



July 28, 2017

**BY ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

**Re:   *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard, GN Docket No. 16-142***

Dear Ms. Dortch:

Following up on our June 29, 2017 *ex parte* meetings, the American Television Alliance (“ATVA”) writes to propose that the Commission adopt technical requirements to ensure that stations transitioning to the ATSC 3.0 standard use the technological advancements of the standard to better serve over-the-air consumers. Our proposal would require stations to transmit ATSC 3.0 signals in a way that would improve off-air coverage *before* using ATSC 3.0 capacity in other ways.

Among the potential benefits of ATSC 3.0 broadcast service is that transmissions relying on the standard will have the ability to provide over-the-air coverage “to areas that were previously unserved due to terrain-limited propagation conditions within the contour [of the ATSC 1.0 signal].”<sup>1</sup> Numerous stakeholders support this prospective use of ATSC 3.0. As AT&T explained, the technological advances of the standard provide the Commission with an unparalleled opportunity to deliver over-the-air broadcast service to more consumers.<sup>2</sup> One Media acknowledged the same, recognizing that ATSC 3.0 transmissions would enable

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<sup>1</sup> *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Notice of Proposed Rulemaking, 32 FCC Rcd 1670 ¶ 52 (2017) (“NPRM”); *see also id.* ¶ 12 (assuming that “ATSC 3.0 broadcasters will have the ability to broadcast more robust signals”).

<sup>2</sup> Comments of AT&T, GN Docket No. 16-142, at 11 (filed May 9, 2017).

broadcasters “to reach effectively 100% of the residents in their markets” with “free-to-air, advertising supported service” both in the home and on the go.<sup>3</sup>

Given the significant promise of ATSC 3.0, ATVA therefore agrees that the NPRM’s proposal to “maintain the status quo” with respect to broadcast stations’ over-the-air coverage does not go far enough.<sup>4</sup> If ATSC 3.0 permits broadcasters to provide universal over-the-air service coverage within their noise-limited service contours, that is what they should do. Indeed, the public interest demands it.

ATVA therefore proposes the following rule (the “ATVA Proposal”), to be codified as Section 73.624(b)(3) of the Commission’s rules:

(3) DTV licensees or permittees that transmit a signal as set forth in A/321:2016, “System Discovery and Signaling” (March 23, 2016) shall transmit at least one free video stream on that signal using A/322:2017, “Physical Layer Protocol” (February 9, 2017) that is in the same format and of an equivalent quality as the primary DTV signal of the licensee/permittee on February 24, 2017, and that requires at most a capacity of 1.0 bits/second/Hz, corresponding to a maximum signal threshold of 0 dB ...<sup>5</sup>

The ATVA Proposal would achieve two primary objectives.

- First, it would require a broadcast station to deploy its free, over-the-air ATSC 3.0 broadcast stream (the “Free Stream”) in a manner that maximizes the consumers served by such service.
- Second, the ATVA Proposal would mandate that the signal format (*e.g.*, HD) and quality (picture and audio) of the Free Stream remain the same as the current ATSC 1.0 signal. Because the ATSC 3.0 standard offers significantly higher bitrate efficiency than the DTV standard (*i.e.*, approximately 70 percent more efficiency, or, according to ATSC, between 66 percent and 85 percent efficiency gains), these twin objectives are achievable.<sup>6</sup>

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<sup>3</sup> Comments of ONE Media, LLC, GN Docket No. 16-142, at 29 (filed May 9, 2017); *see also id.* at 35 (explaining that the ability to “permit stations to provide more uniform and reliable [over-the-air] coverage ... is one of the most compelling attributes of the Next Gen standard”).

<sup>4</sup> NPRM ¶ 47.

<sup>5</sup> For purposes of emphasis, language related to the ATSC 1.0 simulcast requirement is omitted. However, such a requirement remains critical. *See generally* Reply Comments of The American Television Alliance, GN Docket No. 16-142 (filed June 8, 2017) (“ATVA Reply Comments”).

<sup>6</sup> *See* Advanced Television Systems Committee, The Future of Television ATSC 3.0, at 22 (November 2016), <http://www.nabshowny.com/sites/default/files/public/files/NABNY16presentations/NAB-11-2016-Richard%20Friedel-ATSC-v4.pdf> (contrasting the estimated bit rate requirements of an ATSC 1.0 video stream in HD format (12-18 Mbps) with a comparable ATSC 3.0 video stream (2-6 Mbps), which demonstrates efficiency gains ranging from 66 to 85 percent).

Significantly, the ATVA Proposal relates only to the free over-the-air ATSC 3.0 stream that the Commission has proposed to require.<sup>7</sup> Because the ATSC 3.0 standard supports multiple operating points, and allows “broadcasters to transmit multiple streams with different parameters simultaneously,”<sup>8</sup> broadcasters would remain free under the ATVA Proposal to transmit additional streams in alternative formats. For example, a broadcaster could choose to offer a multicast stream in Ultra HD or HD HDR format. Such a multicast likely would be optimized for fixed reception (*i.e.*, with a higher SNR threshold and thus less robust) as compared to the Free Stream, which would be robust enough to enable mobile reception, while maintaining the “baseline” signal quality that consumers expect today.<sup>9</sup>

To be clear, the ATVA Proposal would impose no restrictions on broadcasters’ use of their spectrum beyond the limited requirements proposed for the Free Stream.<sup>10</sup> Consistent with the Communications Act of 1934, as amended (the “Act”), and the Commission’s rules, broadcasters would have discretion to use excess bandwidth for a variety of purposes. As “trustees” of the highly valuable public airwaves,<sup>11</sup> however, broadcasters have the obligation to use their spectrum to provide free, over-the-air broadcast service to “the public.” This, after all, is what broadcasting is.<sup>12</sup> It thus should go without saying that the benefits of any technological advancements in broadcasting should flow towards “the public” first. Considering the new revenue opportunities created by the transition to ATSC 3.0, it is not too much to ask that broadcasters be required to serve *all* viewers within their local markets *before* remaining portions of their spectrum may be repurposed for any potential ancillary or supplementary service offerings or other voluntary service enhancements.

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<sup>7</sup> NPRM ¶ 12; *see also id.* ¶ 48.

<sup>8</sup> *Id.* ¶ 47.

<sup>9</sup> Joint Petition for Rulemaking of America’s Public Television Stations, The AWARN Alliance, The Consumer Technology Association, and The National Association of Broadcasters, GN Docket No. 16-142, at 9 (filed Apr. 13, 2016) (explaining that HD video “has become the baseline” for consumers today).

<sup>10</sup> The ATVA Proposal also would incorporate the A/322 standard for purposes of the Free Stream only. As ATVA (and others) have explained, the A/322 standard, as part of the physical layer of ATSC 3.0, is critical for MVPD carriage and interference calculations. *See* ATVA Reply Comments at 16 n.72 (citing Comments of NCTA – The Internet & Television Association, GN Docket No. 16-142 (filed May 9, 2017)).

<sup>11</sup> NPRM ¶ 67.

<sup>12</sup> Indeed, the Communications Act defines “broadcasting” as the “dissemination of radio communications intended to be received *by the public*, directly or by the intermediary of relay stations.” 47 U.S.C. § 153(7) (emphasis added).

Please contact the undersigned should you have any questions regarding the ATVA Proposal.

Respectfully submitted,

*/s/ Mike Chappell*

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