

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

In the Matter of)	
)	
WorldVu Satellites Limited)	
)	
Petition for a Declaratory Ruling)	File No.
Granting Access to the U.S. Market)	
for the OneWeb System)	
)	

PETITION FOR DECLARATORY RULING

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PETITION FOR DECLARATORY RULING OF ONEWEB LTD.

WorldVu Satellites Limited, doing business as OneWeb (“OneWeb”), pursuant to Section 25.137 of the Commission’s Rules,¹ hereby files this Petition for Declaratory Ruling (“PDR”) requesting access to the U.S. market for OneWeb’s planned low earth orbit (“LEO”), non-geostationary orbit (“NGSO”) satellite system (the “OneWeb System”).

I. INTRODUCTION AND BACKGROUND

OneWeb is on a mission to provide high-speed, affordable broadband connectivity to anyone, anywhere.

Building and sharing culture through communication is an essential and defining aspect of humanity. To be denied an opportunity to connect with one’s fellow man is to be denied access to a human right. As expressed by 1991 Nobel Peace Prize recipient and Burmese stateswoman Aung San Suu Kyi, during house arrest “it felt as though I were no longer a part of the real world.”² Today, Internet connectivity provides a voice to our global community. As the

¹ 47 C.F.R. § 25.137.

² Aung San Suu Kyi, Nobel Lecture at Oslo City Hall (June 16, 2012), *available at* http://www.nobelprize.org/nobel_prizes/peace/laureates/1991/kyi-lecture_en.html (elaborating that “[t]here was the house which was my world, there was the world of others who also were

International Telecommunication Union (“ITU”) and United Nations Educational, Scientific and Cultural Organization (“UNESCO”) have recognized: “Without a doubt, broadband is the nervous system of today’s new civilization, so broadband access is a top priority for our technological society.”³

Yet, digital connectivity remains out of reach for substantial portions of the globe and the isolation described by Aung San Suu Kyi applies to those without broadband access—they exist in a separate world, cut off from the social, economic, political and cultural advances of modern society. The ITU and UNESCO state that fifty-seven percent “or some 4.2 billion of the world’s people . . . still do not enjoy regular access to the Internet.”⁴ This problem is even more pronounced in lesser developed countries, where only “one out of every ten people is online.”⁵

The need to expand broadband access is not solely a problem for underdeveloped countries, however. It is also an issue that federal, state and local governments in the United States have struggled to solve for many years. The Commission’s 2016 Broadband Progress Report found that one in ten Americans lack access to high-speed broadband, and that the problem was particularly acute in rural areas and in tribal lands.⁶ Indeed, FCC Chairman Wheeler

not free but who were together in prison as a community, and there was the world of the free; each was a different planet pursuing its own separate course in an indifferent universe.”).

³ Press Release, ITU and UNESCO, ITU and UNESCO Announce Top-Level Global Broadband Commission (May 10, 2010) *available at* http://www.unesco.org/new/en/media-services/single-view/news/itu_and_unesco_announce_top_level_global_broadband_commission_leading_names_from_industry_un_agenci/.

⁴ ITU/UNESCO BROADBAND COMMISSION FOR SUSTAINABLE DEVELOPMENT, THE STATE OF BROADBAND 2015: BROADBAND AS A FOUNDATION FOR SUSTAINABLE DEVELOPMENT 8 (2015), *available at* <http://broadbandcommission.org/Documents/reports/bb-annualreport2015.pdf> (“Broadband Commission Report”).

⁵ *Id.* at 8-9.

⁶ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by

recently identified one of his agency’s “mission-critical goals” as “assuring that even those in the most remote communities have access to high-speed Internet.”⁷ As Commissioner Ajit Pai explained, “[f]or small towns, Internet access is critical to creating jobs, promoting entrepreneurship, and binding communities together. . . . But when it comes to broadband, too many rural areas are being left behind. . . . It’s time we made good on the promise of delivering broadband to rural Americans.”⁸ So too, Commissioner Clyburn has recognized that, “innovative non-geostationary satellite operators . . . promise to soon connect low income communities around the globe to the Internet.”⁹ Clearly, facilitating the availability of broadband networks is a priority of the United States government, as expressed through the actions of the Commission, the National Telecommunications and Information Administration and other agencies, as well as the President’s Fiscal Year 2017 Budget.¹⁰

The need for affordable and effective broadband Internet access is universally shared by everyone; rich and poor, young and old, urban and rural. It is a “vital enabler of economic

the Broadband Data Improvement Act at ¶ 4, GN Docket No. 15-191, *2016 Broadband Progress Report*, FCC 16-6 (rel. Jan. 29, 2016) (finding that 39 percent of Americans in rural areas and 41 percent of Americans in tribal lands lack access to advanced telecommunications capability).

⁷ Remarks of Chairman Tom Wheeler As Prepared for Delivery 19th Annual Satellite Leadership Dinner, Washington D.C. (Mar. 7, 2016), *available at* <https://www.fcc.gov/document/chairman-wheeler-remarks-satellite-leadership-dinner-march-7-2016>.

⁸ Ajit Pai, Commissioner, Federal Communications Commission, Testimony Before the Subcommittee on Communications and Technology of the United States House of Representatives Committee on Energy and Commerce: “Continued Oversight of the Federal Communications Commission” (July 28, 2015).

⁹ Statement of Commissioner Mignon L. Clyburn *appended to* Comprehensive Review of Licensing and Operating Rules for Satellite Services, IB Docket No. 12-267, *Second Report and Order*, FCC 15-267 (2015).

¹⁰ *See, e.g.*, Office of Management and Budget, Fact Sheet, *Investing in American Innovation* at 5, *available at* https://www.whitehouse.gov/sites/default/files/omb/budget/fy2017/assets/fact_sheets/Investing%20in%20American%20Innovation.pdf (identifying actions directed at “Facilitating the Availability of Next-Generation Wireless and Wired Broadband”) (last visited Feb. 11, 2016).

growth, social inclusion, and environmental protection.”¹¹ Many studies have shown a direct correlation between GDP growth and broadband access, whereby about 1% economic growth is expected for every 10% increase in broadband penetration.¹² Indeed, improving access to the Internet will help achieve nearly all seventeen of the United Nation’s Sustainable Development Goals adopted from ending poverty and hunger, to improving quality education and industrial innovation, to eliminating inequality and war.¹³ Broadband access facilitates educational opportunities, creates new jobs, trains individuals in specialized skills, allows citizens a voice in their governments, connects patients with doctors, and opens infinite realms of communication, entertainment and cultural exchange.¹⁴ For these reasons, the U.N. General Assembly’s High Level Review of the Outcomes of the World Summit on the Information Society (“WSIS+10”)¹⁵ recently called “for a significant increase in access to information and communications technologies, and encourag[ed] all stakeholders to strive to provide universal and affordable

¹¹ UN Broadband Commission Report at 8.

