Before the Federal Communications Commission Washington, D.C. 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

REPORT AND ORDER AND ORDER ON RECONSIDERATION

Adopted: September 26, 2019 Released: September 30, 2019

By the Chairman Pai and Commissioners O'Reilly, Carr, and Starks issuing separate statements; Commissioner Rosenworcel concurring and issuing a statement:

TABLE OF CONTENTS

Hea	eading	Paragraph #
I.	INTRODUCTION	1
II.	BACKGROUND	4
III.	REPORT AND ORDER	10
	A. Support for Fixed Providers	10
	1. Competitive Process	11
	2. Budget	67
	3. Oversight, Reporting, and Accountability	72
	4. Elimination of Frozen Support to Fixed Providers	
	5. Other Issues	
	B. Support for Mobile Providers	
	1. Eligibility, Support Allocation, and Election	103
	2. Budget	
	3. Support Term and Eligible Areas	
	4. Public Interest Obligation and Appropriate Use of Support	
	5. Oversight, Reporting, and Accountability	
	C. Additional Requirements for Fixed and Mobile Stage 2 Support Recipients	
IV.	ORDER ON RECONSIDERATION	
	A. WorldNet Petition for Clarification, or in the Alternative, Reconsideration	
	B. Tri-County Telephone Association Petition for Reconsideration	
V.	PROCEDURAL MATTERS	
	ORDERING CLAUSES	
	PPENDIX A - Final Rules	
	PPENDIX B - Disaster Preparation and Response Plan	
	PPENDIX C - Illustrative Form of Letter of Credit	

I. INTRODUCTION

- 1. In the span of a few short weeks in September 2017, Hurricane Irma and then Hurricane Maria caused widespread devastation to Puerto Rico and the U.S. Virgin Islands (together the Territories). The storms produced extensive damage to infrastructure throughout the Territories, damaging or destroying communications networks, and leaving residents without essential lines of communication during and after these dangerous storms. The recovery of communications networks in the Territories has been especially challenging due to their remoteness from the mainland United States and the higher costs of deployment providers face there. The Commission to date has provided carriers with approximately \$130 million in funding from the Universal Service Fund to assist with network restoration, bringing the total high-cost universal service support invested in the Territories since the 2017 hurricanes to more than \$382.4 million.¹
- 2. Most carriers now report that service has been completely or substantially restored. But our work is not done; we know that hurricanes will hit Puerto Rico and the U.S. Virgin Islands again. So, looking to the future, we must improve and expand broadband networks in the Territories. Our long-term goal is to facilitate the deployment of fast, resilient, and reliable networks to all parts of the islands that will stand the test of time and provide digital opportunity to all Americans living in Puerto Rico and the U.S. Virgin Islands.
- 3. We therefore take major steps today to promote the deployment of advanced, hardened networks in the Territories by allocating nearly a billion dollars in federal universal service support in Puerto Rico and the U.S. Virgin Islands. For Stage 2 of the Uniendo a Puerto Rico Fund,² we allocate more than \$500 million over ten years in fixed broadband support and more than \$250 million over three years in mobile broadband support. We likewise allocate more than \$180 million over ten years and \$4 million over three years for Stage 2 Connect USVI Fund fixed and mobile support, respectively. These funds will facilitate the improvement and expansion of existing fixed and mobile networks in the Territories, and provide for the deployment of new broadband networks, so that those living in Puerto Rico and the U.S. Virgin Islands will have access to and benefit from the same high-speed broadband services that residents of the mainland United States enjoy. Indeed, some of the funds that we authorize here are specifically allocated to facilitate the deployment of 5G, the next generation of wireless connectivity, in the Territories. In short, the steps we take today, in addition to the private investment made by providers, will help ensure that broadband is deployed on a reasonable and timely basis to the residents of the Territories and that it remains deployed following future storms.

II. BACKGROUND

4. Hurricanes Irma and Maria caused widespread devastation to Puerto Rico and the U.S. Virgin Islands, destroying thousands of homes and causing near total destruction of critical infrastructure. Maria was the strongest storm to hit Puerto Rico in almost a century,³ and it hit the island as a Category 4 storm with 155-mph winds.⁴ Following shortly after Irma impacted the island, Maria's damage to the communications network on Puerto Rico proved particularly devastating. In the U.S. Virgin Islands, Irma "pummeled" St. John and St. Thomas, two of the three main islands.⁵ Fourteen days later, Maria

¹ This figure includes the disbursement of advance support, Stage 1 support, and high-cost support received by the carriers in the Territories since the 2017 hurricanes.

² This Spanish phrase translates to "Bringing Puerto Rico Together."

³ Gadi Schwartz et al., *All Power Out as Hurricane Maria's Winds, Floods Crush Puerto Rico* (Sept. 21, 2017), https://www.nbcnews.com/news/weather/hurricane-maria-makes-landfall-puerto-rico-category-4-storm-n802911.

⁴ Kevin Loria, *Hurricane Maria Is Thrashing the Caribbean* (Sept. 22, 2017), http://www.businessinsider.com/ hurricane-maria-path-track-update-2017-9.

⁵ Morgan Winsor, *US Virgin Islands in Ruins from Hurricane Maria* (Sept. 29, 2017), http://abcnews.go.com/amp/International/us-virgin-islands-ruins-hurricane-maria/story?id=50178300.

- "decimat[ed]" power and communications infrastructure on St. Croix, the largest of the U.S. Virgin Islands.⁶ The government of Puerto Rico estimates that the two hurricanes caused approximately \$1.5 billion of damage to communications networks.⁷ Total economic damage to the Territories from Maria alone is estimated to be as high as \$90 billion,⁸ and the U.S. Virgin Islands' former Governor Mapp estimated that it would cost over \$7.5 billion to rebuild the islands' infrastructure from the storms.⁹
- The Commission has taken a number of actions to facilitate restoration of communications services in Puerto Rico and the U.S. Virgin Islands following the devastation of the 2017 hurricane season.¹⁰ These actions have included granting requests for special temporary authority, issuing public notices and orders supporting incident response and service recovery, and allowing for flexible use of numbering resources.¹¹ Through the Universal Service Fund (USF or Fund), the Commission also has provided financial and other support to qualifying entities, including issuing orders and waivers of rules related to the various programs and USF contributions obligations.¹² Additionally, in the immediate aftermath of the 2017 hurricanes, the Commission's Public Safety and Homeland Security Bureau (PSHSB) coordinated communications response efforts under the National Response Framework with the Department of Homeland Security, Federal Emergency Management Agency (FEMA), and other federal partners; activated the Disaster Information Reporting System (DIRS) that produced daily governmentonly and public reports on the status of communications; monitored the application of the Wireless Resiliency Cooperative Framework;¹³ and deployed staff to Puerto Rico at the request of FEMA to work with industry and government on the restoration of communications services. ¹⁴ As the federal response transitioned to recovery. PSHSB took a lead role on the Commission's Hurricane Recovery Task Force. and at FEMA's request continues to provide on-the-ground support in Puerto Rico.
- 6. In the immediate aftermath of the storms, through its high-cost USF program, the Commission disbursed one-time payments totaling approximately \$65.8 million to both fixed and mobile carriers serving the Territories, in addition to the \$10.99 million already directed to Puerto Rico and the U.S. Virgin Islands each month for the provision, maintenance, and upgrading of voice and broadband

⁷ Letter from Sandra. E. Torres López, Chairwoman, Puerto Rico Telecommunications Regulatory Board, to Ajit Pai, Chairman, FCC, WC Docket No. 10-90, at 1 (filed Dec. 13, 2017).

⁶ *Id*.

⁸ See Richard J. Pasch et al., National Hurricane Center Tropical Cyclone Report, Hurricane Maria at 7 (Sept. 16-30, 2017), https://www.nhc.noaa.gov/data/tcr/AL152017 Maria.pdf.

⁹ Viya Comments at 6 (citing 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, https://docs.house.gov/meetings/II/II00/20171114/106587/HHRG-115-II00-Wstate-MappK-20171114.pdf).

¹⁰ See Public Safety and Homeland Security Bureau Seeks Comment on Response Efforts Undertaken During 2017 Hurricane Season, PS Docket No. 17-344, Public Notice, 32 FCC Rcd 10245 (PSHSB 2017).

¹¹ See, e.g., Public Safety and Homeland Security Bureau Temporarily Waives Location Accuracy Obligations for 911 Calls for Certain Providers in Areas Affected by Hurricane Maria, Public Notice, 32 FCC Rcd 7493 (PSHSB 2017) (waiving, temporarily, location requirements for providers affected by Maria that use a network-based location solution); Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Extend Filing and Regulatory Deadlines and Streamline Environmental Notification Process for Areas Affected by Hurricane Maria, Public Notice, 32 FCC Rcd 7453 (WTB & PSHSB 2017) (waiving, inter alia, "filings regarding certain minor license modifications, license renewals, and notifications of construction") (footnote omitted); see also Telephone Number Portability, Numbering Resource Optimization, CC Docket No. 95-116 et al., Order, 32 FCC Rcd 6723 (WCB 2017) (waiving the number portability rules to allow carriers to port numbers to destinations outside the affected rate centers due to damage to the communications systems); Telephone Number Portability et al., CC Docket No. 95-116, et al., Order, 32 FCC 6831 (WCB 2017) (waiving numbering rules); Telephone Number Portability et al., CC Docket No. 95-116 et al., Order, 32 FCC Rcd 7005 (WCB 2017) (waiving numbering rules).

networks.¹⁵ The Commission intended the payments "to facilitate expeditious restoration of essential communications services across all affected areas." ¹⁶ The Commission stated that the payments were "not . . . additional support" but instead an "accelerat[ion] [of] the delivery date of existing funding levels" and that the Commission planned to "revisit the support payment schedule prior to the April 2018 payments" and said it would "consider at that time a schedule for offsetting advanced funds against future payments due." ¹⁷ In the *PR-USVI Fund Order*, the Commission determined, however, that in light of the ongoing restoration efforts, persistent power outages, and other challenges that continued long after the hurricane season, it would not offset the emergency support against future support. ¹⁸

- Recognizing that further action was needed, the Commission in 2018 established the Uniendo a Puerto Rico Fund and the Connect USVI Fund to award high-cost support in two stages.¹⁹ In Stage 1, the Commission provided approximately \$51.2 million in new support to Puerto Rico and \$13 million to the U.S. Virgin Islands to help restore voice and broadband service.²⁰ The Commission provided this immediate relief to allow impacted carriers to rebuild more quickly and to set the stage for the longer-term Stage 2 plan the Commission proposed in the *PR-USVI Fund Notice*. For Stage 2, the Commission proposed to make about \$699 million available in the Uniendo a Puerto Rico Fund and about \$191 million available in the Connect USVI Fund to rebuild, improve, and expand fixed and mobile voice and broadband networks on the islands.²¹ As a part of the *Notice*, the Commission proposed to replace existing frozen high-cost fixed network support mechanisms with a competitive process of evaluating proposals submitted by carriers, consistent with its goal of creating a streamlined, efficient process building on the lessons of its successful implementation of a competitive auction for allocating high-cost funds in Connect America Fund Phase II (CAF II).²²
- 8. We remain committed to the deployment of voice and broadband networks throughout the Territories, and we believe the progress made over the last two years now allows us to transition toward expanding services in unserved areas and helping ensure storm-resilient networks throughout the

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12 See Lifeline and Link Up Reform and Modernization et al., WC Docket No. 10-90 et al., Order, 32 FCC Rcd 6846 (WCB 2017) (waiving Lifeline rules); Lifeline and Link Up Reform and Modernization et al., WC Docket No. 10-90 et al., Order, 32 FCC Rcd 6860 (WCB 2017) (additional Lifeline waivers); Schools and Libraries Universal Service Support Mechanism et al., CC Docket No. 02-6, WC Docket No. 02-60 et al., Order, 32 FCC Rcd 7456 (WCB 2017); Lifeline and Link Up Reform and Modernization et al., Order, 32 FCC Rcd 9240 (WCB 2017) (Lifeline waiver extensions); Schools and Libraries Universal Support Mechanism, CC Docket No. 02-6, Order, 32 FCC Rcd 9538 (2017) (providing flexibility to E-rate schools).

¹³ The Wireless Resiliency Framework is a voluntary commitment triggered when Emergency Support Function #2 and DIRS are activated to facilitate mutual aid and roaming.

¹⁴ See FCC, Public Safety and Homeland Security Bureau, 2017 Atlantic Hurricane Season Impact on Communications Report and Recommendations (2018), https://docs.fcc.gov/public/attachments/DOC-353805A1.pdf. (2017 Atlantic Hurricane Season Report).

¹⁵ See Connect America Fund, WC Docket No. 10-90, Order, 32 FCC Rcd 7981, 7985, para. 14 (2017) (2017 Hurricane Funding Order).

¹⁶ *Id.* at 7985, para. 15.

¹⁷ *Id.* at 7985, para. 14.

¹⁸ The Uniendo a Puerto Rico Fund and the Connect USVI Fund, WC Docket Nos. 18-143 et. al, Order and Notice of Proposed Rulemaking, 33 FCC Rcd 5404, 5407-08, paras. 10-12 (2018) (*PR-USVI Fund Order*, *PR-USVI Fund Notice*, or *Notice*).

¹⁹ See generally PR-USVI Fund Notice, 33 FCC Rcd at 5404.

²⁰ *Id.* at 5408-09, para. 15.

²¹ *Id.* at 5412, para. 28.

Territories. Many carriers report that they have substantially or completely restored service to their customers.²³ Yet, carriers also state that many areas remain unserved by broadband, and that the current population in previously served areas is still unknown.²⁴ Moreover, carriers report that restored networks may remain vulnerable to another series of storms like those of 2017.²⁵ Given the significant likelihood of future storms, there is a serious risk of repeated devastating damage if the networks are not adequately hardened.²⁶ Additionally, efforts to expand and improve networks face challenges from the weakened local economy, high prices for shipping from the mainland, limited availability of trained workers, and lengthy local permitting timelines.²⁷

Our efforts in this proceeding are a part of our broader work to improve disaster resilience and recovery for broadband networks. For example, in 2017, the Commission established the Broadband Deployment Advisory Committee (BDAC), which provides advice and recommendations on how to accelerate deployment of high-speed internet access.²⁸ The BDAC's Disaster Response and Recovery Working Group is developing recommendations regarding measures to improve resilience of broadband infrastructure before a disaster occurs, strategies that can be used during the response to a disaster to minimize the downtime of broadband networks, and actions to more quickly restore broadband infrastructure during disaster recovery.²⁹ PSHSB has taken on several tasks to address various issues related to disaster recovery, including oversight of the Commission's Communications, Security, Reliability and Interoperability Council (CSRIC), a federal advisory committee focused on providing recommendations to the Commission on issues such as best practices to improve the reliability and security of communications systems and facilitate the rapid restoration of communications services in the event of widespread or major disruptions.³⁰ Additionally, the *Third Wireline Infrastructure Report and* Order and Declaratory Ruling addressed issues related to disaster recovery by affirming the Commission's authority to use preemption in disaster-related situations when necessary, and by interpreting section 253 of the Communications Act of 1934, as amended (the Act), to permit stateimposed emergency moratoria if they are competitively neutral and carefully targeted to address the

²³ See, e.g., Letter from Edgar Class, Counsel to Puerto Rico Telephone Company, Inc. (PRTC), to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., Attach. at 3 (filed Mar. 28, 2019) (PRTC Mar. 28, 2019 Ex Parte) (showing mostly complete fixed network restoration and indicating full mobile restoration, as well as mobile expansion); Letter from Danielle Frappier, Counsel for Liberty Cablevision of Puerto Rico (Liberty), LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 et al., Attach. at 2 (filed Nov. 20, 2018) (Liberty Nov. 20, 2018 Ex Parte) (reporting that the "vast majority" of the company's network was restored in June 2018); Letter from Stephen Coran, Counsel to Broadband VI, LLC, to Marlene Dortch, Secretary, FCC, WC Docket Nos. 18-143, Attach. at 6 (filed Feb. 13, 2019) (BBVI Feb. 13, 2019 Ex Parte) (indicating full restoration of network); Letter from L. Charles Keller, Counsel to ATN International, Inc. (ATN) and Virgin Islands Telephone Corp. (Viya), to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., Attach. at 12 (filed Mar. 22, 2019) (Viya Mar. 22, 2019 Ex Parte) (stating that Viya restored "most cell sites" in approximately Nov. 2017 and restored voice and broadband to "effectively the[]entire population within 4 months"); Letter from L. Charles Keller, Counsel to Viya, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 1 (filed Apr. 19, 2019) (Viya Apr. 19, 2019 Ex Parte) (stating that Viya "already provides Connect America Fund-qualifying voice and broadband service to over 95 percent of" U.S. Virgin Islands locations); see also Liberty Comments at 3.

²⁴ See, e.g., PRTC Mar. 28, 2019 Ex Parte, Attach. at 4-6 (discussing orphaned areas); PRTC Reply at 14-15 (describing destruction of facilities built to provide broadband).

²⁵ See generally Liberty Comments at 8, 12 (requesting additional support for exclusive use to harden networks to avoid future devastation to networks and minimize against future tropical events); Viya Mar. 22, 2019 Ex Parte Attach. at 19 (stating that with additional funding, Viya could provide a hardened, recoverable network).

²⁶ See, e.g., PRTC Comments at 13, 15; Liberty Comments at 23-24.

emergency.³¹ Taken together, these actions will facilitate reduced risk to communications networks from disasters and improved restoration after disasters.

III. REPORT AND ORDER

A. Support for Fixed Providers

10. To ensure the continued expansion and improvement of fixed voice and broadband service in the Territories, we adopt a single-round competitive proposal process for Stage 2 fixed support for the Uniendo a Puerto Rico Fund and Connect USVI Fund. We divide Puerto Rico into 78 geographic areas—one per municipio—and we divide the U.S. Virgin Islands into two geographic areas. We will consider all valid applications for each geographic area and select a winner for each area by applying the same objective scoring criteria for price, network performance, and network resilience and redundancy to each proposal received. We establish a ten-year support term and make any existing provider of fixed broadband in each Territory, as of June 2018 FCC Form 477 data, eligible to participate in the support mechanism for the respective Territory they serve. Winning applicants will have specific deployment obligations and we adopt two processes for reassessing deployment data to ensure support is spent efficiently. We direct Stage 2 fixed support toward providing quality service throughout the Territories, rather than simply toward restoration of pre-storm networks, to promote efficient deployment of advanced, reliable services to all locations. We also establish thorough oversight and accountability measures similar to those the Commission has implemented in other recent high-cost proceedings.

1. Competitive Process

11. Single-Round Competitive Proposal Process. We adopt a single-round competitive proposal process in which we will consider all applications simultaneously and select applicants based on the lowest score for a series of weighted objective criteria.³² We establish performance tiers that

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²⁷ See, e.g., Viya Comments at 2 ("Even before the hurricanes, the USVI's economy was struggling, and its residents
had limited buying power."); PRTC Comments at 12-13 (identifying unique challenges in Puerto Rico as including
higher shipping costs, higher operational costs due to topography and climate, heightened risk of severe weather,
and low average income); Liberty Reply at 4 (stating that Liberty often encounters unnecessary delays due to a
lengthy permitting process).

²⁸ See FCC Establishes Broadband Deployment Advisory Committee, Public Notice, 32 FCC Rcd 1037 (2017); see also BDAC Charter (Mar. 1, 2017), available at https://www.fcc.gov/sites/default/files/bdac-charter.pdf; FCC Announces the Re-Charter of the Broadband Deployment Advisory Committee and Solicits Nominations for Membership, GN Docket No. 17-83, Public Notice, 33 FCC Rcd 11747 (WCB 2018); BDAC Charter (Mar. 1, 2019), https://www.fcc.gov/sites/default/files/bdac-charter-03012019.pdf.

²⁹ See FCC Announces Membership of the Broadband Deployment Advisory Committee's Disaster Response and Recovery Working Group, Public Notice, 33 FCC Rcd 11006 (WCB 2018).

³⁰ See Communications Security Reliability and Interoperability Council (CSRIC), available at https://www.fcc.gov/about-fcc/advisory-committees/communications-security-reliability-and-interoperability-council-0; see also, e.g., Public Safety and Homeland Security Bureau Seeks Comment on Hurricane Michael Preparation and Response, PS Docket No. 18-339, Public Notice, 33 FCC Rcd 11239 (PSHSB 2018); Improving the Resiliency of Mobile Wireless Communications Networks, PS Docket No. 13-239 et al., Order, 31 FCC Rcd 13745 (PSHSB 2016); Disaster Information Reporting System (DIRS), available at https://www.fcc.gov/general/disaster-information-reporting-system-dirs-0.

³¹ Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84, WT Docket No. 17-79, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705, 7774-75, 7784-85, paras. 137-39, 157 (2018).

³² See Letter from Geraldine Pitt, CEO, Viya, and Douglas J. Minster, Vice President, Government and Regulatory Affairs, ATN International, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 4 (filed June 14, 2019) (Viya June 14, 2019 Ex Parte) (arguing that if the Commission adopts a competitive process, it should adopt a (continued....)

applicants must meet, and we give greater preference to proposals based on how much they exceed the minimum thresholds. We find several clear benefits to a competitive proposals approach, and we believe this approach is better-suited to Puerto Rico and the U.S. Virgin Islands than alternative mechanisms such as an auction, a multi-round competitive proposal process, or a negotiated approach. The competitive proposal process we adopt is preferable to an auction under the circumstances because of the relatively small pool of possible applicants. At the same time, we find the single-round proposal process retains many of the competitive benefits of an auction but can facilitate more prompt funding and deployment as compared with a multi-round proposal or negotiated approach process.³³ Finally, the approach we adopt relies on objective criteria that are preferable to a more subjective competitive proposal process or negotiated approach because it better implements our policy goals of promoting efficiency, certainty, transparency, and impartiality, and allows us to compare applications using different network technologies and offering differing performance.³⁴ Our competitive process is comparable to the CAF II auction in that we will award support competitively based on application of objective criteria. We adapt the CAF II auction framework to the particular circumstances of the Territories by adding resiliency and redundancy as criteria to account for the risks the Territories face and by employing a single-round proposal process rather than a multi-round auction in light of the smaller geographic scale and number of participants. Based on the foregoing analysis, we decline to adopt the multi-round or negotiated competitive proposal processes favored by several commenters.³⁵ We recognize that we are forgoing the opportunity to negotiate or influence supplementary-round proposals. Nevertheless, this approach will encourage parties to put forward their best commitments in the first instance and promote competition for support. It also will avoid significant delay and limit subjectivity.³⁶

12. Selection Criteria. Consistent with our policy goals for Stage 2 fixed support, we will consider applications based on both cost and proposed performance capabilities. Evaluating cost is an essential part of our determination. As with all USF decisions, we seek to promote access to quality services in the most cost-effective and efficient manner possible. We must be responsible stewards of the Fund to fulfill our commitment to fiscal responsibility and to ensure that funds are targeted efficiently.³⁷ For example, in the *USF/ICC Transformation Order*, the Commission proposed to design a competitive bidding mechanism for price cap areas where the incumbent ETC declined to make a state-level commitment, so as to distribute support in a way that "maximizes the extent of robust, scalable broadband service subject to the budget."³⁸ This competitive bidding mechanism resulted in important efficiency

³³ See AT&T Comments at 16 (supporting a competitive process due to geographic size, number of participants and Commission resources).

³⁴ See BBVI Comments at 4-5 (supporting a competitive process and encouraging objectivity); VPNet Comments at 5-6 (supporting a competitive request for proposals process as impartial, neutral, and efficient).

³⁵ See Data@ccess Comments at 5-7 (supporting negotiated solution and outlining its plan); PRTC Comments at 22 (suggesting two-round RFP as an alternative to right of first refusal approach); PRTRB Comments at 11-13 (suggesting negotiation with the PRTRB); Viya Comments at 39 (suggesting negotiated approach as alternative to maintaining incumbent LEC support); Liberty Comments (preferring negotiation).

³⁶ Viya argues that a negotiated approach will be faster than a competitive proposal process, at least in the U.S Virgin Islands, because of what it characterizes as "the USVI's small size and very limited number of potentially eligible applicants." Viya Comments at 39. But any multi-party negotiation will entail substantial delays in comparison to the objective single-round competitive approach we adopt. We agree with Viya that in adopting a competitive approach, we must "allocate sufficient resources to the process to ensure that Stage 2 support is not unduly delayed." *Id.* at 40.

³⁷ PR-USVI Fund Notice. 33 FCC Rcd at 5413-14, paras. 33, 38.

³⁸ Connect America Fund et al., WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17732, para. 179 (2011) (USF/ICC Transformation Order).

gains. The eligible locations awarded in the resulting CAF II auction had an initial reserve price of \$5 billion over the next decade; the final price tag to cover these locations, however, is now only \$1.488 billion—saving the Fund over \$3.5 billion.³⁹ While the competitive process we adopt today differs from the CAF II auction, we expect that allowing multiple providers—including those that have not traditionally received high-cost support—to compete for funding will increase the efficiencies of bringing advanced services to consumers in Puerto Rico and the U.S. Virgin Islands.⁴⁰

13. Accordingly, we will weigh three factors in selecting winning applicants: (1) price per location; (2) network performance, including speed, latency, and usage allowance; and (3) network resilience and redundancy. Although commenters differ on how to weigh these factors relative to each other and some suggest additional factors, several commenters support the inclusion of these three key factors. We find it appropriate to give price per location the greatest weight. While our goal in this process is to award funding to the carrier that can provide the highest performing and most resilient network possible, we must do so in a fiscally responsible manner. As stewards of the Fund, responsible spending must be our primary concern. Although the destruction from the hurricanes contributed to the challenge of accurately determining location counts, the processes we establish herein provide opportunities to remedy any inaccuracies, and we must make every effort to ensure cost-effective spending. At the same time, we must carefully account for the other important criteria we have identified. Therefore, while we allocate price the greatest individual weight, combined weights for network performance and resilience/redundancy can outweigh price, to encourage applicants to deploy high-performing, storm-hardened networks. We note that in contrast to the CAF II auction, where we

³⁹ See Press Release, FCC, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf (CAF II Winning Bidder Press Release).

⁴⁰ There were 15 unique fixed broadband June 2018 FCC Form 477 filers in Puerto Rico and 6 in the U.S. Virgin Islands. We reject Viya's argument that we should not assign points for the lowest-cost proposals or "use this proceeding . . . to attempt to drive down universal service support for the Territories." Viya June 14, 2019 *Ex Parte*; *see also* Letter from L. Charles Keller, Counsel to Viya, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 3 (filed May 16, 2019) (Viya May 16, 2019 *Ex Parte*) (arguing that "[v]iewing this proceeding as an ordinary reverse auction opportunity to reduce the amount of support available in the Territory would be punitive to the people and businesses of the USVI and antithetical to purpose of this proceeding"). The mechanism we design awards support only for quality, storm-hardened deployment, and we create incentives for exceeding the minimum network performance, resilience, and redundancy. We make available support up to the budgeted amount and will provide support below that amount only if the winning applicant has indicated that it will deploy in conformity with the criteria we establish at that support level. Therefore, we are able to award efficient use of support without sacrificing our other goals for Stage 2 fixed support.

⁴¹ See, e.g., Liberty Comments at 16-19; Liberty Reply at 13; Letter from Gino A. Villarini, President, AeroNet Wireless Broadband LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 2 (filed Nov. 13, 2018) (AeroNet Ex Parte) ("Price should be the primary objective that the Commission considers given its obligation to manage Universal Service Funds efficiently. But, as the Commission recognizes, price cannot be the sole consideration. Other factors, including network resiliency, network deployment timing and network performance (continued....)

considered speed, usage allowance, and latency but no other network-specific factors,⁴⁵ here we will award points based on resilience and redundancy to account for the unique challenges the Territories face due to the risk of disasters and their insularity. We give network performance the second most points because performance will always matter to customers, while resilience and redundancy benefit users only in the event of a natural disaster or other disruption to the network.

14. Overall Scoring. Consistent with the factors we have identified, we adopt a 270-point scale, allocated as follows: 100 points for price per location, 90 points for network performance, and 80 points for network resilience and redundancy. For each geographic area for which it seeks support, an applicant will be assigned a specific point value in each category and the applicant with the lowest combined score will win support in that area. This overall scoring table shows how the points will total across all categories. We also adopt the tables below for each subcategory, which show how the points will be assigned within each subcategory.

Overall Scoring	Points
Price Per Location	100
Network Performance	90
Network Resilience and Redundancy	80
Total	270

Table 1 — Overall Scoring

15. We decline to use deployment timing or status of restoration as weighted factors in

⁴² See, e.g., AeroNet Ex Parte at 2. Benefits of resilience to the Fund are contingent on the nature of the resilience measures, whether a disaster occurs, the nature and intensity of the disaster, and whether and to what extend the Commission would use the Fund to provide relief in the absence of the resilience measures. In contrast, price per location presents a certain, immediate measure of the amount of cost to the Fund. In light of this analysis and because we prioritize cost to the Fund foremost, we reject BBVI's argument that we weight resilience most heavily and WorldNet's argument that we weight resilience ahead of price per location. See BBVI Feb. 13, 2019 Ex Parte Attach. at 11-12; Letter from Richard Davis, Counsel, WorldNet Telecommunications, Inc. to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 18-143 at 1-2 (filed Sept. 16, 2019) (WN Sept. 16, 2019 Ex Parte). Similarly, we decline to prioritize network quality first, as WorldNet suggests, because doing so fails to adequately reward efficient use of support, to the detriment of our goal of promoting responsible use of the Fund though the competitive process we establish. See WN Sept. 16, 2019 Ex Parte at 1-2.

⁴³ We therefore reject BBVI's argument that as to the U.S. Virgin Islands, we should not select winners based on price per location due to the difficulty of ascertaining locations. *See* BBVI Feb. 13, 2019 *Ex Parte* Attach. at 11.

⁴⁴ As a result, our framework is consistent with WorldNet's assertion that "the logical priority in using the fund should be on establishing absolutely high quality and state of the art new networks for Puerto Rico that will avoid, as much as possible, the widespread outages caused by such storms and, in turn, the need for future special assistance funds like the Uniendo a Puerto Rico Fund." WN Sept. 16, 2019 *Ex Parte* at 1.

⁴⁵ See Connect America Fund, et al., WC Docket No. 10-90 et al., Report and Order and Order on Reconsideration, 32 FCC Rcd 1624, 1627, 1639, paras. 14, 35-36 (2017) (CAF II Auction Report and Order).

scoring proposals in this process. We agree with commenters that deployment timing is important⁴⁶ indeed all winning providers must complete buildout and service obligations within six years, with interim deployment milestones after three years. And while faster deployment is in the public interest, we conclude that the benefits of accelerating deployment schedules by 1 or 2 years—which cannot be verified at the time support is awarded—in this case does not warrant being awarded a competitive preference in scoring when weighed against the importance of ensuring cost-effective, high-quality, and resilient networks. In particular, network performance, resilience, and hardening provide long-term benefits, in contrast to the shorter-term benefits of an accelerated schedule. Further, we expect that all carriers are independently motivated to build faster as it will mean receiving revenue more quickly. We also find that there is reduced risk of failure in establishing a reasonable schedule that all applicants can commit to meet rather than providing an up-front benefit for a shorter timeline that would require withholding support if the carrier did not adhere to the schedule. We specifically reject Viya's suggestion that we require a minimum baseline of 25/3 Mbps deployment to 95 percent of locations in the U.S. Virgin Islands within two years.⁴⁷ That timeline deviates sharply from the deployment milestones in CAF II, and Viya has not identified a reason why we should depart from our precedent. Further, that timeline could limit the number of applicants, precluding the U.S. Virgin Islands from receiving the benefits of potential additional competition.

