

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

In the Matter of	)	
	)	
Expanding Flexible Use of the 3.7 to 4.2 GHz Band	)	GN Docket No. 18-122
	)	
Expanding Flexible Use in Mid-Band Spectrum	)	GN Docket No. 17-183
Between 3.7 and 24 GHz	)	(Inquiry Terminated as to 3.7-4.2 GHz)
	)	
Petition for Rulemaking to Amend and Modernize	)	RM-11791
Parts 25 and 101 of the Commission's Rules to	)	
Authorize and Facilitate the Deployment of	)	
Licensed Point-to-Multipoint Fixed Wireless	)	
Broadband Service in the 3.7-4.2 GHz Band	)	
	)	
Fixed Wireless Communications Coalition, Inc.,	)	RM-11778
Request for Modified Coordination Procedures in	)	
Band Shared Between the Fixed Service and the	)	
Fixed Satellite Service	)	

**REPLY COMMENTS OF QVC, INC. AND HSN, INC.**

QVC, Inc. and HSN, Inc. (collectively, “QVC/HSN”) respectfully submit their reply to comments filed pursuant to the above-captioned Federal Communications Commission (“FCC” or “Commission”) Notice of Proposed Rulemaking soliciting feedback on proposals to permit terrestrial mobile use of the 3700-4200 MHz band (the “C-band”).<sup>1</sup> QVC/HSN are encouraged by the groundswell of support by many commenters calling for the continued protection of C-band services that benefit millions of Americans daily through nationally distributed programming content, among other critical services. However, there are lingering concerns over potential missteps that could interrupt, stifle, or imperil the continuity of services provided over the C-band. Given the critical importance of C-band to the continued operations of QVC/HSN and other C-band users versus available technology alternatives, QVC/HSN specifically support

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<sup>1</sup> *Expanding Flexible Use of the 3.7-4.2 GHz Band*, Order and Notice of Proposed Rulemaking, GN Docket No. 18-122, FCC 18-91 (rel. July 13, 2018) (“NPRM”). Unless otherwise noted, all comments were filed in GN Docket No. 18-122 in response to the NPRM.

proposals advancing the market-based mechanism along with additional protections relating to (A) a sufficiently detailed transition facilitation plan, (B) a future-looking and secured cost recovery mechanism, (C) 3.7-4.2 GHz wireless licenses conditioned on protecting C-band incumbents, and (D) ensuring that any future reallocation efforts are subject to notice and comment. QVC/HSN also opposes comments calling for reallocating more than 200 megahertz of C-band spectrum to terrestrial wireless use.

**I. THE COMMENT RECORD RECOGNIZES THE CRITICAL IMPORTANCE OF C-BAND SPECTRUM FOR CONTENT DISTRIBUTION AS COMPARED TO OTHER ALTERNATIVE TECHNOLOGIES.**

The C-band NPRM comment record has provided a veritable chorus of support for the preservation of today's C-band services.<sup>2</sup> Protection of these services is so fundamental, particularly in rural services, that it has drawn bipartisan support from lawmakers.<sup>3</sup> Commenters have noted how millions of Americans tune in daily to their radio, local broadcast TV station, cable, satellite and other multichannel video programming distributors, or over-the-top video distributor to receive news, sports, entertainment, and, in the case of QVC/HSN, video retail programming, all of which rely on the C-band for the nationwide distribution of that content. Programmers such as CBS Corporation, Discovery, Inc., The Walt Disney Company, 21st Century Fox, Inc., Univision Communications, Inc., and Viacom Inc. (comprising the "Content Companies"), National Public Radio, Inc. ("NPR"), C-SPAN, and Eternal Word Television Network ("EWTN"), among others, made it clear in no uncertain terms that C-band spectrum is

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<sup>2</sup> See generally Comments of the National Association of Broadcasters ("NAB Comments"), Comments of NCTA – The Internet & Television Association ("NCTA Comments"), Comments of the C-Band Alliance ("C-Band Alliance Comments"), Comments of National Public Radio, Inc. ("NPR Comments"), Comments of the Content Companies ("Content Companies Comments"), Comments of the C-SPAN Networks ("C-SPAN Comments"), Comments of Eternal Word Television Network, Inc. ("EWTN Comments").