¹² See, e.g., Michal Mingos, *ictData.org, World Development Report 2016 digital dividends Background Paper: Exploring the Relationship Between Broadband and Economic Growth 3* (Jan. 2015), available at <http://www19.iadb.org/intal/intalcdi/PE/2016/15991.pdf> (citing Christine Zhen-Wei Qiang, Carlo Rossotto, and Kaoru Kimura, *Economic Impacts of Broadband in INFORMATION AND COMMUNICATIONS FOR DEVELOPMENT* (World Bank 2009) available at http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D_Broadband_35_50.pdf; Colin Stott, *Does Broadband Internet Access Actually Spur Economic Growth?* (Dec. 2012) available at <http://www.eecs.berkeley.edu/~rsc/classes/ictd.pdf>.

¹³ See *Transforming our world: the 2030 Agenda for Sustainable Development*, UNGA A/RES/70/1 (Sep. 25, 2015).

¹⁴ See, e.g., INTERNET SOCIETY, *GLOBAL INTERNET REPORT 2015: MOBILE EVOLUTION AND DEVELOPMENT OF THE INTERNET 68-91*, available at http://www.internetociety.org/globalinternetreport/assets/download/IS_web.pdf (detailing numerous benefits of the mobile Internet).

¹⁵ Resolution of the United Nations General Assembly adopting Outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society ¶ 14, UNGA Res/A/70/L.33 (Dec. 16, 2015) (“WSIS+10 Outcome Document”), available at <http://workspace.unpan.org/sites/Internet/Documents/UNPAN96078.pdf>.

access to the Internet for all.”¹⁶

OneWeb was founded based on this mission. OneWeb’s innovative non-geostationary satellite constellation will make available broadband access to many individuals who have limited or no service today, including people in rural and remote areas in both developed and developing countries. When fully deployed, the OneWeb constellation will support a wide variety of critical applications in the United States and across the entire globe. To illustrate just a few:

- ***Community and Residential Internet Connectivity.*** OneWeb’s ubiquitous satellite fleet and low cost ground equipment will bring high-speed Internet connectivity to health centers, schools, libraries, and homes, providing communities with tools to drive education, access to knowledge, and opportunities for local businesses. OneWeb will provide broadband access to rural and remote areas and tribal lands, in many cases for the first time,¹⁷ helping the world achieve its broadband deployment goals.
- ***Cellular Backhaul.*** The OneWeb system will extend the networks of mobile operators and ISPs to new coverage areas, bringing voice and data access to locations that cannot technically or economically be served through current technology. The OneWeb user terminal can be integrated into mobile operators’ infrastructure, functioning as a small cell with integrated backhaul to act as a low cost base station that mobile users can access. Alternatively, OneWeb terminals can also be used to provide fast, reliable, low-cost backhaul for macrocell deployments, taking the place of fiber or microwave links where those solutions are not feasible.
- ***Mobility Services.*** OneWeb’s infrastructure will also support other mobile operations, providing terrestrial, aeronautical, and maritime users with reliable and robust communications connectivity, particularly at the most crucial times. For

¹⁶ *Id.* ¶ 25.

¹⁷ OneWeb’s initial constellation of 720 satellites will be technically capable of providing worldwide coverage all the time, including in polar regions with limited or no connectivity today. Of course, due to limitations related to coordination and sharing with other systems, placement of gateway earth stations, sanctions and export controls, market access obligations, etc., commercial service will not be available at all times in all areas at launch. However, the entire OneWeb system and each individual satellite are designed to accommodate the launch of additional spacecraft, which will increase the overall number of space stations in the system, enhancing service (particularly in the low latitude regions near the equator) while still protecting geostationary satellite systems through compliance with the EPFD limits. Appropriate modification applications would be filed with the Commission as needed to accommodate these changes to the OneWeb constellation.

example, vehicle-mounted terminals will act as LTE/4G mobile hotspots, ensuring organizations and individuals maintain seamless connectivity, even in areas where traditional networks have not been built or have been debilitated.

- ***Emergency Communications.*** OneWeb’s always-on, always-there system can be a game-changer for the public safety and first responder communities—letting them use their current devices anywhere. Public safety communications today rely on a patchwork of predominantly terrestrial networks that can suffer from interoperability challenges and rely on local power and telecommunications infrastructure remaining intact. Whether in the crucial hours immediately following a major disaster, when local infrastructures may have failed but every minute passed means lives lost, or on a day-to-day basis in remote areas and border regions where providing coverage has proven to be impractical, the OneWeb system will provide reliable communications to serve critical public safety and national security missions.

Grant of this Petition for Declaratory Ruling (“PDR”) is an important step toward realizing OneWeb’s and the Commission’s shared broadband vision. OneWeb’s goal is to connect the people of the world to each other: building bridges through communication, finding solutions through collaboration, and using innovative technology to drive change on a global level. This application is a critical part of this process, and by granting the PDR, the Commission will take a giant step towards fulfilling the promise of Internet access for everyone—both in the United States and abroad.

II. THE ONEWEB SYSTEM

The OneWeb System consists of a constellation of LEO satellites and unique ground-based technologies, which will include inexpensive, lightweight, easy-to-install user terminals, enabling coverage in remote areas and connectivity from any mobile phone, computer or tablet. The system will be highly spectrum-efficient, sharing, without harmful interference, both Ku and Ka spectrum bands that are being simultaneously deployed by conventional geostationary orbit (“GSO”) satellite networks, pursuant to operating limits established by the Federal Communications Commission (“FCC”) and the International Telecommunication Union (“ITU”).

OneWeb was founded in 2012 under the name of WorldVu Satellites Limited. The United Kingdom's Office of Communications ("Ofcom") will authorize OneWeb to use this spectrum and has made spectrum filings with the ITU on OneWeb's behalf.

The OneWeb System is supported by a diverse collection of satellite, telecommunications, and other companies from around the world, which collectively have provided more than \$500 million in financing to OneWeb.¹⁸ The OneWeb group of strategic partners and shareholders includes Airbus Group, Bharti Enterprises, Hughes Network Systems (a subsidiary of EchoStar Corp.), Intelsat, MacDonald, Dettwiler and Associates (MDA), Qualcomm Incorporated, the Coca-Cola Company, the Virgin Group, and Totalplay, a Grupo Salinas Company, owned by Ricardo B. Salinas.¹⁹

The various space and ground facilities comprising the OneWeb System are described below and in more detail in Schedule S and the *Technical Attachment* (Attachment A) accompanying this PDR.

