

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

In the Matter of)	
)	
Authorizing Permissive Use of the)	GN Docket No. 16-142
“Next Generation” Broadcast)	
Television Standard)	

**COMMENTS OF PUBLIC KNOWLEDGE AND
THE OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA**

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I. INTRODUCTION & SUMMARY

Public Knowledge (PK) and the Open Technology Institute (OTI) at New America submit these comments in response to the Federal Communications Commission’s (the Commission or FCC) Further Notice of Proposed Rulemaking on “Authorizing Permissive Use of the ‘Next Generation’ Broadcast Television Standard” (FNPRM) that was noticed on July 7, 2022.¹

PK and OTI ask the Commission to take steps that will prevent consumers from bearing the cost of transitioning to the ATSC 3.0 standard, especially since broadcasters—not consumers—are the primary beneficiaries of the Next-Generation Television (NextGen TV) standard. The Commission can limit the impact on consumers by waiting until long after the majority of TV set sales are ATSC 3.0 enabled to end the ATSC 1.0 simulcasting requirement and by setting aside broadcasters’ ancillary service fees to finance a coupon fund that can subsidize consumer costs to access the new ATSC 3.0 standard. Additionally, PK and OTI urge the Commission to extend the substantially similar simulcast rule for as long as ATSC 3.0 broadcasters are required to simulcast in ATSC 1.0 and adopt RAND requirements for ATSC 3.0 patents.

¹ Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard, 87 FR 40464 (published July 16, 2020) [hereinafter FNPRM].

II. THE COMMISSION SHOULD PREVENT CONSUMERS FROM BEARING THE COST OF TRANSITIONING TO THE ATSC 3.0 STANDARD.

The Commission states that the ATSC 3.0 transition should "minimize the impact on, and the costs to, consumers and other industry stakeholders."² As Chairwomen Rosenworcel explained: "To see [ATSC 3.0's] benefits, we will all need to replace our television sets or buy new equipment. That's an expensive problem we need to address because saddling consumers with big costs in this transition is not right."³

PK and OTI agree. Consumers should not bear the costs of a tech transition that broadcasters—not consumers—are pushing. The Commission should make holding consumers harmless and maintaining access to broadcast station's primary over-the-air stream a determining factor when deciding the length of time it will require broadcasters to simulcast their primary stream using both ATSC 1.0 and 3.0 standards. Additionally, the Commission should take steps now to ensure that any future mandatory transition runs as smoothly as possible.

A. Contrary to Broadcasters' Claims the ATSC 3.0 Standard Primarily Benefits Broadcasters—Not Consumers.

The Commission "seek[s] comment on what types of enhanced content and features are currently being broadcast to 3.0 viewers (both with and without internet service)."⁴ Additionally, the Commission asks "[t]o what extent are enhanced datacasting capabilities expected to help promote the transition to ATSC 3.0...?"⁵ Combined, answering both of these questions reveals that despite the ongoing rhetoric around the benefits of ATSC 3.0, consumers are not the primary

² FNPRM ¶25.

³ Promoting Broadcast Internet Innovation Through ATSC 3.0, 85 FR 43195 at 32 (published July 16, 2020) (to be codified at 47 CFR 73), <https://docs.fcc.gov/public/attachments/FCC-20-73A1.pdf> [Hereinafter NPRM]

⁴ FNPRM ¶16.

⁵ FNPRM ¶14.

beneficiaries. Indeed, if it took a survey, the Commission would struggle to find consumers who have transitioned to ATSC 3.0 over-the-air viewing.

The advanced programming services that ATSC 3.0 will allegedly provide are hardly innovative. The ATSC 3.0 standard combines over-the-air-broadcast with an Internet Protocol (IP) delivery component. Functionally, it couples traditional broadcast television with a return path over the Internet. This allows broadcasters to provide interactive, targeted content—something internet-based streaming services already do. In fact, a consumer can only participate in these interactive innovations if they already have at-home broadband since ATSC 3.0 relies on an already existing internet connection to provide the uplink necessary for an interactive experience. This fact is often downplayed by NextGen broadcasters that herald ATSC 3.0 as an affordable alternative to the internet.⁶ Not only does the need to maintain separate and reliable broadband internet access make these services less innovative than proclaimed, it also puts those who do not have access to the internet even further behind.