<sup>3</sup> Letter from Sen. Jerry Moran (R-KS) and Sen. Tom Udall (D-NM) to Ajit Pai, Chairman, FCC at 2 (Nov. 13, 2018) ("Operations within the C-band include a number of unique attributes favorable to content delivery, particularly in rural areas, including reliability, availability, affordability, and resiliency. The FCC must ensure that necessary content delivery to American consumers is not harmed as a result of their policymaking.")

uniquely suited, and indeed, essential, to the uninterrupted and efficient distribution of their programming content. NPR notes, for example, that its radio service “is possible only because of C-band spectrum”<sup>4</sup> and, as echoed by C-SPAN, the C-band downlink system is “essential to [its] business operations and . . . its ability to continue to deliver programming of high technical quality.”<sup>5</sup> The Content Companies remark “[p]ut simply, there is no adequate substitute to the C-band for the Nation’s video delivery pipeline.”<sup>6</sup>

QVC/HSN commented that alternative technologies to C-band such as fiber and Ku-band satellite spectrum fall short of the reliability, quality, cost efficiency, and ubiquitous coverage offered by C-band particularly for service to rural areas.<sup>7</sup> QVC/HSN further agree that Ka-band spectrum as well as compression and video coding technologies are similarly insufficient as alternatives.<sup>8</sup> Ka-band, like Ku-band, is particularly unreliable due to susceptibility to rain fade. Advanced video coding and compression technologies hold long-term promise in lowering spectrum demand for video delivery, but they are not sufficiently available and cost-efficient today and would require costly equipment and software upgrades.<sup>9</sup> QVC/HSN agree with NCTA that even without these obstacles, the benefits may be offset by “the simultaneous adoption of advanced transmission standards such as ultra-high-definition”<sup>10</sup> to meet consumer demand for higher resolution content, which are bandwidth intensive.

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<sup>4</sup> NPR Comments at 3.

<sup>5</sup> C-SPAN Comments at 2.

<sup>6</sup> Content Companies Comments at i.

<sup>7</sup> Comments of QVC/HSN at 4-5 (“QVC/HSN Comments”).

<sup>8</sup> NCTA Comments at 14-18.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

## **II. QVC/HSN AGREE WITH RECOMMENDATIONS FOR ADDITIONAL CRITICAL PROTECTIONS FOR C-BAND OPERATORS IN A MARKET-BASED TRANSITION PROCESS.**

The market-based solution remains the most feasible transition option presented in the rulemaking record provided the Commission adopts measures to guarantee protections for C-band operations. QVC/HSN agree with NPR that there is “some promise that the market-based approach will provide the flexibility needed during the transition process and will benefit from the combined industry experience of the C-Band Alliance’s members, something that cannot be said of an auction.”<sup>11</sup> QVC/HSN do not support proposals for any auction-based mechanism<sup>12</sup> as an auction likely would result in an overly long and costly multi-stage process to determine the amount of spectrum that satellite operators might be willing and able to vacate in an area. An auction also would be more dependent on government intervention and be less flexible than with a market-based approach.

The market-based approach has also drawn support from a mobile wireless stakeholder. Verizon comments that the market-based approach is likely to clear the band and assign spectrum rights more quickly than other mechanisms such as an FCC-led auction, and that the Transition Facilitator is “very well positioned” to clear C-band spectrum and reach arrangements with prospective mid-band flexible use licensees.<sup>13</sup> QVC/HSN also agree that satellite operators—through the Transition Facilitator—would be able to leverage their knowledge and expertise regarding C-band capacity, operations, and use, and will have appropriate incentives to clear incumbent users.<sup>14</sup> QVC/HSN further agree with Verizon that bilateral negotiations

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<sup>11</sup> NPR Comments at 10.

<sup>12</sup> See generally Comments of T-Mobile USA, Inc. (“T-Mobile Comments”) and Comments of United States Cellular Corporation.

<sup>13</sup> Comments of Verizon at 5 (“Verizon Comments”).

<sup>14</sup> *Id.*

between the Transition Facilitator and prospective flexible use licensees would offer a degree of flexibility that would be useful in such a complicated transition involving thousands of entities with independent interests.<sup>15</sup> QVC/HSN continue to support the market-based solution as the option best suited to ensure and protect C-band services, and further urge the Commission to adopt additional requirements and licensing conditions raised in the NPRM comment record that build in protections to the C-band transition process.

**A. A Transition Facilitation Plan Should Be Sufficiently Detailed to Address the Current and Future Needs of Affected C-Band Customers and Operators.**

In addition to the transition facilitation plan details proposed in its comments, QVC/HSN also supports NCTA's recommendation that the Transition Facilitator provide a publicly available, adequately detailed plan that discloses sufficient detail for customers and earth station operators and distributors to ensure that their needs will be met and that such plan should address the following:

- (1) continuity of operation plans for each affected satellite customer and earth station operator, including whether that operator must change frequencies or transition to an alternative transmission mechanism and the date by which any changes will be accomplished;
- (2) the dollar amount of compensation to be paid out to each affected earth station operator and plans for ensuring that sufficient funds will be placed in escrow to cover such costs;
- (3) plans to provide any replacement or alternative equipment and associated installation and plans for alternative reimbursement elections such as a lump-sum payment; and
- (4) how the plan will accommodate growth over time, including the need for new earth station sites and antennas and an eventual transition to higher resolution (ultra-high-definition) transmissions that may require additional bandwidth.<sup>16</sup>

Such detailed assurances, and others to be further fleshed out, would provide QVC/HSN and likely other affected C-band users with the confidence to embrace and move quickly forward with the transition facilitation plan.

