Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
The Uniendo a Puerto Rico Fund and the Connect USVI Fund	)	WC Docket No. 18-143
	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
ETC Annual Reports and Certifications	)	WC Docket No. 14-58
	)	

To: The Commission

COMMENTS OF VIRGIN ISLANDS TELEPHONE CORP. D/B/A VIYA AND ITS UNITED STATES VIRGIN ISLANDS WIRELESS AFFILIATES

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EXECUTIVE SUMMARY

The United States Virgin Islands ("USVI" or "Territory") is a small market of only 107,000 people spread over three mountainous islands more than 1,200 miles from Florida with a corrosive tropical climate and a challenging economy. Virgin Islands Telephone Corp. d/b/a Viya ("Viya") is the incumbent local exchange carrier ("ILEC") in the USVI, with carrier-of-last-resort obligations to serve all residential and business customers in the Territory. Viya depends on federal high-cost funding to support universal service in this difficult market. The destruction wrought by Hurricanes Irma and Maria only increases Viya's need for this support.

In deciding how to deploy the USVI Connect Fund Stage 2 fixed funding, the Commission should first bear in mind that different approaches are warranted in the USVI as compared to Puerto Rico. The USVI's population and economy are only a small fraction of Puerto Rico's, and, not surprisingly, the USVI is served by far fewer carriers than Puerto Rico.

Consistent with the precedent of its 2014 offers of model-based support to price cap ILECs, the Commission should direct the $18.65 million annual Connect USVI fixed-network support to Viya, which operates the USVI's only Territory-wide wireline voice and broadband network. Consistent with the objectives of the USVI Connect Fund, this will promote the quickest recovery and hardening of voice and broadband services in the Territory by leveraging Viya's uniquely ubiquitous pre-hurricane market presence and its extensive restoration to date. Further, it will ensure the continued viability of the only carrier capable of making available adequate and sustainable voice and broadband services to all USVI residents and businesses given the small economies of scale that are possible in the USVI. In addition, it appropriately accounts for Viya's carrier-of-last-resort obligations and avoids the need for administratively complex transition mechanisms at the federal and Territory levels that could cripple Viya's ability to plan for the future.

In the event that the Commission does not direct the Stage 2 fixed-network support to Viya, the Commission must ensure that its approach maintains the provision of affordable voice and broadband services on a sustainable basis to all residents and businesses in the USVI. This will be extraordinarily difficult to do, and may not be possible, and it will delay the deployment of Stage 2 fixed funding, which, in turn, will reduce its benefits. An essential element of any such effort is the establishment of appropriate eligibility rules and service obligations. Eligibility should be limited to facilities-based fixed-network providers that provided voice and broadband service to residential and business customers prior to the hurricanes. Service obligations for Stage 2 fixed funding should be modeled on the requirements of the CAF Phase II auction, but with much shorter deployment obligations. Recipients also should be required to offer both voice and broadband service to all residential and business customers throughout the entire Territory. This is the only approach that will prevent the cream-skimming that would otherwise occur given the geographic and topographic challenges and resulting high costs of serving the USVI's rural population.

If the Commission does not direct the fixed-network Stage 2 support to Viya, the least harmful alternative for the allocation of these funds is likely to be through negotiated arrangements given the very small number of potentially eligible fixed providers in the USVI. A competitive proposal approach also could be workable, though it would further slow the distribution of support and present additional administrative challenges. A competitive auction approach is not suitable for the USVI because it is served by so few carriers and because of the need to avoid the resulting delay in the distribution of funds.

To ensure that Stage 2 mobile support provided to the USVI's wireless carriers is adequate to address their needs, and to account for the historical underfunding of wireless universal service in the USVI, the Commission should consider increasing the proportion of Stage 2 mobile funding proposed to be allocated to the USVI by allocating the $259 million of proposed Stage mobile support between Puerto Rico and the USVI based on the Territories' relative populations. The Commission also should impose appropriate eligibility, coverage, and service quality requirements on Stage 2 mobile funding recipients to maximize the public interest benefits derived from the funding. Further, the Commission should consider distributing Stage 2 mobile funding allocated to the USVI based on the pre-hurricane coverage areas of eligible carriers' mobile networks, rather than on subscriber counts.

The disaster response issues raised in the NPRM are important, but they are relevant to many areas beyond the USVI and Puerto Rico. For this reason, changes to DIRS reporting, resiliency standards, and backup power requirements are best addressed in nationwide rulemakings of general applicability. The Commission could maximize the effectiveness of Connect USVI Fund support, however, by imposing reciprocal coordinated access obligations to shared support infrastructure such as poles, trenches, ducts, and conduits. Under this approach, access obligations only would apply to USVI Connect Fund support recipients if requesting parties, which may include non-telecom utility providers and governmental public infrastructure providers, provide reciprocal access to their support infrastructure.

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To: The Commission

COMMENTS OF VIYA

Virgin Islands Telephone Corp., d/b/a Viya ("Viya") and its affiliated companies providing wireless services in the United States Virgin Islands ("USVI" or "Territory")[1] submit these comments to the Federal Communications Commission ("FCC" or "Commission") in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.[2]

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[1] Viya (formerly known as Innovative), Vitelcom Cellular, Inc. ("Vitelcom"), and Choice Communications, LLC ("Choice") (Vitelcom and Choice collectively, "Viya Wireless") are sister companies commonly owned and controlled by ATN International, Inc. (formerly known as Atlantic Tele-Network, Inc.) ("ATN"). ATN acquired Viya and Vitelcom in July 2016, and Choice has been a USVI subsidiary of ATN since 1999. *See Applications of National Rural Utilities Cooperative Finance Corporation and Atlantic Tele-Network, Inc. For Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 31 FCC Rcd 6913 (2016). ATN is a publicly traded Delaware corporation that, through its subsidiaries, provides international and domestic wireless and wireline voice and data services to retail residential and enterprise customers and other carriers, including mobile wireless solutions, local exchange services, broadband Internet access services, wholesale connectivity, in the United States and in other Caribbean-region countries.

[2] *The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al.*, Report & Order and Notice of Proposed Rulemaking, FCC 18-57 (rel. May 29, 2018) ("*Order*" and/or "*NPRM*" as applicable). The comment deadlines were extended. *The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al.*, Order, DA 18-670 (WCB rel. June 27, 2018).

I. BACKGROUND

The USVI Market. Even under optimal conditions, the USVI market is a uniquely challenging and expensive market in which to operate due to its geographic isolation, mountainous topography, difficult climate, and the Territory's economic decline. The three primary islands comprising the USVI, St. Croix, ST. Thomas, and St. John, are over 1,200 miles from Florida, which makes transporting equipment and skilled labor to the Territory exceedingly expensive. Also, St. Croix is over 40 miles from St. Thomas and St. John across an undersea trench over 10,000 feet deep, complicating the movement of personnel and equipment and the operation of undersea cables between the islands. Further, most of the land area of the islands is mountainous and rural, which increases facilities deployment costs. In addition, the useful lifespan of equipment deployed in the USVI is significantly reduced by frequent, destructive storms and the corrosive effects of salt water.

Compounding the challenges posed by the USVI's far-flung and challenging geography, the pre-hurricane population of the Territory was only 107,000 people, limiting the economies of scale possible in the provision of any service. Even before the hurricanes, the USVI's economy was struggling, and its residents had limited buying power. The pre-hurricane median household income in the USVI was more than thirty percent lower than the mainland United States, the unemployment rate was more than twice as high, and the poverty rate was 50 percent higher.[3] Economic conditions in the Territory have only worsened since the storms.[4]

Viya. Viya is the sole incumbent local exchange carrier ("ILEC") in the USVI and it operates the USVI's sole Territory-wide wireline network providing voice and broadband

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[3] *See* Henry J. Kaiser Family Foundation, *U.S. Virgin Islands: Fast Facts* (Dec. 13, 2017), https://www.kff.org/disparities-policy/fact-sheet/u-s-virgin-islands-fast-facts/ ("Kaiser Report").

[4] *See infra* notes 54-58 and accompanying text.

services to the residents, businesses, and government of the Territory. Commonly controlled companies affiliated with Viya and operating under the Viya brand also provide long distance, broadband Internet access, and multichannel video services throughout the Territory. As an ILEC, Viya is regulated by the Virgin Islands Public Services Commission ("PSC"), which sets Viya's intrastate rates, regulates its quality of service, requires Viya to operate as a carrier of last resort, and imposes other obligations.

Between 2011 and 2015, while under prior ownership, Viya spent approximately $125 million to construct a hybrid fiber-coaxial cable ("HFC") network serving all three of the USVI's primary islands. The HFC network replaced and supplemented old and degraded copper facilities, which severely limited the availability of broadband in the Territory and the availability and reliability of plain old telephone service. Viya's HFC network consists primarily of fiber—900 route miles (1.3 million strand miles), most of which is buried, running from beach manholes to Viya's central offices to its network nodes. Coaxial cable generally is used for last-mile extensions from Viya's network nodes to its customer's premises, although direct-to-premises fiber drops serve over 150 USVI businesses.[5] Prior to the damage caused by Hurricanes Irma and Maria, the HFC network enabled Viya to provide voice service and very high-speed broadband Internet access to approximately 97 percent of the approximately 48,000 residential and business locations in the USVI.[6] As further set forth below, Viya continues to restore and harden its HFC network following the storms. It has restored service to nearly 60 percent of

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[5] This network configuration is identical to that used by major voice and broadband providers in the continental United States.

[6] Viya currently offers enterprise customers synchronous bandwidths of 1 megabit per second ("Mbps") to 10 gigabits per second ("Gbps") and residential customers download speeds of up to 200 Mbps and upload speeds of up to 80 Mbps up. The network currently uses DOCSIS 3.0 technology, which supports speeds up to 1 Gbps down and 245 Mbps up, and it can be readily transitioned to DOCSIS 3.1, which can support speeds up to 10 Gbps down and 2 Gbps up.

customer premises, and projects completion of restoration efforts by the end of the third quarter in 2018.[7]

Viya Wireless. Viya Wireless and its predecessor entities have provided wireless services in the USVI since the early 1990s. Prior to the hurricanes, Choice and Vitelcom Cellular operated separate CDMA and GSM/UMTS networks, respectively. Viya Wireless currently operates a state-of-the-art 4G LTE mobile wireless network that covers most of the geographic area of the USVI. Viya Wireless activated this advanced 4G LTE mobile network in December 2017, ahead of schedule, in an effort to quickly restore basic connectivity after the storms to USVI residents, businesses, governmental entities, and in particular first responders.[8] Prior to the storms, Choice and Vitelcom Cellular intended to integrate their operations and transition their respective customers from these separate networks to the new 4G LTE network at some point in 2018, but they kept the legacy networks in operation longer in order to support broader roaming to aid the initial hurricane recovery efforts, while also launching the LTE network.[9]

Hurricanes Irma and Maria. On September 6, 2017, Hurricane Irma struck the USVI with winds reaching a maximum of 185 miles per hour, making it the strongest Atlantic-basin

[7] "ATN Reports Second Quarter 2018 Results," Press Release (July 25, 2018) at 1.

[8] As part of Viya Wireless' efforts to rapidly restore basic connectivity in the USVI and to assist with general public safety and recovery efforts, Viya Wireless, *inter alia*, distributed 4G LTE devices to federal and USVI first responders and government representatives, distributed thousands of free MiFi broadband devices to wireline customers, and established dozens of open, public Wi-Fi access points for residents. *See* Viya Emergency Petition, WC Docket No. 10-90 at 9 fn. 18 (filed Dec. 6, 2017); Comments of Viya, PS Docket No. 17-344 at 10-11 (filed Jan. 22, 2018) at 10-11.