In fact, the similarities between already existing internet-based services and ATSC 3.0 programming are even considered a positive by those working to develop NextGen TV. ATSC President Madeleine Noland stated that developing content for NextGen TV is “exactly like the Web.”⁷ Nick Colsey, vice president of Business Development at Sony Group Corp. explained that “[t]his makes it a lot easier for developers.”⁸ While the similarities to web-based apps might make it easier to recruit content developers, it undermines the assertion that ATSC 3.0 programming is truly innovative. It is even less innovative or valuable considering that a large and increasing share of consumers use their Wi-Fi enabled Smart TVs to watch video content

⁶ See Dean Prabu David, *Dean’s Notes: ATSC 3.0 Technology*, Michigan State University (Oct. 10, 2019), <https://comartsci.msu.edu/about/newsroom/news/deans-notes-atsc-30-technology>.

⁷ Gary Arlen, *CES: NextGen TV Gains Traction*, tvtech (Feb. 03, 2022), <https://www.nexttv.com/features/nextgen-tv-slowly-finds-its-direction>.

⁸ *Id.*

that is available on any website in the world, including most frequently from non-broadcast streaming services (e.g., YouTube, Tubi).

Rather, the real innovation of ATSC 3.0 lies in its ancillary service uses—which run the risk of derogating existing broadcast services.⁹ These use cases range from datacasting updates for Internet-of-Things devices, or smart vehicles, to including sports betting on live event broadcasts.¹⁰ At April’s NAB Show in Las Vegas, many of the real-world use cases for ATSC 3.0 fell within the ancillary services category. For example, BitPath unveiled its “game-changing” BitPoint and NavPath applications.¹¹ These navigation and timing (PNT) services will provide applications to support traffic management, accident control, package delivery, and ride-sharing. BitPath plans to launch NavPath in several markets this year and expand next year to its entire footprint.¹² As innovative as they may be, these services fall well outside the scope of advanced broadcast television services.

These ancillary uses primarily benefit broadcasters who can monetize more of the spectrum they received for free by subleasing it to these money-making applications so long as they continue to provide one free standard-definition stream of content on their own channel or even on another station’s channel. This bait and switch undermines the very purpose of the broadcast spectrum. The Commission granted broadcasters spectrum licenses because it found that broadcast television, not ancillary services, served the “public interest, convenience, and necessity.”¹³ Instead of benefiting consumers, broadcasters are the primary beneficiaries of the

⁹ Congress mandated that providing ancillary services does not relieve broadcasters of their public interest obligations, nor can ancillary services derogate existing broadcast services. Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996).

¹⁰ Gary Arlen, *CES: NextGen TV Gains Traction*, tvtech (Feb. 03, 2022), <https://www.nexttv.com/features/nextgen-tv-slowly-finds-its-direction>.

¹¹ *Id.*

¹² *Id.*

¹³ 47 U.S.C. § 309(a).

new ATSC 3.0 standard because it allows them to monetize their spectrum for use cases it was never intended to serve under the illusion of providing consumers with advanced television broadcasts they can already receive from internet-based streaming platforms.

B. The Commission Should Match How Long Broadcasters Are Required to Simulcast in ATSC 1.0 and 3.0 with Consumer Adoption of ATSC 3.0 Enabled Television Sets.

The Commission "seek[s] comment on the appropriate length of time it should require broadcasters simulcast in both 1.0 and 3.0."¹⁴ As the Commission learned during the DTV transition, getting consumers to adopt a new broadcast standard is not simply a matter of if-they-build-it-they-will-come. When DTV was first developed, the FCC originally expected that market forces would lead manufacturers and consumers to adopt DTV-enabled tuners quickly.¹⁵ Nearly 15 years later, the market had not and would not support such a transition.¹⁶

Consumers' slow transition to DTV-enabled television sets makes sense when factoring in consumers' purchasing habits. Industry experts say that consumers replace their televisions an average of every 7-to-8 years.¹⁷ In 2021, Android Authority, a popular blog featuring buying guides for devices like television sets, asked its readers how often they upgraded to a new TV.¹⁸ The most popular response was after 10 years or more with 37%.¹⁹ Combined with those who selected 8-to-9 years (14.35%) and 6-to-7 years (22.51%), nearly 74% of those polled buy a new TV set no earlier than every six years. As one reader wrote, "TV's are basically at the point of

¹⁴ FNPRM ¶11

¹⁵ Fifth Report and Order, 12 F.C.C.R. 12809, at 12,855-56 P 113

¹⁶ Further Notice of Proposed Rulemaking, 16 F.C.C.R. at 5985 P 107.