- 16. Likewise, while we agree that it is important for carriers to restore their networks quickly following a natural disaster, we find that assigning preference based on an applicant's commitment to restore within a certain period following a future disaster—or demonstrated history of swift restoration following a disaster—is unhelpful for deciding how to award support in this instance. Past restoration performance does not necessarily predict future restoration performance, particularly when the nature of a provider's network will likely change following this process and given that we cannot control for the size and scope of any future disaster. Evaluating how fast or completely a carrier restored its network would also be extremely challenging and is dependent on factors outside of our control (e.g., the nature and scope of the disaster, personnel, availability, access, etc.). Having said that, we expect recipients of Stage 2 support, as with all USF support, to be diligent and efficient in restoring their networks following any future natural disaster or outage. To that end, we adopt measures to ensure all applicants have written Disaster Preparation and Response Plans in place to establish processes that can help ensure effective and timely restoration following a disaster.
- 17. Price Per Location. We adopt the scoring for price per location shown in Table 2 as an incentive for participants to achieve the most economical solution possible, without sacrificing quality or resilience. The reserve price is the maximum amount that a proposal may commit to accept, and a commitment to accept the reserve price will receive the most points for price per location. To encourage applicants to provide the best price possible, we start with a total of 100 points (for a commitment at the reserve price) and subtract one point for each percentage point below the reserve price to which an

⁴⁶ See, e.g., AeroNet Ex Parte at 2 (suggesting deployment speed as factor); Liberty Comments at 17 (same); BBVI Feb. 13, 2019 Ex Parte Attach. at 13 (same); Letter from Michael Meluskey, CTO and Founder, BBVI, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., at 6 (filed Nov. 9, 2018) (BBVI Nov. 9, 2018 Ex Parte) (suggesting points preference for committing to an accelerated deployment); Letter from Albert Bryan Jr., Governor, The Virgin Islands of the United States (USVI), to Ajit Pai, Chairman, FCC, WC Docket No. 18-143, at 2 (filed July 11, 2019) (USVI Governor's Office July 11, 2019 Ex Parte) (suggesting a competitive advantage for achieving service standards within two years); Hughes Oct. 23, 2018 Ex Parte at 4 (proposing preference for shorter build-out commitments); Letter from Jennifer A. Manner, Senior VP Regulatory Affairs, Hughes Network Systems, LLC to Marlene H. Dortch, Secretary, Federal Communications, Commission, WC Docket Nos. 18-143 et al., at Attach. (filed Sept. 19, 2019) (Hughes Sept. 18, 2019 Ex Parte) (reiterating its proposal).

⁴⁷ See Viva June 14, 2019 Ex Parte at 4, 19.

⁴⁸ We thus reject BBVI's suggestion that we assign a points preference for a demonstrated ability to restore 80%+ services within 180 days. *See* BBVI Feb. 13, 2019 *Ex Parte* Attach. at 12.

applicant commits. Because we calculate the reserve price with reference to the cost to serve the geographic area, this weighting system takes into account the relative cost to serve different municipios or islands.⁴⁹ Although Hughes suggested a cap at 40% or greater below reserve,⁵⁰ our allocation method encourages applicants to reveal their actual price by rewarding a carrier for each point below the reserve price. As such, we do not adopt a cap or otherwise limit how far below the reserve price an applicant can commit. That being said, in the CAF II auction a significant portion of bidders dropped out of the bidding when faced with prices more than 30% below the reserve price, and we would expect similar final prices here to avoid compromising quality or coverage across the entire geographic area.⁵¹

	e
Price	Assigned Points
Reserve Price	100
1%-100% Below Reserve Price	-1 point for each percentage below reserve

determine the reserve price that the Commission proposed in the *Notice* to allocate the budget.⁵² First, we

will employ the Connect America Model (CAM) to calculate the average cost per location for all locations in a census block. Second, we will apply the full budgets for Puerto Rico and for the U.S. Virgin Islands, thereby creating territory-specific high-cost thresholds to ensure the full amount of the budget available to each territory over the 10-year period is available for disbursement.⁵³ Third, we will

Reserve Price. We adopt, with one slight modification, the three-step process to

Table 2 — Price Per Location Scoring

establish a reserve price for each geographic area in proportion to the support amounts calculated for each census block within that area.⁵⁴ That is, we will use the CAM to allocate a portion of the budget to each geographic area based on the relative cost of providing service across all eligible areas. Although the Commission proposed using the extremely high-cost threshold to establish a per-location, per-month cap of \$198.60, as it has previously done, ⁵⁵ we will not apply a cap in this context. The total number of locations above the cap is relatively small, the reserve price for each geographic area will cover a larger geography, and we expect competition to lower overall support amounts. We direct the Wireline Competition Bureau (Bureau) to apply the modified three-step process we describe and release the reserve

price for each geographic area and number of locations for all eligible areas by Public Notice promptly

after release of this Order.

⁴⁹ See infra paras. 18-20 (discussing setting reserve prices).

⁵⁰ See Hughes Oct. 23, 2018 Ex Parte at 2.

⁵¹ We remind applicants of their obligations to conduct due diligence prior to submitting an application. Any requested support should be sufficient for the carrier to meet its obligations, and any support received must be used for its intended purpose. *See* 47 U.S.C. § 254(e); 47 CFR § 54.314; *see also, e.g., Connect America Fund*, Report and Order, 31 FCC Rcd 5949, 6010, para. 172 (2016) (*CAF II Auction Order*).

⁵² PR-USVI Fund Notice, 33 FCC Rcd at 5417-18, paras. 52-53.

⁵³ Based on our preliminary analysis, we expect this to result in a high-cost threshold of \$29 per-location per-month for Puerto Rico, and a threshold of \$23.33 for the U.S. Virgin Islands.

⁵⁴ The CAM contains two modules. The first is a cost module that calculates costs for all areas of the country. The second module of CAM is the support module, which calculates the support for each area based on those costs, or, in this case, the reserve price allocation.

⁵⁵ Connect America Fund Phase II Auction Scheduled for July 24, 2018 Notice and Filing Requirements and Other Procedures for Auction 903, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 1428, 1495-96, para. 210 (2018) (CAF Phase II Procedures PN); see also March 2016 Rate-of-Return Reform Order, 31 FCC Rcd at 4007, para. 52.

- 19. The CAM is the best current objective data we have combining cost and locations.⁵⁶ The Bureau never formally adopted the CAM as it applies to either Puerto Rico or the U.S. Virgin Islands, but rather excluded those two territories (and Alaska) prior to calculating the offer of CAF II model-based support for price caps based on opposition in the record from the price caps serving those areas.⁵⁷ However, we use the CAM for Stage 2 not to calculate the exact amount of support necessary for each eligible area—the applicants will provide this—but rather as an estimate of relative cost within each geographic area, to be used as an allocator of the budget. In other words, unlike for the offer of model-based support, we will not use the CAM to establish specific final support amounts but to determine the relative costs of each area within the budget and the maximum amount of support available for each eligible geographic area.⁵⁸ In the CAF II auction, most applicants were awarded support at less than 80% of the CAM-established reserve price, suggesting that the actual support amounts required to serve were often lower than model-calculated support figures,⁵⁹ and we believe it is likely that the same pattern will emerge through the competitive process here.
- 20. Because the CAM is the best objective mechanism we have available to us and commenters did not suggest a specific alternative for setting reserve prices, we decline to adopt a different approach based on commenters' arguments that the CAM underestimates costs of providing service in Puerto Rico and the U.S. Virgin Islands and does not account for the costs of "storm hardening" a network.⁶⁰ Given the limited role that the CAM will play as a budget allocator, coupled with our desire to provide support to the Territories as quickly as possible, it would not be efficient to initiate a process to update the CAM before the competitive application process; re-running the model to make adjustments to the locations currently within CAM prior to calculating the reserve price would require significant time and resources.⁶¹ Liberty suggested that, to accurately determine how many locations currently exist, it and other carriers undertake a physical walk of the existing locations in a sample of census blocks or geographic areas and then use those numbers to extrapolate the number of locations in similarly situated or adjacent blocks or areas.⁶² Reliance on a physical walk, or other new carrier-submitted data, would introduce substantial delays to implementing Stage 2, and invite potentially intractable disputes if carriers

⁵⁶ PR-USVI Fund Notice, 33 FCC Rcd at 5416, para. 49. The location totals include housing units and small businesses (i.e., businesses to which mass market services have been made available). The CAM Methodology describes how the CAM identified locations in each census block. CostQuest Associates, Inc., CAM: Model Methodology at 12-15 (2014), https://transition.fcc.gov/wcb/CAM v.4.2 Methodology.pdf.

⁵⁷ See USF/ICC Transformation Order, 26 FCC Rcd at 17737-38, para. 192-93; Connect America Fund et al., WC Docket Nos. 10-90 et al., Report and Order, 29 FCC Rcd 3964, 4018-19, paras. 124-126 (2014) (CAM Inputs Order).

⁵⁸ We also use the CAM to assist us in determining an appropriate amount by which to increase the fixed support budget for Puerto Rico. *See infra* Sec. III.A.2.

⁵⁹ See Auction 903 Winning Bidders PN, 33 FCC Rcd at 8257.

⁶⁰ See, e.g., PRTC Comments at 19-20 (suggesting the Commission need not determine the number of locations before evaluating proposals); VPNet Reply at 7 (suggesting the Commission "require award recipients to report the locations served on an annual basis"); Viya Comments at 34-35; Liberty Reply at 6-8 (acknowledging the difficulty in determining the number of locations, opposing outdated census data, and suggesting decreasing the high-cost benchmark to determine eligible locations); BBVI Nov. 9, 2018 Ex Parte at 3-4 (suggesting the Commission should not provide support by locations).

⁶¹ Cf. AT&T Comments at 15-16 (suggesting we update the CAM before awarding funds "using the latest Census Bureau-reported numbers of housing units in the eligible census block").

⁶² See, e.g., Letter from Danielle Frappier, Counsel, Liberty Cablevision of Puerto Rico, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 et al. (Apr. 2, 2019); see also Letter from Danielle Frappier, Counsel, Liberty Cablevision of Puerto Rico, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 et al. (Apr. 29, 2019) (discussing its suggestion to use a physical walk of a small portion of the network to extrapolate locations in a similarly situated or adjacent area).

disagree regarding the number of locations, contrary to our goal of facilitating prompt deployment of resilient service throughout the Territories.⁶³ Further, even a walk of a network could be inaccurate or outdated if buildout is happening concurrently, or if, as suggested, the walkout is only used as a method of projection across similarly situated areas. We find that our reliance on CAM will provide a reasonably accurate baseline by which to allocate the budget, and that conducting this process expeditiously outweighs any benefits that might result from conducting a time-consuming data collection before beginning the competitive application process. Moreover, given the benefits of a competitive process in allowing each applicant to request support at a level that reflects its understanding of the costs of deployment and in potentially lowering support below the reserve price, we find it is not necessary to incorporate specific network costs related to storm hardening.⁶⁴ We believe the additional support we provide during the 10-year term addresses these concerns and will allow carriers to do the work necessary to increase resilience of their networks.

- 21. Network Performance. To ensure that we spend USF dollars wisely, we must consider both the cost (in terms of price per location) and benefits of each proposal. To evaluate the benefits, we first assign points based on proposed network performance to ensure that end users will receive quality service. Evaluating network performance is consistent with Commission high-cost support precedent.⁶⁵
- We establish three tiers for network speed and usage allowances, and two tiers for network latency, and allocate points for each. We will accept applications at each of the different performance tiers, informed by our experience with the CAF II auction and prior Commission orders setting performance obligations.⁶⁶ While we aim to provide funding to all supported locations as costeffectively as possible within our finite budget, 67 we also value higher speeds over lower speeds, higher usage allowances over lower usage allowances, and lower latency over higher latency. Therefore, for example, we will consider proposals where the costs to serve are higher, if higher-performance services will be available. We see the value to consumers of having access during the 10-year term of support to service that exceeds our minimum requirements, and we must take steps to ensure that the networks we invest scarce universal service support to build will stand the test of time. For a proposal to qualify for any tier, the applicant must commit to deploying a network that is fully capable of delivering speeds and usage allowances that meet or exceed—and latency that meets or falls below—the relevant standards to all locations within the geographic area. Applicants must also commit to offer this level of service throughout the 10-year term to ensure that all users can take advantage of the network services being funded. We decline to expand the performance criteria to include scoring for customer service as WorldNet suggests.⁶⁸ We expect carriers will have adequate business incentives to use the high-quality networks they deploy with Stage 2 support to provide reliable service, and we decline to dictate specific business practices or provisions of customer agreements. Moreover, WorldNet failed to articulate how

⁶³ See PRTC May 13, 2019 Ex Parte at 2.

⁶⁴ See PRTRB Comments at 14-15 (arguing a request for proposals process balances out the Puerto Rico-specific costs not included in the CAM); Liberty Comments at 27-30 (arguing the flexibility of a competitive process allows the Commission to correct for cost input issues with the CAM).

⁶⁵ See generally 47 CFR § 54.309 (Connect America Fund Phase II Public Interest Obligations); ACS Phase II Service Obligations Order, 31 FCC Rcd at 12086; CAF II Auction Order, 31 FCC Rcd at 5949.

⁶⁶ 47 CFR § 54.309 (Connect America Fund Phase II Public Interest Obligations); see also Connect America Fund et al., WC Docket No. 10-90, Order, 31 FCC Rcd 12086 (2016) (ACS Phase II Service Obligations Order); CAF II Auction Order, 31 FCC Rcd at 5949; Wireline Competition Bureau Announces Results of 2019 Urban Rate Survey for Fixed Voice and Broadband Services, Posting of Survey Data and Explanatory Notes, and Required Minimum Usage Allowance for Eligible Telecommunications Carriers, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 12316 (WCB 2018) (2019 Urban Rate Survey PN).

⁶⁷ USF/ICC Transformation Order, 26 FCC Rcd at 17732, 18086, paras. 179, 1195.

⁶⁸ See WN Sept. 16, 2019 Ex Parte at 2.

the Commission could adjust its scoring to accommodate customer service performance, what specific factors we should require, what metric we might use to evaluate those factors, or how we could assign a score based on a collection of individualized customer agreements.

- Mbps as our minimum speed requirement. Although the *Notice* proposed 10/1 Mbps,⁶⁹ fixed providers are now generally providing at least 25/3 Mbps and in many cases much faster speeds in both Territories as well as elsewhere in the United States.⁷⁰ Additionally, alternative technologies like satellite are increasingly able to offer higher speeds.⁷¹ As commenters note, a 25/3 Mbps minimum speed requirement is consistent with recent Commission action and helps to ensure that customers and service providers in the Territories are not subject to a lesser standard of service than other parts of the country.⁷² We therefore decline the suggestion of AT&T and PRTC that we should adopt 10/1 Mbps as the minimum speed requirement.⁷³ Our recent experience with the CAF II Auction, in which winning bidders committed to making 25 Mbps/3 Mbps or better service to more than 99.7% of the locations in the areas won, affirms our conclusion that a higher standard of service is achievable, and we do not want Puerto Rico and the U.S. Virgin Islands to be left behind. Indeed, the governments of the Territories themselves would prefer to see even higher-speed deployment to the Territories.⁷⁴ While we applaud these goals of the Territories, we decline to adopt an even higher speed (e.g., 100 Mbps) as our minimum requirement, as Governor Mapp suggested, as the data do not yet support this speed for all areas.⁷⁵
- 24. Additionally, we adopt a minimum monthly usage allowance of 200 gigabytes (GB) or a usage allowance that reflects the average usage of a majority of fixed broadband customers, using Measuring Broadband America data or a similar data source, whichever is higher. In the *Notice*, the Commission proposed a 170 GB minimum usage requirement.⁷⁶ As with the speed requirement, however, while some commenters suggested lower usage allowances,⁷⁷ we believe the current market supports higher usage requirements based on recent usage announced in the Bureau's 2019 Urban Rate

⁶⁹ PR-USVI Fund Notice, 33 FCC Rcd at 5419, para. 60.

⁷⁰ PRTRB Comments at 5 n.4, 17 (explaining the Gigabit Island Plan and encouraging 25/3 Mbps assuming cost to build is equivalent); USVI Governor's Office Comments at 3 (explaining the BTOP grant funding to support gigabit speed across USVI); AeroNet *Ex Parte* at 3 (encouraging faster speed of 25/3 Mbps as minimum standard), Liberty Comments at 18-19 (encouraging 25/3 Mbps as baseline speed tier); VPNet Comments at 10 (encouraging preference for 25/3 Mbps speed); BBVI Feb. 13, 2019 *Ex Parte* at 14 (encouraging 25/3 Mbps as baseline performance tier).

⁷¹ Hughes Comments at 4-6 (explaining that Hughes/Echostar is currently providing service at 25/3 Mbps or faster and has plans to provide 100 Mbps speed by 2021).

⁷² See Connect America Fund et al., WC Docket No. 10-90 et al., Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, FCC 18-176, 33 FCC Rcd 11893, 11900, para. 22 (rel. Dec. 13, 2018) (requiring carriers receiving Alternative Connect America Cost Model (A-CAM) support to deploy 25/3 Mbps service to certain locations); see also Hughes Comments at 12; Liberty Comments at 18-19; PRTRB at 17; Viya Comments at 33; See USVI Governor's Office July 11, 2019 Ex Parte at 2 (encouraging a minimum speed of 25/3 Mbps to support advancements already made).

⁷³ PRTC Comments at 5-6, 20-21 (suggesting it can provide service at higher speeds but requires additional funds); AT&T Comments at 14 (agreeing with the *Notice* that speed should be offered at 10/1 Mbps).

⁷⁴ See PRTRB Comments at 5 n.4 (explaining the Gigabit Island Plan, which encourages deployment of 1 Gbps download speeds to 70% of households in Puerto Rico by 2020); USVI Governor's Office Comments at 6 (advocating Stage 2 funding for a specific number of 100/50 Mbps last-mile locations).

⁷⁵ See Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 18-238, 2019 Broadband Deployment Report, FCC 19-44 at 5-7, (continued....)

Survey PN.78

25. We will reward higher combinations of speed and usage allowances by allocating them fewer points as shown in Table 3.79 We will assign 50 points to providers that commit to deploy the minimum speed requirement of 25/3 Mbps and a minimum usage allowance of greater or equal to 200 GB or the U.S. Median, whichever is higher. We will assign 25 points to providers that commit to deploy networks offering 100/20 Mbps and a minimum usage allowance of 2TB per month. We recognize that Puerto Rico has a goal of Gigabit speed throughout 70% of the island by 2020 and U.S. Virgin Islands leadership seeks high-speed last-mile connections.80 To facilitate deployment of high-speed service in the Territories, we will assign no points for 1 Gbps/500 Mbps with 2TB or greater monthly usage allowance. In the CAF II auction we adopted tiers of 100 Mbps/20 Mbps and 1 Gbps/500 Mbps, each with a 2 TB usage allowance,81 and we see no reason to deviate from that decision. In addition, we decline the Fiber Broadband Association's (FBA) proposal to assign 70 points for the deployment of the minimum speed requirement tier because such a change would result in the points available for network performance, in the aggregate, outweighing price per location, contrary to our determination to prioritize price per location first.82

Speed	Monthly Usage Allowance	Assigned Points
≥ 25/3 Mbps	≥ 200 GB or U.S. median, whichever is higher	50
≥100/20 Mbps	≥2 TB	25
1 Gbps/500 Mbps	≥2 TB	0

Table 3 — Network Performance Scoring (1 of 2) — Speed/Usage

26. Latency. We adopt a maximum roundtrip broadband and voice latency of \leq 750 milliseconds (ms) or less but give preference to applicants with low-latency broadband and voice at or below 100 ms as shown in Table 4 below.⁸³ Accordingly, high-latency commitments will be assigned 40 points, and low-latency commitments will be assigned no points. While the *Notice* proposed a roundtrip

⁷⁶ PR-USVI Fund Notice, 32 FCC Rcd at 5419, para. 60.

⁷⁷ See Hughes Oct. 23, 2018 Ex Parte at 4 (suggesting 150 GB); BBVI Nov. 9, 2018 Ex Parte at 7 (suggesting 150 GB).

⁷⁸ See 2019 Urban Rate Survey PN at 3, Table (showing the 2019 capacity benchmark for 25/3 Mbps service at 200 GB).

⁷⁹ For each performance tier, we will accept proposals with either low latency or high latency, which will enable a broader range of providers, including non-terrestrial providers, to participate. *See Connect America Fund*, Report and Order, 31 FCC Rcd 5949, 5960-63, paras. 28-37 (2016) (*CAF Phase II Auction Order*).

⁸⁰ See PRTRB Comments at 5 n.4; USVI Governor's Office Comments at 6.

⁸¹ See CAF II Auction Report and Order, 32 FCC Rcd at 1628, para. 17.

⁸² See Letter from Lisa R. Youngers, President and CEO, Fiber Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Dockets Nos. 18-143 et al., at 2 (filed Sept. 19, 2019) (FBA Sept. 19, 2019 Ex Parte).

⁸³ We adopt the latency testing methodology the Bureau previously adopted for CAF II. *See Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 15060, 15068-75, paras. 19-36 (WCB 2013).

(continued....)

latency of no greater than 100 ms,⁸⁴ we are persuaded that the better approach is to allow providers of higher-latency services to participate, while rewarding providers that commit to low-latency services.⁸⁵ Providing flexibility will allow for greater participation, particularly by satellite providers, which is likely to increase competition and lower the cost of serving many geographic areas, while also ensuring that as many areas receive as many applications as possible.⁸⁶ Further, satellite has proven to be an important tool in providing service to the Territories, particularly in the wake of natural disasters.⁸⁷ We conclude that this standard will ensure that consumers in rural, insular, and high-cost areas will have available an offering that enables them to use their broadband connections in ways reasonably comparable to consumers in urban or lower-cost areas, where fixed broadband services are widely available. We therefore reject the arguments of several fixed service providers and Puerto Rico Telecommunications Regulatory Board (PRTRB) that we should adopt a requirement of 100 ms maximum latency.⁸⁸

Latency	Requirement	Assigned Points
Low	≤ 100 ms	0
High	≤ 750 ms	40

Table 4 — Network Performance Scoring (2 of 2) — Latency

27. Network Resilience and Redundancy. Due to the risks particular to Puerto Rico and the U.S. Virgin Islands posed by future natural disasters, we believe it is important to explicitly consider resilience, network hardening, and disaster preparation in our support determinations. Although we have not previously evaluated these factors in the context of allocating high-cost support, the heightened risk of damage due to disasters, as demonstrated by Hurricanes Irma and Maria in the Territories, presents a special case. According to a *New York Times* evaluation of Small Business Administration data, nearly every zip code in Puerto Rico and the U.S. Virgin Islands sustained over \$5 million in losses from major natural disasters from 2002-2017.⁸⁹ The study did not show similar losses in any state; indeed, although Puerto Rico only accounts for less than 1% percent of the U.S. population, it alone accounted for 5% percent of all losses from natural disasters in the nation during that time period.⁹⁰ Further, because the

⁸⁴ PR-USVI Fund Notice, 33 FCC Red at 5418, para. 55.

⁸⁵ We adopted a similar approach in the CAF II Auction. *See CAF II Auction Order*, 31 FCC Rcd at 5956-63, paras. 14-37 (providing low latency of \leq 100 ms a 25-point advantage over high-latency of \leq 750 ms); *see also* Liberty Comments at 19 (suggesting weighting similar to CAF II for high-latency and low-latency service).

⁸⁶ See Hughes Oct. 23, 2018 Ex Parte at 4 (providing performance metrics for latency and other criteria); CRG Communications Comments; SIA Comments; PRMA Comments at 2-3; Casa Pueblo Comments; Liga de Cooperativas de Puerto Rico Comments at 2; See Letter from Ernest T. Sanchez, Coalition to Fund CPR, to Marlene Dortch, Secretary, FCC, WC Docket No. 14-83, at 2-3 (filed July 5, 2019) (CPR Ex Parte).

⁸⁷ See infra para. 29; see also CPR Ex Parte at 2.

⁸⁸ See PRTC Comments at 20; BBVI Comments at 8; PRTRB Comments at 16; VPNet Comments at 10.

⁸⁹ Sahil Chinoy, *The Places in the U.S. Where Disaster Strikes Again and Again*, New York Times (May 24, 2018), https://www.nytimes.com/interactive/2018/05/24/us/disasters-hurricanes-wildfires-storms.html (2002-17 Disasters *Analysis*).

⁹⁰ *Id.*; *See* United States Census Bureau, 2018 Population and Housing Unit Estimates Tables, https://www.census.gov/programs-surveys/popest/data/tables.html (last visited Aug. 26, 2019); *see also* National Oceanic and Atmospheric Administration (NOAA) Hurricane Research Division, Frequently Asked Questions: What Is My Chance of Being Struck by a Tropical Storm or Hurricane?, https://www.aoml.noaa.gov/hrd/tcfaq/G11.html (last visited Aug. 23, 2019) (illustrating that based on data from 1944 to 1999, Puerto Rico and the U.S. Virgin Islands have a 42 percent or greater likelihood of being affected by a

Territories are insular, preparation for and recovery from disasters is particularly difficult and network infrastructure is especially vulnerable due to high shipping costs, topography and weather, and distance from the mainland. We agree with Liberty that network resilience is a key component of a successful network. Supporting resilient networks is consistent with our obligation to use the Fund to help provide access to quality services at reasonable rates in Puerto Rico and the U.S. Virgin Islands, in light of the particular risks the Territories face. Further, a hardened network can help guard against future restoration costs. As PRTC illustrated, the storms devastated the progress made with the use of CAF Phase I frozen support. If the Commission is to provide federal funding to support modern networks in Puerto Rico and the U.S. Virgin Islands, we find it prudent and in the public interest to account for the heightened possibility of future natural disasters in the Territories. We therefore will factor the resilience and redundancy of any supported network in our fixed support allocation decision.

- 28. We recognize that resilience involves many factors, but our evaluation focuses on only a few key, objective criteria, consistent with our preference to avoid subjective processes. We account for the more subjective and situationally dependent factors of maintaining a resilient network through our disaster preparation and response plan requirement.⁹⁷ We measure network resilience by the ability of network facilities to recover quickly from damage to its components or to any of the external systems on which it depends. Resilience-improving measures do not absolutely prevent damage; rather, they enable network facilities to continue operating despite damage and/or promote a rapid return to normal operations when damage does occur. The scoring we adopt awards a points preference based on the level of resilience an applicant proposes to build into its network and/or the redundancy or diversity it proposes to create in its network.⁹⁸
- 29. Many service providers reported that burying fiber is their preference for creating resilient networks hardened against disasters.⁹⁹ We agree that burying fiber is ideal because it provides the best protection of the network against the high winds of storms and the atmospheric elements in

(Continued from previous page) ————
tropical storm or hurricane during an Atlantic hurricane season, more than the significant majority of the coastal
portion of any state, and surpassed only by portions of south Florida and the Carolina outer banks). The New York
Times study indicated that Guam, the Northern Mariana Islands, and American Samoa experienced a loss of \$5
million or more from natural disasters in all or nearly all zip codes from 2002-2017. See generally 2002-17
Disasters Analysis. However, those territories are not at issue in this proceeding, and of the three only the Northern
Mariana Islands has a price cap carrier.

⁹¹ See, e.g., PRTRB Comments at 8 ("[T]he entire territory of Puerto Rico faces higher costs given its insular nature, rendering it dependent primarily on ships and planes for supplies and equipment."); Viya Comments at 2 (noting that conditions in the USVI are "uniquely challenging" because of the territory's "geographic isolation, mountainous topography, difficult climate, and the Territory's economic decline," because "most of the land area of the islands is mountainous and rural," and because "the useful lifespan of equipment deployed in the USVI is significantly reduced by frequent, destructive storms and the corrosive effects of salt water"); Viya Mar. 22, 2019 Ex Parte Attach. at 5 (stating that the "USVI is a challenging operating environment for communications providers even under the best of circumstances" because, among other things, "[a]ll equipment and most skilled labor must be imported, usually shipped"; "[m]ountainous terrain, tropical climate, and salt air make deployment and maintenance of equipment expensive and shortens equipment lifespan"; and "[p]ower is expensive"); PR-USVI Fund Order, 33 FCC Rcd at 5405, para. 2 ("Recovery of the communications networks in Puerto Rico and the U.S. Virgin Islands has proven especially challenging, particularly compared to other locations in the United States impacted by this season's hurricanes, due to their isolation from the mainland, which has caused logistical difficulties and contributed to ongoing electrical power outages.").

⁹² Liberty Comments at 16-24; Liberty Nov. 20, 2018 Ex Parte Attach. at 10-12.

⁹³ See 47 U.S.C. § 254(b)(1).

general.¹⁰⁰ Burying fiber all the way to every location, however, may not be financially or physically feasible in mountainous areas or otherwise challenging topography, or in areas with frequent or high likelihood of flooding. Accordingly, our scoring creates a preference for burying as much fiber as possible, but also allows for resiliency solutions that rely on a fixed wireless connection to the end user location, microwave backhaul, and/or satellite, which we find are all less vulnerable than above-ground wireline service because they rely on relatively fewer physical facilities that are easier to restore. 101 Satellite can be quite resilient, as shown by its performance and usage following the 2017 hurricanes, ¹⁰² though we expect there is a risk on the receiver end, as with a fixed wireless solution. While the record only identifies that carriers are installing microwave backhaul as a source of redundancy, we include it in our scoring framework for the primary transmission path to maximize flexibility and ensure that numerous resilient options are available. 104 It is clear following the storms that aerial transmission lines are not a storm-hardened solution that can provide reliable communications to customers living in the Territories. 105 By all accounts, aerial transmission lines required the most repair and left the network the most vulnerable. 106 We agree, however, with Viva that aerial wireline networks using high-wind rated composite poles provide more resiliency over traditional poles.¹⁰⁷ Thus, based on the record, we allow proposals based on aerial wireline deployment because we recognize that it may be the most costeffective, or even the only, means of providing service to some locations.

30. Accordingly, we will assign 60 points for a solution that relies on aerial wireline deployment. Recognizing that new pole technologies, specifically high-wind rated composite poles, provide increased resiliency over traditional wooden poles, we will assign as few as 40 points for use of high-wind rated composite poles over standard aerial wireline deployment. Similarly, we will assign as few as 40 points for a resiliency solution that relies on fixed wireless connection to the end user,

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94 PRTC Comments at 7 ("PRTC's investment in broadband expansion in the island, which was supported in part by
the annual \$36 million in high cost frozen support, was substantially wiped out by the hurricanes."); PRTC Reply at
14.15

⁹⁵ Even if Hurricane Maria was a "once in a lifetime" occurrence, as AT&T suggests, lesser storms can still cause significant damage. *See* AT&T Comments at 17 (characterizing Maria as a "once in a lifetime" event). *But see* NOAA, Hurricane Maria's Devastation of Puerto Rico (Aug. 1, 2018), https://www.climate.gov/news-features/understanding-climate/hurricane-marias-devastation-puerto-rico (noting that there have been at least nine Atlantic Hurricanes on record more intense than Hurricane Maria).

⁹⁶ We also will require *all* Stage 2 support recipients to prepare and comply with a Disaster Preparation and Response Plan and to perform mandatory DIRS reporting. *See infra* Section III.C. As a result of our analysis, we reject AT&T's argument that we should not condition Stage 2 support on compliance with network resilience and other disaster response measures. *See* AT&T Comments at 17.

