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VIA ELECTRONIC FILING – VIA ULS

Mr. Donald Stockdale
Chief, Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: DISH Has No Plans to Satisfy FCC Build Out Requirements and Continues to Warehouse Valuable Spectrum Assets

Dear Mr. Stockdale:

T-Mobile USA, Inc.^{1/} urges you to notify DISH Network Corporation (“DISH”) that the build out plan it outlined in its September 21, 2018 letter to you^{2/} is inconsistent with the company’s obligations under the Commission’s rules and that the spectrum it holds will be recaptured if it only takes the very limited actions it described. The public interest requires that the Commission provide clear direction to DISH now to ensure that valuable spectrum can be quickly put to use by others if DISH is unwilling to deploy a network, as the Commission envisioned – and to which DISH committed – when it issued the licenses. The Commission should not wait until DISH formally reports on its inadequate build out to identify deficiencies but should act now to signal that the spectrum must be put to productive use or be relinquished. Spectrum is too precious a resource to be wasted on hoarders. Indeed, recognizing the importance of rigorous spectrum management, the Administration released a memorandum today, noting that “access to spectrum is a critical component of the technological capabilities that enable economic activity and protect national security.”^{3/}

^{1/} T-Mobile USA, Inc. is a wholly owned subsidiary of T-Mobile US, Inc., a publicly traded company.

^{2/} Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH Network Corporation, to Donald Stockdale, Chief, Wireless Telecommunications Bureau (Sept. 21, 2018) (“DISH Response”). The DISH Response relates to AWS-4, Lower 700 MHz E Block and H Block spectrum held respectively by DBSD Corporation, Lead Call Sign T070272001; Gamma Acquisition L.L.C., Lead Call Sign T060430001; Manifest Wireless L.L.C., Lead Call Sign WQJY944; and American H Block Wireless L.L.C., Lead Call Sign WQTX200.

^{3/} PRESIDENTIAL MEMORANDUM ON DEVELOPING A SUSTAINABLE SPECTRUM STRATEGY FOR AMERICA’S FUTURE, WHITE HOUSE (Oct. 25, 2018), <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-developing-sustainable-spectrum-strategy-americas-future/>.

DISH's Build Out Plan Is Deficient and Will Not Meet the FCC's Performance Requirements

On its face, DISH's plan fails to meet its stated commitment to fulfill the Commission's vision of using the spectrum to deploy wireless broadband services. Significantly, the plan would use only a fraction of the available spectrum capacity.^{4/} DISH's build out plan is nothing more than a scheme for the company to further warehouse valuable spectrum assets, and the Commission should not condone it.

Specifically, DISH states that it will employ a 200 kilohertz carrier with its narrowband Internet-of-Things ("NB-IoT") system for each of its licenses.^{5/} But that means that it will be leaving almost all of its spectrum fallow.^{6/} T-Mobile supports rules that allow a provider to potentially meet its build out obligations by providing IoT, as the Commission has allowed in recent proceedings in which it established separate performance requirements for those networks.^{7/} But providers' deployments must be robust and not leave nearly 98% of the spectrum fallow while providing questionable coverage and performance for the remaining 2% of spectrum for which it is licensed, as shown in the table below. Other providers, including T-Mobile, are providing NB-IoT services. But they are not wasting a large spectrum block to do so. Instead, they are using the guard band of spectrum otherwise used for wireless broadband to provide this service.^{8/} For example, T-Mobile is using, and plans to continue to use, its PCS, 700 MHz, AWS, and 600 MHz spectrum to provide IoT *in the same channel block in which it offers or will offer LTE service*. In contrast, by asserting that it will meet its build out requirements by offering only NB-IoT services, DISH is turning spectrum utilization on its head by making what is effectively ancillary use of spectrum the main use – a wasteful and inefficient choice that leaves the vast majority of the spectrum fallow.

^{4/} And because DISH will not have met its build out obligations, it is unlikely to be able to provide the demonstration required in Section 1.949 of the rules to renew its licenses.

^{5/} DISH Response at 9.

^{6/} DISH holds even more AWS-4 and 700 MHz E Block spectrum, meaning that its utilization of those allocations will be even less.

^{7/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Service; et al.*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd. 10988, ¶ 64 (2017) ("*Spectrum Frontiers Second Report and Order*").

