0 simulcast channels must remain within their same DMA to avoid complications with carriage rights. 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." 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".

⁹² 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.

the temporary host location if the shift in contour means the station can no longer cover the cable headend.⁹³ 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.

68. 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. Petitioners argue that, under a licensed simulcast approach, which we adopt above, 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. 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.⁹⁴ 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.

69. 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. 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

⁹³ 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.

⁹⁴ 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. 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.

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. 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. 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, including (but not limited to) 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.⁹⁵

70. *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

⁹⁵ Under our existing must-carry rules, broadcasters are required to bear the costs of delivering a good quality 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. 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. 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." 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). The costs incurred due to local simulcasting will occur on a market-driven basis and are properly borne by the MVPDs.

its 1.0 simulcast channel to modify its market⁹⁶ to add new communities outside of its DMA based on a temporary shift in its 1.0 service contour.⁹⁷ 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 or to preserve over-the-air broadcast viewership.⁹⁸ 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

71. 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

⁹⁶ 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. 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. We note that market modifications are not available to NCE, Class A or LPTV stations.

⁹⁷ 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. 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.

⁹⁸ 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.

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.⁹⁹ 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. 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;¹⁰⁰ 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. The 90-day notice requirement is consistent with the rules adopted by the Commission in the channel sharing context, 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.¹⁰¹ If the 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.

72. Consistent with the channel sharing context and AT&T's proposal, 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,

⁹⁹ Our rules here are similar to those adopted by the Commission in the channel sharing context outside of the incentive auction. 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. We also agree with ATVA that a "single set of rules for all broadcasters would promote efficiency and prevent consumer disruption."

¹⁰⁰ The Commission has determined that the 39-month Post-Auction Transition Period will end on July 13, 2020.

¹⁰¹ 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. 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.

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 notification¹⁰² or electronically via email, if pre-arranged with the relevant MVPD.

3. Retransmission Consent Issues

73. 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. 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. 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 overcome any non-disclosure provisions.¹⁰³ 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.

74. 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.¹⁰⁴ Therefore, we decline to

¹⁰² 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.

¹⁰³ 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.

¹⁰⁴ 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.

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.

E. FCC Public Interest Obligations and Other FCC Rules

75. 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.¹⁰⁵ 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 Next Gen TV

76. 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. As television stations engaged in "broadcasting" under the Act, Next Gen TV stations will be public trustees with a responsibility to serve the "public interest, convenience, and necessity." In the Petition, Petitioners suggest that broadcasters implementing ATSC 3.0 should remain subject to all relevant Commission rules, and commenters

16–142 et al., at 1 (filed Nov. 9, 2017). See 47 U.S.C. 534(b)(4)(A), 535(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.

¹⁰⁵ 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. In the absence of such evidence, we decline to alter today's action to address their conclusory assertions.

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. 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 broadcast in ATSC 1.0 will apply equally when it is providing a free, over-the-air video stream broadcast in ATSC 3.0.¹⁰⁶

77. 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. 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; that closed captioning contained in all programming received from video programming providers is passed through; 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. 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.¹⁰⁷ 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.¹⁰⁸

¹⁰⁶ 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. 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.

¹⁰⁷ 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. 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.

¹⁰⁸ NAB 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.

78. As the Consumer Groups recommend, we clarify that MVPDs that agree to carry ATSC 3.0 signals must comply with 47 CFR 79.1(c), which spells out the requirements for video programming distributors to pass through and maintain the quality of closed captions. 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.

2. Next Gen TV Tuner Mandate

79. 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. 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, 47 CFR 15.117(b), the rule implementing the Commission's authority under the 1962 All Channel Receiver Act (ACRA), provides that "TV broadcast receivers shall be capable of adequately receiving all channels allocated by the Commission to the television broadcast service." 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." 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. We agree with commenters that consumer demand will drive the inclusion of ATSC 3.0 tuners in television receivers. Accordingly, we are revising 47 CFR 15.117(b) to make clear that this rule does not apply to ATSC 3.0.

80. 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. 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. 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. Although we are exempting LPTV stations from the local simulcasting requirement and allowing them to transition directly to ATSC 3.0 service, 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. 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.

81. 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 receive ATSC 3.0 transmissions. 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. 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. 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.

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

82. 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. 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, 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.

83. 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,¹⁰⁹ 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.¹¹⁰ Although we are not mandating specific language, crawls must provide all pertinent information to consumers.

84. 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 as a majority of the programming carried by the station, provide all pertinent information to consumers, and be closed captioned.¹¹¹

85. 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

¹⁰⁹ A "crawl" is "text that advances very slowly across the bottom or top of the screen." 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.