⁹⁷ See Appendix B; Viya June 14, 2019 Ex Parte at 4, 19 (arguing that the Commission should treat commercially reasonable resiliency as a "baseline gating requirement, rather than a factor garnering points, because resiliency is such a fact-specific and subjective quality"). While we account for more subjective hardening measures in the manner Viya suggests, some key forms of hardening are more readily quantifiable and provide a useful basis to compare applications. see Viya June 14, 2019 Ex Parte at 19 (identifying "undergrounding (where appropriate)" as a way of increasing a network's resiliency).

⁹⁸ See Notice, 33 FCC Rcd at 5418, para. 55 (seeking comment on how to factor storm hardening proposals into scoring and whether to weight bids based on compliance with industry resilience standards, CSRIC best practices, or another industry-used standard for network resilience). We view our approach as consistent with technology neutrality because we allow providers with many different technologies to participate, rather than foreclose less resilient technologies.

⁹⁹ See, e.g., Liberty Comments at 23 ("By reducing the amount of aerial pole attachments and burying more fiber, networks are inherently less susceptible to severe weather in most locations."); Viya Reply at 4 (arguing that Viya is "best positioned to rapidly restore resilient" service, in part because most of its middle-mile network is buried); BBVI Feb. 13, 2019 Ex Parte Attach. at 12.

microwave backhaul, or satellite (e.g., an all-satellite solution would receive 40 points). We will assign as few as zero points for a resiliency solution that relies on buried fiber (e.g., an all-buried fiber solution would receive no points).

We recognize that applicants are likely to use a mix of outside plant types, so we award point reductions for resiliency based on the percentage of the miles an applicant proposes to use for a particular solution (e.g., buried fiber or aerial) within the geographic area for which it is submitting an application. 110 For example, if a provider intends to bury fiber to 70% of the miles of its network in a geographic area, use a fixed wireless end user connection solution for 20% of the miles of its network in a geographic area, and aerial deployment for 10% of its network in geographic area, we will assign 6 points for aerial (10% of 60), assign 8 points for fixed wireless (20% of 40), and assign no points for buried fiber (70% of 0)—for a total of 14 assigned points for resilience.¹¹¹ We recognize that network miles is not an apt measurement for satellite, so we will award points for a network that uses a mix of satellite and terrestrial transmission to the end-user location based on the percentage of locations reached via each transmission medium. For example, if a carrier proposes to reach 50% of its network locations via satellite and 50% via aerial, we will assign a resilience score of 50 ((50% of 40) + (50% of 60)). We decline Viva's proposal to measure resiliency for all services based on end-user connections because network miles is a better measure of the resiliency of the entire network. 112 We decline to adopt the proposals of Viya and PRTC to weigh core network miles more heavily than last mile connections.¹¹³ Applying this weighting would undermine the incentive to harden connections to end users, ultimately making networks less able to successfully withstand disaster. While Viva and PRTC are correct that core network miles serve many more customers than last-mile connections, 114 for this same reason applicants need less incentive from our weighting system to harden core network miles compared to end-user connections.

¹⁰¹ See BBVI Feb. 13, 2019 Ex Parte Attach. at 12; Letter from James Arden Barnett, Jr., Counsel to Optivon, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 et al., at 3 (filed Sept. 18, 2018); VPNet Reply at 4; Letter from Robert E. Stup, Jr., and Peter M. Bean, Counsel to Neptuno Media, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 2 (filed Dec. 10, 2018) ("Neptuno attributed its success in [restoring service in rural areas] to the demonstrably faster recovery time associated with fixed wireless networks than traditional wireline networks, which are costly and difficult to repair.").

¹⁰² See, e.g., Hughes Nov. 20, 2018 Ex Parte at 2; CRG Comments at 2; PRMA Comments at 3; CPR Ex Parte at 2.

¹⁰³ FCC, October 2018 Hurricane Michael Impact on Communications: Preparation, Effect, and Recovery, PS Docket No. 18-339, Report and Recommendations at 20-21, para. 43 (PSHSB 2019), https://docs.fcc.gov/public/attachments/DOC-357387A1.pdf (explaining that Hurricane Michael damaged or destroyed some consumer satellite receivers). *But see* Hughes Sept. 16, 2019 *Ex Parte* at 1 (stating that, "assuming the structural integrity of a residence (and the availability of power), our internal data shows that an overwhelming percentage of our VSATs have survived the storms and are in working order"). Hughes did not submit or explain in detail its internal data, and Hughes acknowledges that the integrity of the end-user receiver is dependent on other factors, such as where it is housed. Therefore, we find that our assessment of potential risk is justified by the information available.

¹⁰⁴ See Letter from Raquel Noriega, Director, Federal Regulatory, AT&T, to Marlene Dortch, Secretary, FCC, WC Docket No. 18-143 et al., at 1 (May 1, 2019) (describing among AT&T's hardening efforts as "expanding microwave backhaul redundancies where fiber burial is cost prohibitive").

Finally, as we also value redundancy as a key measure of a storm-hardened network, we 32. will assign up to 20 points depending on whether an applicant proposes a redundancy solution that includes a backup network or path diversity. Specifically, we will assign no points for a proposal that includes either a backup network or path redundancy, and we will assign 20 points to a proposal that includes neither a backup network or path redundancy. In its comments, BBVI explains how both backup network and path diversity are important to developing redundancy in the network. 115 Viva agrees that path diversity is important in building a resilient network. 116 Network diversity means maintaining a separate type of communication network that can provide services should the first type fail. For example, a diverse network system could be one that normally provides services through a fiber network, but which switches over to a satellite network in an emergency situation. We also agree with Viya that a diverse network system could include the use of a high-speed mobile broadband network in an emergency situation.¹¹⁷ Path diversity means that there is an alternate route to achieving communications within the network. For example, a network with path diversity could be one that deploys services through fiber, but which maintains a backup fiber ring that could re-route traffic in an emergency where the fiber network is cut, damaged, or otherwise not working. We believe these types of diversity can be achieved regardless of the type of carrier and so maintain our technology neutral objectives. We clarify, however, that we will not deduct points for satellite providers for redundancy simply based on the availability of a backup satellite path. The risk during storms is to the satellite system's ground-based earth stations, not space stations. Indeed, the points of potential failure for an all-satellite network during a storm may be more concentrated compared to terrestrial networks. Although we agree with BBVI that both network and path diversity are important, to remain flexible and meet our statutory and policy goals with this support, our scoring will equally reward a carrier for building in either network or path diversity. Nevertheless, we encourage carriers to build both into their network wherever possible as a best practice for building a storm-hardened network. We decline PRTC's proposal to assign up to 40 points for redundancy.¹¹⁸ The

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¹⁰⁵ See Viya Mar. 22, 2019 Ex Parte at 9, 10, 19, 23 (detailing the damage to utility poles and identifying using storm-resilient poles that withstand hurricane-strength winds as important to establishing resiliency).

¹⁰⁶ See Letter from Stephen E. Coran, Counsel, BBVI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, at 2 (filed Apr. 5, 2019); Tier 1 Comment at 1; Liberty Comments at 23; Viya Reply at 4; BBVI Feb. 13, 2019 *Ex Parte* Attach. at 12; Viya Mar. 22, 2019 *Ex Parte* Attach. at 7-10 (detailing damage to poles from storms).

¹⁰⁷ See Viya June 14, 2019 Ex Parte at 3 (proposing to provide services over a "hardened, recoverable network extensive undergrounding where feasible and, elsewhere, using composite poles rated for high winds"); Viya Sept. 17, 2019 Ex Parte at 5-6 (citing Mary Lou Jay, Rolling with the Punches, Composites Manufacturing (Sept. 1, 2018), http://compositesmanufacturingmagazine.com/2018/09/rolling-with-the-punches/; Dan Coughlin, Weathering the Weather: The Benefits of Composite Utility Poles in Storm Zones, Electric Energy Online (July/Aug. 2018), https://electricenergyonline.com/energy/magazine/1148/article/Weathering-the-Weather-The-Benefits-of-Composite-Utility-Poles-in-Storm-Zones.htm; Sriram Kalaga, Composite Transmission and Distribution Poles: A New Trend, Energy Central (Oct. 16, 2013), https://www.energycentral.com/c/tr/composite-transmission-anddistribution-poles-new-trend; Utility Products, Composite Poles Prove to be Solution Providers for Utilities (June 22, 2015), https://www.utilityproducts.com/home/article/16002508/composite-poles-prove-to-be-solution-providersfor-utilities). We find Viya's submission, including its attached support, more convincing than BBVI's unsupported assertion that "there are many examples of cases where composite poles did not withstand hurricane-strength winds." Letter from Michael Meluskey, CTO and Founder, Broadband VI, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., at 2 (filed Sept. 18, 2019) (BBVI Sept. 18, 2019 Ex Parte). We recognize, as BBVI states, that the increased resiliency associated with composite poles is dependent on many factors, including construction, environmental, and installation methods; however, we encourage the use of composite poles in light of their increased resiliency over wooden poles. Finally, we note that BBVI is incorrect that an additional notice and

scoring already reflects the relationship between resiliency and redundancy in building a network and the Commission's priorities related to the inherent qualities of each technology. Moreover, increasing the redundancy score would result in an overall change in priorities of the scoring criteria by allowing the same number of points for price per location as for resiliency and redundancy, contrary to our determination to weight price per location most heavily. Additionally, we decline Viya's proposal that we allow up to a 20 point deduction from the total resiliency and redundancy score for a commitment to provide at least eight hours of backup power at network components and customer locations¹¹⁹ because backup power, while important, is not a measure of *network* resiliency and because Commission rules already require voice providers to make available twenty-four hours of backup power for customers.¹²⁰ Additionally, we require winning applicants in this process to account for backup power in their Disaster Preparation and Recovery Plans.¹²¹

33. We adopt the same approach for rewarding redundancy as we do for resilience. For instance, if an applicant proposes building in network or path diversity for 60% of its network miles in a geographic area, we will assign a redundancy score of 8 (40% of network miles without path diversity or a backup network multiplied by 20).¹²² Consistent with our approach to resilience, we recognize that network miles is not an apt measurement for satellite, so we will reward a satellite service provider for redundancy based on the percentage of locations that it intends to reach with a backup network. For example, if a satellite provider proposes to reach 80% of its network locations with a backup network, we will assign a redundancy score of 4 (20% of locations without a backup network multiplied by 20).¹²³ We decline to adopt Hughes' proposal to award points for hardening if, among other things, the diversity that the service provider incorporates into the network covers no less than 70% of the service area.¹²⁴ We prefer the flexibility of a sliding scale to a binary system, and we do not see a significant benefit to rewarding coverage of areas without potential end-user locations. We also decline Hughes' proposal to change the amount of resiliency or redundancy points awarded to satellite, as the scoring already accounts for the inherent resiliency of satellite networks.¹²⁵

¹⁰⁸ See Viva Sept. 17, 2019 Ex Parte at 5-6.

¹⁰⁹ We agree with Viya's recommendation of up to a 20-point reduction for the use of high-wind rated composite poles based on their increased resiliency over traditional wooden poles. *See* Viya Sept. 17, 2019 *Ex Parte* at 6. The total point reduction for the use of high-wind rated poles will be based on the relative percentage of high-wind rated poles versus standard traditional poles within a geographic area as measured by network route miles. Thus, an applicant that proposes to use high-wind rated composite poles for 40% of its aerial route miles and wooden poles for the remaining 60% will receive an eight point reduction (40% of the available 20-point reduction).

¹¹⁰ For fixed wireless networks and microwave backhaul, we require mileage to be measured linearly from point-to-point of two network facilities, such as between two towers or buildings. *See* Viya Sept. 9, 2019 *Ex Parte* at Attach.

¹¹¹ If this calculation or any other scoring calculation would result in a fractional point total, we will round to the nearest whole number. For the avoidance of doubt, we clarify that we round a value of .5 up.

¹¹² See Letter from L. Charles Keller, Counsel to Virgin Islands Telephone Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143, Attach. at 3-4 (Viva Sept. 9, 2019 Ex Parte); Viva Sept. 17, 2019 Ex Parte at 3-4.

¹¹³ See Viya Sept. 17, 2019 Ex Parte at 2-4 (proposing scoring preference for "Central Network" miles over "Peripheral Connections."); Letter from Edgar Class, Counsel, PRTC to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket Nos. 18-143 et al., at Attach. 2-3 (filed Sept. 18, 2019) (PRTC Sept, 16, 2019 Ex Parte) (proposing weighting "backbone" miles greater than last mile direct connections to customers).

¹¹⁴ See Viya Sept. 17, 2019 Ex Parte Attach. at 2-3; PRTC Sept. 16, 2019 Ex Parte Attach. at 3-4.

 Network Resilience and Redundancy Measures
 Assigned Points

 Aerial wireline deployment
 60

 Satellite; fixed wireless end user location connection; microwave backhaul; aerial wireline deployment using high-wind rated composite poles
 40-60 sliding scale

 Underground fiber
 0-60 sliding scale

 Backup network/path diversity
 0-20 sliding scale

Table 5 — Network Resilience and Redundancy Scoring

34. Alternative Distribution Mechanisms. We view adopting a competitive process as the best and most efficient method for allocating high-cost support for fixed voice and broadband services in the Territories to achieve our goals for Stage 2, consistent with the Commission's proposals in the Notice. We agree with Liberty that the superior applications will reveal themselves through a competitive process. We therefore decline PRTC's and Viya's suggestions that we either grant the incumbent LEC a right of first refusal or direct Stage 2 support to the incumbent LEC. While PRTC and Viya each contend that its ability to provide cost-effective and comprehensive service across each respective territory justifies allocating support to it without exploring other options, we find that a fair and open competitive process (with safeguards built in to ensure that winners as a group are capable of providing quality services throughout Puerto Rico and the U.S. Virgin Islands) will ensure that the carrier

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¹¹⁵ BBVI Nov. 9, 2018 Ex Parte at 4.

¹¹⁶ Viya Mar. 22, 2019 Ex Parte Attach. at 23.

¹¹⁷ See Viva Sept. 9, 2019 Ex Parte at Attach.

¹¹⁸ See PRTC Sept. 16, 2019 Ex Parte Attach. at 2-3.

¹¹⁹ See Viya Sept. 17, 2019 Ex Parte Attach at 6; Viya Sept. 9, 2019 Ex Parte Attach.

¹²⁰ See BBVI Sept. 18, 2019 Ex Parte at 2; see also 47 CFR § 12.5 (requiring facilities-based providers of fixed residential service to offer for sale to customers 24 hours of backup power).

¹²¹ See infra Section III.C., paras. 134-137 (Disaster Preparation and Response Plan).

 $^{^{122}}$ If this applicant is the same applicant described above that received 14 points for resilience, the applicant would receive a total assigned score of 22 points (14 + 8) for resilience and redundancy measures.

 $^{^{123}}$ If this applicant received 40 points for resilience, it would receive a total assigned score of 44 points (40 + 4) for resilience and redundancy measures.

¹²⁴ See Hughes Oct. 23, 2018 Ex Parte at 3.

¹²⁵ See Hughes Sept. 18, 2019 Ex Parte Attach.

¹²⁶ See 47 U.S.C. § 254(b)(1), (3). See generally PR-USVI Fund Notice.

¹²⁷ Liberty Nov. 20, 2018 Ex Parte Attach. at 9.

¹²⁸ PRTC Comments at 16, 20-22 (advocating a right of first refusal); PRTC May 13, 2019 *Ex Parte* at 4-5; Viya Comments at 19-22 (advocating direct allocation to Viya); Viya Mar. 22, 2019 *Ex Parte* Attach. at 16 (advocating a right of first refusal). There is significant overlap between PRTC's and Viya's arguments in favor of a right of first refusal for Stage 2 support (or a right to Stage 2 support) and their arguments against eliminating frozen fixed

that is able to commit to the best combination of price per location, network performance, and network resilience and redundancy wins support. PRTC and Viya will each have the opportunity to demonstrate that it is the best choice according to an objective process that is also open for other carriers to compete for support that has been as yet unavailable to them. To these reasons, we find that the benefits of a process open to competition outweigh any added delay compared to granting a right of first refusal or a right to funding. Further, we do not find Viya's request to deploy a more resilient network capable of delivering faster service in exchange for guaranteed support persuasive. In the absence of a competitive process, we cannot know whether we will obtain a better proposal than Viya's, and unlike our competitive process, Viya's proposal would not allow for the possibility of reduced cost to the Fund.

We expect allowing multiple providers—including those that have not traditionally received high-cost support—to compete for funding will increase the efficiencies of bringing advanced services to consumers in Puerto Rico and the U.S. Virgin Islands, without having to offer another right of first refusal to the incumbent. 134 The CAF II auction demonstrated the clear benefits of injecting competition into our high-cost support mechanisms. Further, the 2017 hurricane season represents a changed circumstance that justifies revisiting our prior support decisions regarding Puerto Rico and the U.S. Virgin Islands to select what we now view as the best method of allocating support.¹³⁵ Thus, while the Commission previously allowed the incumbent ETCs in the Territories to elect frozen support over model-based support, 136 and granted price cap incumbent ETCs the opportunity to receive model-based support in exchange for state-level service commitments, ¹³⁷ we now depart from those decisions in this specific context. In the USF/ICC Transformation Order, the Commission relied on a series of predictive judgments in determining that it would offer a right of first refusal to price cap incumbent LECs prior to the CAF II auction, 138 but we no longer need to rely on such predictive judgments as the competitive process we adopt will identify the qualified provider best positioned to provide cost-effective, quality, hardened service according to the criteria we establish. We agree with commenters like WorldNet, BBVI, VPNet, Momentum Telecom, CRG and Hughes that our selection process should strive to be technology

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¹²⁹ See Viya Reply at 4-6; PRTC Reply at 15.

¹³⁰ See VPNet Reply at 5 ("In lieu of a 'right of first refusal' approach that enriches one party at the expense of all others, the Commission should adopt its proposal to award support using a competitive process that replaces the existing frozen high-cost support mechanism."); see Liberty Reply at 11 (stating that a right of first refusal "is simply a means to continue the same inefficiencies and ineffectiveness of the past").

Because we allow providers to account for efficiencies from their existing networks in setting forth their proposals. Because we allow providers to account for such efficiencies, we are neither treating Puerto Rico and the U.S. Virgin Islands as a "greenfield," as Viya suggests, nor are we ignoring the fact that Viya has the only territory-wide fixed network providing fixed voice and broadband services. *See* Viya May 16, 2019 *Ex Parte* at 1 (stating that the "NPRM contemplated treating the USVI and Puerto Rico as 'greenfield' opportunities"); Viya June 14, 2019 *Ex Parte* at 1 (stating that Viya has restored at least 25/3 Mbps service to more than 95% of U.S. Virgin Islands locations); Viya Apr. 19, 2019 *Ex Parte* at 1 (stating that Viya "already provides Connect America Fund-qualifying voice and broadband service to over 95 percent of the locations" in the U.S. Virgin Islands); Viya Comments at 20. We note that the minimum quality standards we establish below require higher usage limits than those the Commission used in CAF II. *See supra* Sec. III.A.1; *see also* FCC, *Economics and Analytics, Auctions, Connect America Fund Phase II (Auction 903)*, https://www.fcc.gov/auction/903.

¹³² See PRTC Comments at 21 ("By first offering support to the carrier that has already made substantial broadband investments, the Commission will accelerate restoration and expansion of broadband and avoid inefficient duplication of facilities."). As discussed below, we take numerous steps to design a competitive process that will move swiftly, thereby mitigating concern about delay; and PRTC recognizes that a competitive proposal process would be the second-fastest approach to disbursing support. See *id.* at 22 ("After the right of first refusal approach, evaluating competitive proposals would be the second most efficient manner of avoiding lengthy delays in

neutral and allow for diversity in the marketplace; ¹³⁹ granting the incumbent LEC a non-competitive right to support would be contrary to that goal.

- 36. The competitive process will advance our goals for prompt and complete deployment in Stage 2, and we agree with BBVI that additional steps in the process of allocating Stage 2 fixed support will only further delay buildout. Because we view it as introducing unnecessary delay, we decline to adopt AT&T's proposal to split fixed Stage 2 into a second stage focused on restoration and a third stage focused on new construction and network hardening. The proposed process is overly complicated and only further delays support to rebuild, improve, and expand service with little benefit to either the Commission or consumers. We also decline Viya's suggestion to bifurcate fixed Stage 2 Connect USVI Fund support into a \$16.4 million per year "Broadband Maintenance and Improvement Fund" and a \$2.25 million per year "Broadband Expansion Fund." Viya's suggestion would direct the vast majority of support to Viya without the benefit of a competitive process, contrary to our rejection of that approach, and it would unnecessarily limit the amount of support available for new, higher-speed, and more stormhardened deployment.
- 37. We also decline to subject proposals to public comment.¹⁴⁴ Public comment would add unnecessary delay to this process without having any impact on the Bureau's application of objective scoring criteria. Moreover, placing applications on public notice would be inconsistent with our restrictions on prohibiting communications among applicants during the application process¹⁴⁵ or with our approach in prior competitive processes for universal service support.¹⁴⁶
- 38. *Unified Approach*. In order to ensure the continued deployment of fixed and mobile voice and broadband service in the Territories, we adopt similar Stage 2 frameworks for Puerto Rico and the U.S. Virgin Islands. Puerto Rico and the U.S. Virgin Islands have many similarities—both are insular, suffered greatly from Irma and Maria, are at risk of future disasters, and face lower average income and higher poverty levels than any state.¹⁴⁷ We agree with PRTC that based on these similarities, we should adopt similar approaches for the Territories.¹⁴⁸ While Viya argues that we should adopt

- ¹³³ See Viya June 14, 2019 Ex Parte Letter at 3, 11 (offering, in exchange for being awarded fixed Connect USVI Fund support for a ten-year term, to deploy 100/20 Mbps service to 25% of locations and gigabit service to "major" anchor institutions within 18 months, and 100/20 Mbps service to 75% of locations and gigabit service to all anchor institutions within four years, using "extensive undergrounding where feasible" and elsewhere using composite poles).
- 134 See Viya Comments at 19-20 (arguing that Viya is similarly situated to incumbent LECs that received offers of model-based support in CAF II). Viya is correct that the Commission has previously only used competitive processes to award universal service support "in unserved and underserved areas." Viya June 14, 2019 Ex Parte at 2. The context-specific approach we adopt in this proceeding is necessary to ensure the deployment of resilient networks that are hardened against future disasters in all parts of these insular Territories, rather than only in areas that are currently unserved. Viya has not shown that its existing network meets the baseline standard for resiliency we adopt, let alone that it would be eligible for significant additional points for resilience and redundancy. Viya June 14, 2019 Ex Parte at 19 (arguing against separately evaluating resiliency). Nor does it show that it meets the usage limitation we adopt. Therefore, we disagree with Viya's assertion that "the challenge in the USVI is how to maintain existing broadband service levels." Viya June 14, 2019 Ex Parte at 2. And its argument would require us to set aside the potential cost savings benefit of a competitive approach. Id. (arguing that "the conditions in the USVI are more analogous to the circumstances in which the Commission has offered ILECs funding in exchange for accepting a statewide obligation to offer a specified service level").
- PRTC Comments at 25 ("On December 22, 2014, PRTC elected to continue to receive frozen support. The only thing that has changed since that election is that two massive hurricanes caused unprecedented devastation throughout Puerto Rico, including to the island's telecommunications infrastructure.").

distinct approaches to the two Territories because of differences between Puerto Rico and the U.S Virgin Islands, ¹⁴⁹ we find that the significant similarities between the two Territories outweigh these differences. In particular, the Territories' similar insularity and risk of future natural disaster justify careful design of a similar approach to address these challenges. Both territories face significant economic hardship, so distinctions in this regard do not warrant different treatment. We account for differences in population, density, and number of providers through the budget we set for each territory and in establishing different geographic areas for Stage 2 fixed support. We also find that the substantial added complexity of designing two distinct programs would delay the initiation of Stage 2, to the detriment of the Territories.

39. Submission of Competitive Proposals Public Notice. Having adopted a competitive proposal approach for distributing Stage 2 support, we now direct the Bureau to release an initial Public Notice within 90 days from the publication of this Order in the Federal Register that further details the expected timeline and submission process for competitive applications, and that restricts eligible providers from discussing their applications or application strategy with each other during the application process and until awards are announced. We expect that this Public Notice will reiterate the requirements for submission of a competitive proposal as adopted today and provide additional information regarding the process for submitting an application. We direct the Bureau to create any forms required for the submission of a competitive proposal and obtain the necessary approvals to use the form(s). We expect the Public Notice will provide instructions on how to use and submit any forms,

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¹³⁶ See USF/ICC Transformation Order, 26 FCC Rcd at 17737-38, para. 193 (identifying that price cap carriers serving specific non-contiguous areas of the United States—Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, and the Northern Marianas Islands—face different operating conditions and challenges from those faced by carriers in the contiguous 48 states, and directing the Bureau to consider the unique circumstances of these areas and to determine whether the cost model provided sufficient support to non-contiguous areas); CAM Inputs Order, 29 FCC Rcd at 4019-28, paras. 124-49 (discussing inputs related to plant mix, undersea and submarine cable, terrain methodology, state-specific inputs and company size, and adjusting a number of inputs in the CAM specific to non-contiguous areas to reflect better the unique costs and circumstances of serving those areas).

¹³⁷ USF/ICC Transformation Order, 26 FCC Rcd at 17727, para. 165, 17730-32, para. 174-78 (finding incumbent LECs uniquely positioned to rapidly deploy broadband over a large geographic area).

¹³⁸ See Viya Comments at 20 (citing *USF/ICC Transformation Order*, 26 FCC Rcd at 17730, para. 175) (arguing that the Commission should apply its prior predictive judgment that price cap incumbent LECs are likely to have few other wireline facilities, that there may be few other bidders with the financial and technological resources to deliver at scale, and that incumbent LECs are likely to have similar or lower costs compared to new entrants); PRTC Reply at 15 (quoting Brief of the Federal Communications Commission, *In Re: FCC 11-161*, at pp. 8-9 (10th Cir. July 24, 2013)) (explaining predictive judgments made in this regard in the *USF/ICC Transformation Order*). The (continued....)

the certification of ETC status, the Letter of Credit, and the Disaster Preparation and Response Plan. Such an information collection should include sufficient information in order for the Bureau to score each submission for each geographic area within the application, consistent with our scoring system adopted above. An applicant must submit only one comprehensive application to the Bureau for all geographic areas for which it is seeking support in a given territory, but it may include proposals within the application for all or only some of the geographic units. We also direct the Bureau to include more detailed information regarding the timing of selection and awarding of support.

- 40. Following the submission of a competitive proposal, we will permit an applicant the opportunity to make minor modifications to amend its application or correct defects noted by the applicant, the Commission, the Administrator, or other parties. Minor modifications may include correcting typographical errors in the application or supplying non-material information that was inadvertently omitted or was not available at the time the proposal was submitted. We will not allow major modifications to be made after the application deadline. Major modifications may include, but are not limited to, any changes in the ownership of the applicant that constitute an assignment or change of control, or the identity of the applicant, or the certifications required in the proposal.
- 41. Reviewing Competitive Proposals. We direct the Bureau to evaluate applications and select one winner per geographic area consistent with the methodology adopted in this Order. We agree with BBVI that that the Commission is in the best position to evaluate the competitive proposals and that Bureau review will yield the most efficient use of time and funds. We also agree with Hughes that we should avoid a "beauty contest," but we do not find it necessary to select a third-party reviewer to do so, as Hughes suggests. The Bureau has substantial experience with similar competitive processes—for example, the rural broadband experiments and the Lifeline Broadband Pilot—and with procurements to obtain numbering administration services. To ensure that winning applicants have the technical and financial qualifications to successfully complete their proposed projects within the required

¹³⁹ Letter from Jennifer A. Manner, Senior Vice President, Regulatory Affairs, Hughes Network Systems, LLC (Hughes), to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et. al, at 1 (filed Nov. 20, 2018) (Hughes Nov. 20, 2018 *Ex Parte*); Hughes Comments at 2, 14-18; BBVI Comments at 4; USVI Governor's Office Comments at 5; WorldNet Telecommunications, Inc. (WorldNet) Comments at 4; VPNet Comments at 10; CRG Comments at 2; Momentum Telecom Reply at 3-4 (opposing anti-competitive proposals by commenters); *see also* WorldNet Reply at 2-4.

¹⁴⁰ BBVI Reply at 10-11.

¹⁴¹ AT&T Comments at 11-14.

¹⁴² We find the safeguards we adopt below, including the fifth-year reassessment, eligibility criteria and requirements, scoring process, and oversight measures adequate to guard against neglect of unserved areas and inequities between carriers that AT&T is concerned about. *See infra* Sec. III.A; *See* AT&T Comments at 12-17.

¹⁴³ Viya June 14, 2019 Ex Parte at 3.

¹⁴⁴ See Viya June 14, 2019 Ex Parte at 4 (advocating a public comment period for applications if the Commission adopts a competitive approach).

¹⁴⁵ See infra para. 39 (discussing restricting eligible providers from discussing applications or strategy during the application process).

¹⁴⁶ See generally CAF Phase II Procedures PN, 33 FCC Rcd at 1428; Connect America Fund, et al., Order, WC Docket No. 10-90 et al, 29 FCC Rcd 8769, 8784-85, para. 45 (2014) (Rural Broadband Experiments Order); Wireline Competition Bureau Announces Application Process For Entities Interested In Participating in the Rural (continued....)

timeframes and in compliance with all statutory and regulatory requirements for the universal service support they seek, we direct the Bureau to collect from each applicant and review and approve a detailed network plan and documents evidencing adequate financing for the project.¹⁵⁷ To ensure a fair and thorough review of all applications we direct the Bureau to score the applications using at least two independent reviewers for each application who will not communicate about the contents or merits of the applications prior to issuing a final score.¹⁵⁸ Each reviewer shall score separately, and the final score for each application will be the average of all the reviewer scores. We decline to direct the Bureau to provide a public comment period on an applicant's proposal prior to scoring, as suggested by Viya¹⁵⁹ because a comment period is inconsistent with and unnecessary based on the objective scoring system we outline above.¹⁶⁰ Further, even a "brief" comment period may introduce months of delay if the Bureau is required to issue individualized written orders addressing arguments raised in comments to an application. While we appreciate the PRTRB's offer to collaborate and encourage continued communication and feedback, we find that a coordinated effort with another government agency in the way that the PRTRB proposes will not further the goal of efficiency in this process.¹⁶¹

- 42. Once an applicant's proposal has been approved, including its Disaster Preparation and Response Plan, the Bureau will release a public notice announcing that the winning applicant is ready to be authorized. At that time, the winning applicant will be required to submit a letter of credit and any other required information, within a specified number of days, as described in this Order. After those documents are reviewed and approved, the Bureau will release a public notice authorizing the winning applicant to begin receiving Stage 2 fixed support. 162
- 43. Package Proposals. We decline to allow package proposals. ¹⁶³ By adopting relatively large geographic areas for allocating support—municipios in Puerto Rico and two large areas in the U.S. Virgin Islands—as compared to the census blocks used in the CAF II Auction, applicants will be able to leverage economies of scale even in the absence of package bidding. Allowing package proposals would substantially complicate the selection process and undermine our goals of facilitating a swift selection process and prompt deployment. ¹⁶⁴ We find that comparatively modest benefits of package bidding, in

¹⁴⁷ See PRTC Reply at 17; Letter from Edgar Class, Counsel for PRTC, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., at 5-6 (filed May 13, 2019) (PRTC May 13, 2019 Ex Parte).