¹⁷ Erin Lawrence, *When Should I Upgrade My TV?*, Best Buy Blog (Sept. 20, 2020), <https://blog.bestbuy.ca/tv-audio/tv-home-theatre-tv-audio/when-should-i-upgrade-my-tv#:~:text=Industry%20experts%20say%20TVs%20are,on%20for%20a%20longer%20time>.

¹⁸ Hadlee Simons, *We Asked, You Told Us: Here's How Often You Upgrade to a New TV*, Android Authority (Dec. 2, 2021),

<https://www.androidauthority.com/how-often-upgrade-tv-poll-results-3070117/>

¹⁹ *Id.*

microwaves, dishwashers, washing machines, etc. The only reason you should buy a new one is if it breaks. No reason in calling a new TV an 'upgrade' anymore."²⁰

Understanding the television buying habits of consumers is important because the vast majority of television sets on the market are incompatible with the new standard. Based on CTA projections, ATSC 3.0 TV sets are only expected to account for 2% of total U.S. TV sales (4.5 million units) this year. CTA also claims that, by 2024, sales of ATSC 3.0 TV sets will reach an “inflection point” of 19% or 15.7 million units.²¹ While this may indicate an inflection point for ATSC 3.0 enabled device sales, it hardly represents the inflection point for consumer adoption of ATSC 3.0. The vast majority of consumers who purchase new TV sets over the next few years will purchase television sets that do not work with the new standard with no intention to purchase another television for at least another decade.

Long after most television set sales are compatible with NextGen TV, a forced transition will significantly impact and burden consumers. In 1997, the Commission planned on a 10-year transition to DTV that took years longer and happened years later only with the help of a consumer converter box subsidy. To avoid the same DTV-type consumer crisis, the Commission must continue requiring broadcasters to simulcast both standards long after the majority of television sales are ATSC 3.0 enabled.

C. Using Broadcasters’ Ancillary Service Fees to Create a Coupon Fund to Offset Consumer Transition Costs Will Encourage the Development of Low-Cost ATSC 3.0 Converter Devices.

The Commission “seek[s] comment on the current availability and pricing of TV sets with ATSC 3.0 tuners and other ATSC 3.0 consumer TV equipment.”²² Specifically, the

²⁰ *Id.*

²¹ Gary Arlen, *NextGen TV Slowly Finds Its Direction*, Broadcasting+Cable (May 31, 2022), <https://www.nexttv.com/features/nextgen-tv-slowly-finds-its-direction>

²² FNPRM ¶ 18.

Commission asks, “what (if anything) can the Commission do to foster the development of such low-cost 3.0 converter devices?”²³ Here, too, the Commission can learn from the DTV transition and take pro-active steps by establishing the coupon program previously proposed by Public Interest Commenters.²⁴

The DTV transition deadline was only made feasible and equitable by authorizing a \$40 DTV converter box subsidy for consumers who still relied on analog TV, at a total cost of \$1.38 billion.²⁵ As Congress recognized, without a subsidy, millions of mostly older or lower-income consumers would lose their access to over-the-air local television.”²⁶

In contrast to the DTV transition, the Commission has authority to use ancillary service fees collected by broadcasters to establish a coupon to offset consumer costs for a converter box.²⁷ By establishing such a program, the Commission can get ahead of the consumer transition cost crisis while also encouraging the development of low-cost 3.0 converter devices. The sooner the Commission adopts this proposal, the sooner the industry (or the Commission) can accumulate a substantial fund to ensure that every consumer can make the transition, just as Congress did for DTV.

And like the DTV transition, the simulcast requirement should continue until there is a sufficient source of funding for, at a minimum, an ATSC 3.0 converter device. This would also align the broadcast industry’s incentives to explore a technological innovation that might substitute for the need to purchase a new TV set or converter device.