¹¹⁰ The crawls should not block any closed captioning or emergency information.

¹¹¹ We recognize that our rules exempt PSAs that are shorter than 10 minutes in duration from the captioning requirements. 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.

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.

86. 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. In addition, the Commission will update its website (www.fcc.gov) to provide additional information and guidance to consumers on Next Gen TV.

4. Ancillary and Supplementary Services

87. We decline to reexamine the fee that broadcasters must pay to offer ancillary and supplemental services at this time, as requested by several commenters. 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). 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. In addition, the Commission must adjust the ancillary services fee periodically to ensure that these requirements continue to be met. Some commenters suggest that a higher fee may be warranted to ensure compliance with the statutory directive, while others assert that the fee should be reduced to ensure that it does not thwart innovation by Next Gen TV broadcasters.

88. 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. Moreover, we note that compared to other revenue sources, ancillary services today remain an insignificant portion of total station revenue. 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.

5. Interplay With Post-Incentive Auction Transition/Repack

89. 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. 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. 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*. In that order, the Commission recognized that replacement of equipment eligible for reimbursement from the Reimbursement Fund “necessarily may include improved functionality,” 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.” 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).¹¹² 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

90. 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. 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

91. 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**.¹¹³ 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. The ATSC 3.0 standards are reasonably available because they are available on the ATSC website at: www.atsc.org/standards/atsc-3-0-standards/ and from ATSC at their office: 1776 K Street NW, 8th Floor, Washington, DC 20006.

92. The ATSC 3.0 suite of standards is split into multiple parts under a

¹¹² 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.”

¹¹³ 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.

unifying parent standard. 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 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.

93. 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. 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.¹¹⁴ 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.

94. 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

¹¹⁴ 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.

programming stream adhere to the standard, for a period of five years from the effective date of the rule incorporating this standard. In the *Next Gen TV NPRM*, we sought comment on whether to incorporate this component of the physical layer into our rules. 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. 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. 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. 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 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.

95. 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. 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.” 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.”¹¹⁵ We

¹¹⁵ The issues we address here are similar to those faced in the Fourth DTV Report and Order. At that

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.

96. 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. 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.” 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 minimizing regulatory burdens” by incorporating A/322 into our rules for a transitional period. After that transitional period, the requirement will sunset if it is not reinstated by the Commission via rulemaking before the end of the transitional period.¹¹⁶

97. 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. We find that a time and scope-limited adoption of A/322 strikes an appropriate balance of all interests

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.

¹¹⁶ 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. With no evidence of patent licensing issues, we believe it is premature to impose regulations on the private licensing marketplace.

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. 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. 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.

98. 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. 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. 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.

99. 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, but an engineering study performed by MSW showed that the A/322 waveform is sufficiently noise-like to be considered in the interference environment in the same way the DTV waveform is. So we expect that any coded orthogonal frequency-division multiplexing signal likely to be used by broadcasters,¹¹⁷ as accommodated by the A/321 bootstrap signal, will be noise-like. We agree with

¹¹⁷ 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.

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.” Therefore, ATSC 3.0 signals are prohibited from causing harmful interference under 47 CFR 73.622(h) regardless of whether we require broadcasters to adhere to A/322.

100. Although ONE Media argues that requiring broadcasters to adhere to A/322 will limit the mobile reception performance of the ATSC 3.0 standard, 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.” 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 Protections

101. 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. We also proposed to update our rules to allow updated population inputs when evaluating a broadcaster's application for a new or modified facility.

a. Interference Protection of ATSC 1.0 (DTV) Signals

102. 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. 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. Based on those measurements, we proposed to calculate interference from ATSC 3.0 signals in accordance with 47 CFR 73.622, 73.623 and 74.703 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. 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

103. 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. 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. 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 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

104. 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.¹¹⁸ 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).

105. 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

¹¹⁸ 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.

qualify).¹¹⁹ 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, but AT&T and ATVA suggest that the proposal “does not go far enough.” 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.¹²⁰ 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 47 CFR 73.624.

(ii) Next Gen TV Service Area

106. 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*. 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. 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

¹¹⁹ 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*.

¹²⁰ 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.

the market demands.” 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

107. 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*. Under this approach, an ATSC 3.0 signal will be protected from co-channel and adjacent channel interference as defined in OET Bulletin No. 69.¹²¹ 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. NAB states that “the Commission need not consider modifications to the methodology or planning factors in OET-69.” 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,” but no other commenters discuss this issue. Public Interest Groups support maintaining the existing interference protections and oppose any expansion of the service area.

108. 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 broadcasters voluntarily deploy ATSC 3.0. Nevertheless, if we

¹²¹ 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.