[9] Vitelcom's prior GSM/UMTS network has been shut down, and all customers have been migrated to Viya Wireless's 4G LTE network. All customers also have been migrated off of Choice's CDMA network, and it is scheduled to be shut down on August 1, 2018.

hurricane ever recorded.[10] The storm caused upwards of $65 billion in damages, and the USVI was declared a major disaster area on September 7, 2017.[11] Less than two weeks later, on September 20, 2017, Hurricane Maria hit the USVI with winds reaching 155 miles per hour.[12] It is estimated that this second storm caused over $90 billion in aggregate damages in the USVI and Puerto Rico (collectively "Territories").[13] The impact of these two unprecedented, back-to-back Category 5 storms was catastrophic. They inflicted billions of dollars of damage to the USVI's infrastructure and destroyed or damaged a substantial percentage of all USVI structures. As a result of the hurricanes, the USVI has remained under a state of emergency declaration since September 5, 2017.[14]

Even now, ten months after the storms, thousands of USVI residents lack reliable access to basic services and necessities. Many remain displaced from their homes or are living in severely compromised structures, many roads remain impassible or are hazardous to navigate,

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[10] Jennifer Fabiano, *Timeline recounts the devastating 2017 Atlantic hurricane season and storms that made it memorable*, AccuWeather (Nov. 15, 2017), https://www.accuweather.com/en/-weather-news/timeline-recounts-the-devastating-2017-atlantic-hurricane-season-and-storms-that-made-it-memorable/70003283.

[11] Press Release, White House Press Office, *President Donald J. Trump Approves U.S. Virgin Islands Disaster Declaration* (Sept. 7, 2017), https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-approves-u-s-virgin-islands-disaster-declaration/.

[12] *See* Travis Fedschun & Nicole Darrah, *Hurricane Maria surges toward Puerto Rico, US Virgin Islands*, Fox News (Sept. 20, 2017), http://www.foxnews.com/world/2017/09/20/-hurricane-maria-takes-aim-at-puerto-rico-us-virgin-islands-as-category-5-storm-strengthens-.html; Jeremy Hobson, *'We Need Help' U.S. Virgin Islands Governor On Devastation After Maria And Irma*, WBUR (Sept. 21, 2017), http://www.wbur.org/hereandnow/2017/09/21-/us-virgin-islands-kenneth-mapp-maria.

[13] Richard J. Pasch, Andrew B. Penny, and Robbie Berg, National Hurricane Center, National Hurricane Center Tropical Cyclone Report – Hurricane Maria (April 10, 2018), https://www.nhc.noaa.gov/data/tcr/AL152017_Maria.pdf.

[14] *See* USVI Office of the Governor, *Renewal Order and Proclamation by the Governor of the United States Virgin Islands Declaring a State of Emergency in the Virgin Islands of the United States Due to Hurricanes Irma and Maria* (June 28, 2018), http://files.constantcontact.com/-dea4850a501/3629d55b-1c31-463a-8e69-55e5c3e7222e.pdf.

and public safety remains challenged due, in part, to severe damage to health facilities. In addition, the tourism industry, once the driving economic force on the islands, has been significantly diminished. Major hotels remain closed or are primarily being utilized by public safety responders, and this shortage of accommodations has thwarted would-be travelers.[15] Although cruise ship arrivals experienced a tepid resurgence, they remain 27 percent below 2017 trends, and air arrivals in 2018 have remained at about 50 percent below 2017 levels.[16] USVI Governor Mapp has estimated that it will cost over $7.5 billion to rebuild the islands' decimated infrastructure.[17] The crushing economic effect of these costs is compounded by the USVI's historical financial difficulties[18] and the severe reduction in its economy and tax base resulting

[15] A.J. Rao, "Tourism Rising But Still Short of Pre-Storm Level" at 2, The Virgin Islands Daily News, July 24, 2018; VI Consortium, "Frenchman's Reef Marriott Resort, Sugar Bay, to Remain Closed For Repairs Until 2019; Ritz Carlton Through Oct. 2018," October 19, 2017, http://viconsortium.com/business/frenchmans-reef-marriot-resortsugar-bay-to-remain-closed-for-repairs-until-2019-ritz-carlton-until-oct-2018/.

[16] USVI Bureau of Economic Research (VIBER), Cruise Passenger Arrivals: January 2017 to April 2018, http://www.usviber.org/wp-content/uploads/2016/11/CP18-apr.pdf. *See also* VIBER, Air Visitor Arrivals: January 2017 to March 2018, http://www.usviber.org/wp-content/uploads/2016/11/A18-mar.pdf.

[17] *See* Gov. Kenneth Mapp, Testimony before House Committee on Natural Resources, the Need for Transparent Financial Accountability in Territories' Disaster Recovery Efforts, 115th Cong., 1st sess., Nov. 17, 2017, http://docs.house.gov/meetings/II/II00/20171114/106587/HHRG-115-II00-Wstate-MappK-20171114.pdf; *see also* Ernice Gilbert, *Week of Lobbying: Delegation of VI Government Officials Descends on Washington with $7.5 Billion Request*, The Virgin Islands Consortium (Nov. 12, 2017), http://viconsortium.com/virgin-islands-2/usvi-lobbys-in-washington-for-federal-aid-following-2017-hurricanes.

[18] The USVI's GDP, currently approximately $3.9 billion, has fallen by nearly 20 percent since 2007. Bureau of Economic Analysis, Gross Domestic Product for the U.S. Virgin Islands Increases in 2016 (Dec. 1, 2017), https://www.bea.gov/newsreleases/general/terr/2017/vigdp_120117.pdf; *see also infra* notes 50-53 and accompanying text.

from the storms. Moreover, the USVI faces these obstacles in the midst of another hurricane season.[19]

The Commission should be proud of its quick and decisive actions to support the restoration of communications services in the USVI. Following the storms, the Commission rapidly provided regulatory relief that carriers needed to take the steps necessary *in extremis* to restore services as quickly and creatively as possible.[20] The Commission also provided an urgently needed infusion of immediate funding to carriers in the USVI and Puerto Rico in the form of $65.8 million of advanced high-cost support, of which almost $9.7 million was provided to Viya and $39,000 was provided to Choice.[21] Subsequently, the Commission determined in the *Order* that this advanced funding would not be required to be offset against future high-cost support payments.[22] Further, the Commission in the *Order* provided an additional $13 million of immediate Stage 1 fixed and mobile restoration support targeting the USVI. Although these Commission actions only covered a small portion of Viya's direct network restoration costs, they nevertheless are meaningful and timely, and Viya is grateful for this prompt financial assistance. Without these bold and expeditious actions by the Commission, the pace of service restoration in the USVI (and in Puerto Rico) would have slowed to a crawl, and, as a result, far more residents of the Territories would still be without service today.

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[19] Another storm hit the Territories on July 9, 2018. Although Hurricane Beryl was downgraded to a tropical storm before it reached the USVI, it nevertheless caused widespread flooding and temporary power outages to nearly half of the populations of the islands. *See* Danica Coto, *Power outages, flooding hits Puerto Rico, USVI amid storms*, The Daily Times (July 9, 2018), https://www.washingtonpost.com/world/the_americas/remnant-of-tropical-storm-beryl-sweeps-onto-dominica/2018/07/08/2dca62f4-830c-11e8-9e06-4db52ac42e05_story.html?utm_term=.6f0e88cae1fa.

[20] *See Order* ¶ 6.

[21] *Connect America Fund*, Order, 32 FCC Rcd 7981 (2017) ("*Connect America Fund Order*"); *see also Order* ¶ 7.

[22] *Order* ¶ 10.

Viya's Pre-Hurricane CAF Support. When it adopted the Connect America Fund ("CAF") and directed the Wireline Competition Bureau to develop a cost model to determine appropriate offers of support for price cap ILECs, the Commission also directed the Bureau to "consider the unique circumstances of [non-contiguous] areas when adopting a cost model."[23] It further directed the Bureau to "consider whether the model ultimately adopted adequately accounts for the costs faced by carriers serving these areas" and, if not, it delegated to the Bureau the authority to "maintain existing support levels, as modified in this Order, to any affected price cap carrier."[24] Recognizing ongoing questions about the sufficiency of the support generated by the cost model, the Bureau exercised this discretion in April 2014, allowing price cap ILECs in non-contiguous areas, including the USVI, the option to elect frozen support at then-current levels.[25]

Viya elected to receive frozen support in lieu of model-based support on December 29, 2014.[26] As a result, Viya currently receives approximately $16.4 million in support annually for the maintenance and upgrading of facilities used to provide supported services and to maintain affordable and reasonably comparable rates.[27] Viya also has a pending application for review of a Wireline Competition Bureau decision denying it approximately $680,000 per year in additional support that Viya lost as a result of a corrected line-count filing made three days late

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[23] *Connect America Fund, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17737-38 ¶ 193 (2011) ("*Transformation Order*"), *aff'd sub nom. Direct Communs. Cedar Valley, LLC v. FCC (In re FCC 11-161)*, 753 F.3d 1015 (10th Cir. 2014).

[24] *Transformation Order*, 26 FCC Rcd at 17737-38 ¶ 193.

[25] *Connect America Fund, et al.*, Report and Order, 29 FCC Rcd 3964, 4029 ¶ 152 (WCB 2014).

[26] Letter from Russell Blau, Counsel to Virgin Islands Telephone Company, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 29, 2014).

[27] *See* 47 U.S.C. §§ 254(b)(1), 254(b)(3), 254(e); 47 C.F.R. §§ 54.7, 54.309(a).

under prior ownership, which erroneously reduced Viya's frozen support.[28] Viya's application for review remains pending.

As Viya has explained to the Commission, even before the widespread damage to its HFC network wrought by the hurricanes, the availability and stability of its high-cost support was crucial to Viya's financial viability.[29] The challenges posed by the USVI market, including substantially heightened costs and affordability concerns relative to other U.S. markets, necessitate substantial high-cost support funding to achieve the objectives of universal service. Even before the hurricanes, Viya's high-cost funding levels were crucial to enable Viya to:

- extend the HFC network to cover the remaining unserved locations in the USVI;[30]
- support the substantial remaining amortized cost of the build-out of the HFC network to provide CAF-qualifying speeds to approximately 97 percent of approximately 48,000 residential and business locations in the USVI;[31]
- ensure that, despite these high costs, Viya's service rates remain affordable to USVI residents, 22 percent of whom are below the U.S. poverty level.[32] As Viya has

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[28] Virgin Islands Telephone Corp. d/b/a Innovative Telephone Application for Review, WC Docket No. 08-71 (filed Mar. 20, 2015).

[29] *See, e.g.*, Letter from L. Charles Keller, Counsel to Viya, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at Attachment (filed Nov. 15, 2017) ("Viya Nov. 15, 2017 Ex Parte").

[30] At the time that ATN acquired Viya, ATN believed that the HFC network covered 98 percent of the 48,000 locations in the USVI. However, after further post-consummation analysis of the network, ATN determined that it actually covered substantially less. Since the transaction closed in July 2016, ATN had been working closely with Viya to extend the HFC network to cover the remaining unserved USVI locations.

[31] Viya had approximately $46 million of outstanding debt attributable to the construction of Viya's HFC network shortly before ATN's acquisition of Viya in 2016. *See* Letter from Phil Marchesiellllo, Counsel to ATN, to Marlene Dortch, Secretary, FCC, WC Docket No. 15-264, at 3 (filed March 10, 2016). Because this financing was used for purposes eligible for high-cost universal service support, ATN, when purchasing Viya, reasonably expected that it would have access to at least $16.4 million annually in high-cost support for the foreseeable future to help repay these front-loaded deployment costs.

previously advised the Commission, following its 2016 rate case at the USVI PSC, Viya has a revenue shortfall (after receipt of high-cost support) of approximately $7.2 million per year;[33] and

- maintain the HFC network and upgrade it over time as necessary to maintain reasonable comparability of service with the U.S. mainland.