¹⁴⁸ PRTC Reply at 17.

¹⁴⁹ See Viya Comments at 14-18 (arguing that a different approach is justified for the U.S. Virgin Islands because it is smaller, more geographically disbursed, lower in population and population density, economically in worse shape, and has fewer providers compared to Puerto Rico).

¹⁵⁰ These requirements shall be substantially similar to the requirements of 47 CFR § 1.21002(b) applicable to competitive bidding for universal service support, which prohibits an applicant to a Commission universal service competitive bidding process from communicating with another applicant only with respect to "its own, or one another's, or any other competing applicant's bids or bidding strategies."

¹⁵¹ Although we decide that all providers that had an existing fixed network and provided broadband service according to June 2018 FCC Form 477 data, we direct the Bureau to require other reasonable application information, such as requiring applicants to submit along with their proposals a letter of credit commitment letter from an eligible issuing bank, and various other necessary certifications.

¹⁵² Following the submission and approval of all required OMB forms, the Bureau shall release a final Public Notice announcing and initiating the application window.

¹⁵³ In the event of a tie, we direct the Bureau to select the applicant with the lowest price per location.

light of the large geographic areas we select, are outweighed by the potential delays and complications in the application review process. All providers are welcome to submit a proposal for each eligible geographic area, and we will evaluate and score each independently.

- 44. *Unawarded Areas/Areas Without Applications*. We find that it is premature to determine the process and amount of support for any unawarded areas until after the initial competitive proposal support is awarded. Our primary focus is to encourage carriers to compete now for all areas of the Territories through the competitive proposal process we set up today. PRTC expressed concern about unawarded areas, noting a potential conflict between the competitive proposal process and the requirement that the incumbent serve any unawarded area with frozen support. However, we expect that each unit will receive at least one sufficient application. We do not want to create a process that potentially interferes with the incentives of the competitive proposal process. Following the awarding of support, we direct the Bureau to develop options and provide to the Commission, within 90 days of authorizing all selected applicants, a recommendation and specific action plan to determine the provider and amount of support for each of the unawarded areas, if any.
- 45. Support Term. We adopt a 10-year term of support, which we expect to begin in 2020, consistent with our proposal in the Notice. The Commission has used a 10-year support term on numerous other occasions. Overwhelmingly, commenters support the 10-year term. We recognize that, as BBVI states, deploying a fixed network is a time-consuming process. We also agree with PRTC that the unique challenge of having to rebuild from near complete devastation necessitates a 10-year term. While Liberty generally supports the 10-year term, it suggests frontloading support disbursement in the first five years to encourage network hardening due to the frequency and likelihood of natural disasters in the Territories. To the extent carriers can deploy more quickly while meeting their obligations, we encourage them to do so. However, we decline to accelerate the disbursements. A tenyear term with a six-year buildout obligation is consistent with our approach in CAF II. Given the

¹⁵⁵ Hughes Comments at 18; Hughes Oct. 23, 2018 Ex Parte at 1.

¹⁵⁶ See Rural Broadband Experiments Order, 29 FCC Rcd at 8781-94, paras. 30-71; Lifeline Pilot Report, 30 FCC Rcd at 4960; FCC, Numbering Resources, https://www.fcc.gov/general/numbering-resources.

¹⁵⁷ With respect to the detailed network plan, we direct the Bureau to adopt requirements similar to the "Detailed Description" required for CAF II long-form applicants. See CAF II Auction Procedures, Public Notice, 33 FCC Rcd 1428, 1514-18, paras. 300-05 (2018) (CAF II Auction Procedures PN). Regarding financing, we direct the Bureau to require a showing that the applicant has adequate financing in place to cover the costs of the project, including the anticipated support from the Fund. We do not require applicants to submit audited financial statements. We decline to adopt additional technical and financial qualification requirements. See Viya June 14, 2019 Ex Parte at 3, 14 (arguing that the Commission should "impose CAF-II financial and technical qualifications on applicants"); Viya Sept. 9, 2019 Ex Parte at Attach.; Viya Sept. 17, 2019 Ex Parte at 8. Our requirement of prior experience serving the territory for which an applicant seeking support establishes a heightened baseline of pertinent experience compared to CAF II—where the Commission allowed bidding by entities with no in-state experience and entities with solely electric distribution or transmission experience, and the Commission allowed entities without broadband, voice, or electric service experience to apply to bid. The heightened experience we require reduces the need for additional proof of relevant experience. See CAF II Auction Order, 31 FCC Rcd at 5981-86, paras. 97-110 (discussing eligibility). Additionally, given the smaller geographic area and pool of participants at issue here, and the importance of a swift process, we find that the added costs of more stringent technical and financial standards to applicants and in terms of potentially delayed funding and reduced participation are not justified.

¹⁵⁸ While we expect each reviewer to obtain the same score for the same application, we require a second reviewer to reduce the impact of any possible discrepancy.

¹⁵⁹ See Viya Sept. 9, 2019 Ex Parte, Attach.; Viya Sept. 17, 2019 Ex Parte at 7-8.

complexity of deploying a hardened network, it is unclear to what degree faster disbursement would lead to faster hardened deployment. Accelerating disbursements would increase the contribution factor, which is not warranted when balanced against the uncertain benefits of accelerated disbursement or our responsibility to manage the Fund.¹⁷⁴ Only Tier 1 opposed the 10-year term as "perpetuating a monopoly,"¹⁷⁵ but a competitive process addresses this concern by opening the opportunity to receive support while still providing support recipients the necessary time to recover the costs of deploying and maintaining a network.

- 46. *Eligible Providers*. We allow all providers that had existing fixed network facilities and made broadband service available in Puerto Rico or in the U.S. Virgin Islands, according to June 2018 FCC Form 477 data, to be eligible to participate in their respective territory's competitive process. We allow participation by fixed providers who rely on any technology, including satellite, that can meet the program's service requirements. We agree with numerous commenters that allowing inclusion of satellite providers is particularly valuable in the context of Puerto Rico and the U.S. Virgin Islands due to satellite's resilience and availability post-hurricanes. While AeroNet argues that we should exclude satellite due to its high latency, we account for services' varying latency in our scoring, as the Commission previously did with weighting performance tiers in the CAF II auction. 178
- 47. We find adjusting the date to June 2018 introduces the possibility of more participation and still allows the Commission to conduct the process efficiently, receive proposals from experienced providers, and minimize the risk that support recipients will default on service obligations.¹⁷⁹ While the *Notice* proposed to limit participation to those providers that reported service as of June 2017 FCC Form 477 data, after further consideration, we find June 2018 allows for the inclusion of satellite providers and other providers that served the islands immediately post-hurricane, which promotes competition, but still focuses on participation by those providers with experience operating networks in the Territories. We agree with several commenters that experienced service providers are more likely to successfully deploy, given the unique challenges of serving the Territories.¹⁸⁰ First, existing facilities-based providers possess

¹⁶¹ See PRTRB Comments at 11-12.

¹⁶² The Commission has used similar procedures for the CAF II Auction, Mobility Fund Phase I, Tribal Mobility Fund Phase I, and the rural broadband experiments. *See CAF II Auction Order*, 31 FCC Rcd at 5980, para. 93 *(citing Mobility Fund Phase I Auction Scheduled for September 27, 2012, Public Notice, 27 FCC Rcd 4725, 4771, para. 170 (WTB/WCB 2012) (Mobility Fund Phase I Auction Procedures Public Notice); Tribal Mobility Fund Phase I Auction Rescheduled for December 19, 2013, Public Notice, 28 FCC Rcd 11628, 11681, para. 188 (WTB/WCB 2013) (<i>Tribal Mobility Fund Phase I Auction Procedures Public Notice); Rural Broadband Experiments Notice*, 29 FCC Rcd at 10037, para. 71.

¹⁶³ PR-USVI Fund Notice, 33 FCC Rcd at 5418, para. 56.

¹⁶⁴ See BBVI Comments at 9 ("Permitting bids to include more than one geographic area will needlessly complicate a competitive proposal process likely to involve only a limited number of participants."); VPNet Comments at iii ("VPNet opposes package bidding because the small number of applicants anticipated does not justify the complexity of a package bidding variant.").

¹⁶⁵ PR-USVI Fund Notice, 33 FCC Rcd at 5419, paras. 58-59.

¹⁶⁶ PRTC Mar. 28, 2019 Ex Parte.

¹⁶⁷ PR-USVI Fund Notice, 33 FCC Rcd at 5414, para. 37.

¹⁶⁸ ACS Phase II Service Obligations Order, 31 FCC Rcd at 12092, para. 22; Connect America Fund et al., WC Docket No. 10-90 et al., Report and Order and Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10150, para. 32 (continued....)

experience serving the specific needs of the Territories, such as dealing with difficult terrain, distance from other landmasses, and relatively low subscribership rates, and as such are more likely to meet deployment targets. Additionally, we agree with PRTC and Viya that existing facilities-based service providers will be better equipped to expand service as quickly as possible, and existing providers with established track records serving these insular Territories will likely present a smaller risk of defaulting on their service obligations. To the extent that some providers would only enter those unique markets based on the availability of new federal funding, we are skeptical of such entities' ability to serve the specific needs of the Territories; ability to deploy quickly; level of financial risk; and commitment to provide long-term, high-quality service to consumers going forward. Moreover, we find that the time and resources required to pre-qualify for participation any potential new entrants would delay our implementation of Stage 2 with little benefit to the Fund or consumers. These concerns are all adequately addressed by limiting participation to providers that reported service as of June 2018 FCC Form 477 data.

- 48. We will allow broadband providers that, according to June 2018 FCC Form 477 data, serve only business locations to participate.¹⁸³ We agree with Neptuno that we "should cast a wide net with respect to eligible providers to allow for greater competition and participation" and that "[e]xcluding business-only providers would be detrimental to the recovery and expansion of services."¹⁸⁴ We expect broadband providers with experience serving business customers are likely to possess the requisite capabilities, experience, and commitment to serving the Territories to warrant allowing them to participate. And business-only service providers are better equipped than those with no presence to expand quickly, possess an existing track record that suggests a reduced risk of default, and possess experience with at least some of the challenges of serving the Territories.¹⁸⁵ We require any provider that receives support to serve all locations within the specified geographic area, as detailed below.
- 49. We disagree with Viya's suggestion that we limit participation to entities that previously provided both broadband and voice service. While voice is the supported service, a history of

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(2016) (*Alaska Plan Order*); *March 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3097, para. 22; *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 29 FCC Rcd 7051, 7061 at para. 35 (2014) (*April 2014 Connect America Order*); *Technology Transitions et al.*, CG Docket No. 10-51 et. al, WC Docket No. 10-90 et al. and GN Docket No. 13-15 *et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433, 1476-77, paras. 123-126 (2014); *Rural Broadband Experiments Order*, 29 FCC Rcd at 8774-75, para. 12 (all adopting 10-year terms of support).

¹⁶⁹ PRTC Comments at 16; BBVI Comments at 3; Viya Comments at 23; Data@ccess Comments at 4; *see also* PRTRB Comments at 12 (suggesting the Commission and PRTRB work together so that ETCs could offer 10-year proposals for support).

¹⁷⁰ BBVI Comments at 3.

¹⁷¹ PRTC Comments at 16.

¹⁷² Liberty Comments at 23-24.

¹⁷³ See CAF Phase II Auction Order, 31 FCC Rcd at 5964, paras. 40-41 (establishing a 10-year term with a six-year build-out obligation).

¹⁷⁴ We note that Stage 2 support will lead to storm hardening benefits well before the completion of the build-out obligation. First, we require a phased build-out, with an initial 40% milestone after the third year. Additionally, we require Stage 2 support recipients to conform to their detailed plan for resilience, power, and storm hardening throughout the support period.

¹⁷⁵ See Tier 1 Comments at 2, 3.

providing voice is not a necessary precursor to participation because we allow providers to become ETCs after selection. And while we agree with Viya that deploying high-quality, legally compliant voice service entails challenges, we expect that an experienced provider deploying an advanced broadband network should be able to meet those challenges. We therefore find that the benefits of allowing additional participation, which may lead to superior proposals at reduced costs to the Fund, outweighs any incremental benefit of restricting participation to existing voice service providers.

Eligible Areas. After consideration of the record, we adopt the proposal that all areas of Puerto Rico and the U.S. Virgin Islands will be eligible for support. 190 We agree with PRTC, VPNet, and BBVI that making all areas eligible allows support to be used anywhere it is necessary for new service. network upgrades, or storm hardening and resilience.¹⁹¹ Setting a more ambitious goal than mere restoration—to facilitate high-quality fixed broadband deployment to the full Territories—will enable us to promote provision of quality fixed service to more residents on a faster timetable and make available more backhaul to facilitate ongoing mobile deployment. We recognize that a consequence of making all areas eligible is that we may fund building in areas where networks currently exist, 192 which departs from our usual approach.¹⁹³ However, in the specific context of Puerto Rico and the U.S. Virgin Islands, we find that making the entirety of the Territories eligible for support at this time is necessary to ensure the deployment of resilient networks that are hardened against future disasters in all parts of these insular Territories, rather than only in areas that are currently unserved.¹⁹⁴ The Commission has already recognized the unique logistical and financial challenges of deploying networks in these insular areas, and the record here illustrates how these challenges are only exacerbated by the risk of experiencing natural disasters. 195 Making all areas eligible allows for a holistic approach to building and hardening the network so that cost efficiencies can be realized wherever possible. 196 Moreover, we expect applicants that already have facilities in an eligible area to have a significant competitive advantage relative to other applicants, ultimately resulting in more efficient use of the budget. By dividing the islands into large geographic areas and requiring service by the winning applicants to all locations within those geographic

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176 Thus, for instance, a provider that has deployed broadband in Puerto Rico but not the U.S. Virgin Islands according to June 2018 FCC Form 477 data would be eligible to apply for support throughout Puerto Rico, but not in the U.S. Virgin Islands. There were 15 unique June 2018 fixed broadband Form 477 filers in Puerto Rico and 6 in the U.S. Virgin Islands. We note that in addition to meeting this eligibility requirement, we require any winning recipient that is not already an ETC to become an ETC to receive support. See infra Sec. III.A.1, paras. 54-56; see also 47 U.S.C. §§ 254(e), 214(e)(1)(A). An ETC must use its own facilities or a combination of its own facilities and resale of another carrier's services when offering the supported services. 47 U.S.C. § 214(e)(1)(A).

¹⁷⁷ Hughes Comments at 8-9; Aspira Association Comments at 1; Holyoke Family Network Comments at 1-2; Estado Libre Asociado de Puerto Rico Comments at 1-2; Coopharma Comments; PRMA Comments at 3; Casa Pueblo Comments at 1-2; Casa de Oracion Getsemani Comments at 1; CRG Communications Comments at 1-2; Foundation for a Better Puerto Rico Comments at 1-2; Puerto Rico Cultural Festival & Parage of RI, Inc. Comments at 1-2; New Jersey Puerto Rican Congress, Inc. Comments at 1-3; SES Americom, Inc. and O3B Limited Comments at 1; Liga de Cooperativas de Puerto Rico Comments at 1-2; Puerto Rico Bible Society Comments at 1-2; Satellite Industry Association (SIA) Comments at 1; RC Consulting Comments at 2.

¹⁷⁸ AeroNet Ex Parte at 3; CAF II Auction Order, 31 FCC Rcd 5949, 5960-63, paras. 28-37.

¹⁷⁹ *PR-USVI Fund Notice*, 33 FCC Rcd at 5415, para. at 42. We also adopted a prior service prerequisite in the CAF II auction. *See CAF II Auction Order*, 31 FCC Rcd at 5982-83, para. 100.

¹⁸⁰ See PRTC Comments at 16-18; Viya Comments at 26; Neptuno Comments at 7; BBVI Comments at 5; Liberty Comments at 30-31; VPNet Comments at 6-7. While these commenters specifically support the Commission's proposal of using June 2017 data as the cutoff, we find that establishing a network to serve customers in the Territories in the year following the storms sufficiently exhibits an aptitude for operating successfully in this region, and we want to err on the side of inclusion to promote a successful competitive process.

¹⁸¹ See Liberty Comments at 31 ("Given the unique operating environment that Puerto Rico presents, any new entrants to the market are likely to face significant challenges that are not commonplace in the contiguous 48

areas, as discussed below, we prevent the "cream-skimming" of lower-cost areas that some commenters fear.¹⁹⁷ Ultimately, we expect to receive competitive applications for areas where carriers already have existing network facilities and will rely on our deployment obligations and reporting to ensure widespread, efficient, and improved coverage.

- 51. *Geographic Areas*. For Puerto Rico we adopt the Commission's proposal of a municipio as the geographic area for awarding support.¹⁹⁸ We agree with PRTC and AeroNet that using municipios will allow for economies of scale that make serving the historically unserved areas of a municipio more economical.¹⁹⁹ Additionally, municipios are well-defined and known to local populations and authorities. Coordination, planning, and cooperation with municipal authorities is likely to be easier on a municipio level, helping to promote efficient buildout.²⁰⁰ Finally, administering the competitive process will be easier using larger geographic areas, such as Puerto Rico's 78 municipios, versus its more than 900 barrios.
- 52. We disagree with commenters who argue for smaller geographic areas, such as census blocks, census block groups, or barrios or groups of barrios.²⁰¹ First, we find the heightened risk of disaster and insularity of Territories makes them different enough from other areas that we should consider the proper geographic area freshly, and we decline to adopt census blocks or census block groups simply because it mirrors how support has been awarded in other proceedings.²⁰² Second, because we require winning applicants to serve all locations within a municipio, using municipios will not allow winning providers to provide service only in dense areas where there is already robust service and ignore unserved areas, as AT&T claims.²⁰³ Third, we are concerned that using more granular geographic areas will create a greater risk of applicants applying only for lower cost areas, leaving higher cost areas without applications, and thus potentially without service. Puerto Rico has 55,156 distinct census blocks and 2,551 census block groups, but only 78 municipios. Liberty argues smaller areas allow providers to better target funding based on the very specific needs of a granular area.²⁰⁴ However, we agree with

¹⁸² PRTC Comments at 17; Viya Comments at 27.

¹⁸³ PR-USVI Fund Notice, 33 FCC Rcd at 5415, para. 42.

¹⁸⁴ Neptuno Comments at 7.

¹⁸⁵ PRTC argues that "[i]t would be difficult for a provider with experience serving only business locations to realize the Commission's goal of rebuilding and expanding service to residential and business locations quickly and efficiently." PRTC Comments at 17. However, it does not explain why that is the case. While Viya is correct that business-only providers likely lack experience serving difficult terrain in the Territories and in establishing residential-focused customer care such as call centers, *see* Viya Comments at 30, business-only providers remain substantially better positioned to serve successfully than non-providers, and we want to err on the side of inclusion to promote a successful competitive process.

¹⁸⁶ See Viya Comments at 28-29.

¹⁸⁷ See Viya Comments at 28-29.

¹⁸⁸ See Viya Comments at 29. Viya also suggests that broadband-only providers may not find it economical to serve customers who want to purchase only voice service, see id., but that argument is speculative without adequate supporting data.

¹⁸⁹ Cf., e.g., CAF II Auction Order, 31 FCC Rcd at 5959, 5982-83, n.52, paras. 100-101 (allowing electric cooperatives to participate in the auction based on their experience distributing a utility).

¹⁹⁰ PR-USVI Fund Notice, 33 FCC Rcd at 5415-16, para. 45.

PRTC that permitting applicants to pick and choose among census blocks or census block groups is likely to increase the number of areas without applications and may create an inefficient patchwork of winners across the island. Additionally, adopting the municipios approach provides the efficiencies that package bidding of smaller areas would also allow. Liberty asserts that, with smaller areas, a provider is likely to align its proposal with its intended expansion, which Liberty argues results in more efficient use of support. We are concerned, however, that allowing providers to customize their proposals to match their preexisting expansion plans would not create a sufficient incentive for providers to build to new, unserved areas. Moreover, proposals based on census blocks or census block groups may require a provider to artificially segment its network in each of its applications. Finally, proposals based on thousands of census blocks or census block groups would be extremely burdensome for Commission staff to review, which would frustrate the Commission's goal of conducting an efficient and expeditious process.

one that is composed of St. John and St. Thomas islands together and a second of just St. Croix island. Separating the islands into two geographic areas will allow for greater competition during the proposal process and potentially result in more than one funded carrier in the U.S. Virgin Islands. Viya argues that "the Commission must require participants to bid to serve the entire USVI as a single service area" because "[t]he economies of scale in the USVI are too limited for a provider to carve out a viable business serving only a portion of the USVI." Viya does not support this argument beyond pointing to the U.S. Virgin Islands' population and distance from the mainland. And elsewhere, Viya identifies the distance between St. Croix and St. Thomas/St. John as an impediment to service, suggesting that synergies in serving the two areas are limited. In light of this lack of clarity, we will err on the side of greater possible competition and adopt two geographic areas. We do not believe more granular geographic areas in the U.S. Virgin Islands are tenable, however, because of the small size and challenging topography of the territory, and because of St. John's designation as a national forest.

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¹⁹¹ PRTC Comments at 18-19; BBVI Comments at 6-7; VPNet Comments at 8; Letter from Stephen E. Coran,	
Counsel to BBVI, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket Nos. 10-9	90,
et. al., at 2 (filed May 31, 2019) (BBVI May 31, 2019 Ex Parte).	

¹⁹² See AT&T Comments at 13-15 (arguing that allowing the entirety of the territory to be eligible will only result in overbuilding between carriers and that it will incent providers to submit proposals only for least costly urban areas); Liberty Comments at 25-26 (recommending limiting areas currently served by unsubsidized terrestrial providers of fixed voice and broadband from receiving support for new facilities); Viya Reply at 8 (arguing that the Commission should not "direct universal service support to fund a new network or networks that duplicate Viya's existing, universal service-funded, ubiquitous network").

¹⁹³ See, e.g., USF/ICC Transformation Order, 26 FCC Rcd at 17701, para. 103.

¹⁹⁴ We therefore disagree with Viya's assertion that "[a]s a high-cost insular area that is still recovering from hurricanes and that faces substantial and ongoing fiscal challenges, the USVI is a particularly poor test bed for a new approach to allocating USF support that funds the overbuilding" of an existing network. Viya June 14, 2019 *Ex Parte* at 2; *see also id.* at 7. It is because the Territories face unique challenges that we must adapt our usual approach. We are not treating the Territories as a "test bed," but rather we are designing a context-appropriate support mechanism responsive to the particular challenges faced by the Territories, including heightened risk of natural disaster.

¹⁹⁵ See supra para. 27 (explaining these challenges).

¹⁹⁶ See BBVI May 31, 2019 Ex Parte at 2. We reject Viya's suggestion that we maintain its level of universal service support and allocate only the additional budget via the competitive process to buildout in unserved areas in the U.S. Virgin Islands for the reasons set forth in this paragraph and because we seek to promote—through support tied to defined obligations—the deployment of high quality, resilient network throughout the U.S. Virgin Islands rather than only piecemeal. See Viya May 16, 2019 Ex Parte at 2.

¹⁹⁷ See, e.g., Viya Comments at 19.

- 54. ETC Designation. Consistent with the Act and the Commission's rules, a provider must be designated as an ETC before receiving high-cost support.²¹¹ We allow fixed providers to obtain ETC designation after winning support, similar to the approach we followed for the CAF II Auction.²¹² There was broad support in the record for allowing carriers to become an ETC after winning support, but prior to receiving funds.²¹³ Although Viya argues that we should require applicants to become ETCs before applying to avoid having the failure of a winner to obtain ETC status adversely affect other applicants, we find the benefits of an expeditious competitive process and reduced up-front costs for applicants outweigh the risk that Viya raises.²¹⁴ Our experience with the CAF II Auction showed that carriers had little difficulty obtaining ETC designation and that the vast majority of applicants were able to obtain ETC designation by the deadline.
- 55. Accordingly, we adopt a requirement that, as a condition of receiving any awarded support through this competitive proposal process, a carrier must be an ETC. Any carrier that is not already an ETC must certify in its application that it will be designated within 60 days after being announced as a winner. Many of the likely applicants are already ETCs, and the PRTRB and U.S. Virgin Islands PSC were able to designate several applicants within 60 days for Stage 1.²¹⁵ Any winning applicant that fails to notify the Bureau that it has obtained ETC designation within the 60-day timeframe will be considered in default and will not be eligible to receive its support. A waiver of this deadline may be appropriate, however, if a winning applicant is able to demonstrate that it has engaged in good faith to obtain ETC designation but has not received approval within the 60-day timeframe.²¹⁶ No selected winner will be authorized to receive support prior to receiving its ETC designation.
- 56. We also decline Viya's suggestion to ensure that applicants are currently compliant with their ETC designations and obligations.²¹⁷ Conducting such investigations for each applicant could become highly time-consuming, which is inconsistent with a prompt distribution of support.²¹⁸ Further, states and territories are better-positioned than we are to evaluate compliance with the ETC designations they have granted.²¹⁹ Finally, we have not imposed this requirement previously in any competitive

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¹⁹⁸ PR-USVI Fund Notice, 33 FCC Rcd at 5416, para. 47.

¹⁹⁹ PRTC Comments at 19; PRTC May 13, 2019 Ex Parte at 4; AeroNet Ex Parte at 2.

²⁰⁰ PRTC Reply at 10-12; PRTC Comments at 19; PRTC Mar. 28, 2019 Ex Parte Attach. at 10.

²⁰¹ Liberty Comments at 24-25; PRTRB Comments at 13 (suggesting that funding be awarded at the barrios or group of barrios level); VPNet Comments at 8-9 (supporting census tract level as a middle ground between municipio and areas smaller than census tracts); *see also* Liberty Nov. 20, 2018 *Ex Parte* Attach. at 5; WorldNet Sept. 16, 2019 *Ex Parte* at 3.

²⁰² See Liberty Comments at 24 (arguing for census blocks, census block groups and package bidding because it mirrors what was done in the CAF Phase II proceeding); VPNet Comments at 9 (arguing for census blocks and census block groups because it was how support was awarded in other proceedings).

²⁰³ See AT&T Comments at 14; see also PRTC Comments at 19 (noting that municipios allows for economies of scale); see BBVI Comments at 7 (supporting a single geographic area to promote economic efficiencies and uniform service).

²⁰⁴ See Liberty Comments at 25.

²⁰⁵ PRTC May 13, 2019 Ex Parte at 4.

²⁰⁶ See id.

²⁰⁷ See BBVI Nov. 9, 2018 Ex Parte at 2 (discussing this approach as an alternative to its preferred approach of treating the U.S. Virgin Islands as a single minimum geographic unit). We include within each geographic area any abutting small islands to the extent that they have locations.

processes for allocating universal service support, and Viya has not explained why such a requirement is specifically warranted here.

- 57. Spectrum. As suggested by Viya, and as we did in the CAF II Auction, to ensure that applicants seeking to rely on spectrum-based technologies have the capabilities to meet all standards we adopt, we condition participation on a demonstration of sufficient access to spectrum.²²⁰ Specifically, we require applicants proposing to use spectrum-based technologies to provide written evidence of authorizations or licenses, if applicable, and access to operate on the spectrum it intends to use, to reach the fixed locations within the areas for which they seek support.²²¹ Applicants will be required to certify in their applications that they will retain their access to spectrum for the duration of the support term.
- 58. Leases. We decline Viya's suggestion that we require applicants to provide the Commission with up-front ten-year commitments for leased access to facilities they do not own.²²² While we expect applicants to be able to demonstrate how they will fulfill the commitments in their application, we refrain from dictating the specific business strategies and decisions of an applicant. Further, we are concerned that requiring this lengthy commitment up-front could disproportionately advantage incumbent carriers.
- 59. Deployment Obligation. We require each winning participant to deploy by the specified deadline to all locations within the municipio(s)/island(s) for which it is the winning applicant. Many commenters supported the Commission's proposal to require a winning applicant to deploy to all locations within a geographic area as a condition of receiving support for funded locations.²²³ Requiring

geographic area for proposals).

²⁰⁹ Viva May 16, 2019 Ex Parte at 2.

²¹⁰ See Viva Comments at 2.

²¹¹ 47 U.S.C. § 254(e); 47 CFR § 54.201(a)(1).

²¹² April 2014 Connect America Order, 29 FCC Rcd at 7064-65, para. 43; see also Rural Broadband Experiments Order, 29 FCC Rcd at 8778-79, paras. 22-23. We also followed a similar approach for Stage 1. See PR-USVI Order, 33 FCC Rcd at 5409, para. 19 (requiring recipients of Stage 1 to become an ETC before receiving support).

²¹³ See, e.g., BBVI Comments at 6; Hughes Nov. 20, 2018 Ex Parte at 3; VPNet Comments at 7; Momentum Telecom Reply at 3; Coalition to Fund CPR Reply at 3.

²¹⁴ See Viya Comments at 35-36. During Stage 1 seven providers obtained ETC designation for the U.S. Virgin Islands and Puerto Rico. As such, we do not expect this process will result in a substantial number of new ETC designations.

²¹⁵ PR-USVI Fund Order, 33 FCC Rcd at 5409, para. 19

deployment to all locations within the geographic area is consistent with our goal of ensuring resilient service to all parts of the Territories and our decision to make all locations eligible for support.

- 60. In establishing the specific deployment obligations for each eligible geographic area, we make three adjustments to safeguard against inaccurate data. First, although we use the existing CAM's location counts to determine how to allocate the budget to each geographic area, we will use the latest Census Bureau data to determine the actual deployment obligation. Second, we establish a one-year location adjustment process described below. Third, due to the potential of population shifts continuing post-hurricane, we will reassess deployment obligations by the fifth year of Stage 2 and make adjustments to final deployment obligations. We think this approach allows for the best balance of ensuring buildout to all existing locations, while permitting some adjustment of location numbers to reflect the possibility of population shifts in the Territories continuing.
- 61. The Census Bureau releases annual population data and has released several reports regarding population since the 2017 hurricanes.²²⁴ We agree with AT&T that the most current Census data will help give a better location count at the time of award than the locations identified by the CAM,²²⁵ and we therefore deviate from our proposal in the *Notice* to rely on the CAM for the purpose of establishing deployment obligations.²²⁶ Accordingly, we direct the Bureau to publish, along with the reserve prices for each area, its determination of the number of locations per geographic area, based on the most recent publicly available Census Bureau data for the Territories.
- 62. Deployment Milestones. As proposed in the Notice and as in the CAF II Auction, we require winning participants to deploy to at least 40% of locations after the third year of support, at least 60% after the fourth, at least 80% after the fifth, and 100% after the sixth year of support.²²⁷ While BBVI proposes a slightly accelerated timeline,²²⁸ we adopt the default schedule for administrative convenience.

⁽Continued from previous page)

216 See 47 CFR § 1.3. We expect entities selected for funding to submit their ETC applications to the relevant jurisdiction as soon as possible after release of the public notice announcing winning applications and will presume an entity to have shown good faith if it files its ETC application within 15 days of release of the public notice. A waiver of the 60-day deadline would be appropriate if, for example, an entity has an ETC application pending with a state, and the state's next meeting at which it would consider the ETC application will occur after the 60-day window.

²¹⁷ See Viva June 14. 2019 Ex Parte at 14.

²¹⁸ At this time, we have no evidence that any ETC serving the Territories is out of compliance with its obligations, and all ETCs are subject to ongoing oversight by the Territories, the Commission, and the Administrator.

²¹⁹ See, e.g., 47 CFR § 54.314 (certification of support for eligible providers).