²³ FNPRM ¶ 19.

²⁴ Public Interest Commenters, Comments on Promoting Broadcast Internet Innovation through ATSC 3.0 at 7-16 (Aug. 17, 2020) [Hereinafter Public Interest Comments].

²⁵ Digital Television Transition and Public Safety Act of 2005, Section 3005, P.L. No. 109-171 (Deficit Reduction Act of 2005) (Feb. 8, 2006).

²⁶ *Id.*

²⁷ Public Interest Comments at 8-12.

III. THE COMMISSION SHOULD RETAIN THE SUBSTANTIALLY SIMILAR RULE UNTIL BROADCASTERS ARE NO LONGER REQUIRED TO BROADCAST IN ATSC 1.0.

The Commission “seek[s] comment on whether we should retain the substantially similar rule or permit it to sunset in 2023.”²⁸ Public Knowledge and OTI urge the Commission to retain the substantially similar rule for as long as broadcasters are required to broadcast in ATSC 1.0. This will help minimize any negative impacts on consumers.

As the Commission itself states, “without a requirement to make programming substantially similar, Next Gen TV broadcasters would be free to provide the most desirable programming only to those viewers with 3.0 TV equipment. This could create two different tiers of free, OTA television service.”²⁹ These concerns are valid. Without the substantially similar rule, broadcasters are not required to offer anything beyond a single standard definition broadcast on their ATSC 1.0 airwaves. By moving all of their advanced programs to an ATSC 3.0 signal, broadcasters will have an incentive to try to force consumers to upgrade to new TVs to continue receiving their current content. Given the low rate of ATSC 3.0 enabled TVs available on the market and the even lower number of consumers that have actually purchased one, this is a worrisome possibility.³⁰ A large proportion of lower-income consumers—and even many other consumers who recently purchased a non-compatible TV—could end up with no access to their local over-the-air channels, including what remains of local broadcast station public interest obligations concerning local news and emergency weather and other alerts.

PK and OTI further agree with the Commission’s observation that the substantially similar rule affords broadcasters the flexibility to experiment and develop features using Next Gen TV since “it does not require Next Gen TV broadcasters to duplicate enhanced content or

²⁸ FNPRM ¶ 24.

²⁹ FNPRM ¶ 26.

³⁰ See Section II(B) of these Comments.

features that cannot reasonably be provided in the 1.0 format, and does not require any degree of simulcasting on any stream other than the primary stream.”³¹ These observations lend even more credence to continuing the substantially similar rule.

Continuing the rule poses no downsides to broadcasters because they can still offer any innovative services or features on their ATSC 3.0 signals, which will be using the lion’s share of their free spectrum in any event. In contrast, discontinuing the rule poses significant harm to consumers who may lose their access to local channels, local news, emergency alerts and other core elements of the public interest obligations that justify the grant of spectrum to local broadcast stations, unless they update their equipment and agree to purchase an ATSC 3.0 programming package.

IV. THE COMMISSION SHOULD ADOPT RAND REQUIREMENTS FOR ATSC 3.0 PATENTS.

In 2017, the Commission declined to require reasonable and nondiscriminatory (RAND) terms for ATSC 3.0 patents.³² In doing so, the FCC stated that it would “use this period to monitor how the marketplace handles patent royalties for essential patents.”³³ As Open Technology Institute observed, the FCC’s failure to impose a RAND requirement represented a break from its past practice.³⁴ Now, the Commission seeks comment on its hands-off approach.³⁵

At the outset, the Commission states that ATSC “requires patentees to make essential patents available on RAND terms.”³⁶ The ATSC Patent Policy states that “It shall be the policy

³¹ FNPRM ¶28.

³² Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 9930, §101, note 300 (2017) (“2017 Order”).

³³ *Id.*

³⁴ Becky Chao & Amir Nasr, “TV Royalty: How Patents Could Help Sinclair Rule the Broadcasting Market,” Open Technology Institute at New America, at 12 (2018), https://d1y8sb8igg2f8e.cloudfront.net/documents/TV_Royalty_2018-05-04_175550.pdf.

³⁵ FNPRM ¶23.