A. Space Segment

The OneWeb System will consist of approximately 720 satellites, plus in-orbit spares, with the capability to increase the number of satellites. The satellites will operate in LEO at an altitude of approximately 1200 km, using 18 orbital planes, each consisting initially of up to 40 satellites, with an 87.9 degree inclination of the orbital plane. This configuration has the capability of providing full coverage of the Earth, with most locations covered at an elevation angle greater than 60 degrees. The satellites of the OneWeb system will have the following links: (i) user links in the Ku-band; and (ii) gateway links in the Ka-band.

¹⁸ OneWeb News Release, June 25, 2015, <http://www.prnewswire.com/news-releases/oneweb-announces-500-million-of-a-round-funding-with-group-of-leading-international-companies-509767201.html>

¹⁹ *Id.*; MDA Press Release, "MDA Joins OneWeb Team," Oct. 2, 2015, <http://mdacorporation.com/news/pr/pr2015100201.html>

OneWeb proposes to operate on the following frequencies:

<u>Type of Link and Transmission Direction</u>	<u>Frequency Ranges</u>
Gateway-to-Satellite	27.5 – 29.1 GHz 29.5 – 30.0 GHz
Satellite-to-Gateway	17.8 – 18.6 GHz 18.8 – 19.3 GHz 19.7 – 20.2 GHz (Note 1)
User Terminal-to-Satellite	12.75 – 13.25 GHz (Note 1) 14.0 – 14.5 GHz
Satellite-to-User Terminal	10.7 – 12.7 GHz

Note 1: Although the OneWeb satellites have the capability to operate in the Earth-to-space direction in the 12.75-13.25 GHz band, and the space-to-Earth direction in the 19.7-20.2 GHz band, FCC authorization is not being requested for these bands at this time and they will not be used from any U.S. territories.

A more precise description of the frequency and channelization plan for the OneWeb System is included in Schedule S and the *Technical Narrative* accompanying this PDR.

B. Ground Segment

The OneWeb System will be supported by a network of multiple Ka-band gateway antennas. The gateway antennas will be 2.4 meters in size, have connectivity with major peering points around the world, and be placed at locations which provide the required connectivity to the satellite constellation. In addition, the OneWeb System will have low cost, easy-to-install Ku-band user terminals that will communicate using parabolic, phased array and other antenna technologies. The user terminals will be handed over from one OneWeb satellite to another seamlessly and frequently.

OneWeb expects to submit applications to the Commission requesting licenses for any gateway earth stations to be located in the United States, and for user terminals on a blanket basis, pursuant to Sections 25.115 and 25.137 of the Commission’s Rules.²⁰

²⁰ 47 C.F.R. §§ 25.115, 25.137.

III. THE PUBLIC INTEREST WILL BE SERVED BY AUTHORIZING THE ONEWEB SYSTEM TO SERVE THE U.S. MARKET

The Commission has an established framework for considering requests for non-U.S. licensed space stations to access the U.S. market. In order to be approved, a request to access the United States by a non-U.S. satellite system must be in the public interest.²¹ In evaluating the public interest benefit provided by allowing access to the U.S. market by a non-U.S. satellite system, the Commission considers: (i) the effect on competition in the United States; (ii) spectrum availability; (iii) eligibility and operational requirements; and (iv) national security, law enforcement, foreign policy, and trade considerations.²² Further, operators seeking U.S. market access for non-U.S. licensed space stations must provide the same information concerning legal and technical qualifications as must be provided by applicants for space station licenses issued by the Commission.²³

OneWeb's request for authority to operate the OneWeb System in the U.S. market is supported by the considerations identified above, and thus it is in the public interest to allow OneWeb to provide services in the United States. In addition, as demonstrated below, OneWeb is legally and technically qualified to use the OneWeb System to serve the U.S. market.

A. Effect on Competition in the United States

An applicant seeking access to the U.S. market for a non-U.S. licensed satellite system is

²¹ *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States*, 12 FCC Rcd 24094, ¶ 29 (1997) (“DISCO II Order”), on reconsideration, 15 FCC Rcd 7207, ¶ 5 (1999).

²² *See id.*

²³ *See In the Matter of Amendment of the Commission's Space Station Licensing Rules and Policies; Mitigation of Orbital Debris*, First Report and Further Notice of Proposed Rulemaking in IB Docket No. 02-34, and First Report and Order in IB Docket No. 02-54, 18 FCC Rcd 10760, ¶ 288 (2003) (“Space Station Licensing Reform Order”). Some of the Commission's application policies for authorizing non-U.S. licensed space stations are codified in Section 25.137 of the Commission's rules, 47 C.F.R. § 25.137.

entitled to a presumption in favor of U.S. market access if the applicant is licensed by a World Trade Organization (“WTO”) member country to provide satellite services covered by the WTO Basic Telecommunications Agreement (the “WTO Agreement”).²⁴ As noted above, the OneWeb System will be authorized by the United Kingdom, a member of the WTO.²⁵ In addition, OneWeb seeks authority to provide only satellite services that are covered by the WTO Agreement.²⁶ Therefore, OneWeb is entitled to a presumption that market entry for the OneWeb System will satisfy the competition component of the public interest analysis. Accordingly, OneWeb is not required to make an effective competitive opportunities showing.²⁷

B. Spectrum Availability

The Commission also considers spectrum availability as a factor in determining whether grant of authorization to a foreign-licensed satellite to serve the U.S. market is in the public interest.²⁸ In doing so, the Commission evaluates whether grant of access would create the potential for harmful interference with U.S.-licensed satellite and terrestrial systems.

The OneWeb System will share spectrum used by GSO communications satellites without causing harmful interference to these satellites. GSO satellites orbit the earth around the

²⁴ *DISCO II Order* at ¶ 39 (“We adopt our proposal to apply a presumption in favor of entry in considering applications to access non-U.S. satellites licensed by WTO Members to provide services covered by the U.S. commitments under the WTO Basic Telecom Agreement. Specifically, we will presume that satellite systems licensed by WTO Members providing WTO-covered services satisfy the competition component of the public interest analysis.”).

²⁵ The Commission treats British Crown Dependencies like Jersey and Guernsey as members of the WTO. *See, e.g., Intelsat Holdings, Ltd., Transferor, and Serafina Holdings Limited, Transferee, Consolidated Application for Consent to Transfer Control of Holders of Title II and Title III Authorizations*, 22 FCC Rcd 22151, ¶ 25, n. 57 (2007).