²²⁰ See CAF II Auction Order, 31 FCC Rcd at 5962-63, 5981-82, 5986-88, paras. 35, 98, 111, 114; see also 47 CFR § 54.315; Viya Mar. 22, 2019 Ex Parte Attach. at 20; Viya Sept. 9, 2019 Ex Parte Attach. at 7; Viya Sept. 17, 2019 Ex Parte Attach.

²²¹ See CAF II Auction Order, 31 FCC Rcd at 5962-63, 5981-82, 5986-88, paras. 35, 98, 111, 114; see also 47 CFR § 54.315; Viya Mar. 22, 2019 Ex Parte Attach. at 20.

²²² See Viya Sept. 17, 2019 Ex Parte Attach at 7.

²²³ PR-USVI Fund Notice, 33 FCC Rcd at 5416-17, para. 49-50; see also Liberty Comments at 25 (supporting deployment to all locations in a geographic area); BBVI Comments at 7 (supporting deployment to all locations in USVI); VPNet Comments at 8 (supporting all locations); PRTRB Comments at 18-19 (supporting proposal that (continued....)

Moreover, recipients have other incentives to complete their deployment as quickly as possible—faster than the default schedule—both to begin earning revenues from the new service offerings and to be in a position where they are no longer required to maintain a letter of credit.

- One-Year Location Adjustment Process. We also establish a one-year location adjustment process similar to the CAF II auction location adjustment process, in which winning applicants will have the opportunity to resolve location discrepancies. This process will begin upon release of the Public Notice announcing the winning applicants. We expect this process will, in combination with the five-year review, mitigate any remaining issues with location accuracy.²²⁹ We believe this process is necessary to adequately verify the locations in the Territories post-hurricanes, and relying on the Commission's existing "reasonable request" standard for rate-of-return carriers in the wav that PRTC proposes is insufficient to ensure service to all locations.²³⁰ PRTC argues that simply requiring a winning recipient to provide service upon a consumer's reasonable request alleviates any need to count locations or verify that the obligation to serve all locations is met.²³¹ We disagree. Determining the number of locations in each geographic area is important, not only for this proceeding, but also going forward to ensure data accuracy. Creating a process here that determines exact location numbers is compelling, as the degree of the location problem is unknown—due to the high-level of destruction and potential shifts in population, the location numbers could be substantially different. We are requiring carriers to serve all locations, not just some number of locations, and we have lowered the high-cost threshold to allow carriers to do this. We are concerned that allowing carriers to simply make up any difference using the reasonable request standard would only create an incentive for inefficient use of support that we would be unable to audit.
- 64. AT&T suggests updating the CAM by giving carriers a year to identify and report location discrepancies,²³² and while we decline to do so prior to accepting applications as described above, we agree with AT&T's suggestion to give carriers the opportunity to adjust location counts.²³³

²²⁴ See The United States Census Bureau, Population and Housing Unit Estimates, Schedule, https://www.census.gov/programs-surveys/popest/about/schedule.html (last visited Aug. 23, 2019) (showing schedule for release of population and housing data related to Puerto Rico); PR Population Characteristics Data (showing population estimates by demographic characteristics); PR Population Totals Data (showing a decrease in population of about 130,000 from 2017 to 2018).

²²⁵ See AT&T Comments at 5.

²²⁶ See Notice, 33 FCC Rcd at 5416, para. 49.

²²⁷ PR-USVI Fund Notice, 33 FCC Rcd at 5419, para. 63; see also CAF Phase II Auction Order, 31 FCC Rcd at 5964, para. 40. These are deployment obligations, not reporting obligations.

²²⁸ BBVI Nov. 9, 2018 *Ex Parte* at 6 (suggesting committing to an accelerating deployment schedule should receive preference in the competitive process).

²²⁹ See Wireline Competition Bureau Seeks Comment on Procedures to Identify and Resolve Location Discrepancies in Eligible Census Blocks Within Winning Bid Areas, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 8620 (WCB 2018) (Location Discrepancy Public Notice).

²³⁰ See PRTC May 13, 2019 Ex Parte at 2-3 (arguing that location accuracy needs to be established and suggesting a "reasonable request" standard); see also April 2014 Connect America Order, 29 FCC Rcd at 7070, paras. 59-68 (explaining a request is reasonable where the expected revenue plus support exceeds the cost of providing service).

²³¹ See PRTC May 13, 2019 Ex Parte at 3.

²³² AT&T Comments at 15. Alternatively, it suggests using the number of housing units in eligible blocks as announced by the Commission and requiring the applicant submitting a proposal to certify it offered services to all units. *Id*.

Further, we want to encourage participation in the competitive process, and even with the five-year review, applicants may still be reluctant to apply for an area due to the high possibility of a discrepancy in locations. Accordingly, as we did with the CAF II Auction, we adopt a one-year notice period²³⁴ during which we will require Stage 2 fixed support recipients to bring to the Commission's attention discrepancies between the number of locations announced by the Bureau and the number of locations actually on the ground in the eligible areas within their winning areas. If a support recipient can sufficiently demonstrate that it is unable to identify actual locations totaling the number determined by Census Bureau data, its obligation will be reduced to the total number of locations it was able to identify in the area and its support will also be reduced on a pro rata basis.²³⁵ We make the one-year location adjustment process mandatory for support recipients to ensure accuracy and that we are using USF dollars efficiently.

Specifically, within one year after release of a public notice announcing the winners, a recipient that cannot identify actual locations must submit evidence of the total number of locations in the eligible areas, including geolocation data (indicating the latitude/longitude and address of each location). in a format to be specified by the Bureau, for all the actual locations it could identify.²³⁶ Relevant stakeholders will have the opportunity to review and comment on the information, after which the Bureau shall issue an order addressing the recipient's showing and any such comments. The evidence submitted by a support recipient will also be subject to potential audit. The Commission previously directed the Bureau to implement this process for the CAF Phase II auction, including establishing procedures and specifications for the submission of this information, such as collecting the data through the Universal Service Administrative Company's (USAC) High Cost Universal Service Broadband (HUBB) online location reporting portal, and we direct the Bureau to use a similar process here.²³⁷ In cases where the Bureau has determined by a preponderance of the evidence that there are no additional locations in the relevant eligible areas, we direct the Bureau to adjust the support recipient's required total location obligation and reduce its support on a pro rata basis.²³⁸ We direct the Bureau to issue a public notice or order detailing instructions, deadlines, and requirements for filing valid geolocation data and evidence for both support recipients and commenters, with any adjustments necessary that are unique to the Territories. We decline to adopt PRTC's proposal to apply a pro rata reduction only where the final number of locations is less than 90% of the total locations.²³⁹ We expect an applicant's proposal to reflect its due diligence and informed business determinations of the costs and support amount required to satisfy its commitments, and as such, the Fund should not be accountable for the incorrect assumptions in a carrier's proposal. Further, we do not wish to provide support for non-existent locations.

²³⁴ See Connect America Fund, et al., Order on Reconsideration, WC Docket No.10-90 et al., AU Docket No. 17-182, Order on Reconsideration, 33 FCC Rcd 1380, 1388-91, paras. 22-28 (2018) (CAF II Auction Order on Reconsideration). See generally Location Discrepancy Public Notice, 33 FCC Rcd at 8620.

²³⁵ CAF II Auction Order on Reconsideration, 33 FCC Rcd at 1390, para 26 (declining to permit applicants to identify additional locations to serve above their state total).

²³⁶ If a recipient does not need to adjust its deployment obligation, it must certify to that effect.

²³⁷ See id. at 1389, para 23.

²³⁸ The new support amount would be reduced by (total support/model locations) x number of deficient locations. The Commission has used a preponderance of the evidence standard for its challenge processes. *See, e.g., Connect America Fund et al.*, WC Docket No. 10-90 et al., Order on Reconsideration and Second Report and Order, 32 FCC Rcd 6282, 6312, para. 63 (2017); *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 7766, 7779, para. 33 (2013).

²³⁹ PRTC Sept. 16, 2019 Ex Parte Attach. at 1-2.

Fifth-Year Reassessment. Consistent with the Commission's proposal in the Notice to 66. establish a fifth-year reassessment, we establish a voluntary process to reassess the deployment obligations of the applicants awarded fixed support before the end of the fifth year of support.²⁴⁰ Conducting a reassessment helps us to ensure that we are spending Fund resources wisely and based on up-to-date information. We agree with VPNet and BBVI that there are clear benefits to revisiting deployment obligations during the support term to address any intervening events, new data, or other changed circumstances that may impact deployment obligations.²⁴¹ While the Commission inquired about whether to tie the reassessment to deployment milestones and trigger the reassessment only if a provider falls short,²⁴² we decline to so limit this process²⁴³ and instead create a voluntary opportunity for support recipients to request the Commission carefully review its obligations. Specifically, we direct the Bureau to establish a process no later than the beginning of the fifth year to provide recipients an opportunity to request reassessment of their obligations. We expect any request for reassessment will be accompanied by specific information, documents, evidence and data upon which the agency can make an informed decision. This reassessment will allow the Bureau to determine whether to adjust any deployment requirements based on newly-available data or changes in circumstances, such as future disruptive disasters or altered subscribership or revenue due to population shifts.²⁴⁴ We direct the Bureau to seek public comment on any requested reassessment, including on the documentation, data, and evidence put forward to support the request, and then evaluate the record. If, based on the Bureau's review, an adjustment of deployment obligations or locations is warranted for any winning applicant, we direct the Bureau to announce those changes in a public notice.

2. Budget

67. Support for Fixed Providers in Puerto Rico. We allocate a maximum budget of \$504.7 million over 10 years for Stage 2 fixed support for the Uniendo a Puerto Rico Fund. This represents an increase of \$60.2 million above the \$444.5 million budget proposed in the *Notice*, and an annual increase of about \$14.1 million, or 39%, over the current annual support amount.²⁴⁵ We agree with commenters that factors such as Puerto Rico's challenging economy—including median household income of only around \$20,000—can contribute to low subscription rates and low average customer revenue.²⁴⁶ PRTRB

²⁴⁰ See PR-USVI Fund Notice, 33 FCC Rcd at 5420-21, para. 67.

²⁴¹ VPNet Comments at 12; *see also id.* ("The Commission is correct in noting that long-term planning is and will remain a challenge in Puerto Rico, given the disruptive nature of natural disasters and the population shifts that ensue."); BBVI Comments at 9-10 (supporting the proposed reassessment and stating that "an opportunity to revisit deployment will enable all parties to reset expectations that may, in a difficult environment, prove to be incorrect due to factors such as weather events, permitting delays, and other unanticipated circumstances.").

²⁴² See PR-USVI Fund Notice, 33 FCC Rcd at 5420-21, para. 67.

²⁴³ We note that our rules provide us other tools to sanction any provider that fails to meet its obligations. *See, e.g.*, 47 CFR § 54.320(c)-(d).

²⁴⁴ We expect the quality and availability of post-hurricane data regarding Puerto Rico and the U.S. Virgin Islands to continue to improve. *See Communications Marketplace Report et al.*, GN Docket No. 18-231 et al., Report, FCC 18-181, para. 242 (Dec. 26, 2018) ("In general, we report data separately on the U.S. Territories because the data for 2017 may significantly overstate current deployment in Puerto Rico and the U.S. Virgin Islands, which account for over 92% of the total combined population of the U.S. Territories. We are uncertain as to the current deployment of broadband services in these areas given the damage to infrastructure in Puerto Rico and the U.S. Virgin Islands from Hurricanes Maria and Irma in 2017.").

²⁴⁵ *PR-USVI Fund Notice*, 33 FCC Rcd at 5413, para. 30. The *Notice* inadvertently and erroneously identified about \$294.6 thousand in annual frozen support to WorldNet as mobile support rather than fixed. *See PR-USVI Fund Order*, 33 FCC Rcd at 5407-08, para. 11; *see also* WorldNet Petition at 2, n.6.

²⁴⁶ See, e.g., PRTC Comments at 15; Liberty Comments at 8, 28-30; Liberty Reply at 7; PRTC Oct. 12, 2018 Ex Parte at 2; PRTRB Comments at 3, 6-9 (stating that carriers will be unable to absorb the full costs of network (continued....)

also explains that inland areas of the island contain rocky terrain that challenge deployment and that those physical challenges are exacerbated by mudslides and flooding triggered by tropical storms and hurricanes.²⁴⁷ We are convinced that the proposed budget may not adequately account for these challenges in deploying storm-hardened fixed service to Puerto Rico.

- We determine this budget by running the CAM with a reduced high-cost funding threshold of \$29.00 per location, eliminating the extremely high-cost threshold, and without accounting for reported competitive coverage. In contrast to our approach to CAF, this method allows for support to relatively lower-cost locations and eliminates any limit on support for extremely high-cost locations.²⁴⁸ These changes are appropriate so that we can better account for the economic challenges facing providers in Puerto Rico and so we can ensure deployment of storm-hardened networks to all locations in Puerto Rico in a single stage. We view rapid deployment of storm-hardened, quality networks to all locations in Puerto Rico as an important priority. The CAM uses the most relevant and reliable cost data for the Territories and it is our best and only objective means of projecting cost, even if it does not capture all fixed costs of serving the Territories.²⁴⁹ Because requiring resilience, redundancy, and maintenance of a Disaster Preparation and Recovery Plan is novel and we do not yet have applicants' proposals, we rely on an approximation through modifications to our application of the CAM. We believe the adjustments we make yield a budget appropriate to support the additional costs associated with building resilient and redundant networks in Puerto Rico, and therefore decline to impose a significant delay in awarding support that would be necessary to alter the CAM inputs or otherwise develop a different mechanism to calculate the budget.²⁵⁰ We note that the competitive process we establish will allow each applicant to request support at a level that reflects its understanding of the costs of deployment, potentially driving actual support below the reserve price and reducing the need for us to calculate cost with greater precision.251
- 69. We disagree with PRTC's suggested Stage 2 fixed budget for Puerto Rico of \$98 million per year.²⁵² Its proposed adjustments to the CAM assume that it would be necessary for us to support new construction in all locations in Puerto Rico,²⁵³ which is not a reasonable assumption because most carriers

²⁴⁷ PRTRB Comments at 8.

²⁴⁸ In CAF Phase II, the Commission did not allocate high-cost support where the per-location costs falls below \$52.50 per month, nor did it allocate support above the \$198.60 per-location per-month extremely high-cost threshold.

²⁴⁹ See USF/ICC Transformation Order, 26 FCC Rcd at 17737-38, para. 193 (discussing the challenges of serving non-contiguous areas); CAM Inputs Order, 29 FCC Rcd at 4019-28, paras. 124-49 (discussing inputs related to plant mix, undersea and submarine cable, terrain methodology, state-specific inputs and company size, and adjusting several inputs in the CAM specific to non-contiguous areas to reflect better the unique costs and circumstances of serving those areas); id. at 4028-29, paras. 150-54 (providing non-contiguous carriers the opportunity to elect model support or frozen support and noting that carriers have raised questions regarding whether model-calculated support would be sufficient); see also Letter from Edgar Class, Counsel to PRTC, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., at 4-5 (filed Dec. 17, 2018) (PRTC Dec. 17, 2018 Ex Parte) (discussing CAM in Puerto Rico); PRTC May 13, 2019 Ex Parte at 2.

²⁵⁰ See CAM Inputs Order, 29 FCC Rcd at 4028-29, paras. 150-54 (recognizing that continuing to work on the model to account for the unique costs and circumstances of serving non-contiguous areas delays an offer of support).

²⁵¹ See PRTRB Comments at 14-15 (arguing a request for proposals process balances out the Puerto Rico-specific costs not included in the CAM); Liberty Comments at 27-30 (arguing the flexibility of a competitive process allows the Commission to correct for cost input issues with the CAM).

²⁵² See PRTC Oct. 12, 2018 Ex Parte at 2.

²⁵³ See id. at 1-2 (applying an analysis based on all locations in Puerto Rico).

have reported complete or near complete restoration, including PRTC.²⁵⁴ We note that PRTC's proposed supplemental calculations to the CAM, which yield the budget it advocates, do not address all of the CAM's limitations in terms of tailoring to this proceeding.²⁵⁵ We do not intend to adopt a budget that would cover every conceivable cost a carrier may identify. In our predictive judgment, the budget should be sufficient to conduct a robust competitive process and we decline to decide at this time that we should revisit a larger budget in the near future.²⁵⁶ Insofar as any component of the Stage 2 budget we adopt here unexpectedly falls short of achieving our goals, we can revisit it at a future date.

- 70. Support for Fixed Providers in the U.S. Virgin Islands. We adopt the budget proposed in the Notice and therefore allocate up to \$186.5 million over a 10-year term for fixed broadband in Stage 2 of the Connect USVI Fund. The record reflects support for our proposal,²⁵⁷ and we did not receive comments advocating a reduction to the U.S. Virgin Islands fixed budget. We note that if we applied the same CAM-based approach to calculate the budget for the U.S. Virgin Islands as we do for Puerto Rico, it would reduce the ten-year fixed budget by about \$38 million. We find that the CAM therefore indicates that the U.S. Virgin Islands budget is sufficient, and we find there is no need to increase the budget at this time.²⁵⁸ At the same time, we find it is not prudent to reduce the budget and thereby reduce the likelihood of success of the competitive process we adopt. As with Puerto Rico, we expect the competitive process we adopt to encourage competition to use support in a cost-effective manner, potentially leading to actual disbursement falling below the budgeted amount.
- 71. Other Approaches to Allocation. While some commenters recommend basing our allocation of fixed or mobile support solely on a single factor, such as on relative population²⁵⁹ or cost to serve,²⁶⁰ we find the approach we adopt above is the most appropriate to address the needs of the Territories. AT&T suggests the allocation between the Territories should be based on the latest Census Bureau figures,²⁶¹ but we do not currently have before us reliable post-storm data that would provide us with a basis to rely solely on population to allocate funding.²⁶² We also decline the request of

²⁵⁴ See supra note 23. The \$29 high-cost threshold we apply accounts for the probability that winning applicants will not require support to all locations.

²⁵⁵ See PRTC Oct. 12, 2018 Ex Parte at 2 (suggesting modifications to account for PRTC's claimed subscribership rate and average revenue per user). Therefore, in comparing the budget we adopt to PRTC's proposed budget, we are evaluating two rough approximations of actual cost in the context of Stage 2.

²⁵⁶ VPNet Comments at 4 (arguing the Commission should reserve the right to budget for additional support if the funding amounts are shown by annual reports to be inadequate).

²⁵⁷ See BBVI Comments at 3 (supporting the proposed budget); USVI Governor's Office July 11, 2019 Ex Parte at 1-2 (supporting the proposed budget); Viya May 16, 2019 Ex Parte at 2 (stating that "it is important that the Commission structure any competitive process in such a way that it does not reduce the \$18.65 million of annual support proposed in the NPRM to be made available for fixed voice and broadband services in the USVI," in arguing that the Commission should not use a competitive process that may reduce support). Viya argues that the budget would be insufficient if we adopt a competitive process in which we divide the U.S. Virgin Islands into geographic units for support in a manner that reduces incentives to serve high-cost areas. See Viya Comments at 25-26; Viya Reply at 12-13. However, this argument does not address the budget generally, and we divide the U.S. Virgin Islands into only two large geographic units. See supra Sec. III.A.1, para. 53.

²⁵⁸ As merely one illustration of the budget's adequacy, assuming a completely new deployment without any incumbents (i.e., a greenfield) and excluding any extremely high-cost threshold, the U.S. Virgin Islands budget would allow us to provide support with a high-cost threshold of about \$23.33 per location.

²⁵⁹ AT&T Comments at 5; Viva Comments at 41-43 (advocating allocating mobile support based on population).

²⁶⁰ Liberty Comments at 8-10.

²⁶¹ AT&T Comments at 5.

Data@ccess that we consider the relative financial struggle of the carriers in support decisions²⁶³ because we are allocating fixed support on a competitive basis and we do not want to reward possible inefficiency.

3. Oversight, Reporting, and Accountability

- 72. We adopt thorough oversight and accountability measures like those that the Commission has implemented in other recent high-cost support proceedings. Together, these measures fulfill our obligation to ensure that providers receive support "only for the provision, maintenance, and upgrading of facilities and service for which the support is intended" as required by section 254(e) of the Act.²⁶⁴ We agree with several commenters that careful oversight is necessary for us to ensure that recipients use support from the Uniendo a Puerto Rico Fund and Connect VI Fund efficiently and for its intended purposes.²⁶⁵
- 73. Reporting and Certification. We require fixed support recipients to satisfy all reporting and certification obligations of providers receiving CAF II auction support, as the Commission proposed in the Notice. Accordingly, each support recipient must, among other things, certify that it is able to function in emergency situations, and submit information regarding anchor institutions served. We align annual deployment reporting obligations with those adopted in the March 2016 Rate-of-Return Order, as the Commission proposed in the Notice. Accordingly, each support recipient must annually submit a certification and data demonstrating locations where it is prepared to offer voice and broadband service meeting the requisite performance standards. Failure to timely file geolocation data and associated deployment certifications may result in a reduction in support. We also require awarded providers to measure and report the speed and latency performance of their broadband service in

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262 Although there have been some population updates in Puerto Rico since the hurricanes, we do not have similar information regarding the U.S. Virgin Islands. See United States Census Bureau, Puerto Rico Commonwealth Population Characteristics: 2010-2018, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-detail-puerto-rico.html (last visited Aug. 23, 2019) (PR Population Characteristics Data); United States Census Bureau, Puerto Rico Commonwealth Population Totals and Components of Change: 2010-2018, https://www.census.gov/data/datasets/time-series/demo/popest/2010s-total-puerto-rico.html (last visited Aug. 23, 2019) (PR Population Totals Data) (showing a decrease in population of about 130,000 from 2017 to 2018).

²⁶³ Data@ccess Comments at 5; Viva Comments at 42.

²⁶⁴ 47 U.S.C. § 254(e); *see also* 47 CFR § 54.7(a) ("A carrier that receives federal universal service support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended."). Designing and adopting oversight and accountability measures when adopting a new or modified USF program not only ensures that the Commission meets its obligations under the Act but also facilitates our compliance with government-wide obligations for the efficient and effective design and implementation of federal programs. *See, e.g.*, Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (1993) (requiring federal agencies to develop strategic plans with long-term, outcome-related goals and objectives, develop annual goals linked to the long-term goals, and measure progress toward the achievement of those goals in annual performance plans and to report annually on their progress in program performance reports); GPRA Modernization Act of 2010, Pub. L. No. 111-352, 124 Stat. 3866 (2011).

²⁶⁵ See Liberty Comments at 31-32; BBVI Comments at 9-10; see also, e.g., CAF II Auction Order, 31 FCC Rcd at 6010, para. 172.

accordance with the requirements previously adopted, consistent with the proposal in the *Notice*.²⁷¹ We require fixed support recipients to annually certify their progress toward (or, beginning after the sixth year, completion of) deployment in accordance with the resilience and redundancy commitments in their application and in accordance with the detailed network plan they submitted to the Bureau thereafter. In the certification, applicants must quantify their progress toward the resilience and redundancy targets specified in their applications (e.g., number of fiber miles buried and/or deployed aerially, miles of fixed wireless last-mile connections and/or microwave backhaul, miles with a backup network or path diversity for terrestrial networks, locations reached with a backup network or path diversity for satellite). If, after the sixth year, the support recipient falls short of its resilience or redundancy commitment in a manner that would have resulted in a higher point total, 272 such failure will result in the withholding of support equal to a day of support for every mile by which the applicant fell short (or equal to a day of support for every end user location by which the applicant fell short, in the case of satellite). This support reduction is appropriate and reasonably scaled given the commitment an applicant makes to the Commission in its proposal and the opportunities we provide winning applicants to adjust those commitments and seek reassessment during the deployment process.²⁷³ Collectively, these requirements will ensure that the PRTRB, U.S. Virgin Islands Public Services Commission (PSC), USAC, and the Commission possess sufficient information to fulfill our oversight obligations.²⁷⁴

- 74. We subject awarded providers to the same compliance standards as other high-cost support recipients with defined obligations, consistent with the Commission's proposal in the Notice.²⁷⁵ Pursuant to these standards, a provider that fails to meet its milestones may have its support reduced until it can meet its obligations or face recovery actions.²⁷⁶ Several commenters support this proposal,²⁷⁷ and we agree that adopting clearly-defined consequences for non-compliance modeled on other defined obligation high-cost support mechanisms is necessary to ensure compliance.
 - 75. We decline to adopt new recordkeeping requirements regarding expenditures.²⁷⁸ We find

²⁶⁷ See infra Appx. A (applying 47 CFR § 54.313(e)(2) to fixed Stage 2 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund).

²⁶⁸ See PR-USVI Fund Notice, 33 FCC Rcd at 5420, para. 66; March 2016 Rate-of-Return Order, 31 FCC Rcd at 3167, para. 217.

²⁶⁹ See infra Appx. A, 47 CFR § 54.316(a)-(b).

²⁷⁰ See 47 CFR §§ 54.316(a)-(b), 54.320(d).

²⁷¹ See PR-USVI Fund Notice, 33 FCC Rcd at 5420, para. 66; Connect America Fund, WC Docket No. 10-90, Order, 33 FCC Rcd 6509 (WCB-WTB-OET 2018) (petitions for reconsideration pending) (defining performance measures for high-cost universal service support recipients). We note that all award recipients will be required to comply with the outcome of the pending petition for reconsideration.

²⁷² Because we do not employ fractional points, limiting a reduction in support to situations in which an applicant would have received more points creates a materiality threshold that avoids penalties for *de minimis* changes. For example, consider an applicant that received 10 points for resilience because it proposed to bury fiber to 75% of the miles of its network in a geographic area and to use a fixed wireless end user connection solution for 25% of the miles ($[(0 \times .75) + (40 \times .25)] = 10$). If it instead buries fiber to 74% of the miles of its network in a geographic area and uses a fixed wireless end user connection solution for 26% of the network miles in the geographic area, it would still receive 10 points—0 points (74% of 0) plus 10.4 points (26% of 40), totaling 10.4 and then rounded to the nearest whole number. In this case, the support recipient would not be subject to withholding.

²⁷³ See, e.g., 47 CFR §§ 54.313(j), 54.316(c) (reducing support equivalent to the period of non-compliance).

the general recordkeeping obligation of ETCs is sufficient to facilitate oversight.²⁷⁹ Our rules already require support recipients to maintain documentation for ten years, sufficient to justify deployment and spending, and recipients are subject to random audits to defend their expenditures.²⁸⁰ We find that additional requirements to maintain more detailed recordkeeping would be duplicative and overly burdensome and are, therefore, unnecessary for this process.

Letters of Credit. We require winning applicants to obtain a letter of credit, consistent with the requirements applicable to winning bidders in the CAF II Auction and other competitive bidding processes, including the same eligibility criteria for the issuing bank.²⁸¹ We agree with Viya that we should expressly adopt the same letter of credit requirements that the Commission put in place for the CAF II Auction.²⁸² We find that requiring an irrevocable letter of credit from a reliable financial institution is necessary to protect the Fund, and is an effective means of securing our financial commitment to provide Connect America support.²⁸³ Letters of credit permit the Commission to protect the integrity of universal service funds that have been disbursed and to reclaim support that has been provided in the event that the recipient is not using those funds in accordance with the Commission's rules and requirements to further the objectives of universal service. Moreover, letters of credit have the added advantage of minimizing the possibility that the support becomes property of a recipient's bankruptcy estate, thereby preventing the funds from being used promptly to accomplish our goals.²⁸⁴ Merely requiring a performance bond would not provide the same level of protection and would require the involvement of a third party to adjudicate any disputes that arise, which would complicate our process and unnecessarily limit the authority of the Commission to allocate funds. Experience shows that a competitive support program can obtain broad participation with a letter of credit requirement in place the CAF II Auction received applications from 220 qualified applicants and awarded \$1.488 billion in

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²⁷⁴ See Liberty Comments at 31-32: VPNet Comments at 12.

²⁷⁵ See PR-USVI Fund Notice, 33 FCC Rcd at 5421, para. 68; 47 CFR § 54.320(d).

 $^{^{276}}$ See 47 CFR \S 54.320(d); see also December 2014 Connect America Order, 29 FCC Rcd at 15694-700, paras. 142-54.

²⁷⁷ See Liberty Comments at 31-32; PRTRB Comments at 18; Viya June 14, 2019 Ex Parte at 14.

²⁷⁸ See PR-USVI Fund Notice, 33 FCC Rcd at 5420, para. 65.

²⁷⁹ See 47 CFR § 54.320(b).

²⁸⁰ See 47 CFR § 54.320.

²⁸¹ See 47 CFR § 54.315(c); CAF II Auction Order, 31 FCC Rcd at 5991-99, paras. 122-40; USF/ICC Transformation Order, 26 FCC Rcd at 17810-12, paras. 444-51; Tribal Mobility Fund Phase I Auction Procedures Public Notice, 28 FCC Rcd at 11680-81, para. 187; see also PR-USVI Fund Notice, 33 FCC Rcd at 5421, para. 69 (seeking comment on whether to require successful applicants to obtain a letter of credit). The letter of credit must be issued in substantially the same form as set forth in the model letter of credit provided in Appendix C of this Order, by a bank that is acceptable to the Commission.

²⁸² See 47 CFR § 54.315(c); infra Appx. A, 47 CFR § 54.1508.

²⁸³ Viya Mar. 22, 2019 Ex Parte Attach. at 20.

As the Commission noted in the *USF/ICC Transformation Order*, in a proper draw upon a letter of credit, the issuer honors a draft under the letter of credit from its own assets and not from the assets of the debtor who caused the letter of credit to be issued. Thus, absent extreme circumstances such as fraud, neither the letter of credit nor the (continued....)

support to 103 winning applicants.²⁸⁵ We therefore reject arguments that we should allow use of a surety or performance bond in lieu of a letter of credit.²⁸⁶

- 77. As explained above, if an entity fails to meet the terms and conditions after it begins receiving support, including the build-out milestones and performance obligations we adopt in this Order, and fails to cure within the requisite time period, the Bureau will issue a letter evidencing the failure and declaring a default, which letter, when attached by USAC to a letter of credit draw certificate, shall be sufficient for a draw on the letter of credit to recover all support that has been disbursed to the entity.²⁸⁷
- 78. Letter of Credit Opinion Letter. Successful applicants must also submit with their letter(s) of credit an opinion letter from legal counsel.²⁸⁸ That opinion letter must clearly state, subject only to customary assumptions, limitations, and qualifications, that in a proceeding under the Bankruptcy Code, the bankruptcy court would not treat the letter of credit or proceeds of the letter of credit as property of the account party's bankruptcy estate, or the bankruptcy estate of any other Stage 2 competitive application process recipient-related entity requesting issuance of the letter of credit under section 541 of the Bankruptcy Code.²⁸⁹
- 79. Value of Letter of Credit. When a winning applicant first obtains a letter of credit, it must be at least equal to the amount of the first year of authorized support. Before the winning applicant can receive its next year's support, it must modify, renew, or obtain a new letter of credit to ensure that it is valued at a minimum at the total amount of money that has already been disbursed plus the amount of money that is going to be provided in the next year. As in CAF II, we conclude that requiring recipients to obtain a letter of credit on at least an annual basis will help minimize administrative costs for USAC and the recipient rather than having to negotiate a new letter of credit for each monthly disbursement.²⁹⁰
- 80. Recognizing that the risk of a default will lessen as a recipient makes progress towards building its network, as in CAF II we find that it is appropriate to modestly reduce the value of the letter of credit in an effort to reduce the cost of maintaining a letter of credit as the recipient meets certain

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funds drawn down under it are subject to the automatic stay provided by the Bankruptcy Code. See USF/ICC
Transformation Order, 26 FCC Rcd at 17812, para. 450 (citing 11 U.S.C. § 541 and Kellog v. Blue Quail Energy
<i>Inc.</i> , 831 F.2d 586, 589 (5th Cir. 1987)).