^{8/} *Internet of Things*, T-Mobile, <https://iot.t-mobile.com/network/#nbiot> (last visited Oct. 25, 2018) ("Our NB-IoT operates on a dedicated guard band of existing networks, so it can efficiently carry data without competing against other network traffic. It's an excellent solution for smart buildings, connected cities, asset tracking, and more.").

Spectrum Block	Total Block Size (MHz)	Amount used (MHz)	Percentage
AWS-4 A Block	20	0.2	1.0%
AWS-4 B Block	20	0.2	1.0%
700 MHz E Block	6	0.2	3.3%
H Block	10	0.6	6.0%
Totals:	56	1.2	2.1%

In addition to using only a small fraction of its spectrum capacity, it will deploy a network directly contrary to the spectrum efficient architecture to which most carriers are migrating. DISH notes that it can achieve cell sizes as large as 120 kilometers.^{9/} Even if DISH only achieved half that, a site at the center of Washington, DC would cover most of Baltimore and almost out to the West Virginia border. This is the antithesis of what carriers are doing to densify networks to achieve the maximum efficient spectrum use.

DISH’s efforts therefore would constitute nothing more than a “license saving” deployment scheme and are insufficient to meet its performance obligations. In a recent decision establishing consistent performance and reporting obligations for wireless services, the Commission specifically rejected the use of “channel keepers” – devices used principally to demonstrate that a service is being provided.^{10/} Similarly, the Wireless Telecommunications Bureau has stated that a licensee that deployed “license saving builds” did not meet the applicable performance requirements.^{11/} DISH’s plan is precisely the same as other “license savers.” It proposes to use a small percentage of its authorized capacity to claim that it has met its performance obligations.

^{9/} DISH Response at 9.

^{10/} See *Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services*, Second Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd. 8874, ¶ 72 (2017) (“[S]o-called channel keepers—devices that transmit test signals, tones, and/or color bars, for example—will not constitute operation or service for the purposes of our permanent discontinuance rule.”); see also *Application of San Diego MDS Company*, Memorandum Opinion and Order, 19 FCC Rcd. 23120, ¶ 10 (2004) (“In particular, we agree with the Division that it was clearly unreasonable for San Diego MDS to believe that the periodic broadcasting of signals that nobody received constituted ‘service’ within the meaning of the rule. Such an interpretation is unreasonable; in order to provide a service a provider would, at a minimum, need a customer or other person to serve.”).

^{11/} *JSM Holding LLC Petition for Reconsideration of Termination Pending status; and Supplemental Substantial Service Showings for Call Signs WPVF722, WPVF725, WPVF737, WPVF739, WPVF741, WPVF742, WPVF752, and WPVF754*, 27 FCC Rcd 5864, at 3 (2012).

Like many similar license-saving plans, that may constitute “use” of spectrum, but only in the most limited way. The Commission has disallowed occasional transmission of signals as satisfaction of performance requirements, and it must reach the same result with respect to DISH’s plan.

Licensees must have the latitude to offer the services they believe are most appropriate. That is the basis of the Commission making spectrum available on a flexible basis.^{12/} But that latitude is not boundless. Licensees cannot, for example, offer services that do not conform to the Table of Allocations. Neither should they be permitted to completely abandon the Commission’s vision of how spectrum should be used when, as here, that departure represents gross underutilization of the licensed spectrum and constitutes little more than an impermissible effort to offer service merely to “save” the license.

A Promise of More Robust Use Later Does Not Satisfy Performance Requirements Now

DISH states that it plans to deploy its network in two phases – it will deploy NB-IoT in Phase 1 and deploy its mobile broadband network in Phase 2.^{13/} The fact that DISH *may* later use the spectrum for wireless broadband in Phase 2 does not excuse its failure to meet the required performance requirements now. The Commission has been clear that licensees cannot be permitted to perpetually wait for the next big thing. They are required to use spectrum by the performance requirement deadline or the Commission’s rules should be used to allow others to do so. DISH stated that it is “fac[ing] multiple challenges” securing the equipment and vendors needed for its build out.^{14/} But these challenges are a direct result of DISH’s own business decisions. The Commission has consistently rejected licensees’ requests for relief from build out obligations based on these types of business decisions.^{15/} The Commission should reject DISH’s plan to postpone its required build out of a mobile broadband network in favor of a limited NB-IoT network on the same grounds. DISH’s lack of success in finding a partner in time to meet its construction obligations should be clear evidence that there is no certainty that a future partner will materialize and, even if a partner were to appear, it would come too late to meet DISH’s construction requirements.