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<sup>15</sup> *Id.*

<sup>16</sup> NCTA Comments at 29.

## **B. Cost Recovery Should Be Future-Looking and Secured.**

QVC/HSN agree with NCTA that adequate cost recovery to affected C-band users must include covering the costs of necessary new equipment—including filters and Low Noise Blockers—as well as installation and maintenance costs, or equivalent lump-sum reimbursement at the earth station operator’s request.<sup>17</sup> Moreover, cost reimbursement models should build in an amount adequate to compensate C-band users for any ongoing operational impact of a reduction in total C-band spectrum.<sup>18</sup> QVC/HSN also support the NAB recommendation that the Commission require a documented analysis of the financial commitment required to implement such a plan, which should specifically consider the extent to which a smaller C-band may result in higher operating costs for current users if satellite operators increase transponder leasing rates.<sup>19</sup> Moreover, the scope of any adopted cost reimbursement model should further include expenses relating to the deployment of “gap-filler” solutions to resolve problems arising from the transition (e.g., a new fiber link that may be needed to compensate for a limited look angle of a replacement satellite) as such expenses will not have been incurred voluntarily.

To the extent it is possible that the proceeds of negotiated sales may exceed the transition costs of C-Band customers and distributors and could result in a potential “windfall” for satellite operators as feared by some commenters,<sup>20</sup> the Commission should consider whether such proceeds should be shared with satellite customers to help fund and accelerate a further, longer-term transition to alternate technologies such as fiber-based distribution. The Brattle Paper accompanying the Joint Comments of Intel, Intelsat and SES notes that a share of the “net

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<sup>17</sup> NCTA Comments at 20-21.

<sup>18</sup> NCTA Comments at 23.

<sup>19</sup> NAB Comments at 7.

<sup>20</sup> See, e.g., Comments of Public Interest Spectrum Coalition at 22 (a private auction or negotiated sale would result in anticipated net proceeds of \$10 to \$30 billion); T-Mobile Comments at 14 (auction revenues should be split between federal government and satellite licensees, with satellite licensees being responsible for relocating and, out of their portion of the proceeds, reimbursing customer costs incurred during the transition period).

benefits” of negotiated sales going to satellite customers could result in revised services or equipment that represents an improvement over current services.<sup>21</sup> Though the Brattle Paper posits “private bargaining” between customers and satellite operators that can lead to such an outcome,<sup>22</sup> the Commission should consider mechanisms by which such proceeds could be shared with satellite customers to help fund the transition to fiber-based technologies that ultimately could further reduce the demand for C-band spectrum and accelerate its additional availability for mobile broadband use.

Also, to protect against changes to the financial condition of the Transition Facilitator (or which party the Commission makes financially responsible for implementing an accommodation plan), QVC/HSN support the proposal for the Commission to secure that financial commitment through an irrevocable letter of credit or similar instrument in the amount of estimated costs. NAB notes that this was done with the 800 MHz band reconfiguration involving a large group of existing users, but in this case the Commission should not cap this secured commitment to ensure that costs exceeding the estimate remain funded.<sup>23</sup>

**C. New 3.7-4.2 GHz Licenses Should Be Conditioned on Protection of Incumbent Earth Stations.**

Consistent with NCTA’s proposal, QVC/HSN urge the Commission to condition future 3.7-4-2 GHz license authorizations on the licensee’s agreement that it will not commence operations until protections for incumbent earth stations have been completed. This condition should be memorialized in the Commission’s rules along with a mechanism for monitoring and

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<sup>21</sup> See Appendix A to Joint Comments of Intel Corporation (“Intel”), Intelsat License, LLC (“Intelsat”), and SES Americom, Inc. (“SES”), Coleman Bazelon, The Brattle Group, *Maximizing the Value of the C-Band, Comments on the FCC’s NPRM to Transition C-Band Spectrum to Terrestrial Uses* at 39 (“Brattle Paper”).