²⁸⁵ See 220 Applicants Qualified to Bid in the Connect America Fund Phase II Auction (Auction 903) Bidding to Begin on July 24, 2018, AU Docket No. 17-182, WC Docket No. 10-90, Public Notice, 33 FCC Rcd 6171 (2018); Auction 903 Winning Bidders PN, 33 FCC Rcd at 8257. But see Surety & Fidelity Association of America Comments at 2 ("[B]ased on our observation of rural internet service providers (ISPs) having difficulty in securing sufficient collateral to obtain a LOC to meet security requirements under CAF Phase II, we support broadening the range of options for performance security to include a surety bond."); VPNet Comments at 12 (stating that "[t]he expense and difficulty involved in obtaining a LOC can be extremely burdensome, especially for small providers").

²⁸⁶ See Surety & Fidelity Association of America Comments at 1-2 (arguing that a letter of credit "simply does not provide the same financial guarantee to the government" as a surety bond); BBVI Comments at 10; VPNet Comments at 12-13. While BBVI argues that limitations of local banking operations in the U.S. Virgin Islands warrant allowing use of surety bonds there, the rules we adopt do not restrict the borrower to a local bank. See BBVI Comments at 10.

²⁸⁷ While such letter may not foreclose an appeal or challenge by the recipient, it will not prevent a draw on the letter of credit.

²⁸⁸ See, e.g., Mobility Fund Phase I Auction Procedures Public Notice, 27 FCC Rcd at 4771, para. 171; Tribal Mobility Phase I Auction Procedures Public Notice, 28 FCC Rcd at 11681, para. 189; Rural Broadband Experiments Order, 29 FCC Rcd at 8789, para. 58; CAF II Auction Order, 31 FCC Rcd at 5992, para. 125.

²⁸⁹ 11 U.S.C. § 541.

²⁹⁰ See CAF II Auction Order, 31 FCC Rcd at 5997, para. 135. Note that in accordance with the model letter of credit in Appendix C hereto, annual letters of credit must contain an evergreen provision.

service milestones.²⁹¹ Specifically, once an entity meets the 60 percent service milestone that entity may obtain a new letter of credit or renew its existing letter of credit so that it is valued at 90 percent of the total support amount already disbursed plus the amount that will be disbursed the next year. Once the entity meets the 80 percent service milestone that entity may obtain a new letter of credit valued at 80 percent of the total support amount already disbursed plus the amount that will be disbursed the next year. As in CAF II, we conclude that the benefit to recipients of potentially decreasing the cost of the letter of credit as it becomes less likely that a recipient will default outweighs the potential risk that if a recipient does default and is unable to cure, we will be unable to recover a modest amount of support.²⁹² The letter of credit must remain open until the recipient has certified it has deployed broadband and voice service meeting the Commission's requirements to 100% of the required number of locations, and USAC has verified that the entity has fully deployed.

- application to participate in the Stage 2 competitive process will be subject to a forfeiture in the event of a default before it is authorized to begin receiving support.²⁹³ We will propose a forfeiture in lieu of a default payment.²⁹⁴ In the CAF II Auction, we adopted a base forfeiture of \$3,000 per census block group for any entity that failed to meet the document submission deadlines or was found ineligible or unqualified to receive support by the Bureaus on delegated authority, or otherwise defaulted on its bid or was disqualified for any reason prior to the authorization.²⁹⁵ We adopt here the same base forfeiture of \$3,000 per census block group within the geographic area at issue, subject to adjustment based on the criteria set forth in our forfeiture guidelines, for a default by an applicant before it is authorized to begin receiving support.²⁹⁶ Applying the same base forfeiture that we adopted in the CAF II Auction is warranted here because, in both proceedings, the party's failure risks undermining the competitive process that the Commission has established.
- 82. An entity will be considered in default and will be subject to forfeiture if it fails to meet the document submission deadlines for competitive proposals or is found ineligible or unqualified to receive Stage 2 support by the Bureau on delegated authority, or otherwise defaults on its winning proposal or is disqualified for any reason prior to the authorization of support. A winning applicant will be subject to the base forfeiture for each separate violation of the Commission's rules. For purposes of the Stage 2 competitive process, we define a violation as any form of default with respect to the geographic area eligible for proposals. In other words, there shall be separate violations for each geographic area subject to a proposal, with the base forfeiture determined by the number of census block groups within the geographic area at issue. That will ensure that each violation has a relationship to the number of consumers affected by the default and is not unduly punitive. Such an approach will also ensure that the total forfeiture for a default is generally proportionate to the overall scope of the winning applicant's proposal. Consistent with past Commission proceedings, to ensure that the amount of the base

²⁹¹ See id. at 5997-98, para. 135; CAF II Auction Order, 31 FCC Rcd at 5997-98, paras. 135-36; see also Connect America Fund et al., WC Docket No. 10-90 et al., Order, 31 FCC Rcd 2384, 2388, para. 11 (2016).

²⁹² See CAF II Auction Order, 31 FCC Rcd at 5997-98, para. 136.

²⁹³ 47 U.S.C. § 503(b)(2)(B); see also 47 CFR § 1.80(b). We conclude that entities participating in the Uniendo a Puerto Rico Fund and the Connect USVI Fund that are not yet common carriers will be considered applicants for a common carrier authorization issued by the Commission because they will be competing to become winning applicants and, ultimately eligible telecommunications carriers authorized to receive high-cost support. Because any non-carrier filer will be considered an applicant for a common carrier authorization, such entities are not subject to the citation provisions of 47 U.S.C. § 503(b)(5).

²⁹⁴ See 47 CFR § 1.21004.

²⁹⁵ See CAF II Auction Order, 31 FCC Rcd at 6001-02, para. 143-45.

²⁹⁶ 47 CFR § 1.80(b)(8), note to paragraph (b)(8). Thus, for example, if a municipio contains 33 census block groups, the base forfeiture as to that municipio would be \$99,000.

forfeiture is not disproportionate to the amount of an applicant's proposal, we also limit the total base forfeiture to five percent of the total support amount contained in the applicant's proposal for the term.²⁹⁷

- 83. We find that by adopting such a forfeiture, we impress upon recipients the importance of being prepared to meet all of our requirements for the post-selection review process and emphasize the requirement that they conduct a due diligence review to ensure that they are qualified to participate in the Stage 2 competitive proposal process and meet its terms and conditions.
- 84. We direct the Bureau to establish a process to enable the selection of next-in-line applicants for fixed Stage 2 support in the event any of the provisionally winning applicants defaults. Doing so will enable Bureau staff to quickly identify otherwise qualified applicants in the event any of the initially selected applicants defaults prior to authorization. As we do not contemplate a future competitive process for these areas and instead require Stage 2 support recipients to deploy to all locations in the Territories, expediting selection of a next-in-line applicant is especially important in this context. Based on the next-in-line process we establish, along with other safeguards we put in place in this Order, we reject Viya's arguments against a competitive approach predicated on the risk that the new awardee may fail to perform.²⁹⁸
- Audits and Oversight. We subject awarded providers to ongoing oversight by the Commission and USAC to ensure program integrity and prevent waste, fraud, and abuse.²⁹⁹ We remind providers that high-cost support recipients "are subject to random compliance audits and other investigations to ensure compliance with program rules and orders."³⁰⁰ We direct USAC to review and revise its audit procedures to take into account the changes adopted in this order and to initiate audits of Stage 2 fixed disbursements throughout Stage 2 fixed support years.³⁰¹ We agree with Liberty that random application of this long-standing, continually updated audit program is essential to ensuring program integrity.³⁰² Because we see no reason to vary from our overall approach to auditing high-cost support recipients, we decline to adopt Free Press's suggestion that we require USAC to audit every Stage 2 support recipient.³⁰³ To address Free Press's concern about possible "double-dipping" from insurance and USF support,³⁰⁴ in addition to requiring random audits, we direct USAC to audit any Stage 2 support

²⁹⁷ For the CAF II Auction, Mobility Fund Phase I, and Tribal Mobility Fund Phase I, the Bureaus found that five percent of the total bid amount provided sufficient incentive for auction participants to fully inform themselves of the obligations associated with participation in the auctions without being unduly punitive. *CAF Phase II Auction Order*, 31 FCC Rcd at 6000-01, para. 144; *Mobility Fund Phase I Auction Procedures Public Notice*, 27 FCC Rcd at 4777, para. 187; *Tribal Mobility Fund Phase I Auction Procedures Public Notice*, 28 FCC Rcd at 11692, para. 214. We note that although we limit the total base forfeiture to five percent, we do not limit upward adjustments for egregious misconduct.

²⁹⁸ See Viya June 14, 2019 Ex Parte at 10 (arguing that reallocating support to a new awardee risks a loss of service to previously served customers if the new awardee fails to perform). In any event, we find Viya's objection based on the risk of the awardee's nonperformance to be baselessly speculative.

²⁹⁹ See PR-USVI Fund Notice, 33 FCC Rcd at 5421, para. 70.

³⁰⁰ 47 CFR § 54.320(a).

³⁰¹ See Viva June 14, 2019 Ex Parte at 14 (supporting requiring annual audits by USAC).

³⁰² See Liberty Comments at 32 ("All support recipients must be subject to ongoing oversight by the Commission and USAC to ensure program integrity and to prevent waste, fraud, and abuse."); see also Notice, 33 FCC Rcd at 5421, para. 70 & n.94.

³⁰³ See Free Press July 20, 2018 Ex Parte, at 2-3. We find it appropriate that we tailor our compliance evaluation approach for each program and reject Free Press's suggestion to the contrary. See id. at 2 (arguing that the Commission's proposal to rely on a random audit process "stands in stark contrast to the verification procedures for" Lifeline).

³⁰⁴ See id. at 3 (identifying "questions raised by . . . reported insurance payouts").

recipient for which it has substantial evidence of noncompliance. We find it preferable to allow USAC flexibility to deploy its auditing resources for maximum efficiency. Adopting Free Press's suggestion to audit all support recipients could lead to wastefully expensive audits relative to the amount of support at issue. Moreover, the deployed locations that recipients report will also be subject to verification, as USAC currently does for all HUBB filers.³⁰⁵ Recipients must retain sufficient evidence to demonstrate that they have built out to all of their reported locations and be prepared to produce that evidence to USAC in the course of a compliance review.³⁰⁶

86. As with all recipients of federal high-cost universal service support, the Commission may initiate an inquiry on its own motion to examine any ETC's records and documentation to ensure that the universal service support the ETC receives is being used "only for the provision, maintenance, and upgrading of facilities and services" in the areas in which it is designated as an ETC.³⁰⁷ ETCs must provide such records and documentation to the Commission and USAC upon request.³⁰⁸ The Commission also may assess forfeitures for violations of Commission rules and orders.³⁰⁹

4. Elimination of Frozen Support to Fixed Providers

87. The Fund currently directs approximately \$36.3 million in frozen support each year to fixed services in Puerto Rico and \$16 million in frozen support each year to fixed services in the U.S. Virgin Islands. None of this support is tied to specific build-out targets for which the support recipients must be accountable, however. As proposed in the *Notice*, as we ramp up the competitive process we adopt, we will phase down frozen support, which will no longer be necessary. For the first 12 months following authorization of a winning applicant, the carrier will receive 2/3 of its frozen support; in the second 12-month period, the carriers will receive 1/3 of its frozen support; thereafter, the carrier will only receive whatever, if anything, has been awarded through the competitive application process. We recognize that winning applicants for different geographic areas may be authorized at different times, so for each geographic area for which a winning applicant is authorized, the phase-down will begin the

³⁰⁵ USAC, Connect America Fund Verification Reviews, https://www.usac.org/hc/tools/hubb/caf-verification.aspx.

³⁰⁶ See 47 CFR § 54.320(b).

³⁰⁷ 47 U.S.C. §§ 220, 403.

^{308 47} CFR § 54.417.

³⁰⁹ See 47 U.S.C. § 503(b).

³¹⁰ *PR-USVI Fund Notice*, 33 FCC Rcd at 5413-15, paras. 35-36, 41 (stating that "we propose to reconsider the existing frozen high-cost support mechanisms and replace them with a competitive mechanism"; seeking comment "on the view that changed circumstances require us to revisit funding for fixed networks in these territories"; and "seek[ing] comment on whether to transition support, through a phase-down process, in any geographic area where the incumbent carrier, i.e., PRTC or Viya, did not win support based on its proposal"). Viya claims that the "Commission has never reduced support to an ILEC without a transition mechanism of at least five years." Viya Comments at 24. That is not the case. In areas won in the CAF II auction by an entity other than the price cap carrier, the price cap carrier will lose legacy support on the first day of the month after Phase II support is authorized for those census blocks. *See Connect America Fund*, WC Docket No. 10-90, Report and Order, FCC 19-8, para. 15 (Feb. 15, 2019) (*CAF Phase II Transitions Order*). Additionally, for ETCs electing model-based CAF II support in states in which that support was less than Phase I frozen support, the Commission adopted a four-year phase-out of frozen support above the model-based support level. *See* 47 CFR § 54.310(f).

³¹¹ Although the *Notice* did not seek comment on a specific timeframe to eliminate frozen support for fixed carriers, it specifically asks what "reliance interests, if any, [PRTC and Viya] could reasonably have had in the status quo continuing through 2020." *Notice*, 33 FCC Rcd at 5414, para. 35. It also sought comment on a third-at-a-time phase-down for frozen mobile support. *See id.* at 5424, para. 84 ("[S]hould we ensure that existing recipients receive at least two-thirds of their current mobile support in 2019 and at least one third in 2020?"). Because we do not expect winning applicants to be authorized in 2019, we anticipate that PRTC and Viya will have additional transition time compared to a 2020 cutoff.

month following the authorization of the winning applicant for that geographic unit. In order to allocate frozen support to each geographic unit across the Territories during the phase-down process, we will base phased down support on the percentage of fixed Stage 2 support the model allocates to that unit.³¹³ We adopt this method because it ties remaining frozen support to an estimate of the relative cost of serving different geographic areas.³¹⁴ In the event either price cap carrier is awarded support in an eligible area in its respective territory, however, the new support would completely replace legacy support upon authorization with no transition. Given the carrier's explicit endorsement of the support amount in its application, we see no need for additional support to ease the transition.

88. We find that eliminating frozen support will allow for greater competition and transparency and promote more cost-effective use of the Fund.³¹⁵ A phase-down will ensure there is a reasonable transition from current support amounts, consistent with Commission's overall Universal Service Fund goals and preference to avoid flash cuts in support, and will allow PRTC and Viya to plan accordingly.³¹⁶ Consistent with our decision not to grant incumbent LECs either a right of first refusal or an absolute right to support, we decline PRTC's and Viya's requests to maintain frozen support indefinitely.³¹⁷ Contrary to PRTC's claim, elimination of frozen support is not punishment for being hit by a hurricane³¹⁸—rather, the hurricanes present changed circumstances that warrant reevaluation of our approach to funding service in Puerto Rico and the U.S. Virgin Islands. By shifting to a competitive approach that accounts for cost, quality, and resilience, we reduce the likelihood that broadband deployment supported by the Fund will be lost due to a future disaster compared to simply maintaining frozen support.³¹⁹ We also expect the competitive process we design, with defined deadlines along with quality and resilience obligations, will lead to faster, higher-quality deployment to all parts of the Territories compared to maintaining frozen support.³²⁰ Further, we account for the unique challenges of insular carriers in the Territories in numerous ways in Stage 2, including by accounting for disaster

³¹³ For example, if the model allocates 1% of the Stage 2 fixed budget to a particular municipio in Puerto Rico, and a winning applicant is authorized for that municipio, then PRTC will receive about 0.33% less frozen support for the first twelve-month period following authorization, about 0.67% less frozen support for the second twelve-month period following authorization, and 1% less frozen support in the final 12-month period.

³¹⁴ See CAF Phase II Transitions Order at 3-4, paras. 9-10 (adopting an interim methodology for disaggregating CAF Phase I frozen support for transition in states where price cap carriers declined model-based CAF Phase II support by employing the CAM to account for the relative costs of providing service to different areas, and explaining that it adopted this methodology because it "ties disaggregated support amounts to the costs of serving each affected census block for the transitional period").

³¹⁵ See Liberty Comments at 13-16; ATT Comments at 6-7; Data@ccess Comments at 4; VPNet Reply at 2.

³¹⁶ See April 2014 Connect America Report and Order, 29 FCC Rcd at 7067, para. 50 (citing USF/ICC Transformation Order, 26 FCC Rcd at 17752, 17936, paras. 242, 802) ("[T]he Commission generally prefers to avoid flash cuts in support that would dramatically affect consumers."); see also Feb. 2019 CAF Order at 4-8, paras. 11-19 (phasing down legacy support in areas where support is now awarded pursuant to the CAF Phase II auction).

³¹⁷ PRTC Comments 6-15, 23-25; Viva Comments at 19.

³¹⁸ PRTC Comments at 23-25.

³¹⁹ See Liberty Comments at 13 ("The Commission's 2014 decision to award frozen high-cost support to a single provider to deploy critical broadband infrastructure throughout Puerto Rico, ultimately left much of Puerto Rico without adequate broadband service prior to the 2017 hurricanes, and ill-equipped to recover quickly from the destruction of the 2017 hurricanes."); PRTC Comments at 23 ("Because the hurricane largely wiped out any gains (continued....)

preparation, resilience, and redundancy; limiting participation to those with experience serving the Territories; and increasing available support relative to the prior frozen support amount.³²¹

- 89. We also reject PRTC's and Viya's argument that their claimed reliance interests in frozen support justify maintaining such support on an ongoing basis.³²² First, we do not believe either company had a reasonable expectation of ongoing frozen support. Through its work on the Connect America Fund, the Commission has demonstrated a preference for competition and defined obligations. 323 While the Commission in 2014 indicated that it would adopt tailored service obligations for non-contiguous carriers that elect frozen support,³²⁴ it has not done so, which would indicate to a reasonable carrier that the Commission does not view as-is frozen support as a long-term solution. The 2017 hurricanes represent a changed circumstance that, by largely eliminating deployment gains from CAF funding in Puerto Rico³²⁵ and leading to extensive destruction of Viya's network in the U.S. Virgin Islands, 326 should have put PRTC and Viya on notice that the Commission would be likely to revisit its policies. And the PR-USVI Fund Notice proposed to adopt a competitive mechanism to replace frozen support.³²⁷ Putting all of this together, PRTC and Viva should have been on notice that they were unlikely to be able to rely on ongoing frozen support.328 Second, even if PRTC and Viya had reasonable reliance interests, we find the public policy benefits of shifting to a competitive approach outweigh any private reliance interests. We have devised Stage 2 fixed support to select the carriers able to commit to the best mix of cost-effective. quality, and storm hardened service. In contrast, PRTC and Viya do not have any defined service obligations in exchange for frozen support, and adopting defined obligations for frozen support at this point would be superfluous to the Stage 2 fixed obligations we adopt.³²⁹ Therefore, maintaining frozen support on top of Stage 2 support, beyond a necessary phase-down period, would be wasteful and fail to serve the limited purposes for universal service support set forth in section 254.
- 90. Because we have increased the budget for fixed Stage 2 relative to previous support for the territories and expect to award support for all locations in the Territories through the competitive process we adopt, we reject Viya's argument that eliminating its frozen support is a threat to universal,

³²² See Viya Comments at 19 ("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."); PRTC Comments at 25 (arguing that "the exorbitant costs that PRTC has already incurred and is expected to incur in service restoration and capital expenditures" warrants retaining legacy frozen support). PRTC and Viya both point to their efforts to meet their ETC obligations and significant expenditures to restore service as justification to continue receiving frozen support. See PRTC Comments at 23-24; Viya Comments at 21-22. Viya argues further that the hurricanes increased its costs and reduced its revenue, furthering its reliance on support. Viya Comments at 22.

³²⁰ See Viya Reply at 8 (arguing that a competitive process will undermine rapid restoration and hardening).

We find the carefully tailored program we adopt will be more effective in helping carriers to address those challenges successfully than simply maintaining frozen support. *But see* PRTC Comment at 24-25 (citing the *USF/ICC Transformation Order* and *CAM Inputs Order* in stating that "[t]he Commission recognized the unique challenges of insular carriers when it gave these carriers the option of choosing either to continue to receive frozen support amounts or to elect to receive the CAM-determined support amount"). In the *USF/ICC Transformation Order*, the Commission directed that "[i]f, after reviewing the evidence, the Wireline Competition Bureau determines that the model ultimately adopted does not provide sufficient support to [the Territories, Alaska, Hawaii, and the Northern Mariana Islands], the Bureau may maintain existing support levels, as modified in this Order, to any affected price cap carrier." *USF/ICC Transformation Order*, 26 FCC Rcd at 17737-38, para. 193. The Bureau, "mindful that continuing work on the model delays" support, "ma[de] available to all non-contiguous carriers the option of choosing either to continue to receive frozen support amounts for the term of Phase II, or to elect or decline the model-determined support amount." *CAM Inputs Order*, 29 FCC Rcd at 4029, para. 152. We expect the budget we adopt here—which exceeds frozen support levels—to be sufficient to support service to all locations in the Territories.

affordable service in the U.S. Virgin Islands.³³⁰ By its own account, Viya is in a strong position to make use of support to efficiently expand and improve service,³³¹ and we draw confidence from these assertions that whether the winning applicant in each of the two U.S. Virgin Islands geographic areas is Viya or another provider that is able to make an even better proposal, the U.S. Virgin Islands will receive high-quality service. We note further that Viya remains subject to section 214 discontinuance approval obligations³³² and to carrier of last resort requirements,³³³ which collectively guard against an abrupt loss of service,³³⁴ and we expect Viya to comply with its legal obligations and to continue to work to maximize its return from its network. Moreover, the support we have already provided and the phasedown we adopt should reduce the risk of disruption if a new recipient is awarded support. We do not find it prudent to assume it is necessary to adopt an extended period of overlapping support for the incumbent and the winning applicant in response to a hypothetical risk of disruption.

91. Similarly, while PRTC quotes the conclusion in the *PR-USVI Fund Order* that "disrupting the existing flow of frozen support is likely to harm restoration efforts, especially in more rural areas where those receiving historical support are more likely to serve," ³³⁵ circumstances have since changed in two important ways, warranting a new approach. First, carriers have made much more progress toward successful restoration of fixed networks. ³³⁶ Second, we have devised a new, long-term Stage 2 that appropriately shifts the focus of our support from restoration of the pre-hurricane status quo to high-quality, resilient deployment to all locations in the Territories.

5. Other Issues

92. Commenters presented several other suggestions as potential solutions to creating resilient networks in the territories. Although we appreciate the forward-thinking and creative suggestions, we are limited by our legal authority and by our desire to create a technology neutral competitive process for establishing high-cost support to the Territories going forward. We also do not want to use conditions on support as a vehicle to achieve policy goals beyond those we have set forth for

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³²³ See, e.g., USF/ICC Transformation Order, 26 FCC Rcd at 17667, para. 1 ("establish[ing] a framework to
distribute universal service funding in the most efficient and technologically neutral manner possible, through
market-based mechanisms such as competitive bidding"); id. at 17691, para. 74 ("Universal service support is a
public-private partnership to preserve and advance access to modern communications networks. ETCs that benefit
from public investment in their networks must be subject to clearly defined obligations associated with the use of
such funding."); see also Connect America Fund et al., WC Docket No. 10-90 et al., Report and Order, Further
Notice of Proposed Rulemaking, and Order on Reconsideration, 33 FCC Rcd 11893, 11895, para. 5 (2018) (Dec.
2018 Rate-of-Return Order) ("Among the actions taken in the USF/ICC Transformation Order, the Commission
adopted a framework, known as the CAF, to transition most high-cost providers from cost-based regulation to
incentive-based support mechanisms, using forward-looking broadband cost models and competitive bidding. Other
transformative aspects of the CAF included requiring support recipients to comply with defined deployment
obligations meeting minimum performance standards and eliminating support in areas served by unsubsidized
competitors."); see also id. at 11894-95, para. 3 (providing an additional offer of model-based support to rate of
return carriers in exchange for committing to defined deployment obligations).

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³²⁴ December 2014 Connect America Order, 29 FCC Rcd at 15661-63, paras. 45-49.

³²⁵ PRTC Comments at 23.

³²⁶ See, e.g., Viya Comments at 9; Viya Mar. 22, 2019 Ex Parte Attach. at 7.

³²⁷ See PR-USVI Fund Notice, 33 FCC Rcd at 5414, paras. 36 ("Given the changed circumstances, we propose to reconsider the existing frozen high-cost support mechanisms and replace them with a competitive mechanism. . . .").

³²⁸ Viya also argues that it "will need to recover the amortized costs of its restoration and hardening efforts." Viya Comments at 22. Viya has not provided detailed support for its amortized costs. Even if it did, it is not entitled to support, as its claim presumes. Although Viya does not specifically raise a takings claim, the Commission has previously rejected such arguments. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17771, para. 293. Moreover, nothing in the Communications Act, implementing regulations, or surrounding circumstances indicates that universal services subsidies to a given carrier are intended to be irrevocable. *See In re FCC 11-161*, 753 F.3d

Stage 2 support. Accordingly, we decline to condition support on building out last-mile connections to the federally funded high-speed open access middle mile in the U.S. Virgin Islands.³³⁷ Likewise, we decline to condition support on adopting a reciprocal access requirement for entities outside of the Commission's jurisdiction.³³⁸ Indeed the former Governor of the U.S. Virgin Islands opposed this suggestion, noting that imposing such a requirement would be outside of our authority.³³⁹ We do not think it would be appropriate to leverage Stage 2 funding for the express purpose of reaching beyond our jurisdiction,³⁴⁰ and we do not believe we would have sufficient notice to adopt such a requirement.

- 93. We encourage Puerto Rico and the U.S. Virgin Islands to consider approving one-time territory-wide permits for Stage 2 support recipients to bury fiber.³⁴¹ We believe such an approach may facilitate efficient deployment in the Territories. At the same time, we do not want to intrude upon Territory decision-making and defer to local authorities on this topic. We strongly encourage cooperation between carriers and local authorities to facilitate the restoration, improvement, and expansion of telecommunication networks for the benefit of all consumers in Puerto Rico and the U.S. Virgin Islands.
- 94. We decline Tier 1's suggestion that we negotiate directly with Tier 1, Level 3/CenturyLink, viNGN and the Bureau of Information Technology (BIT) to adopt their combined solution for U.S. Virgin Islands.³⁴² We applaud Tier 1 and its business partners for working toward a creative solution together and encourage continued open inter-industry communication on how to best provide critical and advanced communications service in the U.S. Virgin Islands. The competitive process we adopt today will give all qualified applicants the opportunity to present their solutions to be selected in a more neutral way than negotiating only with a few carriers. And these carriers will have the same opportunity as all other participants to demonstrate the objective qualifications of their proposals.
- 95. We decline to adopt the CPR Community anchor model³⁴³ because the Act mandates access to telecommunications and information services for all consumers in all regions of the United States, not to a limited number of facilities, even for altruistic purposes.³⁴⁴ We do not see a ready means

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1015, 1088 (10th Cir. 2014) (rejecting the argument that a carrier eligible for universal service support has a statutory entitlement to such support); see also Rural Cellular Ass'n v. FCC, 588 F.3d 1095, 1103 (D.C. Cir. 2009) (quoting Alenco Commc'ns, Inc. v. FCC, 201 F.3d 608, 621 (5th Cir. 2000)) (finding that the "purpose of universal service is to benefit the customer, not the carrier"). PRTC attempts to distinguish this phase-down of support from the phase-down for price cap carriers that declined model-based CAF II support on the basis that "PRTC's expenditures associated with service restoration and revenue losses" as a result of the "two back-to-back hurricanes that caused unprecedented destruction" have been "unparalleled, a situation that only exacerbated the unique challenges of providing service in Puerto Rico." PRTC Sept. 16, 2019 Ex Parte, Attach. at 5. But, like Viya, PRTC is not simply entitled to recompense for its costs, even if those costs are unusually high; nor has it made a specific showing that a longer phase-down has any relationship to those costs.

³²⁹ Further, unlike with respect to Stage 2, there is no possibility of competition leading to superior outcomes if we established defined obligations for frozen support.

³³⁰ See Viva Comments at 21-22.

³³¹ See id.; Viya Apr. 19, 2019 Ex Parte at 1 (stating that Viya "already provides Connect America Fund-qualifying voice and broadband service to over 95 percent of" U.S. Virgin Islands locations). We note that Viya has not substantiated its assertions with maps or other detailed evidence.

³³² See 47 U.S.C. § 214(a).

³³³ See Viya Comments at 20-21 ("Viya is obligated by the USVI PSC and under federal and USVI law to provide carrier-of-last-resort service throughout the USVI, and it is unclear how these obligations could be modified in the event necessary support was withdrawn").

³³⁴ We recognize, as Viya states, that if its support is significantly reduced, then it may be "necessary to revisit its carrier-of-last resort obligations, as well as the USVI PSC rate regulations under which it operates." *Id.* at 24.

to incorporate the CPR Community anchor model into an approach that would lead to deployment to all locations in the Territories, and CPR did not explain how its proposal would lead to such deployment.

- 96. We agree with AT&T that the budget we adopt for Stage 2, as well as our prior Stage 1 and advance support, adequately address the needs identified in the emergency requests³⁴⁵ for support that the Commission received closely following the hurricanes.³⁴⁶ We find that many of the requests for relief sought in these petitions were adequately addressed by the Commission's quick response following the hurricanes to advance support, by its subsequent decision not to offset that support against future support, and by the disbursement of Stage 1 support. It was reasonable and more efficient for the Commission to act comprehensively determine the appropriate budget, timing, and scope of support for the Uniendo a Puerto Rico Fund and the Connect USVI Fund, rather than acting piecemeal on a range of requests. It is our expectation that the budgets we establish, based on the current state of networks in the Territories, are sufficient to promote access to quality telecommunications and information services in Puerto Rico and the U.S. Virgin Islands. Additionally, we note that we are now well past the time in which granting emergency or immediate short-term post-hurricane relief would make sense.³⁴⁷ Therefore, we decline to adopt any additional emergency, advanced, or other short-term support for Puerto Rico or the U.S. Virgin Islands, and we dismiss the emergency petitions filed by PRTC, Viva, Vitelcom, and PRWireless, which seek additional support beyond the adopted overall budget. As to the PRWireless Petition, which is framed as a request for a waiver, we further conclude that granting a waiver at this point in time would not serve the public interest because, two years after the hurricanes, it is unlikely that PRWireless faces the same immediate post-storm challenges that it set forth as the basis for granting a waiver in its petition. which it filed only weeks after the storms.³⁴⁸
- 97. Last, we reject various arguments from TCT that the Commission lacks the authority to create, and should not create, the Uniendo a Puerto Rico Fund and the Connect USVI Fund.³⁴⁹ Stage 2 support addresses the principle that "[a]ccess to advanced telecommunications and information services should be provided in all regions of the Nation."³⁵⁰ Further, the principle in section 254(b)(1) requiring us

³³⁵ PRTC Comments at 25 (quoting *PR-USVI Fund Order*, 33 FCC Rcd at 5411, para. 22 n.46).

³³⁶ See supra Sec. II.

³³⁷ USVI Governor's Office Comments at 6.