DISH’s Proposed NB-IoT Deployment Is Inconsistent With Its Commitments to Provide Broadband Services with the Spectrum It Holds

The Commission intended that the AWS-4, H Block, and Lower 700 MHz E Block spectrum be used to support mobile *broadband* service, and DISH has emphatically supported the

^{12/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Service, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 8014, ¶¶ 76, 105 (2016) (authorizing the 37-38.6 GHz and 38.6-40 GHz bands for licensed mobile and fixed UMFUS use); *Spectrum Frontiers Second Report and Order*, ¶¶ 22, 47 (authorizing licensed mobile and fixed operations in the 24.25-24.45 GHz, 24.75-25.25 GHz, and 47.2-48.2 GHz bands under the UMFUS rules); see also 47 C.F.R. § 30.4.

^{13/} DISH Response at 1-2.

^{14/} *Id.* at 3.

^{15/} See, e.g., *Bristol MAS Partners*, Order, 14 FCC Rcd. 5007, ¶¶ 5-8 (1999); *Warren C. Havens*, Order, 27 FCC Rcd. 5841, ¶¶ 16-25 (2012).

Commission's efforts – until now.^{16/}

AWS-4. The Commission's decision to permit terrestrial use (in addition to satellite use) of the AWS-4 spectrum was premised on the deployment of the spectrum for mobile broadband. The Commission expressed this assumption both with respect to the designation of the spectrum and the technical rules adopted.^{17/} In supporting the Commission's plan, DISH (through its affiliates – Gamma Acquisitions L.L.C. and New DBSD Satellite Services G.P. – the holders of the AWS-4 spectrum) agreed that the band should be allocated for mobile broadband.^{18/} Indeed, in asserting that the Commission should make changes to the rules for the AWS-4 band, DISH argued that it would become a “disruptive competitor in the wireless market.”^{19/} Moreover, even before the Commission allowed terrestrial use of the spectrum, DISH asserted that it should also be permitted to use the spectrum for satellite broadband services.^{20/} Similarly, when the Commission granted DISH a waiver of the AWS-4 rules, allowing DISH to elect its uplink/downlink configuration, it did so based on DISH's assertion that it would provide mobile broadband services.^{21/}

^{16/} See, e.g., Letter from Jeffrey J. Blum, Senior Vice President & Deputy General Counsel, DISH Network Corporation, to Chairwoman Mignon Clyburn, FCC, WT Docket No. 12-69, at 1 (filed Sept. 10, 2013) (“You have called on both the government and industry to help ‘unleash[] spectrum for commercial use while also ensuring more efficient use of spectrum.’ The Commission has the ability to take immediate steps to do just that – promote mobile broadband deployment as well as the more efficient use of spectrum – in the Lower 700 MHz band, the H Block and the proposed AWS-3 bands (particularly the J Block), and allow full use of the 40 MHz of the AWS-4 band while protecting adjacent-band operators.”).

^{17/} *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, Report and Order, 27 FCC Rcd. 16102, ¶ 1 (2012) (“With this *Report and Order*, we increase the Nation's supply of spectrum for mobile broadband by adopting flexible use rules for 40 megahertz of spectrum in the 2 GHz band (2000-2020 MHz and 2180-2200 MHz), which we term the AWS-4 band.”); see also *id.* ¶ 17 (“In this *AWS-4 Report and Order*, we build on the Commission's recent actions to increase the availability of spectrum by enabling terrestrial mobile broadband service in 40 megahertz of spectrum in the 2000-2020 MHz and 2180-2200 MHz spectrum bands.”); *id.* ¶ 42 (“We expect that the use of wide contiguous blocks of spectrum will support continued innovation and deployment of mobile broadband technologies.”).

^{18/} See, e.g., Comments of DISH Network Corporation, WT Docket No. 12-70, *et al.*, at 5 (May 17, 2012) (“These rules would allow DISH to drive competition in the mobile broadband market as it has been doing for years in the video distribution market.”).

^{19/} Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH Network Corporation, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 10-142, *et al.*, at 1 (filed Nov. 8, 2012).

^{20/} Letter from Jeffrey H. Blum, DISH Network Corporation, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-70, *et al.*, at 2 (filed Aug. 28, 2012) (“DISH noted the ability to offer handsets that use both terrestrial and satellite networks could serve as an important differentiator for a new competitor.”).