As noted in the *NPRM*,[34] the Commission previously determined that it would develop "tailored service obligations" for price-cap ILECs electing frozen support such as Viya.[35] Viya's prior owners had proposed service obligations consistent with those applicable to model-based CAF support recipients,[36] but the Commission has not yet established specific obligations for the USVI. Following ATN's acquisition of Viya in July 2016, ATN undertook an extensive evaluation of the state and scope of the HFC network that it had just acquired; the work still required to complete deployment to all locations in the USVI; the amount of support needed to maintain affordable rates consistent with rate regulations imposed by the Commission and the USVI PSC; and the remaining amortized cost of network deployment. Based on that assessment, ATN and Viya developed a proposal for tailored service obligations and an appropriate term of support. Prior to the hurricanes, Viya had begun a dialogue with the Commission to address

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[32] *See* Kaiser Report. By way of comparison, approximately 14 percent of the mainland United States population lives below the poverty level. Similarly, the median household income of USVI households was $37,254, while the median household income of mainland U.S. households was $57,617. *Id.*

[33] Viya Nov. 15, 2017 Ex Parte, Attachment at 5.

[34] *NPRM* ¶ 35.

[35] *Connect America Fund, et al.*, Report and Order, 29 FCC Rcd 15644, 15662 ¶¶ 46-48 (2014).

[36] *See* Letter from Russell Blau, Counsel to Virgin Islands Telephone Corp. d/b/a/ Innovative, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Sept. 24, 2015).

these outstanding issues,[37] and had scheduled a meeting with the Commission for the week that Hurricane Irma hit.

Viya's Response to the Hurricanes. Following the September hurricanes, Viya's emergency restoration efforts, and the Commission's timely actions to support the relief efforts of carriers in the Territories, supplanted further discussion of service obligations or a term of support for Viya's CAF funding. Viya and ATN initially focused all of their resources on restoring basic wireless connectivity in the Territory on an emergency basis and then subsequently on evaluating and commencing the restoration of the HFC network, which was severely damaged by the storms. Recognizing the critical communications needs of the residents, businesses, and government of the USVI, Viya and ATN committed all available resources to rapidly restore service in the Territory even in the absence of certainty regarding Viya's future CAF support stream and service obligations. While undertaking restoration efforts, Viya also quickly established a dialogue with the Commission regarding its restoration efforts and its CAF support. On November 15, 2017, Viya met with Commission staff to explain that "Viya needs certainty regarding term and conditions on frozen CAF support to plan for recovery" and to urge the Commission to provide additional support to aid recovery.[38] Then, on December 6, 2017, Viya filed an emergency petition requesting that the Commission to "make available a supplemental, one-time infusion of up to $45 million to be used by Viya to restore its voice and broadband network."[39]

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[37] *See, e.g.*, Letter from L. Charles Keller, Counsel to ATN International, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Feb. 13, 2017). Viya's proposal included grant of the additional support covered by the Application for Review. *Id.*

[38] Viya Nov. 15, 2017 Ex Parte, Attachment at 3.

[39] Virgin Islands Telephone Corp. dba Viya Emergency Petition, WC Docket No. 10-90, at 1 (filed Dec. 6, 2017). Viya previously also had filed an emergency petition with the Commission on October 5, 2017 seeking supplemental universal service support to aid in the urgent task of

To date, Viya has incurred nearly $67 million in capital expenditures repairing and hardening the HFC network, and estimates that its full restoration and network hardening activities will cost $80 million.[40] During the ten months since the storms, Viya's revenue stream has plummeted because Viya, of course, did not charge its customers for services that it could not adequately provide as a result of hurricane damage to its networks.[41] In addition, and not surprisingly, Viya's costs skyrocketed during this period as Viya commenced restoration and hardening of the HFC network.[42] With drastically reduced revenue, enormously increased costs, and no access to arms-length commercial financing under the circumstances, most of the $67 million in post-hurricane network restoration expenditures by Viya have been advanced by ATN.[43] Without access to this advance capital from ATN, Viya would not have been able to fund its recovery efforts.[44]

Going Forward. Ultimately, Viya's future ability to fulfill its role as the ILEC carrier of last resort in the USVI and the operator of the USVI's only Territory-wide wireline voice and broadband network depends on ongoing universal service support above pre-hurricane levels. In

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restoring crucial wireless connectivity. ATN International, Inc. Emergency Petition, WT Docket No. 11-42 et al. (filed Oct. 5, 2017).

[40] News Release, *ATN Reports Second Quarter 2018 Results*, at 3 (July 25, 2018).

[41] Customer credits were $7.7 million in second quarter 2018 alone. *Id.* at 2.

[42] While many USVI businesses laid off their idled workforce en masse immediately after the storms, Viya is proud of its decision not to impose such a financial hardship on its employees on top of the extreme adversity they already were suffering as a result of the hurricanes.

[43] Although Viya carried the maximum amount of insurance commercially available, approximately $34 million, insurance proceeds were insufficient to even cover Viya's business interruption costs. No insurance proceeds were available for network restoration efforts. Viya Nov. 15, 2017 Ex Parte, Attachment at 14.

[44] Supporting Viya's restoration effort also has placed a great deal of strain on ATN's financial condition. In its third quarter 2017 SEC Form 10-Q, ATN reported a loss of $36.6 million, of which about $35 million was to write off the depreciated value of network assets destroyed in the storms. In addition, ATN's first-quarter 2018 earnings report showed a net loss of $5.6 million ($0.35 per share) as a result of the costs of hurricane recovery in the USVI.

the short term, this funding will be just as necessary to sustain Viya's continued restoration and hardening efforts as the advanced high-cost and Stage 1 support already adopted by the Commission. In the medium term, it will be needed to help fund Viya's network hardening efforts, which the hurricanes so clearly demonstrated are essential in the Territory. But, most importantly, just as was the case before the storms struck the USVI, Viya requires an adequate ongoing stream of high-cost universal service support simply to maintain its network in the USVI's very challenging conditions and to retain affordable rate levels in the face of the high costs of providing service and limited revenue opportunities that the Territory presents.

As set forth above, the USVI is an incredibly difficult and expensive market to serve. In reliance on the ongoing availability of annual CAF support, Viya's prior owners deployed a $125 million advanced-technology HFC network to leapfrog the USVI from a broadband backwater to a market in which high-speed broadband is more readily available.[45] ATN then acquired Viya in reliance on the availability of ongoing CAF support to offset the extremely high cost of extending, maintaining, and upgrading the HFC network going forward while keeping rates affordable to USVI residents and businesses, as well as to help offset the remaining amortized costs of network deployment. The hurricanes compounded this need for stable and ongoing CAF funding.

[45] Rather than deploying the HFC network on an incremental and piecemeal basis as Viya received annual CAF support payments from the Commission, Viya's prior owner, a cooperative lender to rural utility providers, financed the cost to rapidly deploy the HFC network throughout most of the Territory in a few short years with the intent to repay these loans using subsequent CAF support payments. This approach secured sorely needed broadband services for more USVI residents and businesses much more quickly than otherwise would have been possible.

II. CONNECT USVI FUND STAGE 2 SUPPORT FOR FIXED NETWORK PROVIDERS

As discussed below, it is imperative for the Commission to refrain from implementing a Stage 2 fixed funding eligibility and allocation process that compromises Viya's ability to provide affordable and reasonably comparable voice and broadband service to all residents of the USVI over the long term. Adequate, stable, and ongoing CAF support was crucial to Viya's financial viability prior to the hurricanes, and, in reliance on this support, Viya expended substantial resources to advance universal service objectives in the USVI. In further reliance on universal service support, Viya has made extraordinary (and extraordinarily expensive) efforts to restore its fixed network as quickly as feasible under very difficult post-hurricane conditions, as well as to harden the network against future disasters. It would be counterproductive and contrary to the Commission's universal service objectives for the Commission to now replace the current CAF support regulatory framework in the USVI with a Stage 2 Connect USVI Fund structured in a manner that undermines the Commission's and Viya's successful universal service efforts in the Territory prior to the storms.

A. DIFFERENT APPROACHES TO STAGE 2 FIXED SUPPORT IN THE USVI AND PUERTO RICO ARE APPROPRIATE

The Commission correctly acknowledged in the *NPRM* that Puerto Rico and the USVI are very different markets. As a result, different approaches to the allocation of Stage 2 fixed support may be warranted in each of the Territories. There is no reason that the Connect USVI Fund should be structured identically, or even similarly, to the Uniendo a Puerto Rico Fund. Viya herein addresses only the USVI market and the Connect USVI Fund, and Viya does not take a position regarding the appropriate approach to the very different Puerto Rican market.

The USVI and Puerto Rico share certain similar geographic, topographic and climatic circumstances, but the communications markets in the two Territories are more different than they are alike. First, although both Territories are more than one thousand miles from Florida, the USVI market is much smaller and more geographically dispersed than the Puerto Rican market. As a result, the USVI is much more difficult and expensive to serve. Whereas Puerto Rico is 3,515 square miles and the vast majority of Puerto Rico is a single island,[46] the USVI is composed of three main islands that have a combined geographic area of only 136 square miles.[47] In addition, as noted above, the USVI's largest island by geographic area, St. Croix (84 square miles), is over 40 miles from St. Thomas and St. John. This separation makes the provision of service across the three islands especially challenging, and substantially increases the effective cost per square mile to construct and maintain a telecommunications network in the USVI relative to Puerto Rico.

Second, the USVI market has a much smaller population than Puerto Rico and is less densely populated, which prevents USVI providers from achieving the economies of scale available in Puerto Rico. The *entire* USVI's pre-hurricane population was only 107,000 people,[48] which is just one-third of the population of Puerto Rico's single largest city, San Juan. By contrast, Puerto Rico's pre-hurricane population of 3.3 million is more than 30 times greater than the USVI's.[49] Further, Puerto Rico's population density of nearly 950 people per square mile, is about is about 20 percent higher than the USVI's population density of approximately 800

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[46] Nations Encyclopedia, Puerto Rico, Country Overview, http://www.nationsencyclopedia.com-/economies/Americas/Puerto-Rico.html (last visited July 25, 2018).

[47] The Editors of Encyclopaedia Britannica, *United States Virgin Islands*, Encyclopaedia Britannica (last updated July 22, 2018), https://www.britannica.com/place/United-States-Virgin-Islands.

[48] CIA VI World Factbook, People and Society - Population (July 2017).

[49] Central Intelligence Agency, The World Factbook: Puerto Rico (People and Society – Population) ("CIA Puerto Rico World Factbook"), https://www.cia.gov/library/publications/the-world-factbook/geos/rq.html (as of July 2017, Puerto Rico's population was estimated to be 3,351,827) (last visited July 25, 2018).

people per square mile. And these population density figures do not take into account the significant stretches of open ocean between each of the USVI's three islands—an obstacle to providing service, including staging personnel and materials, that Puerto Rican providers do not share.

Third, although both Territories are much less affluent than the mainland United States,[50] the USVI's economy is much smaller and in significantly worse condition than Puerto Rico's. Puerto Rico's GDP is almost 33 times greater than the USVI's.[51] Per capita debt in the USVI, which is the highest of any U.S. state or territory, is a third higher than in Puerto Rico.[52] Moreover, the USVI has a substantially higher cost of living relative to Puerto Rico.[53] As

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[50] *See supra* note 3 and accompanying text; *see also*, United States Census Bureau, Median Household Income in the United States (Sept. 14, 2017), https://www.census.gov/library/visualizations/2017/comm/income-map.html; VI Electronic Workforce System, Employment Situation: July 2017, https://www.vidolviews.org/gsipub/index.asp?docid=430 (last visited July 25, 2018); Division of Medical Assistance, Department of Human Services, The United States Virgin Islands Access Monitoring Review Plan 2016 (2016), https://www.medicaid.gov/medicaid/access-tocare/downloads/review-plans/vi-amrp-16.pdf; Jessica L. Semega, Kayla R. Fontenot & Melissa A. Kollar, Income and Poverty in the United States: 2016, United States Census Bureau (Sept. 2017), https://www.census.gov/content/dam/Census/library/publications/2017/demo/P60-259.pdf.

[51] *Compare* News Release, Bureau of Economic Analysis, *Gross Domestic Product for the U.S. Virgin Islands Increases in 2016* (Dec. 1, 2017), https://www.bea.gov/newsreleases/general-/terr/2017/vigdp_120117.pdf (USVI's 2016 GDP was estimated to be $3.872 billion) *with* CIA Puerto Rico World Factbook, Economy (July 2017) (Puerto Rico's 2017 GDP was estimated to be $127.3 billion).