³⁶ *Id.*

of the Advanced Television Systems Committee, Inc. (ATSC) that Essential Claims included in ATSC Specification Documents be available to implementers on reasonable and non-discriminatory terms.”³⁷ The policy provides detailed guidance on patent disclosure policies, but little on the consequences of a patent holder failing to uphold its RAND obligation. Like most standards-setting organizations, ATSC leaves members and potential licensors to resolve patent disputes in the courts.

Courts, however, may not be available in many circumstances. The recent 9th Circuit decision in *Federal Trade Commission vs. Qualcomm*,³⁸ has called into question the role of antitrust in standard essential patent (SEP) disputes. In that decision, the 9th Circuit found that Qualcomm’s violations of its fair, reasonable, and non-discriminatory (FRAND) commitments with its chips did not give rise to antitrust liability, pointing to contract law as a means of enforcement. Consistent with this, the Commission noted that contract law’s third-party beneficiary doctrine may be a way for potential licensors to hold patent holders to their RAND commitments.³⁹

But not all contracts that might benefit third parties are enforceable under this doctrine.⁴⁰ Second, in the event of a dispute as to the meaning of a word in a contract, such as “reasonable,” the intent of the contracting parties, not the third party, will govern. In many cases the interests of the parties may not align with the interest of a third-party beneficiary. For example, a standards-setting organization might take the side of a large, established member that contributes more in dues, personnel, and other resources, over a new applicant for membership. If the

³⁷ ATSC Patent Policy, https://muygs2x2vhb2pjk6g160f1s8-wpengine.netdna-ssl.com/wp-content/uploads/2018/02/B-4-2007-12-13_patent_policy_form_editable.pdf.

³⁸ 969 F.3d 974 (2020)

³⁹ FNPRM ¶ 8.

⁴⁰ *See McCarthy v. Azure*, 22 F. 3d 351, 362 (1st Cir. 1994) (third parties must show that signatories intended to create enforceable rights for them).

Commission determines that patent holdups are delaying the adoption of ATSC, it must adopt enforceable RAND requirements.

For such requirements, the Commission should look to the patent policy adopted by the Institute of Electrical and Electronics Engineers (“IEEE”) in 2015. Unlike the policies adopted by standards-setting organizations like ATSC, the IEEE’s policy provides detail on what constitutes a “reasonable rate.”⁴¹ As the Fair Standards Alliance (of which Public Knowledge is a member) stated, “The IEEE-SA’s Patent Policy is and remains the model for standard setting organization (SSO) IPR policies, particularly following the 2015 update to the patent policy. The 2015 updates clarified issues that have been the source of time-consuming and expensive disputes at other SSOs. By enacting the updates, IEEE-SA distinguished itself positively.”⁴² Among other things, the policy provides helpful guidance on what practices would affect what counts as a “reasonable” rate (e.g., not those obtained under threat of a prohibitive order). By adopting RAND requirements modeled on the 2015 IEEE patent policy, the Commission could bring clarity and consistency to licensing in this area and ensure new entry and competition.

VI. CONCLUSION

The Commission’s ATSC 3.0 policies should protect the public interest by minimizing any negative impact an ATSC 3.0 transition will have on consumers. This is particularly important since broadcasters stand to benefit the most from this transition. The Commission can limit the adverse impact on consumers by ensuring that broadcasters are required to simulcast in ATSC 1.0 for as long as it takes for the vast majority of consumers to purchase new TV sets that are ATSC 3.0 enabled. The Commission should also retain ancillary service fees to pro-actively

⁴¹ IEEE SA, <https://standards.ieee.org/about/policies/bylaws/sect6-7>.

⁴² Letter from Fair Standards to IEEE (May 3, 2022), https://fair-standards.org/wp-content/uploads/2022/05/Joint_Letter_to_IEEE_about_Patent_Policy_consultation_-_03May2022-c-3.pdf

fund a program to help consumers who cannot afford to transition to ATSC 3.0. Moreover, the Commission should also require broadcasters to provide a substantially similar broadcast in both ATSC 1.0 and 3.0 as long as broadcasters are required to simulcast. This requirement protects consumers while causing no harm to broadcasters. Finally, the Commission should adopt RAND requirements for ATSC 3.0 patents. This will ensure that ATSC 3.0 technology is actually made available on reasonable and non-discriminatory terms.

Respectfully submitted,

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