³³⁸ See Viva Comments at 50 (proposing such a requirement).

³³⁹ USVI Governor's Office Reply at 2.

³⁴⁰ See Viya Comment at 50 (suggesting that the "public interest benefits" of such a requirement "will be derived, in part, from the reciprocal activities of entities outside the Commission's jurisdiction").

³⁴¹ See AT&T Comments at 8; Liberty Reply at 3-4.

³⁴² See Tier 1 Comments at 3-4.

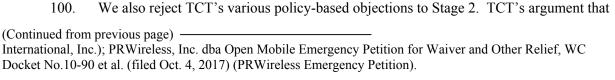
³⁴³ Caribbean Preparedness & Response (CPR) March 11, 2019 *Ex Parte*; Letter from Coalition to Fund CPR to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., (filed Sept. 18, 2019).

³⁴⁴ 47 U.S.C. § 254(b)(3).

³⁴⁵ Petition of Puerto Rico Telephone Company, Inc. for the Creation of an Emergency Universal Service Fund, WC Docket No. 10-90, at 1 (filed Jan. 19, 2018) (PRTC Emergency Petition); Emergency Petition of Virgin Islands Telephone Corp. dba Viya for Wireline Hurricane Restoration Support, WC Docket No. 10-90 (filed Dec. 6, 2017) (Viya Emergency Petition); Vitelcom Cellular, Inc. Emergency Petition, WC Docket No. 10-90, at 2 (filed Oct. 5, 2017) (Vitelcom Emergency Petition) (filed by Vitelcom Cellular, Inc., d/b/a Viya Wireless, and Choice Communications, LLC, sister companies with Viya, all of which are commonly owned and controlled by ATN (continued....)

to develop policies that make available "quality" services permits us to support hardening of facilities in storm prone areas. Stage 2 support will "advance[]" universal service in the Territories by ensuring that more Americans have access to quality services that are reasonably comparable to services provided in urban areas, for instance with respect to network reliability. And our obligation to "preserv[e]" universal service permits us to fund network hardening, as well as any remaining restoration in the context of Stage 2 mobile support.

- 98. While TCT argues that the introduction of the RESTORED Act shows that Congress thinks we currently lack authority to fund service restoration,³⁵⁴ that bill only had one sponsor and never proceeded past introduction and reference to the relevant House committee and subcommittee,³⁵⁵ so we cannot infer from this bill a sense of Congress's view as a whole. We find the more reasonable view is that we possess the requisite authority to adopt Stage 2 support as set forth herein, and we reject TCT's argument that the bill's introduction weighs against that conclusion.
- 99. We also disagree with TCT's contention that because "the high-cost program is based upon § 254(b)(3)," we must offer "evidence that consumers in Puerto Rico and the USVI have experienced higher rates for service than other parts of the country as a result of Hurricanes Maria and Irma" to act. 356 This argument would incorrectly lead us to ignore all of section 254 other than the "reasonably comparable rates" clause of section 254(b)(3), contrary to our duty to account for all statutory direction and contrary to longstanding Commission precedent. In the *USF/ICC Transformation Order*, the Commission "address[ed] [its] statutory authority to implement Congress's goal of promoting ubiquitous deployment of, and consumer access to, both traditional voice calling capabilities and modern broadband services over fixed and mobile networks," and in doing so specifically cited and relied on sections 254(b), (c), and (e). 357 As set forth above, we have ample authority under section 254 to adopt Stage 2, and we reject TCT's unduly constricted view.



- ³⁴⁶ AT&T Comments at 20-21 (arguing that the emergency petitions of Viya, PRTC, and Vitelcom should be dismissed as moot because, among other reasons, the petitions were filed prior to support provided by subsequent adoption of the Uniendo a Puerto Rico Fund and the Connect USVI Fund).
- ³⁴⁷ See supra Sec. II (discussing carriers' progress in restoration, including specifically PRTC's and Viya's progress); PRTC Emergency Petition at 1, 8-9 (requesting temporary disaster recovery support distributed based on the percentage of consumer service disruption credits provided by an ETC or in proportion to the total number of lines restored in the next twelve months); Viya Emergency Petition at 1 (requesting support for the restoration of essential services via a supplemental, one-time infusion); Vitelcom Emergency Petition at 2 (requesting "urgen[t]" supplemental, one-time to restore wireless networks using hurricane-hardened facilities); PRWireless Petition at 1, 4-7 (seeking, on an emergency basis, immediate supplemental support through CY 2019, paid in a single disbursement at the earliest possible date, based on (among other things) the fact that all of PRWireless's cell cites lacked electricity, that "[i]t will take months to complete a full accounting of losses," and that the situation in which the company had to restore service while obtaining no customer revenue "is expected to last for months").
- ³⁴⁸ See 47 CFR § 1.3; Northeast Cellular Tel. Co. v. FCC, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (stating that a "waiver is appropriate only if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest"). We note that the Bureau previously addressed PRWireless's request for a 90-day extension of the Bureau's temporary waiver of the Lifeline non-usage and recertification rules. See Schools and Libraries Universal Service Support Mechanism et al., CC Docket No. 02-6 et al., Order, 32 FCC Rcd 7456 (WCB 2017). We also decline to grant PRWireless's request for a temporary rule to increase the monthly Lifeline discount to \$25.00 for facilities-based Lifeline ETCs in Puerto Rico. See PRWireless Petition at 11-12. As described above, we find that the adopted overall budget addresses the challenge of rebuilding voice and broadband capable networks, which is the stated reason for PRWireless's request, and the passage of time since PRWireless's petition was filed make considered, structured support preferable to emergency relief. We find PRWireless's analogy to the relief granted after Hurricane Katrina in 2005 unpersuasive. First, the Lifeline relief granted in that order was not merely

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"[w]ere the Commission to dip into USF programs each time communications networks were damaged by a natural disaster, it would cripple the USF"³⁵⁸ relies on speculation about unknown future events, and is belied by our consistent efforts to manage the Fund responsibly, including our efforts to prioritize cost effectiveness in this Order. While TCT contends that other sources of funding (such as FEMA or philanthropy) would be more apt for recovery efforts than USF,³⁵⁹ the Fund is directed specifically at deployment of communications networks, and we are the expert agency on communications and have been charged by Congress with "mak[ing] available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."³⁶⁰ We welcome and encourage other support efforts, but we have a role to play here consistent with our expertise and statutory responsibilities.³⁶¹ Finally, we reject TCT's argument that we should not proceed because "the Commission's willingness to act as an effective insurer of last resort sends a strong signal to carriers . . . that they can skimp on private insurance coverage."³⁶² The impact of Hurricane Maria and Irma on the Territories have presented extraordinary circumstances, and carriers should not assume that we would provide support under different circumstances—we are not and will not be an insurer of last resort.

B. Support for Mobile Providers

101. We are committed to ensuring that Americans in Puerto Rico and the U.S. Virgin Islands have access to advanced mobile telecommunications networks that provide the same high-speed broadband services that residents of the mainland United States enjoy, including high-speed 4G LTE and, increasingly, next generation wireless services known as 5G.³⁶³ We recognize that carriers seeking to

an increase in the support level, but rather actions to expand the services and devices to which consumers could apply their Lifeline discount, expand the locations to which consumers could apply their Link Up discount, and expand the ways by which consumers could demonstrate their eligibility for the program. *See Federal-State Joint Board on Universal Service*, CC Docket No. 96-45 et al., 20 FCC Rcd 16883, 16887-95, paras. 8-24 (2005). Those temporary changes to the Lifeline program were designed to facilitate qualifying consumers' ability to enroll in Lifeline during the disruption following Hurricane Katrina, not to rebuild the networks damaged by that hurricane. In contrast, here PRWireless requests enhanced Lifeline support for the purpose of supporting the rebuilding of the network, but we find that the prior emergency support and additional support granted in this Order achieve that goal with greater predictability and accountability, and so we decline to also grant the requested enhanced Lifeline support.

³⁴⁹ TCT Comments. In addition to the reasons we set forth here, we find that we have authority to provide Stage 2 support for the same reasons that the Commission had authority to provide Stage 1 support. *See infra* Sec. IV.B.

³⁵⁰ 47 U.S.C. § 254(b)(2).

³⁵¹ 47 U.S.C. § 254(b)(1).

³⁵² Accordingly, we disagree with TCT's suggestion that Stage 2 funding is "completely unrelated to the goal of urban and rural areas equally realizing communications innovations." TCT Comments at 5.

deploy advanced mobile services in Puerto Rico and the U.S. Virgin Islands face similar Territory-specific challenges as fixed service providers from economic conditions, insularity, and risk of natural disaster. To facilitate the deployment of modern, high-speed, and storm-hardened advanced telecommunications mobile networks, we adopt a three-year funding period for Stage 2 mobile support that allows facilities-based mobile providers a one-time election of support based on their number of subscribers.

Rico Fund and \$4.4 million to the Connect USVI Fund. More specifically, providers will make concurrent elections for two parts of the budgeted support. First, providers may elect receive up to 75% of the support for which they are eligible in exchange for a commitment to restore, harden, and expand networks using 4G LTE or better technology capable of providing services at speeds of at least 10/1 Mbps. Second, given the power of 5G network capabilities to unleash a new wave of entrepreneurship, innovation, and economic opportunity for communities across the country, 364 providers may also elect to receive up to 25% of the support for which they are eligible in exchange for a commitment to specifically deploy 5G mobile network technology, capable of delivering speeds of at least 35/3 Mbps. 365 By the conclusion of Stage 2, we expect to establish and adopt a competitive funding mechanism for the long-term expansion of advanced telecommunications access and next generation wireless services for the Territories that builds on our experience from our provision of Stage 2 mobile support, the competitive mechanism we adopt here for fixed service, and other competitive mechanisms adopted by the Commission.

1. Eligibility, Support Allocation, and Election

103. We adopt our proposal in the *Notice* to make available and allocate Stage 2 mobile support to facilities-based mobile providers that provided services in Puerto Rico or the U.S. Virgin Islands prior to the hurricanes.³⁶⁶ For eligible mobile providers that elect to participate in Stage 2, we will

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353 47 U.S.C. § 254(b), (b)(5). TCT relies on *Qwest Commc'ns Int'l, Inc. v. FCC*, 398 F.3d 1222 (10th Cir. 2005) for the proposition that we are limited to "preserv[ing]" universal service as it existed prior to the 1996 Act's passage, *see* TCT Comments at 4-5, but TCT overreads the case. The *Qwest* court specifically construed the meaning of "reasonably comparable" rates with reference to the meaning of "preserve" and "advance." *Qwest*, 398 F.3d at 1234-37. While the *Qwest* court read "preserve" to "refer[] to the rate variance arising from the support mechanisms existing in 1996," *id.* at 1236, the court did not indicate that this reading would apply to non-rate-related aspects of section 254. In fact, the court quoted the dictionary definitions of "preserve" as "to keep safe from injury, harm, or destruction: PROTECT"; "maintenance"; "[k]eeping safe from harm; avoiding injury, destruction, or decay; maintenance"; and "[i]t is not creation, but the saving of that which already exists, and implies the continuance of what previously existed." *Id.* at 1235 (quoting Webster's Ninth New Collegiate Dictionary 930 (1991) & Black's Law Dictionary 1184–85 (6th ed.1990)). Our action today to promote network hardening protects, maintains, keeps safe from injury, and saves against future destruction. Further, our reading is consistent with Congress's direction in section 254(c)(1) that "[u]niversal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section." 47 U.S.C. § 254(c)(1).

³⁵⁴ TCT Comments at 5 (citing H.R. 4832, 115th Cong. § 2 (2018)).

³⁵⁵ See Congress.gov, H.R.4832, 115th Cong. - RESTORED Act of 2018, https://www.congress.gov/bill/115th-congress/house-bill/4832/. We note that the bill, by its own terms, would have merely "clarif[ied]" that support is available for restoration under specified circumstances. H.R. 4832, 115th Cong. pref. (2018).

³⁵⁶ TCT Comments at 6.

³⁵⁷ USF/ICC Transformation Order, 26 FCC Rcd at 17683-87, paras. 60-66 (specifically discussing and relying on sections 254(b)(1)-(3) and (7), in addition to section 254(b) as a whole).

³⁵⁸ TCT Comments at 2.

allocate Stage 2 mobile support in each territory based on the number of mobile subscribers according to their June 2017 FCC Form 477 data, consistent with our approach to Stage 1.

- 104. Any eligible facilities-based mobile provider may elect to participate in this opportunity for support over the three-year period we adopt for Stage 2. Providers that are eligible for Stage 2 mobile support under either the Uniendo a Puerto Rico Fund or the Connect USVI Fund will have a one-time opportunity to elect to participate in Stage 2 support. Each provider will make two simultaneous elections. First, it may elect to receive up to 75% of the support for which it is eligible in exchange for a commitment to restore, harden, and expand networks capable of providing 4G LTE or better services. Second, it may elect to receive 25% or more of the support for which it is eligible in exchange for a commitment to specifically spend that support toward deployment of networks capable of providing 5G mobile network technology based-services.³⁶⁷
- 105. Eligible mobile providers may elect to receive Stage 2 support from their respective fund through an election process similar to that used in Stage 1. To participate, a facilities-based mobile provider must, within 30 days of the publication of this Order in the Federal Register, either (1) renew the certification it provided to the Commission as part of Stage 1 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund specifying the number of subscribers (voice or broadband Internet access service) it served in the Territory as of June 30, 2017 (before the hurricanes); or (2) for any mobile provider that did not submit an election to receive Stage 1 support, submit to the Commission a certification specifying the number of subscribers (voice or broadband Internet access service) it served in the Territory as of June 30, 2017 (before the hurricanes), along with accompanying evidence. Providers also must file a copy of the certification and accompanying evidence (if applicable) through the Commission's Electronic Comment Filing System (ECFS) as well as email a copy to ConnectAmerica@fcc.gov. The Commission will then verify eligibility using various data sources, including FCC Form 477 data. We direct the Bureau to then

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³⁵⁹ <i>Id</i> .	

³⁶⁰ 47 U.S.C. § 151.

³⁶¹ Additionally, FEMA support is not available to private for-profit companies. See Viya Reply at 15.

³⁶² TCT Comments at 3.

³⁶³ See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment et al., WT Docket No. 17-79, WC Docket No. 17-84, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088, 9089, paras. 1-2 (2018) (*Third Wireless Infrastructure Order*) (discussing 5G).

³⁶⁴ *Id*.

³⁶⁵ In using the term 5G, we specifically refer to the 5G-NR (New Radio) technology standards developed by the 3rd Generation Partnership Project (3GPP) with Release 15 and require providers to submit 5G deployment data that at least meet the specifications of Release 15 and corresponding ITU-R recommendations on IMT 2020 and beyond. ITU-R, *Recommendation ITU-R M.2083-0: IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and Beyond*, https://www.itu.int/dms_pubrec/itu-r/rec/m/R-REC-M.2083-0-201509-I!!PDF-E.pdf (last visited Sept. 25, 2019). 3GPP unites seven telecommunications standard development organizations, including the Alliance for Telecommunications Industry Solutions (the standards development organization that applies 3GPP standards in the United States). 3GPP, *About 3GPP*, https://www.3gpp.org/about-3gpp (last visited Aug. 28, 2019). 3GPP "covers cellular telecommunications network technologies, including radio access, the core transport network, and service capabilities, which provide a complete system description for mobile telecommunications." *Id.*; *see also Establishing the Digital Opportunity Data Collection*, WC Docket No. 19-195, *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Report and Order and Second Further Notice of Proposed Rulemaking, FCC 19-79, para. 44 & n.116 (Aug. 6, 2019) (*Digital Opportunity Data Collection*).

³⁶⁶ *Notice*, 33 FCC Rcd at 5424, para. 84.

³⁶⁷ A provider's election and obligation to deploy 5G technology as part of Stage 2 of the Uniendo a Puerto Rico Fund or the Connect USVI Fund shall be independent from any other deployment obligations made as part of any (continued)

allocate these amounts among qualifying providers of each territory according to the number of subscribers (voice or broadband Internet access service) each served as of June 30, 2017. The Bureau shall make public these allocations via a Public Notice as soon as practicable.

- 106. Nearly all commenters support Stage 2 support for facilities-based mobile providers that provided service to Puerto Rico and the U.S. Virgin Islands prior to the hurricanes based on their June 2017 FCC Form 477 subscriber data.³⁶⁹ We agree with commenters that the allocation of Stage 2 mobile support for the restoration, hardening, and expansion of mobile network infrastructure will be best accomplished by relying on subscriber data on the 2017 FCC Form 477. By making pre-hurricane facilities-based mobile providers eligible for Stage 2 support, we will be able to quickly restore, harden, and expand service. This necessary and targeted high-cost mobile support will help rebuild damaged networks, harden against future natural disasters, and improve and expand mobile services through the installation of 4G LTE or better technology in Puerto Rico and the U.S. Virgin Islands in a timely and cost-effective manner.
- 107. Although we use 2018 FCC Form 477 data for fixed support, we use pre-hurricane subscriber data from 2017 FCC Form 477 to allocate mobile support as a means to account for our goals to restore and harden mobile networks damaged by the hurricanes.³⁷⁰ In this regard, pre-hurricane subscriber data, as reflected in the June 2017 FCC Form 477 data, provides an objective measure of available data to approximate relative networks to achieve our goals. We further note that our review and analysis of the record does not reflect the entrance of new mobile service providers in Puerto Rico and the U.S. Virgin Islands, so we do not need to deviate from the use of 2017 FCC Form 477 subscriber data to allocate mobile support. We conclude that limiting provider eligibility to facilities-based providers that provided mobile services prior to the hurricanes best facilitates our goals for the full restoration and hardening mobile service networks that were devastated by the hurricanes, and more readily facilitates the rapid, efficient deployment of 4G LTE and 5G networks in the Territories.
- 108. We decline to adopt Viya's proposal to allocate mobile support based on the geographic area of a provider's network.³⁷¹ Specifically, Viya proposed that "Stage 2 mobile funding should be awarded pro rata to each eligible mobile carrier based on the relative number of square miles that the

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other regulatory obligation or to satisfy a provider's separate commitments made to the Commission or a sta	ite or
local regulatory body as part of any other proceeding.	

³⁶⁸ We adopt the same definition of "subscriber" as in Stage 1. *See PR-USVI Fund Order*, 33 FCC Rcd at 5409, para. 16 & n.31; *see also* FCC Form 477, Local Telephone Competition and Broadband Reporting, Instructions at 26, 27. In particular, a voice-only subscriber, a broadband-only subscriber, and a voice-and-broadband subscriber each count as one subscriber. *See PR-USVI Fund Order*, 33 FCC Rcd at 5409, para. 16 & n.31. Each line in a multi-line plan counts as a one subscriber. *See id*.

³⁶⁹ AT&T, PRTC, PRTRB and Viya support limiting facilities-based mobile provider eligibility to providers that provided services prior to the hurricanes. AT&T Comments at 6; PRTC Comments at 26; PRTRB Comments at 9; Viya Comments at 43.

³⁷⁰ Any new mobile service providers that may have entered Puerto Rico's and the U.S. Virgin Islands' marketplace after the hurricanes would not have damaged networks to restore. *See* BBVI Nov. 9, 2018 *Ex Parte* at 1 (stating that Stage 2 provider eligibility should be limited to providers that were serving customers as of June 30, 2017 and "is not intended to support start-up businesses in the USVI that were unharmed by Hurricanes Irma and Maria"). While later-arriving service providers could work toward our other goals for Stage 2 mobile support—expansion and hardening—we limit our support to pre-hurricane service providers so that our support is focused on all three goals. As explained below, we conclude that restoration is integral to rebuilding communities, serving the public safety needs of the islands, and providing access to telecommunication and information services available to customers prior to the hurricanes. Additionally, we expect providers with pre-hurricane networks to be able to deploy additional facilities more efficiently during the limited three-year support window than completely new entrants.

³⁷¹ See Viya Comments at 44.

carrier served prior to the hurricanes, as shown in the June 2017 Form 477 shapefiles filed by the carriers."³⁷² However, providers in Puerto Rico and the U.S. Virgin Islands do not currently employ an industry-wide standard methodology to calculate and report network coverage as part of their Form 477 filings. Consequently, we do not have consistent, reliable, and precise geographic data needed to allocate mobile support to providers in the Territories. Rather than using network area reporting that varies among providers, we conclude that allocating mobile support using subscriber data allows us to reach as many consumers as possible and as quickly as possible in the Territories with our limited budget and thus serves the best interest of the residents of Puerto Rico and the U.S. Virgin Islands in Stage 2.

- 109. Support Amounts. Each eligible mobile provider that elects to participate in Stage 2 of the Uniendo a Puerto Rico Fund or the USVI Connect Fund will receive monthly installments of its pro rata share of mobile support amortized over the three-year support period adopted below. Each recipient's pro rata share will be adjusted according to its election to receive or decline support for 4G LTE and/or 5G deployment.
- Fund for mobile providers as comprehensive substitute mechanisms for mobile high-cost support, providing certainty and stability in those areas for the next three years, carriers that elect not to participate in Stage 2 will receive only transitional legacy mobile support.³⁷³ We set transitional support amounts only for existing recipients of high-cost support that do not elect to participate in Stage 2. Any such providers will receive one-half of their legacy mobile support,³⁷⁴ excluding prior emergency and Stage 1 support to mobile providers,³⁷⁵ amortized for the first 12-month period following the public notice announcing the start of the Stage 2, and no legacy support for mobile services thereafter. We believe that an expeditious phase-down of legacy support is warranted since we are not conducting a competitive process for mobile high-cost support, and all carriers will have the opportunity to participate in this substitute mechanism. Moreover, this phase-down will give a predictable glidepath as we transition from one support mechanism to another while preserving our finite universal service funds to begin funding mobile service under the terms of Stage 2.³⁷⁶

2. Budget

111. We adopt the proposed total budget over a three-year period of \$258.8 million in mobile support for the Uniendo a Puerto Rico Fund and the Connect U.S. Virgin Islands Fund in light of the unique challenges mobile providers face following Irma and Maria and to provide access to advanced telecommunication services, including 5G wireless services.³⁷⁷ Given that two years have passed since Maria and Irma and based on the progress carriers have made in restoring their networks, we make clear

³⁷² Viva Comments at 44.

³⁷³ Because the Uniendo a Puerto Rico Fund and the Connect USVI Fund are comprehensive alternative plans for high-cost mobile support, we find that our adoption of the Uniendo a Puerto Rico Fund and the Connect USVI Fund as alternative support mechanisms is consistent with section 627 of the Consolidated Appropriations Act of 2018. Section 627's restrictions on the Commission's authority specifically provides that "this section shall not prohibit the Commission from considering, developing, or adopting other support mechanisms as an alternative to Mobility Fund Phase II." *See* Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, § 627, 132 Stat. 348, 586 (2018). Mobile providers that elect to participate in Stage 2 will cease to be eligible for legacy support.

³⁷⁴ We calculate the amount of available phase-down support based on the amount of high-cost support received for 2016. We conclude this is the appropriate year from which to calculate phased-down support because it does not include additional hurricane support made available following the hurricanes.

³⁷⁵ See PR-USVI Fund Order, 33 FCC Rcd at 5407-09, paras. 10, 15, 17.

³⁷⁶ Cf. AT&T Comments at 6-7 (generally supporting predictable transition support schedule); see also 47 U.S.C. § 254(b)(5)).

³⁷⁷ See Notice, 33 FCC Rcd at 5412-13, paras. 29-30.

that Stage 2 mobile support is not simply to restore mobile network coverage to prior service levels. We intend for Stage 2 to foster greater access to advanced telecommunications for the Territories, including access to both 4G LTE and 5G technologies.

- 112. Current high-cost support directs approximately \$78.9 million each year to mobile services in Puerto Rico and over \$67,000 each year to mobile services in the U.S. Virgin Islands. Our budget increases the amount of support to the Territories by \$7 million per year over three years to ensure that providers have sufficient funds to restore, harden, and expand voice and broadband-capable networks. We therefore establish Stage 2 of the Uniendo a Puerto Rico Fund for mobile networks at up to \$254.4 million over a three-year period and establish the Connect USVI Fund Stage 2 budget for mobile networks at up to \$4.4 million over a three-year period. This budget reflects an increase of approximately \$17.7 million over three years in Puerto Rico and approximately \$4.2 million over three years in the U.S. Virgin Islands compared to pre-existing frozen support.
- decision today, we believe that the Stage 2 mobile support we allocate—in addition to the \$71.74 million in extra mobile support previously provided³⁷⁹—will be sufficient to allow facilities-based mobile service providers to restore any lingering damaged or destroyed network facilities and make meaningful progress to harden their networks and expand the availability of voice services and modern, high-speed broadband services. In several instances, carriers have reported complete or near-complete restoration of their mobile networks following the hurricanes, suggesting that directing Stage 2 support only to restoration would be too limited a goal. For instance, PRTC informed the Commission that it has fully restored prior service levels and, in fact, added to its mobile network facilities.³⁸⁰ Additionally, AT&T reports that despite significant challenges, it has restored much of its network.³⁸¹ The support amount we dedicate thus reflects our priorities to complete any remaining rebuilding and promote the deployment and hardening of modern, high-speed mobile networks in a fiscally responsible manner over a three-year term.³⁸²
- Hurricanes Irma and Maria, we direct that 75% of Stage 2 mobile support be allocated for the restoration, hardening, and expansion of 4G LTE or better mobile networks, and we direct that the remaining 25% of Stage 2 mobile support be allocated specifically for the deployment of 5G technology in the Territories. Commenters broadly support the deployment of 4G LTE, 383 and we find that requiring 4G LTE as our minimum standard for the majority of support for funded deployments ensures that finite universal service funds are used efficiently to provide consumers access to robust mobile broadband service in the near and long term that is comparable to 4G LTE network-based service being offered today in urban areas. We further specifically direct a portion of Stage 2 mobile support to the deployment of 5G to ensure that Puerto Rico and the U.S. Virgin Islands are not left behind as carriers increasingly invest in deploying 5G

³⁷⁸ See USVI Governor's Office Comments at 4-5; Viya Comments at ii, 41-43.

³⁷⁹ See PR-USVI Fund Notice, 33 FCC Rcd at 5407, para. 10; 5408, paras. 13-15 (declining to offset emergency high-cost support provided immediately following the hurricanes and providing prior Stage 1 funding); 2017 Hurricane Funding Order at 7, Appx.

³⁸⁰ PRTC Mar. 28, 2019 Ex Parte Attach. at 3; see also Viya Mar. 22, 2019 Ex Parte Attach. at 12.

³⁸¹ See AT&T Comments at 2.

³⁸² PR-USVI Fund Notice, 33 FCC Rcd at 5413, para. 32.

³⁸³ See AT&T Comments at 9 (agreeing that Stage 2 recipients deploy 4G LTE in their pre-hurricane coverage areas but opposing speed and latency obligations for pre-hurricane coverage areas); PRTRB Comment at 17 (stating that funds should be targeted to meet 4G LTE); Viya Comments at 44 (supporting 4G LTE minimum service requirements).

³⁸⁴ See 47 U.S.C. § 254(b).

mobile network technology.³⁸⁵ By supporting the deployment of 5G networks, we encourage the deployment of the types of facilities that will best achieve the principles set forth in section 254(b) of the Act, including the availability of quality services, the deployment of advanced services, and access by consumers in insular areas and low-income consumers to reasonably comparable services.³⁸⁶ In addition to furthering the universal service principles of 254(b), we believe that encouraging the transition towards 5G infrastructure deployment will help unleash entrepreneurship, innovation, and economic opportunity for the Territories.³⁸⁷

- 115. Consistent with our prior round of support in Stage 1, we retain the pre-existing mobile support allocations and allocate about 80% of the proposed additional support for mobile services to Puerto Rico and about 20% to the U.S. Virgin Islands in light of the changed circumstances resulting from the destruction to networks caused by the 2017 hurricane season.³⁸⁸ Several commenters support this decision.³⁸⁹ We expect that the amount of support available will enable eligible mobile carriers to restore, harden, and expand mobile networks over the next three years, to at least pre-hurricane network performance levels if not better, at which point we will revisit the amount of support necessary to further expand and/or harden mobile service available in the Territories.
- 116. In reaching this conclusion, we find our allocation between fixed and mobile services to be appropriate.³⁹⁰ Except for our increase in fixed support to Puerto Rico, this relative allocation is the same that the Commission used in Stage 1,³⁹¹ and the allocation similarly reflects the greater costs of deploying fixed services and our expectation that improvements to fixed network backhaul will facilitate improved mobile services.³⁹² We note that the budget we adopt increases annual mobile support to the U.S. Virgin Islands by almost twenty-two times the prior level—this large relative increase reflects our view that the existing, very modest level of mobile support for the U.S. Virgin Islands would be insufficient to support meaningful progress toward restoration, hardening, and expansion of 4G LTE and 5G mobile technology-based services during Stage 2 in light of the challenges of serving the Territory.

³⁸⁵ See Third Wireless Infrastructure Order, 33 FCC Rcd at 9089, paras. 1-2 (stating that "[t]he FCC is committed to doing our part to help ensure the United States wins the global race to 5G to the benefit of all Americans" and citing a report estimating that wireless providers will invest \$275 billion over the next decade in next-generation wireless infrastructure deployments).

³⁸⁶ See 47 U.S.C. § 254 (b)(1)-(3), (e); USF/ICC Transformation Order, 26 FCC Rcd at 17685-86, para. 64. The Commission has broad authority to place conditions on the use of universal service funds and to make funding directives that are consistent with the principles set forth in section 254(b). *In re FCC 11-161*, 753 F.3d 1015, 1046-47 (10th Cir. 2014).

³⁸⁷ See Third Wireless Infrastructure Order, 33 FCC Rcd at 9089, paras. 1-2.

³⁸⁸ *PR-USVI Fund Notice*, 33 FCC Rcd at 5414, para. 36; *PR-USVI Fund Order*, 33 FCC Rcd at 5410-11, para. 22 (explaining the reasons why the Commission allocated greater support to USVI in Stage 1).

³⁸⁹ See Tier 1 Comments at 3; PRTC Comments at 26 (supporting 80-20 ratio for allocation of additional mobile funding based on landmass, geography, topography, and population between the Territories, financial and operational challenges faced by carriers); PRTRB Comments at 9 (stating that PRTRB "does not oppose" an 80-20 split).

³⁹⁰ See, e.g., Liberty Comments at 11 (noting the allocation between fixed and mobile services is appropriate based on differences between network structures and associated costs); VPNet Comments at 4 (indicating that allocation between fixed and mobile networks is appropriate). *But see* USVI Governor's Office Comments at 5 (supporting greater funding to mobile voice and broadband providers due to increasing importance and reliance on cell phone service).

³⁹¹ *PR-USVI Fund Notice*, 33 FCC Rcd at 5409, para. 17 (allocating 60% of Stage 1 funding of the Uniendo a Puerto Rico Fund and the Connect USVI Fund to fixed network operators and 40% to mobile network operators "in light of the relatively higher costs of restoring fixed services" and with the expectation that "restoring and improving the fixed network will facilitate more reliable and faster backhaul for mobile services").