[52] *See* Mary Williams Walsh, *After Puerto Rico's Debt Crisis, Worries Shift to Virgin Islands*, N.Y. Times (June 25, 2017), https://www.nytimes.com/2017/06/25/business/dealbook/virgin-islands-debt-payment-pensions.html?_r=0; Robin Respaut, *Shunned from bond market, U.S. Virgin Islands faces cash crisis*, Reuters (Aug. 2, 2017), https://www.reuters.com/article/us-usa-virginislands-crisis/shunned-from-bond-market-u-s-virgin-islands-faces-cash-crisis-idUSKBN1AI0D2.

[53] For example, rent in Puerto Rico is 60 percent lower than in USVI; restaurant prices in Puerto Rico are 25 percent lower than in USVI; and groceries prices in Puerto Rico are 25 percent lower than in USVI. *See* Numbeo, Cost of Living Comparison Between US Virgin Islands and Puerto Rico, https://www.numbeo.com/cost-of-

recently explained by two economists at the New York Federal Reserve, "[t]he economic effects of Irma and Maria … look substantially more severe in the Virgin Islands than in Puerto Rico."[54] The USVI's heavy dependence on tourism, compared to Puerto Rico's "fairly diversified" economy, makes the USVI "particularly sensitive" to natural disasters.[55] For example, the USVI saw a 57 percent drop in cruise ship tourists from September to December 2017, compared to the year before and a similar drop occurred with respect to tourists arriving by air.[56] The USVI hotels are having a harder time reopening than those in Puerto Rico, making it difficult to accommodate tourists.[57] The USVI immediately suffered job losses of 11.7 percent (compared to 5.8 percent for Puerto Rico), and its job market has been slower to recover.[58] Overall, it is reasonable to conclude that the USVI market will require more rate support for a longer period of time than the Puerto Rican market.

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living/compare_countries_result.jsp?country1=Us+Virgin+-Islands&country2=Puerto+Rico (last visited July 25, 2018).

[54] Jason Bram & Lauren Thomas, *U.S. Virgin Islands' Economy Hit Hard by Irma and Maria*, Federal Reserve Bank of New York, Liberty Street Economics Blog (July 9, 2018) ("USVI Economy Hit Hard"), http://libertystreeteconomics.newyorkfed.org/2018/07/us-virgin-islands-economy-hit-hard-by-irma-and-maria.html; *see also* Jason Bram, *Puerto Rico & the US Virgin Islands in the Aftermath of Hurricanes Irma and Maria*, at 1, Federal Reserve Bank of New York (June 21, 2018) ("USVI Aftermath of Hurricanes"), https://www.newyorkfed.org/medialibrary-/media/aboutthefed/pdf/bram-puerto-rico-and-the-us-virgin-islands-in-the-aftermath-of-hurricanes-frbny-june-21.pdf ("Despite widespread devastation, the Puerto Rico economy has shown some signs of resilience; the USVI less so.") ("Puerto Rico & the US Virgin Islands in the Aftermath of Hurricanes Irma and Maria").

[55] USVI Economy Hit Hard; *see also* USVI Aftermath of Hurricanes at 18 ("The USVI's economy has been much slower to recover than Puerto Rico's, largely due to its dependence on tourism.").

[56] *See* USVI Economy Hit Hard.

[57] *Id.*

[58] USVI Aftermath of Hurricanes at 14 (showing local job loss totals from "Onset to Trough"); *id.* at 15.

Finally, although providing service in each of the Territories is challenging, the USVI market is served by far fewer providers than Puerto Rico largely as a result of the more profound difficulties posed by the USVI market. According to the Commission's most current, available FCC Form 477 filer data, Puerto Rico was served by 33 broadband, voice, and mobile providers, while the USVI was served by only nine unaffiliated providers, of which only two provide fixed voice services.[59] Further, unlike the USVI, which is served by a single high-cost ETC, Viya, Puerto Rico is served by multiple overlapping ETCs.[60] Likewise, prior to the hurricanes, "several unsubsidized competitors reported qualifying service in Puerto Rico," as compared to zero in the USVI.[61]

For all of these reasons, the Commission need not conclude that the Stage 2 fixed-network funding mechanism that it adopts for the Connect USVI Fund also is best suited to be used for the Uniendo a Puerto Rico Fund. Indeed, given the substantial differences between the markets, it would be surprising if that were the case. Consequently, it is entirely appropriate for the Commission to adopt a different approach in for the two Territories.

B. CONSISTENT WITH PRECEDENT, THE COMMISSION SHOULD ALLOCATE CONNECT USVI FUND STAGE 2 FIXED FUNDING TO VIYA, THE SOLE USVI ILEC

The Commission is faced with a critical decision regarding the structure of the Connect USVI Fund Stage 2 fixed-network support. The allocation mechanism for Stage 2 fixed funding

[59] FCC, *FCC Form 477 Filers by State, as of December 31, 2016 (as submitted in filings made or revised as of November 7, 2017)* (posted Feb. 7, 2018), https://www.fcc.gov/sites/default-/files/statefilers1216.xls (showing that, in Puerto Rico, of the 33 entities that filed FCC Form 477, 15 entities provide broadband, 27 provide fixed voice (LEC and VoIP), and 4 provide mobile voice; whereas in the USVI, of the 12 entities (of which 9 are unaffiliated) filing FCC Form 477, 9 entities provide broadband, 2 provide fixed voice, and 4 provide mobile voice).

[60] *NPRM*, Statement of Commissioner Michael O'Rielly at 1.

[61] *Connect America Fund*, Order, 32 FCC Rcd at 7984 ¶ 12.

in the USVI must be structured to ensure that service to the Territory, including the most rural and remote parts of the USVI, remains economically viable and that rates throughout the Territory remain affordable. As discussed in detail above, the USVI market is small, severely limiting potential economies of scale, and it is difficult and very expensive to serve. Consequently, there are very few carriers serving the USVI market. Further, the geographic and topographic characteristics of the Territory create significant risks of cream-skimming if carriers are permitted to receive support to serve only the Territory's more densely populated areas. Viya, as the USVI's sole ILEC, has carrier-of-last-resort obligations throughout the Territory and operates the only Territory-wide fixed network. In reliance on the continuation of its annual universal service support funding, Viya has incurred substantial costs in constructing and restoring its network to preserve universal service in the USVI.

Thus, the Commission should assign the Connect USVI Fund Stage 2 fixed-network support to Viya. This effectively constitutes maintaining Viya's CAF current frozen support and adding the modest increase proposed by the Commission to offset hurricane restoration costs. The amount of fixed network support proposed for the USVI, $18.65 million per year for ten years, is only $2.35 million per year greater than the current annual CAF frozen support of $16.4 million per year on which Viya relies, and only $1.67 million per year greater than Viya's frozen support if its meritorious pending application for review is granted.[62]

This approach is consistent with the Commission's 2015 decision to make fixed offers of support to price-cap ILECs in the contiguous states.[63] Viya is similarly situated today to these

[62] *See supra* note 28 and accompanying text.

[63] *See generally Transformation Order*, 26 FCC Rcd at 17729-31 ¶¶ 171-176. Pursuant to these offers, price-cap ILECs were required to provide service to their entire territory in a state and were required to satisfy specific service obligations. *Id.*

price-cap ILECs in 2014, and therefore the Commission's rationale then also applies today to justify assigning Viya the Connect USVI Fund fixed-network support. Specifically:

- The offer of fixed support was made to price cap ILECs in areas where "the incumbent LEC is likely to have the only wireline facilities, and there may be few other bidders with the financial and technological resources to deliver scalable broadband that will meet our requirements over time."[64] The same is true with respect to Viya in the USVI. It deployed and operates the only Territory-wide fixed network providing voice and broadband services.
- It was the Commission's "predictive judgment that the incumbent LEC is likely to have at most the same, and sometimes lower, costs compared to a new entrant in many of these areas."[65] No new entrant in the USVI could reproduce Viya's network at a lower cost—particularly taking into account the Territory-wide geographic scope of Viya's network and the high-speed broadband and voice services that the HFC network enables Viya to offer.
- The Commission "weigh[ed] the fact that incumbent LECs generally continue to have carrier of last resort obligations for voice services. While some states are beginning to re-evaluate those obligations, in many states the incumbent carrier still has the continuing obligation to provide voice service and cannot exit the marketplace absent state permission."[66] In fact, Viya is obligated by the USVI PSC and under federal and

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[64] *Id.* at 17730 ¶ 175.

[65] *Id.* at 17730-31 ¶ 175.

[66] *Id.* at 17731 ¶ 175.

> USVI law to provide carrier-of-last-resort service throughout the USVI,[67] and it is unclear how these obligations could be modified in the event necessary support was withdrawn.

The Commission concluded that, "[o]n balance," its approach of making a fixed offer of support to the incumbent LEC "best serves consumers in these areas in the near term, many of whom are receiving voice services today supported in part by universal service funding and some of whom also receive broadband, and will speed the delivery of broadband to areas where consumers have no access today."[68] This conclusion also is applicable in the USVI today given the USVI's market structure.

As set forth above, Viya financially relies on CAF frozen support to fund the deployment of its Territory-wide HFC voice and broadband network (including the remaining amortized costs of Viya's prior network deployment), the ongoing operation and maintenance of the network, and rate support to enable Viya to provide CAF-eligible services to USVI residents and businesses at affordable rates. Due to the exorbitant cost of operating in the USVI and the relatively low income of its residents, the operation of a Territory-wide wireline network simply is not financially viable without significant universal support funding. Consequently, the $16.4 million in annual CAF support currently received by Viya represents a crucial portion of Viya's

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[67] *See* 47 U.S.C. § 214(e)(1) ("A common carrier designated as an eligible telecommunications carrier … shall, throughout the service area for which the designation is received … offer the services that are supported by Federal universal service support mechanisms…."); 47 C.F.R. § 54.201(d) (same); *see also* 47 U.S.C. § 214(e)(4); 47 C.F.R. § 54.205 (permission required to relinquish universal service obligations); 30 V.I.C. § 45(a)(b)(1) ("Before designating a common carrier as an eligible telecommunications, the Commission must find that the applicant has … [c]ommitted to provide service throughout its proposed designated service area to all customers making a reasonable request for service.").

[68] *Id.*

annual budget. Without access to this funding, Viya would be unable to maintain Territory-wide service.

As further set forth above, the hurricanes only compounded Viya's reliance on its CAF support—not only in the present but also going forward. Restoration of the extensive hurricane damage to the HFC network dramatically increased Viya's recent costs, and the storms substantially reduced Viya's recent revenue. This financial dilemma is further exacerbated by a probable reduction in the overall USVI customer base and economic wherewithal resulting from the hurricanes. Further, going forward, Viya will need to recover the amortized costs of its restoration and hardening efforts. In combination, these factors create a very real risk to universal, affordable voice and broadband service in the USVI if Viya's universal service support is not at least maintained.

For these reasons, and in light of Viya's justifiable prior and forward-looking reliance on its CAF frozen support, the Commission should allocate the Connect USVI Fund Stage 2 fixed funding to Viya. The Connect USVI Fund is intended to ensure that all of the Territory's residents and businesses receive adequate voice and broadband services on a sustained basis. It would be fundamentally inconsistent with this goal to structure Stage 2 fixed funding in a manner that undermines the CAF frozen support that the Stage 2 funding replaces and that is relied on by the Territory's only ILEC, only high-cost wireline ETC, and only operator of a Territory-wide wireline voice and broadband network. Further, as discussed herein, Viya is uniquely positioned, given the scope of its pre-storm network, to complete the restoration of service to the entire USVI territory quickly and ensure resilient, expanded voice and broadband service at affordable rates to all USVI residents and businesses over the long term.[69]

[69] *See supra* Section II.B.