<sup>22</sup> *Id.*

<sup>23</sup> NAB Comments at 7. NAB further notes that repacking of television stations following the broadcast spectrum incentive auction demonstrates how initial cost estimates for large relocation projects can quickly become outdated. *Id.*

enforcement.<sup>24</sup> Specifically, all changes that earth station operators must undergo as part of the transition must be completed, successfully tested, and approved and verified by the earth station operator to the Commission before the licensee may commence new high-power wireless operations in the vicinity.<sup>25</sup> Such license requirements ultimately inure to the benefit of both new licensees and incumbents by ensuring interference-free operations and would bolster the Commission's commitment to protecting existing earth station users.<sup>26</sup>

**D. The Commission Should Not Consider Additional C-Band Allocations Without Further Notice and Comment.**

After a transition facilitation plan has established an amount of C-band spectrum to reallocate, there should be no further efforts to clear additional C-band spectrum without the Commission providing an opportunity for further notice and comment.<sup>27</sup> QVC/HSN specifically support NCTA's proposal that, to the extent that satellite licensees and wireless carriers wish to undertake multiple rounds of negotiation and clearing over time to make available more spectrum for terrestrial wireless use, each such round of negotiations should commence only after the Commission provides an opportunity for notice and comment on the proposal to clear additional frequencies and after substantive mobile deployment is achieved on portions of the band already cleared.<sup>28</sup> As noted by NPR, "it is the Commission's statutory responsibility to manage the radio frequency spectrum in the public interest,"<sup>29</sup> and the Administrative Procedure

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<sup>24</sup> NCTA Comments at 30.

<sup>25</sup> *Id.*

<sup>26</sup> NPRM at ¶ 27.

<sup>27</sup> NCTA Comments at 30-31.

<sup>28</sup> *Id.*

<sup>29</sup> NPR Comments at 11, *citing* 47 U.S.C. §§ 151, 303.



Act also obligates the Commission to afford the public an opportunity to address Commission regulatory proposals prior to adoption.<sup>30</sup>

There are many interested stakeholders concerned with the future of the C-band, as demonstrated by the substantial comments of record in the related inquiry and rulemaking proceedings.<sup>31</sup> QVC/HSN agree with NPR that it would be “inappropriate to further alter the use of the spectrum band, thereby benefitting some parties and harming others, without giving those parties an opportunity to contribute to the record... particularly in light the Commission’s stated objective to protect existing earth station users.”<sup>32</sup>

**E. The Commission Should Soundly Reject the Suggestion to Establish a 300 Megahertz Reallocation Floor.**

The FCC should decline as unreasonable T-Mobile’s suggestion of a 300-megahertz reallocation floor<sup>33</sup> and Verizon and CTIA’s calls to reallocate more than the C-Band Alliance’s recent proposal of 200 megahertz.<sup>34</sup> As QVC/HSN recommended and consistent with other comments of record, the FCC should not allocate any more than 200 megahertz of C-band spectrum for flexible use at this time.<sup>35</sup> To proceed otherwise would risk harming incumbent C-band users. As NPR noted, incumbents would face the prospect of (1) reduction of capacity and supply as well as higher prices for the remaining portion of the band allocated for satellite use and (2) terrestrial alternatives that cannot provide, let alone assure, reliability, affordability, and availability of service.<sup>36</sup> QVC/HSN further agree with NAB and the Content Companies that even 100 megahertz would be a significant mobile spectrum reallocation and exceeds amounts

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<sup>30</sup> NPR Comments at 11, *citing* 5 U.S.C. § 553.

<sup>31</sup> NPR Comments at 11.

<sup>32</sup> NPR Comments at 11-12, *citing* NPRM at ¶ 27.

<sup>33</sup> T-Mobile Comments at 2, 7.

<sup>34</sup> Verizon Comments at 9-10; CTIA Comments at 9.

<sup>35</sup> QVC/HSN Comments at 2, 8-10; NPR Comments at 9-11, 13.

<sup>36</sup> NPR Comments at 10-11.

reallocated for other mobile broadband auctions (e.g., 600 MHz, AWS). For instance, the 600 MHz band broadcast incentive auction, which required years of planning, cleared 70 megahertz for mobile usage and 14 megahertz for unlicensed usage.<sup>37</sup> Also, the 2014 AWS-3 auction auctioned 65 megahertz of mid-band spectrum and attracted significant interest from wireless carriers.<sup>38</sup>

### **III. CONCLUSION.**

Based on the foregoing, QVC/HSN further urge the Commission to adopt the market-based mechanism along with additional protections including a sufficiently detailed transition facilitation plan, a future-looking and secured cost recovery mechanism, 3.7-4.2 GHz licenses conditioned on protecting C-band incumbents, and ensuring that any future reallocation efforts are subject to notice and comment. The Commission should also decline requests to allocate more than 200 megahertz of C-band spectrum for mobile terrestrial use.

Respectfully submitted,

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<sup>37</sup> Content Companies Comments at n.13, *citing* NPRM at ¶ 4.

<sup>38</sup> *Id.*, *citing* NPRM at ¶ 134 n.231.