²⁶ OneWeb does not seek authority to provide direct-to-home, Digital Audio Radio Service, or Direct Broadcast Satellite Service in the United States.

²⁷ *See* 47 C.F.R. § 25.137(a)(2).

²⁸ *DISCO II Order*, at ¶ 149 (“We adopt our proposal to consider spectrum availability as a factor in determining whether allowing a foreign satellite to serve the United States is in the public interest.”).

equator, with earth stations deployed on the ground pointing toward the geostationary arc. OneWeb’s satellites will be orbiting in a low earth near-polar orbit, and operating in a manner that results in significant isolation from GSO satellites and earth stations during most of a OneWeb satellite’s orbital path. Where that is not the case, nearer to the equator, the OneWeb System’s innovative architecture and system design will allow OneWeb to share this spectrum by gradually tilting its satellites and adjusting beam usage as they approach the equator – ensuring that OneWeb satellites will not cause interference to, and will not suffer harmful interference from, GSO satellites operating in the same frequency band. This groundbreaking technology will enable the OneWeb System to use spectrum in a highly efficient manner and to comply with Commission rules and ITU requirements regarding GSO/NGSO co-frequency sharing.

Beginning in 1998, the Commission initiated proceedings that proposed, among other things, to permit NGSO fixed satellite service (“FSS”) operations in the Ku-band and to adopt technical sharing criteria for NGSO FSS systems operating in the Ku-band (the “Ku-band Sharing Proceedings”).²⁹ The Commission’s *First Report and Order* in the Ku-Band Sharing Proceedings adopted technical sharing criteria for NGSO FSS and GSO FSS operations in all bands, which focused on single-entry and equivalent power flux density (“EPFD”) limits on uplink and downlink communications.³⁰

²⁹ See *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, Notice of Proposed Rulemaking, 14 FCC Rcd 1131 (1998); *Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band*, Notice of Proposed Rulemaking, 16 FCC Rcd 9680 (2001).

³⁰ *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, First Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 4096 (2000) (“*First Report and Order*”).

Approaches to NGSO/GSO co-frequency sharing were developed during extensive studies by the ITU Radiocommunication study groups, whose work was adopted by the 2000 World Radiocommunication Conference (“WRC-2000”).³¹ The NGSO/GSO co-frequency sharing criteria adopted by the Commission in the *First Report and Order* are consistent with decisions taken at WRC-2000.³²

OneWeb will comply with the Commission’s rules and the ITU’s requirements regarding EPFD limits and sharing of the Ku-band and Ka-band spectrum with GSO systems, as demonstrated in Schedule S and the *Technical Attachment* accompanying this PDR. In addition, the OneWeb System will share Ku-band and Ka-band spectrum with other NGSO systems that are currently operational, seeking in every case to reach coordination agreements that allow for the greatest flexibility possible among the systems in the use of all authorized spectrum, consistent with the Commission’s rules.³³

OneWeb demonstrates in Schedule S and the *Technical Attachment* that the OneWeb System would not create the potential for harmful interference to U.S.-licensed satellite and terrestrial systems. Granting U.S. market access to the OneWeb System, therefore, would be consistent with the Commission’s spectrum availability policies for non-U.S. licensed satellites.

C. National Security, Law Enforcement, Foreign Policy, and Trade Issues

The Commission has stated that the issues of national security, law enforcement, foreign

³¹ See *First Report and Order*, 16 FCC Rcd at 4128.

³² See *id.*

³³ See generally *Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band*, Report and Order and Further Notice of Proposed Rulemaking, FCC 02-123, 17 FCC Rcd 7841, 7843 (2002) (“*Ku-Band Sharing Order*”) (deciding the means for intra-service sharing among prospective NGSO FSS licensees in the Ku-band); *Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ka-band*, Report and Order, 18 FCC Rcd 14708, 14709 (2003) (deciding the means for sharing among existing and prospective NGSO FSS licensees in certain Ka-band frequencies).

policy, and trade, which it considers in evaluating requests for market access for non-U.S. licensed satellites, are likely to arise only in “rare circumstances.”³⁴ Further, the Commission defers to the expertise of the Executive Branch in identifying and interpreting issues of this nature.³⁵ OneWeb’s request for authority to operate the OneWeb System in the U.S. market raises no such issues. Thus, this element of the Commission’s *DISCO II Order* public interest analysis is satisfied.

D. Eligibility and Operational Requirements

Pursuant to Section 25.137 of the Commission’s rules, the entity filing a PDR for U.S. market access must provide the legal and technical information for its non-U.S. licensed space stations that is required by Part 25 of the Commission’s rules, including Section 25.114.³⁶

1. Legal and Technical Qualifications

The information set forth in this legal narrative, the *Technical Attachment*, Schedule S, and the accompanying FCC Form 312 demonstrates compliance with the requirements of Section 25.137 and the other applicable sections of Part 25 of the Commission’s rules. OneWeb highlights here its compliance with certain Part 25 rules that warrant special attention:

Section 25.145(e) – Prohibition of Exclusive Arrangements

Section 25.145(e) of the Commission’s rules precludes the Commission from granting an FSS space station license to any applicant if that applicant, or any affiliate of that applicant, shall acquire or enjoy any right to construct or operate space segment or earth stations, or to

³⁴ *DISCO II Order* at ¶ 180 (“We emphasize, however, that we expect national security, law enforcement, foreign policy and trade policy concerns to be raised only in very rare circumstances. Contrary to the fears of some commenters, the scope of concerns that the Executive Branch will raise in the context of applications for earth station licenses is narrow and well defined.”).

³⁵ *Id.*

³⁶ *See* 47 C.F.R. § 25.137(b). *See also DISCO II Order* at ¶ 189.

interchange traffic, for the purpose of handling traffic to or from the United States, its territories, or possessions, if such a right is denied to a U.S. company by way of any concession, contract, understanding, or working arrangement to which the applicant or any affiliate of the applicant are parties.³⁷ OneWeb hereby confirms that it has no such exclusive right, and that it will not acquire any such exclusive right in the future.

Sections 25.137(d)(1) & 25.164(b) – Milestones

The Commission recently completed a “Comprehensive Review of Licensing and Operating Rules for Satellite Services,” issuing its *Second Report and Order*.³⁸ In this decision, the Commission eliminated all satellite construction milestones for authorized NGSO satellite systems, except the final milestone to launch and operate such systems.³⁹ In accordance with the *Second Report and Order*, NGSO system licensees are required to launch and operate the NGSO constellation within six years of grant.⁴⁰ OneWeb anticipates that it will launch and operate the complete OneWeb System, as specified herein, within six years of grant of the PDR, and thus will ensure compliance with the Commission’s modified milestone schedule for NGSO system licensees articulated in the *Second Report and Order*. In addition, OneWeb will submit to the

³⁷ 47 C.F.R. § 25.145(e).