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

109. 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. 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. National Public Radio (NPR) raised concerns about potential interference between ATSC 3.0 transmissions on TV channel 6 and FM band operations. But as the Petitioners explain, the ATSC 3.0 emission mask will remain unchanged,¹²² 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). 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

¹²² 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.

services in the adjacent band, and therefore, as proposed, we do not adopt any changes to those rules.

d. Station Interference Protection Population Inputs

110. 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.¹²³ The Commission has calculated the degree of permissible interference to populations served based on the 2000 U.S. Census population data with one exception: For purposes of the incentive auction and repacking process, the Commission uses 2010 U.S. Census population data for interference calculations. 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 D.C. Circuit upheld in its decision to allow the Commission to apply 2010 U.S. census population during the incentive auction. 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. 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)

111. As proposed in the *Next Gen TV NPRM*, we conclude that broadcast television stations may operate ATSC 3.0 Single Frequency Networks (SFNs) pursuant to our current rules authorizing Distributed Transmission Systems (DTS). 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. We also adopt our proposal to require that all transmitters under a single DTS license follow the same broadcast television transmission standard. Finally, as proposed, we

¹²³ 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.

decline to adopt a synchronization standard specific to ATSC 3.0.

112. 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. 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.¹²⁴ 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.

113. 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. 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." The record thus suggests that providing broadcasters with the ability to use SFNs has the potential to make Next Gen TV services more robust.

114. 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. 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. Other commenters oppose changes to the

¹²⁴ 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.

current service area rules without further public comment. 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.¹²⁵

115. We also adopt our tentative conclusion that there is no need to implement a specific synchronization standard for ATSC 3.0 SFNs. 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. We agree with commenters that we should take the same approach for ATSC 3.0 SFNs, 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, 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."¹²⁶

¹²⁵ 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.

¹²⁶ We also note that the A/322 standard, which we incorporate into our rules, does not include a

116. Finally, we adopt our proposed rule to require all DTS transmitters under the same license to follow the same digital television broadcasting transmission standard. 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.

II. Procedural Matters

A. Final Paperwork Reduction Act Analysis

117. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA).¹²⁷ 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),¹²⁸ we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.

B. Congressional Review Act

118. 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.¹²⁹

C. Final Regulatory Flexibility Analysis

119. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice of Proposed Rulemaking* in this proceeding. The Federal Communications Commission (Commission) sought written public comment on the proposals in the NPRM,

synchronization standard, nor does it implicate any specific synchronization standards.

¹²⁷ The Paperwork Reduction Act of 1995 (PRA), Public Law 104–13, 109 Stat. 163 (1995) (codified in Chapter 35 of title 44 U.S.C.).

¹²⁸ The Small Business Paperwork Relief Act of 2002 (SBPRA), Public Law 107–198, 116 Stat. 729 (2002) (codified in Chapter 35 of title 44 U.S.C.). See 44 U.S.C. 3506(c)(4).

¹²⁹ See 5 U.S.C. 801(a)(1)(A).

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.

120. *Need for, and Objectives of, the Report and Order.* In summary, 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. 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.

121. *Summary of Significant Issues Raised by Public Comments in Response to the IRFA.* NTCA was the only party to file comments in direct response to the IRFA. 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. To address this issue, NTCA requests that we prohibit carriage of ATSC 3.0 signals via retransmission consent. Second, NTCA contends that small MVPDs will bear costs associated with carriage of 1.0 simulcast signals which are moved to a host station's facility. 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.”

122. 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.¹³⁰ 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

¹³⁰ The Report and Order also reminds parties of the statutory requirement that they negotiate in good faith.

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 3.0.¹³¹ 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.

123. *Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration.* The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

124. *Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply.* The types of small entities that may be affected by the R&O fall within the following categories: (1) Wired Telecommunications Carriers; Cable Companies and Systems (Rate Regulation); (2) Cable System Operators (Telecom Act Standard); (3) Direct Broadcast Satellite Service; (4) Satellite Master Antenna Television (SMATV) Systems, also known as Private Cable Operators (PCOs); (5) Home Satellite Dish (HSD) Service, (6) Open Video Services; (7) Wireless Cable Systems—Broadband Radio Service and

¹³¹ 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.

Educational Broadband Service; (8) Incumbent Local Exchange Carriers (ILECs) and Small Incumbent Local Exchange Carriers; Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; (9) Audio and Video Equipment Manufacturing; (10) and Television Broadcasting.

125. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements.* 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. 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 (1) provide one free, over-the-air video stream broadcast in ATSC 3.0; (2) air a local simulcast of the primary video programming stream of their ATSC 3.0 channel in ATSC 1.0 format; must file an application to modify its license with the Commission, and receive prior Commission approval, before: (a) Moving its 1.0 signal to a temporary simulcast host station or moving its 1.0 simulcast to a different host station; (b) 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 (c) converting its existing station to 3.0 technology or from 3.0 back to 1.0; and (4) file the appropriate schedule(s) to FCC Form 2100 and must provide a copy of the local simulcasting agreement to the Commission upon request.

126. *Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.* The Commission considered but declined to adopt certain alternatives suggested by MVPDs 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; (3) in the event of a good faith complaint, subpoena negotiation-related documents under a protective order to overcome any non-disclosure provisions; (4) prohibit carriage of ATSC 3.0 signals via retransmission consent.

127. 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 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.

128. Report to Congress: The Commission will send a copy of this R&O in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

129. *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, 614, and 615 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 *is hereby adopted*, effective thirty (30) days after the date of publication in the **Federal Register**.

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

131. *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.

132. *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, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects

47 CFR Part 15

Communications equipment,
Computer technology.

47 CFR Part 73

Communications equipment,
Incorporation by reference, Television.

47 CFR Part 74

Communications equipment,
Television.

47 CFR Part 76

Cable television.

Federal Communications Commission.

Marlene H. Dortch,
Secretary.

Final Rules

For the reasons stated in the preamble, the Federal Communications Commission amends 47 CFR parts 15, 73, 74, and 76 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

■ 3. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 309, 310, 334, 336, and 339.

■ 4. Amend § 73.616 by revising paragraph (e)(1) introductory text and adding 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).

■ 5. Amend § 73.624 by adding paragraph (b)(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 of this chapter.

* * * * *

■ 6. Amend § 73.626 by adding 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.

■ 7. Amend § 73.682 by adding 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 March 5, 2018, 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 paragraph (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 February 2, 2023, 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.

■ 8. 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) of this section, 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 this part.

(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 this part.

(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) of this section, 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 § 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 (f)(2) of this section, 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.*, § 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 (f)(3) of this section 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 (f)(2) of this section 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 (f)(2) of this section 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 (f)(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 (f)(6)(ii)(A) of this section.

(iii)(A) If an application in paragraph (f)(2) of this section 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 (f)(6)(ii) of this section, the application must contain, in addition to the information in paragraphs (f)(6)(i) and (ii) of this section, the following information:

(1) 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;

(2) 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

(3) 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).

(B) 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*. 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)(i) Next Gen TV stations must provide notice as required by this section:

(A) 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

(B) 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).

(ii) 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.

■ 9. 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) of this section, 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 this subpart.

(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 this subpart.

(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) of this section, 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 (§ 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 (f)(2) of this section, 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.*, § 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 (f)(3) of this section 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 (f)(2) of this section 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 (f)(2) of this section 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 (f)(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 (f)(6)(ii)(A) of this section.

(iii)(A) If an application in paragraph (f)(2) of this section 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 (f)(6)(ii) of this section, the application must contain, in addition to the information in paragraphs (f)(6)(i) and (ii) of this section, the following information:

(1) 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;

(2) 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

(3) 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).

(B) 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.* 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)(i) Next Gen TV stations must provide notice as required by this section:

(A) 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

(B) At least 90 days in advance of relocating their ATSC 1.0 signals if the relocation occurs after the post-incentive auction transition period.

(ii) 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.

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

§ 73.8000 Incorporation by reference.

* * * * *

(b) * * *

(6) ATSC 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.

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PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

■ 11. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 336 and 554.

■ 12. 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 this part.

(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) of this section, 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 (g)(2) of this section, 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.*, §§ 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 (g)(3) of this section 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 (g)(2) of this section 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 (g)(2) of this section 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 (g)(6)(ii)(A) of this section.

(iii) If an application in paragraph (g)(2) of this section 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 (g)(6)(ii) of this section, the application must contain, in addition to the information in paragraphs (g)(6)(i) and (ii) of this section, 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.* 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 changes, an amended notification must be sent.

(4)(i) Next Gen TV stations must provide notice as required by this section:

(A) 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

(B) At least 90 days in advance of relocating their 1.0 simulcast signals if the relocation occurs after the post-incentive auction transition period.

(ii) 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

■ 13. 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.

■ 14. 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:

(i) Qualified for, and has been exercising, mandatory carriage rights at its original location; and

(ii) 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.

■ 15. 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:

(i) Qualified for, and has been exercising, mandatory carriage rights at its original location; and

(ii) 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.

[FR Doc. 2018-01473 Filed 2-1-18; 8:45 am]

BILLING CODE 6712-01-P