Tailored Service Obligations. Consistent with the Commission's intention to ultimately establish tailored service obligations applicable to Viya's CAF frozen support, Viya would expect to negotiate with the Commission appropriate service obligations in connection with its proposed Stage 2 fixed funding allocation. Viya proposes that the CAF Phase II service obligations applicable to U.S. mainland price-cap ILECs serve as a floor for any such discussions. Viya further commits to meet the service obligations discussed below, which generally align with the Commission's obligations for recipients of CAF Phase II auction-based support while providing for substantially expedited deployment obligations.[70]

Ten-Year Funding Term. Consistent with the Commission's proposal in the *NPRM*, the term of Connect USVI Fund Stage 2 fixed-network support should be ten years.[71] Providing Viya with a ten-year term for Stage 2 fixed funding is also consistent with other Commission decisions to provide ILECs with high-cost support for a ten-year period.[72] The Commission adopted a support term of ten years for carriers receiving support through the Alaska Plan, concurring with the plan proponents that a ten-year term of support "will create stability which will assure continued service in remote Alaska and allow deployment to underserved and unserved areas."[73] Similarly, the Commission adopted ten-year terms of support for rate-of-

[70] *See infra* Section II.C.2.

[71] *See NPRM* ¶ 4.

[72] *Id.* ¶ 37 (noting that the Commission has "repeatedly used" a ten-year term of support "in other high-cost programs to ensure those building out had sufficient time to amortize and recover their costs").

[73] *Connect America Fund et al.*, Report & Order and Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10150 ¶ 32 (2016) ("*Alaska R&O*") (internal quotation and citations omitted).

return carriers opting to receive model-based support and for winning bidders in the CAF Phase II auction.[74]

Transition Mechanism. The Commission also should allocate USVI Connect Fund Stage 2 fixed-network support to Viya because it may not be possible to establish a workable transition mechanism that maintains Viya's financial viability in the absence of the CAF frozen support at the level on which Viya currently relies. As the Commission acknowledges in the *NPRM*, the award of support to a carrier other than Viya would require the formulation of some kind of transition mechanism away from Viya's current frozen support.[75] It is not a viable option to expect that the Commission could "as a backstop, … require the incumbent carrier to continue to provide service to any unawarded areas using frozen high-cost support."[76]

If Viya no longer received CAF support at existing levels, it would be necessary to revisit its carrier-of-last resort obligations, as well as the USVI PSC rate regulations under which it operates. In addition to the administrative burden and complexity associated with these steps, addressing transition issues would delay the disbursement of Stage 2 fixed funding. The Commission has never reduced support to an ILEC without a transition mechanism of at least five years, and a longer period is appropriate here due to the substantial remaining amortized costs of Viya's HFC network build-out and its recent restoration and hardening efforts. Such delays would further undermine the achievement of the Commission's goals of rapid restoration and hardening of voice and broadband networks in the USVI.

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[74] *Connect America Fund et al.*, Report and Order et al., 29 FCC Rcd 7051, 7061, ¶ 35 (2014); ; *see also Alaska R&O*, 31 FCC Rcd at 10150 ¶ 32 & n.65.

[75] *NPRM* ¶¶ 41, 59

[76] *Id.* ¶ 59.

C. The Commission Should Ensure That Fixed Stage 2 Connect USVI Support Ensures High-Quality Service to All Residents and Businesses in the USVI

For the reasons discussed above, the Commission should allocate the USVI Connect Fund Stage 2 fixed funding to Viya. If, however, the Commission determines to take any other approach to allocating Stage 2 fixed funding in the USVI, which it should not, the Commission must take very careful steps to ensure that its allocation of Stage 2 fixed funding results in the availability of high-quality, affordable voice and broadband services for all residential and fixed customers in the USVI on a long-term, sustainable basis. To this end, placing appropriate parameters on eligibility for support will ensure that the Commission only disburses support to providers that are capable of quickly and reliably providing robust voice as well as broadband service. In addition, the Commission should impose strict service obligations on all funding recipients to ensure that the Stage 2 fixed-network support achieve maximum universal service benefits in the most cost-effective manner possible.

If the Commission determines to distribute Stage 2 fixed funding to entities other than Viya, the Commission must ensure that the approach it adopts to funding eligibility does not result in USVI residential or business customers going unserved. As discussed above, the small population, challenging geography, and limited revenue opportunities in the USVI suggest that subdividing the Territory among providers would eliminate the limited economies of scale that exist, making service uneconomic to some portions of the Territory. The most likely losers in this scenario are residents and businesses in the more remote and rural areas of the USVI. Even if data were available to rationally allocate the frozen support among different areas in the USVI (which it is not[77]), the amount of frozen support that would be necessary to maintain service in

[77] *See infra* Section II.D.

high-cost, low-revenue areas of the USVI without access to revenue from lower-cost, higher-revenue areas would quickly exceed the Commission's budget for the Connect USVI Fund.

Similarly, the Commission must impose appropriate service obligations on recipients of support, which should parallel the service obligations imposed in the CAF Phase II competitive bidding process, but include much quicker deployment obligations. These service obligations are necessary to ensure that the support best accomplishes its intended universal service purpose in the most cost-effective manner. Viya is prepared to commit to comply with the Stage 2 fixed funding service obligations proposed in the *NPRM* as further modified and strengthened in the manner discussed below. But if the Commission makes USVI Connect Stage 2 fixed funding available to other providers, each recipient must be required to comply with all of these obligations.

1. Eligibility for Stage 2 Fixed Funding Should Be Limited to Facilities-Based Providers of Voice and Broadband Services to USVI Residential and Business Locations Prior to the Hurricanes

The Commission should limit Stage 2 fixed network funding in the USVI to providers that, prior to the hurricanes and according to June 2017 Form 477 data (filed on September 1, 2017), (1) operated a facilities-based fixed network that (2) provided voice and broadband service[78] (3) to both residential and business customers.[79] Providers that satisfy these three

[78] For the reasons discussed herein, the Commission should not adopt its proposal in the *NPRM* to require providers only to have operated fixed broadband networks prior to the hurricanes to qualify for Stage 2 fixed funding. *NPRM* ¶ 42.

[79] The Commission states in the *NPRM* that Viya is the only provider that operated a fixed network in the USVI prior to the hurricanes. *See id.* ¶ 37 ("Viya is currently the only fixed provider in the U.S. Virgin Islands."); *id.* ¶ 73 ("We seek comment on whether to use an auction process to distribute funds in Puerto Rico, but not in the U.S. Virgin Islands, given that FCC Form 477 data shows that Viya is currently the only fixed provider there."). However, the most recent publicly available list of FCC Form 477 filers for the USVI shows that there were other fixed providers also serving the USVI as of December 31, 2016. *See supra* note 59 and accompanying text; *see also* Letter from Michael Melusky, CTO and Founder, Broadband VI,

eligibility criteria are best suited to meet the Commission's objectives for Stage 2 funding of cost-effectively and quickly completing the restoration of their networks, timely hardening their networks against future natural disasters, and ensuring that even remote and rural locations in the USVI are served sustainably over the long term.[80]

As an initial matter, the Commission is correct that "existing providers with established track records" are better "equipped to rebuild and expand service as quickly as possible" and "present a smaller risk of defaulting on their service obligations."[81] A provider that previously had not constructed or operated a fixed network providing voice and broadband service to residential and business customers simply cannot initiate service as quickly or as cost-effectively as a pre-existing provider. Similarly, small providers that served only a modest portion of the USVI prior to the storms also present greater risks of default. Pre-hurricane providers with a Territory-wide footprint before the hurricanes generally have access to the rights-of-way needed to deploy communications infrastructure, as well as the commercial experience and customer

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LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No 10-90 (filed June 27, 2018) (stating that Broadband VI provided fixed broadband (but only broadband) service in the USVI as of June 30, 2017). Nevertheless, there is no indication that any entity other than Viya provided fixed voice and broadband services prior to the hurricanes, consistent with the Commission's statements.

[80] *NPRM* ¶ 30 (Stage 2 funding is intended "to ensure that carriers have sufficient funds to rebuild and improve the voice and broadband-capable networks, both where the hurricanes destroyed existing infrastructure and in rural areas that have not yet been served"); *id.* ¶ 33 (Stage 2 funding is intended to "ensure that service is rebuilt quickly and efficiently, while improving networks where feasible and protecting critical communications networks against future natural disasters"); *id.* ¶ 34 (Stage 2 funding will "ensure that networks are rebuilt, improved, and expanded across the territories in an efficient manner"); *id.* ¶ 38 (the Commission aims to "provid[e] support quickly and efficiently to speed the rebuilding, improvements, and expansion of service").

[81] *Id.* ¶ 42.

relationships that enable the quick and cost-effective expansion of service.[82] By contrast, a provider without adequate current governmental approvals would likely face extended administrative delays in obtaining necessary permissions from the Territory's overburdened local governments. In addition, a new provider or a provider that previously only served a portion of the Territory will encounter substantial delays expanding its network, as well as identifying and enrolling new customers and locations.

Further, limiting eligibility to providers that offered voice service (in addition to broadband) is consistent with the statutory mandate that universal service support recipients "offer the services that are supported by Federal universal service mechanisms,"[83] which include voice telephony.[84] Given the Commission's Stage 2 fixed funding objective to utilize universal service funds to support the rebuilding and hardening of fixed networks that served the USVI prior to the hurricanes, the operators of those networks should be required to have been eligible for universal support on a pre-hurricane basis, which requires the pre-hurricane provision of voice service.[85] By contrast, it would not be an efficient or effective use of universal service

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[82] As a long-time service provider in the USVI, Viya already holds authorizations to access rights-of-way, as well as required permissions to rebuild and expand its network throughout the islands. In addition, Viya has decades of commercial experience operating in the USVI and preexisting customer relationships with most USVI residents and businesses.

[83] *Id.* ("A common carrier designated as an eligible telecommunications carrier … shall be eligible to receive universal service support in accordance with Section 254 of this title and shall, throughout the service area for which the designation is received …offer the services that are supported by Federal universal service support mechanisms under Section 254(c) of this title, either using its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier)"); *id.* § 254 (establishing the universal service framework).

[84] 47 C.F.R. § 54.101(b) ("An eligible telecommunications carrier eligible to receive high-cost support must offer voice telephony service….").

[85] Similarly, new entrants cannot, and should not, be eligible for universal service funding targeting the rebuilding and hardening of pre-hurricane networks. *See NPRM* ¶ 42 ("[W]e seek comment on whether new entrants should also be eligible.").

support to allocate it to networks that were not providing qualifying service prior to the storms. Indeed, the Commission limited eligibility for Stage 1 funding, which is intended to offset the immediate costs of restoring and hardening networks, in exactly this manner—requiring the provision of voice and broadband service prior to the storms.[86] Similarly, the facilities qualification is required by the statutory mandate that universal service support recipients provide service using their own facilities.[87]

Moreover, the Commission should not assume that a provider of broadband-only service will be able to quickly and seamlessly provide high-quality voice service (most likely VoIP) over a previously broadband-only network. In addition to the technical challenge of deploying appropriate VoIP gateways and related infrastructure, as well as customer premises equipment supporting voice services, such providers also will face the administrative tasks of securing numbering resources, obtaining interconnection to the Public Switched Telephone Network, establishing 911 services, and establishing technical and logistical capabilities to comply with the numerous regulatory requirements applicable to VoIP services, including CALEA and CPNI requirements. Further, providers that offered only broadband networks prior to the storms may not be able to economically serve customers that desire only to purchase voice services. To provide voice-only services to such customers, these providers will be required to incur the cost of connecting such customers to the providers' broadband networks, even though the providers only receive a voice revenue stream from such customers.[88]

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[86] *Order* ¶¶ 15-16 (requiring providers to have provided both voice <u>and</u> broadband service prior to the storms to qualify for Stage 1 funding).

[87] 47 U.S.C. § 214(e)(1)(A).

[88] In fact, it has been Viya's experience that many USVI residents that subscribe to fixed voice service do not also subscribe to fixed broadband service, but instead rely only on mobile broadband service. For example, as set forth in Viya's Stage 1 subscriber line count filing, Viya provided voice service in June 2017 to 50 percent more customers than it provided broadband

Similarly, the Commission also should limit Stage 2 fixed funding eligibility to providers that served both residential and business locations prior to the storms. It is likely to be challenging for a provider that only provided services to businesses prior to the hurricanes to expeditiously introduce a new residential offering.[89] Providing voice and broadband services to residential customers presents unique challenges that are not applicable to business customers. The burden of providing customer care in the residential market is substantially greater than in the enterprise market, which may, among other things, require providers to undertake the time consuming and resource-intensive task of establishing new call centers. Moreover, in the USVI, the challenges of the topography and terrain make it significantly more difficult to reach residential locations, which are more widely dispersed and more likely to be located in rural areas. By contrast, most business customers tend to be clustered in more densely populated areas near pre-existing infrastructure.