³⁸ *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, IB Docket No. 12-267, Second Report and Order, FCC 15-167 (2015) (“*Second Report and Order*”).

³⁹ *See id.* ¶¶ 52-64.

⁴⁰ *Id.* ¶ 63. *See also id.*, Appendix B, (Section 25.164(b)) (amending Section 25.164(b) to implement the revised milestone schedule for NGSO system licensees enumerated in the *Second Report and Order*). The Commission also noted in the Second Report and Order that it would “impose the same simplified milestone requirements on grants of access to the U.S. market via proposed non-U.S. licensed space stations.” *Id.* ¶ 63.

Commission the requisite information to demonstrate compliance with such modified milestone schedule as required by the Commission’s rules.⁴¹

Sections 25.137(d)(4) & 25.165 – Escalating Bond

In the *Second Report and Order*, the Commission adopted a modified, escalating post-grant bond requirement for NGSO system licensees.⁴² NGSO licensees are required to post an initial bond amount of \$1 million to provide for payment in the event that such NGSO system licensee fails to meet the launch-and-operate milestone.⁴³ The payment amount due under the bond will “increase, *pro rata*, in proportion to the time that has elapsed since the license was granted to the time of the launch and operate milestone.”⁴⁴ Ultimate potential payment liability under the modified, escalating post-grant bond requirement is \$5 million for NGSO systems six years after grant.⁴⁵

Recipients of U.S. market access grants for non-U.S. licensed satellites that are not in-orbit and operating are also subject to the modified, escalating post-grant bond requirement.⁴⁶ OneWeb intends to post the required initial bond amount of \$1 million within 30 days of grant of the PDR, as required by the Commission’s rules.⁴⁷ OneWeb will also increase the bond amount as necessary in order to comply with the Commission’s escalating bond requirement on a going-

⁴¹ See, e.g., 47 C.F.R. §§ 25.164(d), 25.164(e), as amended by the *Second Report and Order*.

⁴² See *Second Report and Order*, ¶¶ 70, 80-81.

⁴³ *Id.*

⁴⁴ See *id.* ¶ 80.

⁴⁵ *Id.* ¶¶ 70, 81.

⁴⁶ See 47 C.F.R. § 25.137(d)(4), as amended by the *Second Report and Order*. See also *Second Report and Order*, ¶ 81 n. 220 (“We also make consequential changes to the bond requirements for proposed non-U.S. licensed space stations that have been granted access to the U.S. market but are not in orbit and operating.”).

⁴⁷ See 47 C.F.R. § 25.165(a), as amended by the *Second Report and Order*. See also *id.* § 25.165(b).

forward basis.

Section 25.114(d)(14) – End-of-Life Disposal

Section 25.114(d)(14)(v) of the Commission’s rules states that, “[f]or non-U.S.-licensed space stations, the requirement to describe the design and operational strategies to minimize orbital debris risk can be satisfied by demonstrating that debris mitigation plans for the space station(s) for which U.S. market access is requested are subject to direct and effective regulatory oversight by the national licensing authority.”⁴⁸

The OneWeb System is subject to direct and effective regulatory oversight by the United Kingdom’s regulatory authorities, including particularly the U.K. Space Agency, with respect to orbital debris mitigation plans.⁴⁹ Therefore, OneWeb is not required to provide an orbital debris mitigation showing in connection with this PDR.⁵⁰

2. Waiver Requests

The Commission may waive a rule if special circumstances indicate that a departure from the rule would better serve the public interest than would strict application.⁵¹ In such circumstances, the Commission may grant the waiver if it does not undermine the policy

⁴⁸ *Id.* § 25.114(d)(14)(v).

⁴⁹ OneWeb anticipates that Space Activity Licenses covering the OneWeb Systems’ launch and space operations will be authorized under the UK’s Outer Space Act well in advance of the initial launch of the OneWeb Systems’ satellites. OneWeb will file the Space Activity Licenses with the Commission once they have been issued.

⁵⁰ The Commission has stated in prior grants for U.S. market access that NGSO systems that are subject to direct and effective regulation by the United Kingdom concerning orbital debris mitigation are not required to provide an orbital debris mitigation showing. *See* Petition for Declaratory Ruling of O3b Limited Granting Access to the U.S. Market for the O3b MEO Satellite System, FCC File No. SAT-AMD-20150115-00004, Radio Station Authorization, at 3, Condition 15 (granted Jan. 22, 2015).

⁵¹ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

objective of the rule and if the waiver otherwise serves the public interest.⁵² As shown below, there is good cause for the FCC to grant a waiver of Sections 25.157(e), 25.146(a)(1)(iii), 25.146(a)(2)iii, and, to the extent necessary, any restriction on OneWeb’s proposed use of the 10.7-11.7 GHz band.

Section 25.157(e) – Band Segmentation Requirements

Section 25.157 of the Commission’s rules states that, upon the filing of an application for an NGSO system, the Commission “will initiate a processing round [and] establish a cut-off date for competing NGSO-like satellite system applications.”⁵³ The rules also make clear that a non-U.S. NGSO system seeking U.S. market access, such as OneWeb, should be treated in the same manner as a U.S. applicant for purposes of the processing round requirements of Section 25.157.⁵⁴ Based on this, OneWeb’s PDR would be treated by the Commission as a “lead application” under Section 25.157, resulting in the initiation of processing round with a cut-off date.⁵⁵

Section 25.157 also establishes certain band segmentation procedures if there is not enough spectrum available to accommodate all qualified applicants in a processing round. But the band segmentation approach articulated in Section 25.157 appears to be inconsistent with the “avoidance of in-line interference events” approach adopted by the Commission over a decade ago in the *Ku-Band Sharing Order*⁵⁶ and recently reaffirmed by the International Bureau as

⁵² *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969).

⁵³ *Id.* § 25.157(c)(2).

⁵⁴ *See id.* § 25.137(c) (allowing non-U.S.-licensed NGSO-like satellite systems to apply for U.S. market access according to the procedures outlined in Section 25.157). In accordance with Section 25.137(c), OneWeb’s PDR can be granted under Section 25.157 because the OneWeb System will be authorized by the United Kingdom.

⁵⁵ *Id.* § 25.157(c)(2).