^{21/} *DISH Network Corporation, Petition for Waiver of Sections 27.5(j) and 27.53(h)(2)(ii) of the Commission's Rules and Request for Extension of Time*, Memorandum Opinion and Order, 28 FCC Rcd. 16787, ¶ 23 (2013) (“*AWS-4 Waiver Request Order*”) (“Moreover, granting a waiver in this instance will potentially enhance wireless broadband competition, encourage innovation, speed up broadband

The operator-to-operator interference agreements into which DISH entered with various federal governmental agencies and the U.S. GPS Industry Council were also based upon DISH's deployment of a nationwide broadband base station network.^{22/} The agreements specified certain power and emission limitations that may be inconsistent with the proposed high-tower, high-power network design DISH has proposed for its NB-IoT network. For example, DISH and the GPS Industry Council agreed that the EIRP density for narrowband emissions should not exceed -110 dBW/kHz.^{23/} And the agreement between DISH and the federal governmental agencies requires the consent of all parties for any deviation from the "nationwide broadband base station network."^{24/} DISH has not provided evidence that NTIA has agreed to any deviation from the network contemplated by that agreement.

H Block. When the Commission allocated the H Block for terrestrial operations, it anticipated that it would be used for mobile broadband.^{25/} In supporting the Commission's proposals, DISH agreed with the need to allocate the spectrum for that purpose.^{26/}

Lower 700 MHz E Block. In considering the future use of the Lower 700 MHz E Block in 2013, the Commission stated that it expected that the spectrum would be used for mobile broadband.^{27/} DISH agreed and supported the Commission's decision to designate the band for mobile broadband based on that likely use.^{28/}

deployment, and increase the supply of in-demand downlink spectrum to be used on an unpaired basis or paired with non- AWS-4 spectrum.").

^{22/} Letter from Karl B. Nebbia, Associate Administrator, Office of Spectrum Management, NTIA, to Julius Knapp, Chief, Office of Engineering and Technology, FCC, at 4 (Dec. 11, 2012) ("DISH-Federal Government Agreement"); *see also* Letter from Jeffrey Blum, Deputy General Counsel, DISH Network Corporation, and F. Michael Swiek, Executive Director, The U.S. GPS Industry Council (Sept. 27, 2012) ("DISH-GPS Industry Agreement").

^{23/} DISH-GPS Industry Agreement at 1-2.

^{24/} DISH-Federal Government Agreement, Operator-to-Operator Agreement at 4.

^{25/} *Service Rules for Advanced Wireless Services H Block - Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-2000 MHz Bands*, Report and Order, 28 FCC Rcd. 9483, ¶ 1 (2013) ("Today we increase the Nation's supply of spectrum for flexible-use services, including mobile broadband."); *id.* ¶ 9 ("In this *H Block Report and Order*, we implement the Spectrum Act provisions pertaining to the H Block and build upon recent Commission actions to increase the availability of spectrum for wireless use by adopting rules to grant licenses for the H Block for terrestrial fixed and mobile use via a system of competitive bidding.").

^{26/} Comments of DISH Network Corporation, WT Docket No. 12-357, at 2 (filed Feb. 6, 2013).

^{27/} *Promoting Interoperability in the 700 MHz Commercial Spectrum; Requests for Waiver and Extension of Lower 700 MHz Band Interim Construction Benchmark Deadlines*, Report and Order, 28 FCC Rcd. 15122, ¶ 1 ("The amendments to our rules and modifications to licenses proposed herein will serve the public interest by enabling consumers, especially in rural areas, to enjoy the benefits of greater competition and more choices, and by encouraging efficient use of spectrum, investment, job creation, and the development of innovative mobile broadband services and equipment.").

^{28/} Comments of DISH Network Corporation, WT Docket No. 12-69, at 2 (filed June 1, 2012).