2. The Service Obligations for Recipients of Stage 2 Fixed Network Connect USVI Fund Support Must Ensure High-Quality, Sustainable Voice and Broadband Service Territory-Wide

Irrespective of how the Commission defines eligibility for Stage 2 fixed support and what allocation process the Commission adopts, the Commission should establish service obligations applicable to all recipients that incorporate all preconditions for receipt of universal service support generally and that are generally consistent with the obligations that the Commission has adopted in connection with the CAF Phase II auction. Specifically, the Commission should

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service. *See* Letter from Douglas J. Minster, Vice President of Government and Regulatory Affairs, ATN, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 (filed June 27, 2018) (providing subscriber line count data for Viya and Viya Wireless for purposes of securing Stage 1 funding).

[89] Based on its knowledge of the USVI market, Viya believes that it is likely that certain USVI providers operating fixed networks prior to the storm offered service only to business customers and did not serve residential locations. It is not clear that the reverse is true of any provider.

require support recipients to provide (1) facilities-based voice and broadband service (2) to residential and business customers (3) throughout the entire Territory (4) at rates that are reasonably comparable to rates charged in urban areas. Recipients also should be required to (5) obtain high-cost ETC status prior to the award of funding, and (6) the broadband service that recipients offer should be required to meet or exceed the obligations applicable to recipients of CAF Phase II auction support. Viya is prepared to comply with all of these service obligations.

Facilities-Based Voice and Broadband Service. As set forth above, the provision of both voice *and* broadband service is a threshold statutory obligation for high-cost universal service recipients. Such recipients are required to "offer the services that are supported by Federal universal service mechanisms,"[90] which include both voice telephony and broadband.[91] When the Commission determined that broadband Internet access is an information service, it explained that "[w]hat services a particular customer subscribes to is irrelevant as long as high-cost support is used to build and maintain a network that provides *both voice and broadband Internet access service*."[92] Thus, recipients of Connect USVI funding must provide both voice *and* broadband services and must offer voice service on a standalone basis.[93] Moreover, support

[90] *See supra* note 83.

[91] 47 C.F.R. § 54.101(b) ("An eligible telecommunications carrier eligible to receive high-cost support must offer voice telephony service….").

[92] *Restoring Internet Freedom*, Declaratory Ruling, Report and Order, and Order, 33 FCC Rcd 311, 426 ¶ 192 (2017) (emphasis added).

[93] *Connect America Fund et al.*, Order on Reconsideration, 33 FCC Rcd 1380, 1387-88 ¶ 20 (2018) (rejecting arguments contending that "because VoIP is provided over broadband networks and over-the-top voice options are available, broadband service providers need only offer broadband as a standalone service," and requiring carriers to offer voice on a standalone basis).

recipients are required by statute to provide the supported services (voice and broadband) at least in part using their own facilities.[94]

Residential and Business Customers. In order to achieve the Commission's goal of "ensur[ing] that people living in the territories have access to reasonably comparable, affordable fixed voice services and broadband-capable networks,"[95] the Commission must require that recipients of fixed-network Stage 2 support provide service to all customers, including both residential and business customers. Clearly articulating this requirement is important because, as noted with respect to eligibility, providing voice and broadband services to residential customers presents unique challenges that are not presented in serving business or enterprise customers. The burden of customer care alone in the residential market is significantly greater than in the enterprise market. In addition, compared to business customers, which tend to be clustered in denser areas near pre-existing infrastructure, residential locations are more widely dispersed and located in harder-to-serve areas, including throughout the USVI's mountainous regions. Thus, it is important for support recipients to understand that receipt of support will be conditioned on an obligation to undertake the task of providing service to residential and business customers alike.

Minimum Geographic Area and Locations. The Commission should require any entity wishing to receive fixed-network support through the Connect USVI Fund to serve the entire

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[94] 47 U.S.C. § 214(e)(1)(A). *See also Connect America Fund*, Report and Order, 28 FCC Rcd 7211, 7224 n.21 (WCB 2013) (explaining that a broadband provider would be considered to be providing voice service if it did so through an affiliated competitive local exchange company or through "a managed voice solution obtained from a third party vendor …, so long as the broadband provider is the entity responsible for dealing with any customer problems, and it provides quality of service guarantees to end user customers").

[95] *NPRM* ¶ 38.

Territory.[96] It would be fundamentally inconsistent with the Commission's universal service objectives to permit funding recipients to target the higher-revenue, more densely populated areas of the Territory to the exclusion of the residents and businesses located in more rural, higher-cost areas. The Commission also should require recipients to meet the Commission's current broadband standard of 25/3 Mbps throughout all or almost all of their service areas.

The USVI's highly variable population density makes it a prime target for cream skimming. Population density in the USVI ranges from 5,974 people per square mile in Charlotte Amalie on St. Thomas to only 53 people per square mile on St. John.[97] In addition, nearly one-third of USVI's 107,000 residents[98] live in the subdistricts of Sion Farm on St. Croix and Charlotte Amalie on St. Thomas. If funding recipients are permitted to cream skim the more densely populated areas of the Territory to benefit from the lower costs and higher profitability of serving these areas, residents and businesses in more rural, higher-cost, and less profitable areas in the Territory will be inadequately served. For this reason, permitting providers to submit bids or proposals for areas smaller than the entire USVI would undermine the very objectives of the universal service program. By requiring the minimum service area to include all of the USVI, the Commission can prevent this result and enable efficiencies of scale that will ensure that sparsely populated areas also receive the benefits of vital funding.

The geography of the USVI also makes it important for the required service area to extend Territory-wide. The USVI comprises three relatively small islands, which are composed

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[96] The Connect USVI Fund rules should require—and at minimum must permit—any prospective funding recipients to submit proposals or package bids that encompass all of the USVI.

[97] U.S. Census Bureau, United States Virgin Islands (2010), https://www.census.gov/schools-/pdf/materials/cis_map_58VI.pdf ("Census Map").

[98] CIA VI World Factbook, People and Society - Population (July 2017).

largely of hard-rock, mountainous terrain. This places significant limits on the routes that can be used to deploy fiber to connect the communities in the Territory. Selecting one entity to serve a particular part or parts of one island could make it cost-prohibitive for another entity to construct and operate a fixed network to serve the remaining areas of that island or of the Territory more generally. Thus, it would be more efficient to ensure that the transport networks serving the more urbanized areas of the islands also are used to serve the more rural areas in between.

Defining the service area as the entire USVI also is necessary because of the lack of available data on customer locations for smaller geographic areas. The *NPRM* seeks comment on how to identify the number of locations within each geographic area, and proposes to use the Connect American Cost Model ("CAM") for this purpose.[99] The *NPRM* acknowledges that the CAM location data may no longer be accurate because of migration away from the Territories following the storms,[100] which certainly has occurred. This alone would be a good reason not to use CAM location data. But the problems with using CAM location data in the USVI are even more fundamental. Most residential locations in the USVI do not have formal street addresses. Indeed, one of the most significant challenges that Viya has faced in its restoration efforts is the difficulty in locating customer locations and connecting them with specific accounts. Recognizing that using CAM data would be problematic, the *NPRM* proposes to require service to all locations within a Puerto Rican municipio "without determining exactly how many locations that represents."[101] The NPRM does not propose a comparable alternative for the USVI, but Territory-wide service is the most appropriate alternative. Given the lack of available

[99] *NPRM* ¶ 49.

[100] *Id.*

[101] *Id.* ¶ 50.

data on customer locations in the USVI, the only viable option is to require a Stage 2 support recipient to provide service throughout the entire Territory.

Rates Reasonably Comparable to Rates Charged in Urban Areas. Consistent with statutory requirements and the Commission's rules, the Commission should make clear that Connect USVI support recipients must provide both voice and broadband services at rates that are reasonably comparable to those charged in urban areas.[102] As provided in the Commission's rules, support recipients should be permitted to satisfy this requirement by showing that their rates are below the urban benchmark rates announced by the Wireline Competition Bureau.[103] The Commission should therefore make clear that Connect USVI funding recipients' voice and broadband services are subject to these rate limitations.

ETC Status. By statute, only ETCs are eligible to receive universal service funding.[104] Consequently, the Commission is prohibited by law from disbursing Connect USVI Fund support to recipients that are not high-cost ETCs. This requirement also will ensure that funding recipients are subject to appropriate accountability for their use of the funds.[105] Thus, Connect USVI support recipients must be ETCs in order to receive support.

Although the FCC proposes to permit applicants for Connect USVI Fund support to obtain high-cost ETC status after applying for the support but prior to the disbursement of funds,[106] Viya proposes that the Commission instead require applicants to obtain high-cost ETC status before filing an application. Depending on the application/award process adopted by the

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[102] 47 U.S.C. § 254(b)(3); 47 C.F.R. § 54.309(a).

[103] 47 U.S.C. § 254(b)(3); 47 C.F.R. § 54.309(a).

[104] 47 U.S.C. § 254(e).

[105] *See, e.g.*, 47 C.F.R. § 54.313.

[106] *See NPRM* ¶ 44.

Commission, it is possible that the amount of funding awarded to any one applicant could be dependent, in part, on the amount of funding awarded to other applicants. If so, then one applicant's funding amount could be adversely affected by another applicant's failure to successfully follow through on its commitment in its application to obtain ETC status. This can be avoided by requiring each applicant to obtain ETC status before any Connect USVI Funds are committed to an applicant.

CAF Phase II Service Obligations. To ensure that the Connect USVI fund supports services that are up to current standards, Viya urges the Commission to require Stage 2 support recipients to meet voice and broadband service standards in line with the requirements for recipients of CAF Phase II auction-based support. Specifically, fixed recipients of Connect USVI support should be required to provide broadband service at 25/3 Mbps, rather than 10/1 Mbps.[107] Connect USVI funding should not enable providers to relegate USVI residents to lower quality fixed services than Americans can expect to receive on the mainland.[108] In the *CAF Phase II Auction Order*, the Commission defined 25/3 Mbps service as the "baseline" level of service for support recipients.[109] In setting this standard, the Commission observed that the "Commission has already decided that 10/1 Mbps should not be our end goal for support recipients over a 10-

[107] *See NPRM* ¶¶ 60-61 (proposing a 10/1 requirement but seeking comment on requiring 25/3); *see also Connect America Fund*, Report and Order and Further Notice of Proposed Rule Making, 31 FCC Rcd 5949, 5950 ¶ 2 (2016) ("*CAF Phase II Auction Order*").

[108] *See, e.g.*, 47 U.S.C. § 254(b)(3) (requiring that universal service programs ensure that consumers in all regions of the nation, including insular areas, have access to telecommunications and information services that are reasonably comparable to those available in urban areas).

[109] *Id.* at 5956-57 ¶¶ 14-15 (establishing 25/3 as the "baseline" performance level); *see also id.* at 5958 ¶¶ 19-21 (allowing a "minimum" performance level of 10/1 to accommodate certain areas where 25/3 service may not be feasible but noting that "the most recent data indicate that a majority of Americans subscribe to speeds today that are higher than 10/1 Mbps").

year term…."[110] The Commission also noted that "the most recent data indicate that a majority of Americans subscribe to speeds today that are higher than 10/1 Mbps."[111] The Commission further uses 25/3 Mbps service as its threshold in its annual report to Congress on broadband deployment.[112]

With regard to usage and latency requirements, the Commission should adopt its proposal to require at least 170 GB per month or the nationwide average, and latency no greater than 100 milliseconds.[113] These requirements align with CAF Phase II auction requirements and with contemporary network standards.[114]

Given the unique circumstances of the Connect USVI program, the Commission also should require Stage 2 recipients to meet deployment milestones that are more aggressive than the CAF Phase II auction deployment obligations.[115] Specifically, Viya proposes that the Commission require recipients of Stage 2 Connect USVI support for fixed networks to complete deployment to 90 percent of the service territory by the end of the first year after support distributions begin, and to 99.5 percent of the service territory by the end of the fifth year of support. Although the CAF Phase II auction is designed primarily to incent deployment in currently unserved areas, the Connect USVI Fund is intended to support the restoration, hardening, and ongoing operation of networks in the USVI, where fixed voice and broadband service were nearly ubiquitous before the storms. Moreover, restoration efforts have been

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[110] *CAF Phase II Auction Order*, 31 FCC Rcd at 5956 ¶ 14.