⁵⁶ *See Ku-Band Sharing Order*, ¶¶ 27-55.

applicable to Ku-band NGSO systems.⁵⁷ For the reasons explained below, OneWeb believes the in-line avoidance approach would better serve the public interest in encouraging the development of NGSO satellite systems operating in the Ku-band and avoiding interference among such systems. Accordingly, to the extent necessary, OneWeb requests a waiver of the band segmentation requirements of Section 25.157(e) of the rules.⁵⁸

In the *Ku-Band Sharing Order*, the Commission stated that all NGSO FSS licensees could use the entire Ku-band spectrum allocated to NGSO FSS operations, except in situations where multiple operating NGSO systems experience in-line interference, when they would have to coordinate. If they fail to reach a coordination agreement, they are required to revert to their “home base” spectrum, which each operator is required to choose prior to the launch of its first satellite. The *Ku-Band Sharing Order* makes no mention of the processing round and band-segmentation approaches articulated in Section 25.157, and in analogous circumstances the Commission has waived both the processing round and band segmentation requirements when doing so would not prevent opportunities for additional entrants in the frequency bands allocated for NGSO FSS operations.⁵⁹

⁵⁷ The International Bureau recently issued “guidance” that the criteria for avoidance of in-line interference events, as set forth in the Ku-Band Sharing Order, would be applied to Ku-band NGSO systems in the same manner as these criteria are applied to Ka-band systems in Section 25.261 of the Commission’s Rules, 47 C.F.R. § 25.261. *See* International Bureau Provides Guidance Concerning Avoidance of In-Line Interference Events Among Ku-Band NGSO FSS Systems, DA 15-1197 (Oct. 20, 2015).

⁵⁸ 47 C.F.R. § 25.157(e).

⁵⁹ Application of O3b Limited to Operate a Gateway Earth Station with a Non-U.S. Licenses, Non-Geostationary Orbit Ka-band Space Station System, FCC File No. SES-LIC-20100723-00952, Radio Station Authorization, at 4, Condition 90043 (granted Sept. 25, 2012) (“*O3b Hawaii Application*”). *See also* Northrop Grumman Space & Missions Systems Corporation, DA 09-428, Order and Authorization, 24 FCC Rcd 2330, 2342, at ¶¶ 31-33 (Int’l Bur. 2009) (“*Northrop Grumman*”); *Space Imaging, LLC*, 20 FCC Rcd 11964, ¶¶ 10, 11 (Int’l Bur., 2005) (“*Space Imaging*”); *Digital Globe, Inc.*, DA 05-2640, Order and Authorization, 20 FCC Rcd 15696, 15698-99, ¶¶ 6-8 (Int’l Bur., 2005) (“*Digital Globe*”).

In this case, special circumstances warrant a waiver of Section 25.157(e) because such a waiver would not prevent the operation of other NGSO systems in the frequency bands allocated for NGSO FSS operations – the underlying policy objective of the rule.

The approach adopted by the Commission in the *Ku-band Sharing Order* allows for a more efficient use of spectrum because it provides access to the entire frequency band for all NGSO FSS systems authorized in the same processing round, except in situations of in-line interference events among operating systems.⁶⁰ By contrast, the band-splitting mechanism in Section 25.157(e) could potentially limit authorized NGSO FSS systems to one-third or less of the available spectrum without regard to whether the limitation is necessary to prevent harmful interference to any other system or systems.⁶¹ OneWeb cannot maintain a high-speed broadband service across the entire globe if it is limited (even if only for the United States) to operating its satellite constellation in just one-third (or less) of the full Ku-band spectrum that it needs for viable operations.

Furthermore, were such a segmentation requirement to be imposed on OneWeb, it is likely that the constellation might not get completed at all. A limitation on spectrum use would restrict the number of customers who could use the OneWeb System, which in turn would adversely impact the financial models needed to demonstrate to potential equity and debt investors in OneWeb that the system will be profitable once in operation. Each MHz of spectrum available increases the ability of OneWeb to accomplish its goals, and thus increases the viability of the OneWeb constellation.

⁶⁰ In the *Ku-Band Sharing Order*, the Commission indicated that the “avoidance of in-line approach” is the most efficient use of spectrum because it allows equal access to the available Ku-band spectrum, avoids spectrum warehousing, and encourages system flexibility to promote spectrum coordination. See *Ku-Band Sharing Order*, ¶ 27.

⁶¹ See 47 C.F.R. § 25.157(e).

As the Commission knows well, numerous NGSO projects were proposed in the late 1990s and early 2000s, none of which was able to raise financing and complete its system.⁶² It would not be in the public interest to have the same fate befall OneWeb as a direct result of the Commission's imposition of a band segmentation approach that would sharply limit OneWeb's ability to provide a robust global service.

OneWeb's intended global customer base is directly in line with the ITU vision for "connecting the world." The system is specifically designed to provide access to self-powered low cost terminals and serve the poorest, most remote, underserved and unserved regions of the world. As a global system, the more geographies that participate, the more efficiently the system can operate. Thus, U.S. market access will enable the proper geographic balance of customers for OneWeb to play an important role in the mission of enabling internet access availability for everyone across the globe.

Finally, the public interest would be better served by allowing OneWeb and other qualified applicants that participate in the same processing round access to the entire spectrum for purposes of their FCC authorizations. Some of the systems authorized to use the entire band will be completed and become operational; some will not. Access to the entire spectrum will avoid the potential for "spectrum warehousing by non-implemented NGSO FSS systems at the expense of operational systems."⁶³

Among those authorized that become operational, the approach the *Ku-Band Sharing Order* requires in the first instance is that operators try to reach a mutually acceptable coordination arrangement. The Commission has indicated that such voluntary arrangements

⁶² For example, the processing round established by the Commission in 1998 had seven Ku-band NGSO applicants. See *Ku-Band Sharing Order*, ¶ 4. None of these systems was ever built or launched.

⁶³ *Ku-Band Sharing Order*, ¶ 9.

“among operating systems” are to be preferred over any sharing regime imposed by the Commission, allowing operators “to coordinate among themselves to improve upon their operational capacity, so that they can achieve the freedom to operate in all available spectrum.”⁶⁴ Only when the operators are not able to reach a coordination agreement would the Commission, under the approach of the *Ku-Band Sharing Order*, impose a kind of band segmentation, and then only for those situations in which operators are facing specific in-line interference events.⁶⁵

At its core, the band-splitting mechanism in Section 25.157(e) does not serve the public interest because it limits the opportunity for NGSO FSS systems, including the OneWeb System, to provide high-quality, affordable broadband services to U.S. and global users. The approach of the *Ku-Band Sharing Order* is not limiting in the same way as it initially allows “all applicants [to] have equal access to spectrum.”⁶⁶

For the foregoing reasons, the Commission should waive the band segmentation requirements in Section 25.157(e) in connection with OneWeb’s PDR and instead apply the approach the Commission took in the *Ku-Band Sharing Order* to OneWeb’s proposed operation.