Despite the Commission’s clear intent – supported by DISH – that its licensed spectrum be used to provide mobile broadband service, DISH now plans, in an attempt preserve its licenses, to offer limited NB-IoT service only. Yet, the circumstances under which the Commission determined to make spectrum available for mobile broadband have not changed. Of course, the Commission’s assessment of how spectrum should be used cannot be frozen in time. But that is not the case here. There are over 400 million mobile devices in use in the U.S. – approximately 1.2 devices for every person – and it is estimated that on average, each smartphone generates nearly 5 gigabytes of data each month.^{29/} Wireless users generated over 15 trillion megabytes of data in 2017, up 14% from 2016.^{30/} And over 323,000 cell sites were in operation last year.^{31/} The data is incontrovertible – the demand for mobile broadband services and spectrum capacity has only increased since the Commission stated its expected use of the spectrum DISH holds. In contrast to DISH, T-Mobile is meeting those mobile broadband needs by putting to use – and quickly – spectrum it obtained in the recently concluded broadcast incentive auction. Last month, T-Mobile announced that it has deployed 600 MHz Extended Range LTE in 1,254 cities and towns in 36 states, including the island of Puerto Rico.^{32/} T-Mobile’s own efforts to satisfy real consumer demands make it clear that as the demand for broadband use continues to grow exponentially, DISH’s plan is no more than a cynical effort to hoard valuable spectrum assets.

The Commission Must Provide Clear Direction to DISH Now that the Proposed Build Out Will Result in License Loss

DISH and its affiliates have a track record of hoarding spectrum with no benefit for consumers, and the Commission should make it clear that it will not tolerate that behavior any longer. Instead of building out its spectrum holdings, DISH has consistently sought waiver of the rules to delay its performance obligations. In 2013, it sought and received an extension of time to build out its AWS-4 licenses.^{33/} It also received an extension of time to build out its Lower 700 MHz E Block licenses.^{34/} In 2011, the International Bureau denied EchoStar’s request for extension of its construction deadline.^{35/} DISH has also impermissibly entered into agreements with

^{29/} See *State of Wireless 2018*, CTIA, https://api.ctia.org/wp-content/uploads/2018/07/CTIA_State-of-Wireless-2018_0710.pdf (“*State of Wireless 2018*”).

^{30/} See *Spectrum Policy*, CTIA, <https://www.ctia.org/positions/spectrum>.

^{31/} See *State of Wireless 2018*.

^{32/} News Release, *T-Mobile 600 MHz Extended Range LTE Now Live in More Than 1,250 Cities & Towns, Laying the Foundation for 5G*, T-Mobile (Sept. 10, 2018), <https://www.t-mobile.com/news/600-mhz-update-puerto-rico>.

^{33/} *AWS-4 Waiver Request Order*, ¶ 20.

^{34/} *Promoting Interoperability in the 700 MHz Commercial Spectrum, et al.*, Report and Order and Order of Proposed Modification, 28 FCC Rcd. 15122, ¶ 56 (2013).

^{35/} *EchoStar Corporation; Certifications of Milestone Compliance; EchoStar Corporation; Application to Authorize Operations of the EchoStar 8 Satellite at the 86.5 [degrees] W.L. Orbital Location*, Memorandum Opinion and Order, 26 FCC Rcd 10442, ¶ 8 (2011).

designated entities in an attempt to allow it to control even more spectrum that it will warehouse.^{36/}

Unless the Commission provides clear guidance now, DISH will likely assert that its anticipated build out is sufficient at the performance deadline, and the Commission will be required to litigate with DISH to regain the spectrum. The Commission should also make clear that it will enforce its rules so that DISH will not only lose its licenses, but also will be unable to re-acquire those licenses later. Clear direction now will expedite the Commission's recapture of spectrum so that valuable spectrum assets can be put to productive use by providers that actually serve the public.

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The Commission has made clear that licensees must take their performance requirements seriously.^{37/} DISH's response to you shows that it does not, and that it intends to continue to warehouse spectrum with no benefit to consumers. The Bureau should not permit DISH to succeed with its plan.

Respectfully submitted,

/s/ Kathleen O'Brien Ham

Kathleen O'Brien Ham
Senior Vice President, Government Affairs

^{36/} See Comments of T-Mobile USA, Inc., File Nos. 0006670613, 0006670667, 0008243409, 0008243669 (filed July 23, 2018); see also Northstar Wireless, LLC, Application for New Licenses in the 1695-1710 MHz, 1755-1780 MHz and 2155-2180 MHz Bands, ULS File No. 0008243409 (filed June 8, 2018); SNR Wireless LicenseCo, LLC, Application for New Licenses in the 1695-1710 MHz, 1755-1780 MHz and 2155-2180 MHz Bands, ULS File No. 0008243669 (filed June 8, 2018).

^{37/} See *Wireless Telecommunications Bureau Reminds Wireless Licensees of Construction Obligations*, Public Notice, 32 FCC Rcd. 4802 (2017).