[111] *Id.* at 5958 ¶¶ 19-21.

[112] *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2018 Broadband Deployment Report, 33 FCC Rcd 1660, 1663 ¶ 15 (2018).

[113] *Id.*

[114] *See CAF Phase II Auction Order*, 31 FCC Rcd at 5957 ¶ 16.

[115] *See NPRM* ¶ 63.

underway for ten months now. Although funding remains urgently needed to support those restoration efforts, there is no reason to require USVI customers to wait many years to receive high-quality voice and broadband services.

In addition, consistent with requirements for other recipients of CAF support, the Commission should require Connect USVI Fund Stage 2 fixed support recipients to obtain a letter of credit to secure their compliance with the program's service obligations.[116] Specifically, as with the CAF Phase II auction requirement, the value of the letter of credit should equal at least the aggregate of (i) the cumulative amount of support that previously has been disbursed plus (ii) the amount that will be disbursed in the coming year, subject to reductions once the recipient has substantially and successfully completed applicable build-out milestones.[117]

Viya also supports the Commission's proposal in the *NPRM* to require Connect USVI Stage 2 support recipients to comply with oversight and accountability measures comparable to those applicable in CAF Phase II, including standard reporting and certification requirements, annual reporting of geocoded locations in the HUBB portal, compliance measures including reductions in support for failure to meet support requirements, and ongoing oversight by the Commission and Universal Service Administrative Company.[118] These requirements will ensure that recipients of Connect USVI Stage 2 support are required to meet accountability measures in line with other comparable high-cost support programs.

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[116] *See NPRM* at ¶ 69.

[117] *See* 47 C.F.R. § 54.315(c). Stage 2 fixed funding recipients' letters of credit should be required to be issued by an acceptable bank per the CAF Phase II rules. *Id.*

[118] *NPRM* ¶¶ 64-70.

D. Other USVI Connect Fund Stage 2 Fixed Funding Allocation Processes Proposed in the NPRM Are Not Likely to be Viable in the USVI

It is not clear that any of the USVI Connect Fund Stage 2 fixed-network support allocation processes discussed in the *NPRM* would be viable if the Commission determines not to solely allocate the support to Viya. A negotiated approach, however, appears to have the greatest likelihood of minimizing complexity and potential harm. A competitive proposals approach presents even greater concerns, and it would delay much-needed support. An auction approach would be unsuited to the small USVI market and also would delay Stage 2 fixed funding beyond any useful timeline. But no matter what allocation process the Commission ultimately adopts, the Commission should apply the eligibility criteria and service obligations discussed above. These criteria will ensure that funds are disbursed only to carriers that are capable of satisfying the Connect USVI Fund's universal service objectives, and that Stage 2 fixed funding only is provided to recipients that can achieve the Commissions goals of serving all residents and businesses in the USVI.

Negotiated Arrangements. If the Commission does not award the Connect USVI Stage 2 fixed funding to Viya consistent with precedent, the Commission should enter into a negotiated arrangement (or arrangements) with an eligible applicant (or applicants). As an initial matter, unlike in the dramatically larger Puerto Rican market where many entities will be eligible for Stage 2 fixed funding, the USVI's small size and very limited number of potentially eligible applicants supports the use of a negotiated approach over other proposals that assume more competition than the USVI market can support. A negotiated approach will provide the Commission with flexibility to ensure that Stage 2 fixed funding is used in a manner that best serves the residents and businesses of the Territory. It also will enable a much more rapid disbursement of the funding relative to the other approaches proposed by the Commission.

Competitive Proposals. If the Commission entertains competitive proposals to receive Stage 2 Connect USVI support, it would need to take even greater care to avoid harm and delay. In addition to the concerns discussed above, this approach would impose greater burdens on providers, who would need to formulate comprehensive proposals but may not receive support, and on the Commission, which would have to evaluate and select proposals. If the Commission selects a competitive proposal approach, it should allocate sufficient resources to the process to ensure that Stage 2 support is not unduly delayed.

Auction. A competitive auction approach is particularly unsuited to the USVI because the small size of the market and the small number of potential eligible providers minimizes the potential benefits of a competitive process. This approach also maximizes the danger of cream-skimming, discussed above. In addition, an auction process could take years to complete and is likely to require substantial Commission resources to administer. First, the fairly technical rules proposed in the *NPRM* to govern this approach to fixed funding allocations seem inappropriate for the USVI market, where an accurate count of locations is difficult. For example, there is insufficient information about the Territory to adequately establish reserve prices.[119] The *NPRM* proposes to use the CAM support calculations to calculate reserve prices, but the Commission previously determined that critiques of the accuracy of CAM cost estimates in the USVI and Puerto Rico were credible.[120] If the CAM's estimates were inaccurate in 2014, they are even less accurate now.

Perhaps most importantly, however, an auction-based approach would delay support to an unreasonable degree. The Commission's resources for conducting auctions are limited and

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[119] *See NPRM* ¶¶ 52-53.

[120] *See, e.g.*, *Connect America Fund, et al.*, Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking, 29 FCC Rcd 7051, 7118 ¶ 201 (2014).

already stretched thin. The Commission is about to begin the CAF Phase II auction; it has indicated that it will conduct additional spectrum auctions in the near term; and it has committed to conducting the Mobility Fund Phase II ("MF-II") auction as well. Given the relatively limited utility of a competitive process in the small USVI market, it makes little sense to contemplate using scarce Commission auction resources to allocate Stage 2 Connect USVI support.

III. CONNECT USVI FUND STAGE 2 SUPPORT FOR MOBILE NETWORKS

To ensure that wireless support provided to the USVI's mobile carriers is adequate to address their needs, and to account for the historical underfunding of wireless universal service in the USVI, the Commission should consider increasing the proportion of Stage 2 mobile funding proposed to be allocated to the USVI in the *NPRM*. The Commission also should impose appropriate eligibility, coverage, and service quality requirements on Stage 2 mobile funding recipients to maximize the public interest benefits derived from the funding. Further, the Commission should consider allocating Stage 2 mobile funding within each of the Territories based on the pre-hurricane coverage areas of eligible carriers' mobile networks, rather than on subscriber counts.

A. STAGE 2 MOBILE FUNDING SHOULD BE ALLOCATED BETWEEN THE TERRITORIES BASED ON POPULATION

Hurricanes Irma and Maria demonstrated the importance of mobile connectivity to the rapid restoration of communications services following a disaster. The Territories' mobile networks were the first to resume operations, and they provided crucial initial connectivity to residents, businesses, Territorial governments, and first responders after the storms. Despite the vital role that wireless networks served in reconnecting both of the hurricane-prone Territories, there has been a substantial historical disparity in wireless funding between Puerto Rico and the USVI. Prior to the storms, wireless carriers in Puerto Rico received approximately $79.2 million per year in high-cost USF support, while wireless carriers in the USVI received only $67,000 per year—less than one tenth of one percent of the amount distributed in Puerto Rico. The Commission should use this opportunity to at least partially rectify this longstanding disparity.

The Commission proposes in the *NPRM* to make available a total of $259 million in Stage 2 mobile support for wireless networks in the USVI and Puerto Rico, including $21 million in new mobile funding that would be allocated 80 percent to Puerto Rico and 20 percent to the USVI. Because the Commission proposed to replace MF-II funding in the Territories with Stage 2 mobile funding, [121] which will prevent market forces from allocating support between the Territories more efficiently, the allocation decision that the Commission makes in this proceeding is exceedingly important. The Stage 2 mobile funding to be distributed over the next three years will be the only opportunity to ensure that wireless customers in the USVI have access to mobile voice and broadband services that are reasonably comparable to those in urban areas of the U.S. mainland. In addition, this funding is vital both to complete the restoration of wireless telecommunications networks in the USVI and for the hardening of mobile networks against damage cause by the annual hurricane seasons in future years.

Accordingly, the Commission should allocate the $259 million in mobile support according to the respective populations of Puerto Rico and the USVI, without regard to the largely arbitrary legacy allocation of MF-II support between the Territories. This approach, which would increase the USVI's total Stage 2 mobile support from $4.4 million to roughly $8

[121] *Order* ¶¶ 81-82.

million,[122] is more equitable than the arbitrary 80 percent/20 percent split of the $21 million in new mobile funding proposed in the *NPRM*.

B. The Commission Should Adopt its Proposed Stage 2 Mobile Funding Eligibility Requirements

The Commission should adopt its proposal to direct Stage 2 mobile funding only to ETCs that already were providing mobile services in the USVI prior to the storms.[123] As with Stage 2 fixed funding, this requirement will ensure that only providers that are able to quickly restore and expand service will receive funding. The Commission also should adopt its proposed ETC eligibility requirement, which is required by statute.[124] This eligibility requirement will ensure that funding recipients are subject to appropriate accountability for their use of the funds.[125]

C. The Commission Should Apply a Modified Version of MF-II Coverage and Service Quality Requirements to Stage 2 Mobile Funding Recipients

Stage 2 mobile support recipients should be required to meet meaningful coverage and service quality requirements. The Commission's universal service goals would be undermined if funding flowed to providers who use the funds to shore up aging legacy networks that are not capable of providing modern mobile broadband speeds or limited regional networks that serve only a small portion of a Territory. To ensure that USVI residents have access to mobile services that are reasonably comparable to those available to mainland Americans, the Commission should require funding recipients to commit to deployment obligations consistent with those

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[122] With the USVI's population of 107,000 and Puerto Rico's population of 3,351,827, the USVI represents approximately 3.1 percent of the total population of 3,458,827. Applying 3.1 percent to $259 million yields $8,012,254 in support for the USVI.

[123] *NPRM* ¶ 84.

[124] 47 U.S.C. § 254(e). As with Stage 2 fixed funding, the Commission should require Stage 2 mobile applicants to obtain high-cost ETC status before filing an application. *See supra* pages 35-36.

[125] *See, e.g.*, 47 C.F.R. § 54.313.

adopted for MF-II funding recipient, but modified to reflect the shortened three-year support period proposed in the *NPRM*. These include 90 percent performance at 4G LTE speeds of 10 Mbps download and 1 Mbps upload and latency at or below 100 milliseconds.[126]

D. USVI CONNECT FUND STAGE 2 MOBILE SUPPORT SHOULD BE ALLOCATED BASED ON THE COVERAGE AREAS OF ELIGIBLE APPLICANTS' PRE-HURRICANE MOBILE NETWORKS

Finally, the Commission should distribute the Stage 2 mobile support allocated to each of the Territories, respectively, among eligible recipients based on the relative geographic coverage of each such provider's pre-hurricane mobile network. As with the allocation of mobile support between the USVI and Puerto Rico, the allocation of support among eligible carriers within each of the Territories is of heightened importance because the Commission has removed the Territories from the competition-based, efficient balancing forces of MF-II. To ensure its efficient allocation, Stage 2 mobile funding should be awarded pro rata to each eligible mobile carrier based on the relative number of square miles that the carrier served prior to the hurricanes, as shown in the June 2017 Form 477 shapefiles filed by the carriers. Using square miles of coverage as a metric more closely aligns with the Commission's MF-II approach.[127] It also better approximates the cost of restoring and hardening a mobile network than would subscriber counts.

[126] *See id.* § 54.1015. Given the shortened support period, however, the deployment obligations will need to be adjusted.

[127] *Universal Service Reform – Mobility Fund, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 2152, 2168-69 ¶ 41 (2017).