Section 25.146(a)(1)(iii) and 25.146(a)(2)(iii) – Source Code Requirements

Section 25.146(a) of the Commission’s rules requires each applicant to demonstrate that its proposed NGSO FSS system will not exceed the $EPFD_{down}$ and $EPFD_{up}$ validation limits detailed in Section 25.208 of the Commission’s rules.⁶⁷ In order to demonstrate compliance with

⁶⁴ *Id.* ¶¶ 9, 30.

⁶⁵ *Id.* ¶¶ 31, 39, 53.

⁶⁶ *Id.* ¶ 9.

⁶⁷ *See* 47 C.F.R. §§ 25.146(a).

this requirement, Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii)⁶⁸ require each applicant to provide a computer program for the EPFD_{down} and EPFD_{up} validation computation, if a computer program has not been made available by the ITU for this purpose (no such program has been made available).⁶⁹ In addition, Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii) state that the source code and executable file of the validation program must be provided to the Commission.⁷⁰ OneWeb will be using commercially available EPFD testing software to validate its EPFD computations, but for the reasons set forth below, OneWeb seeks a waiver of the source code requirement in Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii). In accordance with Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii), OneWeb is providing the Commission with an executable copy of the latest version of Transfinite Systems' EPFD validation computer program, in order to demonstrate to the Commission that the OneWeb System will not exceed the applicable EPFD limits. However, the source code of Transfinite Systems' EPFD validation program is the proprietary information of Transfinite Systems. OneWeb does not have access to the source code, and will not be able to provide the Commission with the source code without Transfinite's consent. Transfinite Systems is unlikely to consent to a disclosure of its proprietary information, as the disclosure could cause substantial competitive injury to Transfinite Systems if the source code for its EPFD validation program were to be made available to one of its competitors.

⁶⁸ OneWeb understands that the first sentence in Section 25.146(a)(2) contains a typographical error and that it should in fact refer to "Single-entry validation equivalent power flux-density, in the Earth-to-space direction, (EPFD_{up}) limits."

⁶⁹ 47 C.F.R. §§ 25.146(a)(1)(iii), 25.146(a)(2)(iii). The ITU has not yet approved a computer program for determining compliance with the single-entry EPFD_{down} and EPFD_{up} validation limits, although it is in the process of developing such a program in accordance with the specification stipulated in the most recent version of Recommendation ITU-R S.1503. OneWeb understands that the Radio Bureau of the ITU is in the process of final testing of this program.

⁷⁰ *Id.*

The underlying purpose of the Commission’s EPFD validation program requirement in Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii) is to ensure that proposed NGSO FSS systems comply with the applicable EPFD limits in order to avoid interference into GSO satellite networks. At the time the rule was adopted, design of EPFD validation software was in its infancy. Now, however, the Commission will be able to use Transfinite Systems’ EPFD validation program to evaluate the OneWeb System’s compliance with the applicable EPFD limits without the source code, and OneWeb will provide the Commission any assistance that is necessary to allow the Commission successfully to use this program.⁷¹

Thus, because the provision of Transfinite Systems’ source code is not necessary for OneWeb to demonstrate, and for the Commission to conclude, that the OneWeb System will not exceed the applicable EPFD limits, a waiver would not undermine the underlying purpose of Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii).⁷² For this reason, and because Transfinite Systems’ source code for its EPFD validation program is proprietary information that OneWeb neither has access to, nor the right to share with the Commission, OneWeb respectfully requests that Commission grant a waiver of the source code requirement in Sections 25.146(a)(1)(iii) and 25.146(a)(2)(iii) of the Commission’s rules.

⁷¹ Indeed, the ITU recently held a NGSO workshop highlighting that this software is now fully developed and tested. *See generally* <http://www.itu.int/en/ITU-R/space/workshops/2016-NGSO/Pages/default.aspx>; presentation available at <http://www.itu.int/en/ITU-R/space/workshops/2016-NGSO/SiteAssets/Pages/programme2/Workshop%20Software%20Slides.pdf>.

⁷² The FCC has previously waived a requirement to provide information in a specified format when that information could not be obtained from a third party and alternative information was provided to fulfill the purpose of the rule. *See, e.g.*, Intelsat License LLC, Application to Launch and Operate Intelsat 20, IBFS File No. SAT-LOA-20111024-00208, grant condition 17 (July 26, 2012) (waiving the Section 25.114(d)(3) requirement to provide beam patterns in accordance with specified parameters “because the satellite manufacturer does not provide the patterns in the required form” and the alternate information provided “fulfill the requirements of Section 25.114(d)(3)”).

NGSO FSS Use Restriction in the 10.7-11.7 GHz Band

In the *First Report and Order*, the Commission adopted note 12 to Section 25.202(a) that limited NGSO FSS use in the 10.7-11.7 GHz band to gateway earth stations because the Commission found that deployment of NGSO FSS service links in the 10.7-11.7 GHz band could hinder future co-frequency Fixed Service (“FS”) service deployment in that band.⁷³ In 2012, the FCC removed note 12 to Section 25.202(a) for the administrative purpose of avoiding repetition with band-specific restrictions set forth in Section 2.106.⁷⁴ However, there is no restriction in Section 2.106 limiting use of the 10.7-11.7 GHz band to gateway earth stations. OneWeb proposes to operate its user terminals in the 10.7-11.7 GHz band and, therefore, to the extent necessary and out of an abundance of caution, respectfully requests a waiver of any remaining NGSO FSS use restriction in the 10.7-11.7 GHz band for the reasons set forth below and in the *Technical Attachment* accompanying this PDR.⁷⁵

OneWeb will operate its user terminals in the 10.7-11.7 GHz band on a non-interference, unprotected basis to ensure that the ability of FS operators to expand service in the 10.7-11.7 GHz band in the future is not restricted in any manner. In addition, the downlink transmissions

⁷³ *First Report and Order*, 16 FCC Rcd at 4111-12 and 4128, ¶¶ 29 and 71.

⁷⁴ *2006 Biennial Regulatory Review—Revision of Part 25*, Report and Order, 27 FCC Rcd 11585, 11589-90, ¶ 18 (2012) (“Section 25.202(a)(1) lists some, but not all, of the frequency bands that are allocated for use by stations in the Fixed-Satellite Service, with notations regarding requirements or limitations pertaining to operation in particular bands. In the NPRM, we proposed to adopt a revised list of FSS frequencies that would include previously omitted FSS frequency bands and also include additional notations cross-referencing provisions in the Table of Frequency Allocations. After further consideration, we have decided to insert a general instruction to refer to the Table of Allocations and delete band-specific annotations that merely repeat or cross-reference provisions in the Table”).

⁷⁵ Similarly, to the extent necessary and out of an abundance of caution, OneWeb respectfully requests a waiver of the requirement set forth in 47 C.F.R. § 2.106, note NG52, limiting use of the 10.7-11.7 GHz band by GSO systems to international services, to the extent this restriction could also apply to OneWeb’s NGSO system.

in the 10.7-11.7 GHz band to OneWeb's user terminals will comply with the PFD limits in Section 25.208(b) of the Commission's rules. The Commission has determined that such PFD limits are sufficient to protect FS operators from interference from satellite downlinks.⁷⁶

Furthermore, FS operators would not be required to coordinate their station operations with OneWeb's receive-only user terminals, because OneWeb has agreed to accept any level of interference from FS stations into its user terminals. Thus, an additional coordination burden would not be placed on FS operators, and their ability to deploy future services in the 10.7-11.7 GHz band would not be restricted. Therefore, for the reasons set forth above and in the *Technical Attachment*, the Commission should grant a waiver of any remaining NGSO FSS use restriction in the 10.7-11.7 GHz band.

E. Grant of OneWeb's PDR Is in the Public Interest

The Commission should expeditiously grant this PDR to allow OneWeb U.S. market access. Grant of OneWeb's PDR is in the public interest because OneWeb will provide affordable, high-speed Internet access to remote areas of the world that currently have limited or no access to high-speed Internet services, including areas of the United States. Moreover, as noted above in Part III.B, OneWeb is able to achieve its aims through sharing of spectrum, thereby promoting efficient use of the valuable spectrum resource.

Information access is more than a privilege today; it is a necessity for long-term economic, societal and civic growth. Affordable access to communications enables individuals to climb out of poverty, and enables nations and intergovernmental organizations to organize and deliver food, water, health care and education. The OneWeb System's unique architecture will connect the world's unconnected; the system will seamlessly integrate into and expand the reach

⁷⁶ See *id.*, ¶ 39.

of existing mobile and Internet Service Provider networks. The OneWeb System will be capable of providing access to health centers, schools, libraries and homes through low-cost user terminals, and will provide global emergency and first-responder access for disaster situations, refugee camps, and other areas in need.

OneWeb's vision is shared and supported by the ITU, which has recognized the potential disparity in connectivity access and has prioritized a range of solutions to address this disparity. OneWeb is in a unique position to utilize its spectrum and technologies to remedy this disparity, thereby connecting millions of people without access to vital resources – including those with limited connectivity in rural areas of the United States. In the Telecommunications Act of 1996,⁷⁷ Congress mandated that the Commission establish support mechanisms to ensure the delivery of affordable telecommunications service to all Americans, including low-income consumers, eligible schools and libraries, and rural health care providers.⁷⁸ The OneWeb System will be invaluable in helping to achieve this goal.

IV. REQUEST FOR PERMIT-BUT-DISCLOSE STATUS

OneWeb requests that this proceeding be designated “permit-but-disclose” under the Commission's rules controlling *ex parte* presentations.⁷⁹ Designation as a “permit-but-disclose”

⁷⁷ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (Feb. 8, 1996), *codified as amended* in scattered sections of 15 and 47 U.S.C. The 1996 Act amends the Communications Act of 1934, 47 U.S.C. §§ 151 *et seq.*

⁷⁸ Specifically, Congress directed the Commission to devise methods to ensure that “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas . . . have access to telecommunications and information services. . . .”. 47 U.S.C. § 254(b)(3). Congress also directed the Commission “to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and non-profit elementary and secondary school classrooms, health care providers, and libraries.” 47 U.S.C. § 254(h)(2).

⁷⁹ 47 C.F.R. § 1.1200 *et seq.*

proceeding under Section 1.1206 would serve the public interest by facilitating the development of a complete record upon which a well-reasoned decision can be made.

V. CONCLUSION

As explained above and in the attached materials, OneWeb fully satisfies the Commission's requirements under the *DISCO II Order* for U.S. market access, and the OneWeb System fully complies with Part 25 of the Commission's rules. Therefore, OneWeb respectfully requests that the Commission issue a Declaratory Ruling authorizing the OneWeb System to access the U.S. market.

Respectfully submitted,

WORLDVU SATELLITES LIMITED

By: /s/ Kalpak S. Gude
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April 28, 2016

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**FCC Form 312, Response to Question 40:
Officers, Directors, and Ten Percent or Greater Shareholders**

The applicant, WorldVu Satellites Limited (“OneWeb”), is a Jersey, Channel Islands company. The registered office address for OneWeb is 13 Castle Street, St Helier, Jersey JE4 5UT.

The following individuals serve as officers and directors of OneWeb and can be contacted through the address listed above:

Name	Title	Nationality
Matthew McGowan O’Connell ⁸⁰	Director and Chief Executive Officer	U.S.
Gregory Thane Wyler	Chairman of the Board and Director	U.S.
Dr. Paul Eric Jacobs	Director	U.S.
Patrick McCall	Director	British
Sunil Bharti Mittal	Director	Indian
Thomas Enders	Director	German

The names, addresses, and citizenship of stockholders of record directly or indirectly owning and/or voting 10 percent or more of OneWeb voting stock are:

<u>Name</u>	<u>Place of Incorporation</u>	<u>Address</u>	<u>Shareholding</u>	
			Shares	Percent
Qualcomm Global Trading Pte. Ltd	Singapore	5775 Morehouse Drive San Diego, California 92121	729,167	25.94%
Vieco Nominees Limited	British Virgin Islands	Craigmuir Chambers, PO Box 71, Road Town, Tortola British Virgin Islands	479,167	17.05%
Airbus Group Proj B.V.	The Netherlands	Mendelweg 30 2333CS, Leiden The Netherlands	416,667	14.82%

⁸⁰ The constitutional documents of OneWeb do not provide for officer or executive positions, but officers and executives may be appointed by OneWeb’s Board of Directors. Matthew McGowan O’Connell is the sole officer of OneWeb that has been appointed by the Board of Directors.

Indian Continent Investment Limited	Mauritius	6, Sir William Newton Street Port Louis Mauritius	333,333	11.86%
1110 Ventures, LLC	Nevada	135 South River Road Sewalls Point, Florida 34996	321,416	11.43%

No other individuals or entities directly or indirectly hold a 10 percent or greater ownership or voting interest in OneWeb.

Please see below for an organizational chart reflecting the stockholders of record owning and/or voting 10 percent or more of OneWeb voting stock:

OneWeb Ownership Chart