IV. DISASTER RESPONSE MEASURES

A. DIRS REPORTING, RESILIENCY STANDARDS, AND BACKUP POWER ISSUES ARE CRITICAL CONCERNS THAT ARE BETTER CONSIDERED IN RULEMAKINGS OF GENERAL APPLICABILITY

If the Commission wishes to consider modifications to its rules regarding the Disaster Information Reporting System ("DIRS"), resiliency standards, and backup power sources, such new requirements should be developed via rulemakings of general applicability, rather than applied solely to the USVI and Puerto Rico in this rulemaking. As Commissioner O'Rielly observed: "[Puerto Rico and USVI] are not the only places in the country that experience natural disasters. … [I]t begs the question why the Commission isn't conducting a rulemaking of general applicability, rather than imposing obligations piecemeal on providers who may have no choice but to accept them."[128] Viya agrees that these are important issues that warrant additional attention from the Commission. However, because the nation as a whole would benefit from improved reporting and greater resiliency requirements, all carriers and the general public nationwide should be provided with an opportunity to participate in developing such rules.

Indeed, the Commission already has begun in other proceedings to analyze disaster response issues in light of the lessons learned from the 2017 hurricane season, in many cases building on work that had been done before.[129] These issues are most appropriately addressed in

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[128] *NPRM*, Statement of Commissioner Michael O'Rielly at 1-2.

[129] *See, e.g.*, *Public Safety and Homeland Security Bureau Seeks Comment on the Effectiveness of the Wireless Network Resiliency Cooperative Framework and for the Study on Public Access to 911 Services During Emergencies*, Public Notice, DA 18-614, PS Docket No. 1160 (PSHSB rel. June 13, 2018) ("Framework") (requesting comment on the overall efficacy of the Wireless Network Resiliency Cooperative Framework); *Public Safety and Homeland Security Bureau Announces Agenda for Workshop to Identify Critical Information Needs to Improve Communications During Disasters*, Public Notice, DA 18-357 (PSHSB rel. Apr. 10, 2018); *Public Safety and Homeland Security Bureau Announces Workshop to Identify Critical Information Needs to Improve Communications During Disasters*, Public Notice, DA 18-292 (PSHSB rel. Mar. 23, 2018); *Public Safety and Homeland Security Bureau Encourages*

this broader context. In addition, it would be inappropriate to prejudge in this geographically circumscribed docket the important issues under consideration in those broader proceedings. Moreover, these very fact-specific issues require a significant amount of vetting to ensure that any new obligations that are adopted are not cost-prohibitive and do not threaten the financial viability of providers in the Territories, which are less economically affluent than the U.S. mainland. Thorough consideration of these issues is likely to take some time and therefore could undermine the need for the Commission to act with due diligence in the *NPRM* proceeding given that the 2018 hurricane season already has commenced.

DIRS. The Commission already is addressing DIRS in a pending proceeding.[130] As Viya has discussed in that proceeding, flexibility and voluntary participation are key to ensuring the success of DIRS, which is, in part, premised on reducing the reporting burdens on carriers in the midst of emergency disaster recovery.[131] Viya thus agrees with Commissioner O'Rielly that

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Voluntary Adoption of Network Reliability Best Practices by Small and Rural Service Providers, Public Notice, 32 FCC Rcd 7631 (PSHSB 2017) (disseminating best practices for, *inter alia*, disaster mitigation and recovery by small and rural providers); *Public Safety and Homeland Security Bureau Seeks Comment on Response Efforts Undertaken During 2017 Hurricane Season*, Public Notice, 32 FCC Rcd 10245 (PSHSB 2017) ("*Hurricane PN*") (seeking comment on a wide variety of issues related to disaster preparedness and recovery); *Improving the Resiliency of Mobile Wireless Communications Networks, et al.*, Order, 31 FCC Rcd 13745 (2016) (considering but declining to adopt formal mobile network resiliency requirements due to adoption of Framework adopted by wireless industry participants); *Amendments to Part 4 of the Commission's Rules Concerning Disruption to Communications, et al.*, Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, 31 FCC Rcd 5817 (2016) (addressing various issues related to network outage reporting); *Ensuring Continuity of 911 Communications*, Report and Order, 30 FCC Rcd 8677 (2015) (imposing consumer backup power availability standards on non-line powered facilities-based fixed, voice residential services). *See also* FCC, Communications Security, Reliability and Interoperability Council, https://www.fcc.gov/about-fcc/advisory-committees/communications-security-reliability-and-interoperability-council-0 (last visited July 25, 2018).

[130] *See Hurricane PN*, 32 FCC Rcd 10245 (requesting comments regarding, *inter alia*, the effectiveness of the DIRS).

[131] Comments of Viya, PS Docket No. 17-344, at 18-21 (filed Jan. 22, 2018); Reply Comments of Viya, PS Docket No. 17-344, at 7-9 (filed Feb. 21, 2018).

stakeholders should be "troubled by a proposal … to *require* recipients of this particular funding to participate in the Commission's *voluntary* Disaster Information Reporting System."[132] During a carrier's initial recovery efforts following a disaster, compliance with existing DIRS requirements and expectations requires the diversion of scarce resources from the critical mission of service restoration. This untimely administrative burden is especially challenging for smaller providers such as Viya. For this reason, Viya lauds the Commission for the flexibility it has provided to date regarding the type of data accepted for DIRS and the procedures for submitting the data.[133] For example, following Hurricanes Irma and Maria, the Commission was willing to receive information by phone and generally accepted the status information that was then available to carriers based on their operational evaluations at that stage of emergency restoration.

Network Hardening. Whether specific network hardening standards should be adopted is not an issue that is in any way specific to the Territories. Many parts of the country outside of these island Territories experience hurricanes on a frequent basis, including Florida, the Gulf Coast, and the Mid-Atlantic region. Storm hardening also is relevant in tornado-prone areas in the South and Midwest. Further, communications networks are regularly damaged by other types of natural disasters, including earthquakes, floods, and wildfires. For these reasons, any hardening standards should be developed with input from stakeholders that serve or reside in areas prone to telecommunications infrastructure damage caused by natural disasters, and any requirements ultimately adopted by the Commission should apply uniformly throughout such areas, rather than solely targeting the Territories.

[132] *NPRM*, Statement of Commissioner Michael O'Rielly at 1 (emphasis added).

[133] To the extent that any stakeholder proposes an expansion of what is expected of carriers in connection with DIRS, Viya urges the Commission to proceed with great caution and to consider whether the proposed change is consistent with the original purpose of DIRS.

Irrespective of the proceeding in which they are considered, certain hardening standards addressed in the *NPRM* are unsuitable for adoption in the USVI absent further clarification or modification. TIA-222-H, for example, is a hardening standard applicable to antenna structures.[134] However, like many mobile carriers, Viya primarily leases access to tower structures rather than owning them. As a result, Viya has little or no control over the hardening efforts, or lack thereof, implemented by the companies that own the towers. Further, Viya's cell sites rely increasingly upon structures affixed to buildings, and TIA-222-H does not apply to such structures. In addition, requiring all existing tower structures in the USVI to be upgraded to comply with the TIA-222-H standards would be prohibitively costly to the tower owners, which would, in turn, need to pass these costs through to the Territories' carriers. Residents of the USVI simply do not have the financial affluence to absorb these substantial costs. In any event, the standards do not appear to be needed in the USVI because a majority of tower structures in the Territory survived the historic destructive forces of the storms even though they were not required to be built to comply with TIA-222-H specifications.

Backup Power. If the Commission desires to consider backup power requirements, it should initiate a separate, nationally applicable rulemaking on this matter, rather than impose specific obligations upon providers in the Territories in this proceeding, which is largely focused on other issues. The selection of the type and amount of backup power that is appropriate for a particular cell site is very situation-specific consideration that often involves a complicated cost-benefit analysis. For example, many of Viya's small cell sites do not allow for sufficient room to

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[134] *See* Press Release, Telecommunications Industry Association, *TIA Announces Publication Of TIA-222-H-Standard For Antennas And The Supporting Structures For Antennas And Small Wind Turbines* (Oct. 26, 2017), https://www.tiaonline.org/press-release/tia-announces-publication-of-tia-222-h-standard-for-antennas-and-the-supporting-structures-for-antennas-and-small-wind-turbines/.

install a solar array for backup power, and wind turbines also raise space, aesthetic, and permitting concerns. In addition, neither solar panels nor wind turbines are resilient to hurricane-force winds. Further, the expense of solar arrays and wind turbines may be prohibitive, especially in less affluent markets such as the Territories. For these reasons, the Commission should not attempt to adopt generic and broadly applicable backup power requirements via this *NPRM* proceeding. Each of these backup power decisions involves consideration of site-specific factors, and Viya believes that more study is required before the Commission attempts to impose a one-size-fits-all regulatory solution.[135]

B. RECIPROCAL COORDINATED ACCESS OBLIGATIONS WILL ENCOURAGE EFFICIENT RESTORATION AND HARDENING

Although most disaster recovery obligations are best addressed in rulemakings of general applicability, the Commission should impose a reciprocal coordination obligation on support recipients in this proceeding to ensure that Connect USVI Fund and Uniendo a Puerto Rico Fund support is used most effectively. Specifically, the FCC should adopt Stage 2 program rules that encourage the development of mutual cooperation among utilities and governmental entities in connection with access to rights-of-way, poles, towers, ducts, conduits, trenches and other similar infrastructure (collectively "Infrastructure").[136] By applying such Infrastructure access requirement in a reciprocal manner, the Commission can effectively leverage its jurisdiction over

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[135] Viya is improving the backup power capabilities of its network by updating and hardening existing power sources and installing additional generators units at more sites. The benefits that Viya expects to generate from these sunk costs could be threatened if the Commission now requires Viya to replace all of this additional, hardened capacity with other types of backup power.

[136] Viya proposes for the reciprocal coordination requirement to apply only to infrastructure that supports and houses telecommunications and other utility facilities and government infrastructure. Viya does not recommend application of the coordination requirement to telecommunications facilities, such as lines, customer drops, switching facilities, or central offices, or to the operational facilities of other utilities and governmental infrastructure providers.

communications companies and their Infrastructure to affect the behavior of non-telecommunications utilities and public infrastructure providers to the benefit of residents of the Territories. Hurricanes Irma and Maria severely damaged transportation systems, government facilities, hospitals, housing and businesses, schools, and communications and electric distribution infrastructure, and, as a result, profoundly disrupted the delivery of food, water, power, and medical care. To help mitigate these challenges, the Commission should require that recipients of Stage 2 funding coordinate and cooperate regarding Infrastructure construction and access issues with other carriers, but also with other local utilities and state and federal agencies (collectively, "requesting parties")—but only on a reciprocal basis.

Specifically, to promote the greatest public interest benefits from coordination and cooperation requirements adopted in this proceeding, the Commission should require Stage 2 funding recipients to provide access to their Infrastructure to other entities *on the condition that* the requesting parties also provide reciprocal access to their Infrastructure to Stage 2 funding recipients. This approach will enable the FCC to leverage its authority over Stage 2 funding recipients to create meaningful public interest benefits that will be derived, in part, from the reciprocal activities of entities outside the Commission's jurisdiction, such as non-telecommunications utilities and governmental public infrastructure providers. Despite the vital role that telecommunications carriers play in disaster recovery, the needs of carriers are routinely subordinated to the needs of other sectors during the restoration process. Such a reciprocal Infrastructure access and sharing requirement could be an effective tool to leverage the buying power of the FCC's hurricane relief funding to help address this recurring issue.

V. CONCLUSION

Viya is grateful that the Commission has responded swiftly to the devastation wrought by Hurricanes Irma and Maria with substantial logistical, legal, and financial resources. Viya welcomes the opportunity to work further with the Commission to develop negotiated solutions that will quickly and cost-effectively restore, harden, and expand vital communications services to the residents of USVI. Moreover, Viya looks forward to collaborating with the FCC in other rulemakings to craft forward-thinking solutions that will improve our nation's disaster response and recovery processes for the benefit of all Americans.

Respectfully submitted,

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