3. Support Term and Eligible Areas

Term of Support. Consistent with the Notice, we conclude that a three-year period is 117. appropriate for Stage 2 support.³⁹³ We first note that providers did not submit specific comments proposing a different time period for Stage 2 mobile support, and only BBVI explicitly supported the proposed three-year period.³⁹⁴ We expect the three-year period to benefit the Commission by allowing time for us to develop further procedures and standards for mobile voice and broadband service that may be applied to a future long-term Stage 3 process to allocate support for mobile services in the Territories. We anticipate issuing a Further Notice to seek input on when and how to implement a long-term Stage 3 mobile support process. Our ultimate goal for mobile support is to adopt a Stage 3 mobile support mechanism to facilitate the deployment and maintenance of high-speed mobile broadband networks throughout Puerto Rico and the U.S. Virgin Islands. Although we shift to a competitive mechanism now for fixed Stage 2 support, we believe it would be premature to adopt a long-term process for mobile support for several reasons. In developing a Stage 3 mobile support mechanism, we will benefit from evaluating competitive models, including the fixed Stage 2 competitive allocation mechanism in this proceeding, as possible models upon which to build. We will also benefit from evaluating initial progress in deployment of high-speed 5G and 4G LTE networks in the Territories during Stage 2, and we will benefit from evaluating ongoing development of the 5G standard.³⁹⁵ While we seek to avoid delay, these factors—which do not apply to fixed support—warrant a more incremental approach to mobile at this time. We therefore agree with AT&T that in the context of mobile support, we should divide Stage 2 of the Uniendo a Puerto Rico Fund and Connect USVI Fund into two stages.³⁹⁶

118. *Eligible Areas*. We conclude that all areas of Puerto Rico and the U.S. Virgin Islands will be eligible for mobile high-cost support.³⁹⁷ Consistent with section 254(e) of the Act and our rules, we believe making all areas eligible allows support to be used anywhere it is necessary for any remaining restoration efforts as well as new deployments, network upgrades, and storm hardening and resilience, thereby supporting the return of service and competition in each territory.³⁹⁸ Some mobile carriers in the Territories continue to work toward full restoration, and all face challenges in expanding and hardening their communication networks. For example, AT&T states that during the proposed Stage 2 period, it will continue "backhaul restoration efforts includ[ing] maximizing the population served by buried infrastructure, hardening above-surface infrastructure where possible, diversifying key fiber routes, and expanding backup microwave backhaul capabilities."³⁹⁹ Viya states that Stage 2 mobile "funding is vital both to complete the restoration of wireless telecommunications networks in the USVI and for the hardening of mobile networks against damage caused by the annual hurricane seasons in future years."⁴⁰⁰

³⁹³ PR-USVI Fund Order, 33 FCC Rcd at 5423-24, paras. 80, 82.

³⁹⁴ BBVI Comment at 3 (agreeing that a three-year funding term for 4G LTE mobile services is appropriate).

³⁹⁵ See 3GPP, Release 16 (updated Jul. 16, 2019), https://www.3gpp.org/release-16.

³⁹⁶ AT&T Comments at 11-12.

³⁹⁷ The Commission did not receive any comments that directly discussed the impact of Stage 2 mobile support on the Commission's current frozen support provided to mobile competitive ETCs.

³⁹⁸ Cf. 2017 Hurricane Funding Order, 32 FCC Rcd at 7984, para. 10 (clarifying that the use of high-cost support may be used to reestablish the level of service available before Hurricane Maria consistent with section 254(e) of the Act and the Commission's rules).

³⁹⁹ AT&T Comments at 8.

⁴⁰⁰ Viya Comments at 42.

Likewise, PRTC states that support "will be critical to . . . make [its network] more resilient to future natural disasters." Facilitating network hardening is also appropriate in light of the heightened risk of damage due to disasters faced by and insular nature of the Territories, and we thus find it prudent and in the public interest to account for the heightened possibility of damaging future natural disasters in the Territories. In addition, the heightened economic challenges faced by the Territories, which were amplified by Irma and Maria, justify ongoing support with respect to expanding deployment of high-speed mobile networks, since availability of quality, affordable mobile services promotes economic development. We therefore give support recipients certain flexibility in their businesses to determine where hardening and/or expansion will be most impactful, including by taking into account post-hurricane population shifts, subject to the limitation that support must be used for high-speed 4G LTE or 5G networks, as specified. After the three-year Stage 2 period, we expect to reevaluate whether conditions in the Territories have recovered such that we can focus support in areas where market forces alone cannot support the provision of mobile services.

4. Public Interest Obligation and Appropriate Use of Support

119. Remaining Restoration. We direct Stage 2 support principally toward new and improved deployment of hardened and high-speed mobile networks, and many commenters state that their network coverage restoration to prior service levels exceeds the restoration benchmarks we adopt today. And to Nevertheless, we recognize that some restoration of network coverage area to pre-hurricane levels may still be necessary. Therefore, at a minimum, we require Stage 2 support recipients to commit to a full restoration of their pre-hurricane network coverage areas as reported on their June 2017 FCC Form 477 and at reasonably comparable levels to those services and rates available in urban areas. And the green with commenters that we should require recipients to fully restore service to the pre-hurricane coverage area levels because of the critical role telecommunications networks play in the recovery and economic

⁴⁰¹ PRTC Comments at 26.

⁴⁰² As we discussed above, nearly every zip code in the Territories, unlike the mainland United States, sustained over \$5 million in losses from major natural disasters from 2002-2017. *See supra* note 88. In addition, the insular nature of the Territories makes preparation for and recovery from disasters particularly difficult, and the network infrastructure is especially vulnerable, for instance due to high shipping costs, topography and weather, and distance from the mainland. *Id.*

⁴⁰³ See generally Viya Comments at 2 (stating that "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"); PRTRB Comments at 7-8 (stating that in Puerto Rico, 43.5 percent of the population is living below the poverty line, almost three times the national average and that the unemployment rate is 9.6 percent, over twice that of the United States as a whole).

⁴⁰⁴ See, e.g., Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, WT Docket No. 11-186, Sixteenth Report, 28 FCC Rcd 3700, 3929-31, paras. 361-66 (2013) (describing positive impacts of mobile broadband services on the economy).

⁴⁰⁵ See AT&T Comments at 11-12 (proposing that the Commission target Stage 3 funding to areas that remain unserved by 4G LTE after Stage 2 and such funding should be awarded through a competitive process to a single wireless carrier in a given geographic area).

⁴⁰⁶ See, e.g., Letter from Eduardo R. Guzman, Attorney for PRTC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-240, Attach. at 3 (filed March 29, 2019) (PRTC Mar. 29, 2019 Ex Parte) (indicating full restoration, as well as expansion); Viya Mar. 22, 2019 Ex Parte Attach. at 12 (stating that Viya restored "most cell sites" in approximately Nov. 2017 and restored voice and broadband to "effectively the entire population within 4 months").

⁴⁰⁷ 47 U.S.C. § 254(b)(3).

growth and prosperity of Puerto Rico and the U.S. Virgin Islands.⁴⁰⁹ In geographic areas where continued restoration is needed, we require recipients to restore the network coverage area using 4G LTE or better technologies that meet the minimum service requirements below. In cases where a Stage 2 support recipient has completed the restoration of its network to its pre-hurricane coverage area prior to the receipt of Stage 2 support,⁴¹⁰ we require support to be used solely for hardening, upgrading, or expanding 4G LTE and 5G networks that meet the minimum service standards specified below.⁴¹¹

- 120. We conclude the full restoration of mobile networks is integral to rebuilding communities, serving the public safety needs of the islands, and providing access to telecommunication and information services to consumers available prior to the hurricanes. Moreover, we note that the full restoration of network service coverage pre-hurricane serves is an essential baseline for determining unserved areas of Puerto Rico and the U.S. Virgin Islands as we move forward and make voice and broadband service universally available to all consumers. We will use the mobile network coverage area to determine how best to structure a future stage to allocate long-term mobile support in a tailored and cost-effective manner.
- 121. Appropriate Use of Support. We reaffirm that universal service support should be targeted towards 4G LTE and better technologies in order to provide the Territories with high-quality mobile service. We have observed that consumers increasingly rely on greater performing mobile networks, including 4G LTE, in order to take advantage of the significantly better performance characteristics of these networks, including faster data transfer speeds while using the web or web-based applications. And, as noted above, carriers are rapidly investing in 5G deployment across the country. Directing support in Stage 2 towards 4G LTE and 5G technologies will ensure that consumers in Puerto Rico and the U.S. Virgin Islands are not relegated to substandard mobile service in the near and long-terms. To help achieve our goal to advance 4G LTE and 5G technologies, we emphasize that Stage 2 mobile support may not be used towards restoration, hardening, and expansion of 3G or lower mobile technologies. We thus conclude the use of Stage 2 mobile support for 4G LTE and 5G technologies will serve the public interest to ensure universal service for all residents of Puerto Rico and the U.S. Virgin Islands. To promote the efficient use of support and encourage high-speed deployment, we direct that carriers use authorized support to deploy, harden, or expand networks consistent with the 4G LTE and 5G parameters below.
- 122. *Minimum Service Requirements for 4G LTE Support*. For the portion of support directed to restore, harden, or expand networks capable of providing 4G LTE or better service (i.e., the allocation of up to 75% of the provider's eligible support amount), we adopt minimum service requirements that define the baseline 4G LTE performance standard for Stage 2 mobile support recipients in Puerto Rico and the U.S. Virgin Islands.⁴¹⁴ We agree with Viya that we should adopt minimum service requirements

⁴⁰⁹ See id. at 8.

⁴¹⁰ We credit toward completion areas in which recipients restored service prior to receipt of Stage 2 support regardless of mobile technology employed.

⁴¹¹ See Liberty Comment at 11 (proposing Stage 2 funding be limited to hardening and expansion of broadband services, but not restoration).

⁴¹² See generally Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 17-199, 2018 Broadband Deployment Report, 33 FCC Rcd 1660 (2018) (2018 Broadband Deployment Report).

⁴¹³ See id.

⁴¹⁴ See PR-USVI Fund Notice, 33 FCC Rcd at 5424, para. 85 (seeking comment on 4G LTE or alternative standards as the minimum service level for Stage 2 mobile support).

for speed, latency, and usage consistent with our advancement of 4G LTE technology or better. We therefore require support recipients to meet minimum baseline performance requirements for data speeds, data latency, and data allowances for at least one plan that carriers offer where carriers have deployed 4G LTE, or will deploy or upgrade to 4G LTE networks or better using Stage 2 support as critically important to benefit the Territories' recovery. The data speed of the network for areas in which the recipient used Stage 2 support must be at least 10 Mbps download speed or greater and 1 Mbps upload speed or greater by the end of the three-year support term. For latency, the required measurement must have a data latency of 100 milliseconds or less round trip by the end of the three-year support term. In addition, support recipients must offer at least one service plan that includes a data allowance of at least 5 GB. A support recipient's service plan with the required data allowance must be offered to consumers at a rate that is reasonably comparable to similar service plans offered by mobile wireless providers in urban areas.

- 123. In adopting minimum performance standards, we decline to adopt AT&T's proposal to implement 4G LTE service without minimum speed and latency requirements⁴¹⁹ or, at most, requiring minimum speed and latency only for a small portion of the network in each territory.⁴²⁰ First, the record reflects that certain carriers currently operate 4G LTE mobile wireless networks that cover large geographic areas.⁴²¹ Moreover, targeting support to measurable performance requirements will ensure that we do not relegate the Territories to substandard service that is not comparable to advanced mobile services. We therefore conclude that requiring minimum performance standards for the use of Stage 2 support for new or upgraded 4G LTE facilities or better will best serve the goals of universal service for consumers living outside urban areas of Puerto Rico and the U.S. Virgin Islands.
- 124. *Minimum Service Requirements for 5G Support*. Consistent with our approach above, for the portion of support directed to the deployment of 5G networks (i.e., the allocation of up to 25% of the provider's eligible support amount), we adopt minimum service requirements that define the baseline 5G performance standard for Stage 2 mobile support recipients in Puerto Rico and the U.S. Virgin Islands. Specifically, as we stated above, we establish as a minimum the 5G-NR technology standards specified by Release 15 and require providers to meet these specifications as part of the optional deployment of 5G technology. This is consistent with our approach in the *Digital Opportunity Data Collection*. In addition, deployments of 5G technologies made with Stage 2 support must provide a data speed of at least 35/3 Mbps. We find it reasonable to require at least 35 Mbps as a downlink speed because the minimum performance requirements of 5G technology, using a typical 10 MHz channel bandwidth, including other system efficiencies such as Multiple Input Multiple Output (MIMO) should permit service providers to meet this speed requirement. Further, the provider must offer a plan with rates that must be reasonably

⁴¹⁵ See Viya Comments at 44 (supporting the minimum service requirements for 4G LTE at speeds of 10/1 Mbps at or below 100 milliseconds, with a slight modification to deployment milestones to account for the three-year support period).

⁴¹⁶ See id. at 44.

⁴¹⁷ *Id*.

⁴¹⁸ Communications Marketplace Report, Report, 33 FCC Rcd 12558, 12568, para. 12 (2018) (stating that "monthly data usage per smartphone subscriber rose to an average of 5.1 GB per subscriber per month").

⁴¹⁹ AT&T Comments at 9.

⁴²⁰ Letter from Raquel Noriega, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 18-143 et al., at 2 (filed May 1, 2019) (AT&T May 1, 2019 *Ex Parte*) (proposing minimum service obligations for at least one-third drive tests of one-third of all municipios in Puerto Rico and for one-quarter of drive tests in U.S. Virgin Islands).

⁴²¹ See, e.g., Viya Comments at 4.

⁴²² See Digital Opportunity Data Collection, para. 44 & n.116.

⁴²³ Minimum requirements for rural enhanced mobile broadband spectral efficiency equal approximately 3.3 bits per (continued...)

comparable to similar service plans offered by mobile wireless providers in urban areas. We decline to adopt further specifications at this time because we recognize that 5G is a new and developing technology.

commitments in exchange for their election and receipt of all Stage 2 mobile support. A mobile provider that fails to use Stage 2 high-cost support towards its commitment for networks capable of providing 4G LTE or better services as specified herein and/or towards its specific deployment of 5G mobile network technology-based services as specified herein shall return the unused support to the Administrator within 30 days following the end of the three-year support period. The amount of support that must be returned shall be an amount equal to the difference between the amount spent on eligible expenses towards its commitment and the full amount of its elected commitment of up to 75% or 25%. For example, a mobile provider that fails to meet its commitment to use 25% of the Stage 2 mobile support for which it is eligible for 5G deployment shall return that amount or the difference between the amount spent on 5G deployment and 25% of the Stage 2 mobile support for which it is eligible. In addition, a mobile provider that elects to receive 75% of its eligible support in exchange for its commitment to provide networks capable of providing 4G LTE or better services and fails to use the support towards eligible expenses to meet its commitment must return any unspent amount of support to the Administrator.

5. Oversight, Reporting, and Accountability

- 126. We adopt annual reporting requirements that will enable the Commission and USAC to ensure compliance with section 254 of the Act and to monitor the ongoing progress and performance of the Uniendo a Puerto Rico Fund and Connect USVI Fund recipients by interpreting sections 54.313 and 54.320 of our rules to apply to Stage 2 mobile support. 424
- 127. Consistent with our approach in other proceedings, we adopt reporting of an interim and final benchmarks for the full restoration of mobile network coverage and service requirements detailed above, which will enable the Commission and USAC to monitor the ongoing progress and performance of all mobile support recipients. Specifically, to monitor the progress of restoration, we decline to adopt the *Notice's* proposal for submission of biannual coverage maps and instead will require submission and certification from support recipients of one annual network coverage map at the conclusion of the second and third year of the support period. We require that each recipient demonstrate and certify to at least 66% of its pre-hurricane network coverage by the end of year two of the Stage 2 support period, and at least 100% of its pre-hurricane coverage, if not more, by the end of the three-year support period.
- 128. We will determine the restoration of a provider's network coverage area based on FCC Form 477 network coverage data reported by mobile providers.⁴²⁷ We believe that Form 477 network coverage data, including each support recipient's shape files, will provide the best comparison for determining whether mobile providers have met their network coverage area milestones. We expect each support recipient to determine its network coverage data using the same methodology it used for the June 2017 FCC Form 477 so the Commission will be able to conduct an "apples to apples" comparison when

⁴²⁴ We exclude from this interpretation 47 CFR § 54.313(c)(4) because requiring certification pursuant to this rule provision would conflict with our treatment of frozen mobile support herein.

⁴²⁵ See, e.g., Alaska Plan Order, 31 FCC Rcd at 10172-73, paras. 100-03.

⁴²⁶ PR-USVI Fund Notice, 33 FCC Rcd at 5425, para. 87.

⁴²⁷ We expect that recent modifications to the FCC Form 477 reporting will not impact our analysis of the network coverage restoration benchmarks. *See Digital Opportunity Data Collection*.

analyzing whether the provider has in fact met its Stage 2 milestones. We also require recipients to submit evidence of network coverage areas, including electronic shapefiles site coverage plots illustrating the area reached by mobile services; a list of census blocks reached by mobile services; and results of the provider's drive, drone, and/or scattered site tests. We direct the Wireline Competition Bureau to define more precisely the content and format of the information required to be submitted by recipients.

- 129. We also adopt a reporting requirement to monitor the ongoing progress for network hardening by providers. Specifically, we adopt AT&T's suggestion that we should require recipients of Stage 2 mobile support to identify on a map where they have undertaken hardening activities in the past year. To facilitate our evaluation of the information that the map contains, we also require each support recipient to provide, along with the map, a detailed narrative description of the network hardening activities identified and of how it made use of the support to facilitate those network hardening activities.
- 130. Like other high-cost recipients that are required to meet milestones, we will require each recipient of Stage 2 mobile support through the Uniendo a Puerto Rico Fund and the Connect USVI Fund to file certifications that it has met its milestones, including a certification of the minimum service requirements as provided above at the end of the third year of the support period. As provided above, a provider may demonstrate the target network coverage based on current FCC Form 477 standards; however, we will require that network coverage reporting requirements conform to any other generally applicable mobile wireless mapping standards that we subsequently adopt. We also require each provider to submit test results verifying coverage along with their certification. We will require that the certification of the minimum service requirements and the test results in verifying coverage, obtained via a methodology selected by the carrier and approved by the Bureau, demonstrate network speed and latency that meet or exceed the minimum service requirements we adopt. We direct the Bureau to define more precisely the content and format of the information required to be submitted by recipients, and we direct USAC to verify the representations in the submissions.
- 131. We further require an annual certification for mobile providers that elect to receive up to 25% of their available support for the deployment of 5G technology. Each participant must specifically certify its use of Stage 2 support related to the deployment of 5G technology to ensure compliance with its commitment. As part of its certification, we require each provider, no later than 30 days after the end of each 12-month period of Stage 2 support, to (1) report the total costs incurred and total amount of Stage 2 support spent related to the deployment of 5G technology during the preceding 12-month period; and (2) describe in detail how it used the support for deployment of 5G technology.
- 132. Finally, as with all ETCs, high-cost recipients of Stage 2 mobile support from the Uniendo a Puerto Rico Fund and the Connect USVI Fund will be subject to ongoing oversight to ensure

⁴³⁰ See infra Appx. A, 47 CFR § 54.1514(h). In order for a recipient of Stage 2 mobile support to continue to receive mobile support for the following calendar year, it must submit the milestone reports in a timely manner. See id.

⁴²⁸ See 47 U.S.C. § 254; Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (1993); GPRA Modernization Act of 2010, Pub. L. 111-352, 124 Stat. 3866 (2011).

⁴²⁹ AT&T Comments at 11.

⁴³¹ We clarify that carriers may use propagation studies or scattered site testing where drive and/or drone testing is not feasible. *Cf. Guidance on Annual Reports and Other Reporting Requirements For Recipients Of Support Under Phase I Of The Mobility Fund (Including Tribal Mobility Fund)*, WT Docket No. 10-208, Public Notice, 29 FCC Rcd 7376, 7378-79, paras. 11-13 (WTB-WCB 2014) (in the context of Mobility Fund Phase I, allowing propagation studies in areas where drive tests were not feasible, and in the context of Tribal Mobility Fund Phase I, allowing the use of either propagation studies or scattered site testing in areas where drive tests could not be completed).

⁴³² In doing so, USAC may use statistically valid sampling methods. In addition to the requirements we specifically adopt for mobile providers, we note that all Stage 2 recipients, including mobile providers, are subject to the Disaster Preparation and Response Plan requirement and mandatory participation in DIRS as adopted in this *Order*.

program integrity and to deter and detect waste, fraud, and abuse. All ETCs that receive high-cost support are further subject to compliance audits and other investigations to ensure compliance with program rules and orders. We conclude that all mobile support recipients will be subject generally to the same audit requirements as recipients of Connect America Fund Phase II support, fixed Stage 2 support in this proceeding, and all other high-cost support. Moreover, our decision today does not limit the Commission's ability to recover funds or take other steps in the event of waste, fraud, abuse, or misrepresentations.

C. Additional Requirements for Fixed and Mobile Stage 2 Support Recipients

- 133. In addition to the criteria we adopt above, we also adopt the following requirements for any winning applicants seeking Stage 2 fixed support for voice and broadband service and mobile providers electing to receive Stage 2 support. The Disaster Preparation and Response Plan and DIRS requirements set forth below apply to all Stage 2 fixed and mobile support recipients.
- Disaster Preparation and Response Plan. Helping to protect fixed and mobile networks in Puerto Rico and the U.S. Virgin Islands against future hurricanes and other disasters is of vital importance, and we cannot account for all forms of disaster preparation via objective scoring criteria in our fixed competitive proposals process (nor do we employ such a process for Stage 2 mobile support). To ensure that Stage 2 support recipients have a holistic plan to prepare for and respond to possible disasters, we will require each recipient of Stage 2 fixed and mobile support to create, maintain, and submit to the Wireline Competition Bureau (Bureau) for its review a detailed written plan (a "Disaster Preparation and Response Plan") that describes and commits to the methods and procedures that it will use, during the period in which it receives Stage 2 support, to prepare for and respond to disasters in Puerto Rico and/or the U.S. Virgin Islands. 434 We specifically require applicants to describe in the Disaster Preparation and Response Plan in detail how they will meet five criteria: (1) Strengthening Infrastructure; (2) Ensuring Network Diversity; (3) Ensuring Backup Power; (4) Network Monitoring; and (5) Emergency Preparedness. 435 We explain these criteria in detail in Appendix B. We require applicants to document in detail in the Disaster Preparation and Response Plan their methods and processes for achieving each of these goals, identify personnel responsible for compliance, and conform their actions to their written documentation. 436
- 135. A Stage 2 fixed support applicant must submit its Disaster Preparation and Response Plan to the Bureau for review and approval along with the provider's application, and a mobile provider electing Stage 2 support must submit its Disaster Preparation and Response Plan for review and approval along with its election of support. We direct the Bureau to approve the documentation if it is complete and thoroughly addresses how the carrier will meet each of the criteria we identify. If the Bureau identifies deficiencies in the Disaster Preparation and Response Plan, we direct the Bureau to provide

⁴³⁴ In the *Notice*, the Commission asked whether it "should require second-stage participants to improve the ability of their facilities and equipment to resist hurricanes and other natural disasters." *PR-USVI Fund Notice*, 33 FCC Rcd at 5426, para. 91. The Commission specifically asked about costs associated with "back-up power endurance, backhaul resiliency, physical infrastructure resiliency, recovery plans, and/or redundant or alternate network implementations." *Id.* Further, the Commission inquired about to what extent applicants should be required to maintain electrical backup or other back-up power as requirement of participation in this process. *Id.* at 5427, para. 95. And the Commission asked about requiring support recipients to meet various industry standards. *Id.* at 5426, para. 91. The Disaster Preparation and Response Plan requirement we adopt here resembles the more prescriptive options contemplated by the *Notice* but offers carriers greater flexibility to tailor their approach to meet their specific needs.

⁴³³ See 47 CFR § 54.320.

⁴³⁵ See Puerto Rico Manufacturers Association (PRMA) Comments at 1-3 (detailing lessons learned).

⁴³⁶ See, e.g., PRTRB Comments at 20 (commenting that special weight should be given to participants who include the means to maintain, fortify or restore power).

detailed written notification of the deficiencies to the carrier and withhold authorization to receive support until the support recipient has cured the deficiencies.⁴³⁷ We emphasize that support recipients may choose to develop their Disaster Preparation and Response Plans in a number of ways to meet the flexible criteria established here. Recipients shall materially comply with the representations in the Disaster Preparation and Response Plan, once approved.

- 136. All Stage 2 support recipients must update their Disaster Preparation and Response Plan when they make material changes to internal processes or responsible staff and share the updated Disaster Preparation and Response Plan with the Bureau within 10 business days. We also will require support recipients to certify annually to USAC that they have recently reviewed the Disaster Preparation and Response Plan and considered whether any changes or revisions were necessary. We direct the Bureau to provide additional guidance to applicants regarding the timing, submission, and format of the required Disaster Preparation and Response Plan.
- We find it is appropriate to require and evaluate Disaster Preparation and Response Plans for Stage 2 support applicants because, as we have noted, infrastructure in the Territories is particularly vulnerable to catastrophic failure (e.g., due to isolation and topography). 438 We allow carriers flexibility to describe how they address the criteria we specify, rather than adopt specific mandates, because we recognize that disaster preparation and recovery challenges are often unique to each carrier. 439 Should a disaster similar to Maria and Irma occur, improvements to disaster preparation and recovery practices could mitigate at least a portion of the billions of dollars of damage to communications networks that the Territories experienced as a result of that disaster. We acknowledge that there are costs associated with hardening efforts⁴⁴⁰ and with obtaining the Bureau's approval. However, even if those costs are substantial, the benefits of the requirements we adopt in terms of potential saved lives and avoided economic devastation are even greater in light of the heightened risks faced by the Territories and the potential for devastation. We also believe that the specific measures we will evaluate are warranted. For instance, we previously found that after the 2017 hurricane season, "unlike other affected areas, Puerto Rico and the U.S. Virgin Islands have struggled to restore electrical power" and that there was a "continued lack of commercial power and long-term reliance on backup generators" 441—showing the importance of ensuring backup power. Similarly, monitoring network performance and preparing for emergencies with the intent of maintaining continuity of operations are both common-sense steps to help ensure that networks will be more likely to withstand harm or be restored quickly after disasters.⁴⁴² Finally, the flexibility we allow will mitigate the costs of this requirement compared to a more rigid and prescriptive approach.
- 138. *Mandatory Participation in the DIRS*. We also condition Stage 2 funding on recipients' agreement to perform mandatory DIRS reporting.⁴⁴³ DIRS is an efficient, web-based system that

⁴³⁷ We expect carriers to be motivated to receive support and therefore will not set a specific deadline by which they must cure any deficiencies.

⁴³⁸ See supra para. 27 (discussing the unique risks and challenges facing the Territories as insular areas).

⁴³⁹ See VPNet Comments at 13 ("Any standard should, of course, correspond to the technology or technologies proposed by the applicant and should be based on objective, independent standard.").

⁴⁴⁰ See PRTRB Comments at 7 (recognizing that providers with damaged networks will incur additional costs to harden their networks against future disasters).

⁴⁴¹ PR-USVI Fund Order, 33 FCC Rcd at 5412, para. 25 (quoting, in part, comments from Neptuno Networks).

⁴⁴² We discuss the benefits of strengthening infrastructure and diversity above. *See supra* para. 32.

⁴⁴³ PR-USVI Fund Notice, 33 FCC Rcd at 5426-27, para. 92. The mandatory DIRS reporting scheme described herein is supplemental to, and does not replace or obviate, existing non-DIRS reporting requirements, including the Commission's Network Outage Reporting System (NORS) reporting requirements. A provider's obligation to provide NORS reports is temporarily waived when it provides DIRS reports under normal Commission protocol. See, e.g., Public Safety & Homeland Security Bureau Announces the Activation of the Disaster Information

communications companies, including wireless, wireline, broadcast, and cable providers, can use to report communications infrastructure status and situational awareness information during times of crisis. 444 While DIRS reporting has been voluntary, in practice there is strong industry participation. We determine whether to activate DIRS in conjunction with FEMA and announce the areas that will be covered to participating providers via public notice and email. DIRS is and will be a valuable resource for providing situational awareness of outages to industry and federal, state, and local agencies.

- 139. Following normal Commission protocol, we will continue to activate DIRS and notify providers of its reporting schedule, typically in advance of an expected impending disaster event. Also pursuant to normal Commission protocol, DIRS reporting obligations will typically begin prior to onset of a disaster event, with reports due each time a provider's restoration status changes. The only difference from ordinary Commission protocol is that DIRS reporting will be mandatory for Stage 2 support recipients for the duration of the support. Note, however, that we will not impose a penalty or sanctions if reporting deadline(s) cannot be met for reasons reasonably beyond a participant's control.⁴⁴⁵ In that case, we require instead that providers begin and/or resume DIRS reporting according to the reporting schedule as soon as they are reasonably able to do so. This approach ensures that participants can dedicate their resources to addressing network outages and basic communications needs when it would be unreasonable for them to divert these resources to DIRS reporting. Stage 2 funding recipients that fail to meet this mandatory DIRS reporting obligation may be subject to penalties and sanctions through the withholding of Stage 2 funds and/or disqualification from participating in future Stage 3 mobile support.
- 140. Mandatory DIRS reporting for Stage 2 funding recipients will increase carriers' accountability by allowing the Commission to track their recovery efforts, which we expect will lead to improved hardening efforts. How over, DIRS reporting during prior natural disasters has assisted not only this agency, but also our federal, state and local partners, including during Hurricanes Irma and Maria, aiding in recovery efforts. While the Commission has not made DIRS reporting mandatory elsewhere, we believe mandatory reporting for Stage 2 funding recipients is justified by the Territories' heightened risk of natural disaster, insularity, and specific challenges with disaster preparation and recovery. It also is warranted because "during Hurricane Maria, the major incumbent local exchange carrier and cable providers in Puerto Rico and the USVI did not provide detailed information in DIRS," hindering effectiveness. We do not require daily reporting via DIRS, and instead we require only updates on changes in restoration status when they occur. This approach alleviates concerns some

⁴⁴⁴ See FCC, Public Safety, Cybersecurity and Communications Reliability Division, *Disaster Information Reporting System (DIRS)*, https://www.fcc.gov/general/disaster-information-reporting-system-dirs-0.

⁴⁴⁵ See VPNet Comments at 13 (suggesting a similar criterion). For instance, PSHSB has noted that during the 2017 Atlantic hurricane season, "[i]n some cases, the lack of participation [in DIRS] was due to service providers' loss of communications which precluded access to the DIRS platform." 2017 Atlantic Hurricane Season Report at 28, para. 57. In such circumstances, a carrier would be excused from mandatory DIRS reporting.

⁴⁴⁶ See, e.g., PRTRB Comments at 20 (commenting that funding should be conditioned on mandatory DIRS reporting as an "accountability measure[] that would allow the Commission to track recovery efforts"); see also, e.g., VPNet Reply at 10 (commenting that "requiring participation in the DIRS as a means of encouraging thorough hardening efforts is amply justified.").

⁴⁴⁷ See 2017 Atlantic Hurricane Season Report at 25, para. 50 (identifying comments that expressed "how DIRS assisted in recovery efforts").

⁴⁴⁸ *Id.* at 28, para. 57.

⁴⁴⁹ See AT&T Comments at 19 (opposing daily reporting in DIRS).

commenters raised related to administrative burden. Moreover, imposing no penalty or sanction for a provider's reasonable failure to report, as outlined above, addresses concerns about the infeasibility of reporting. We find that the public benefit of mandatory DIRS reporting for Stage 2 funding recipients overwhelmingly outweighs any concerns carriers have about the potential burdens of reporting during post-disaster recovery efforts.

- 141. Cooperation Regarding Centralized Coordination. In addition to complying with any local legal mandates regarding information sharing, we also expect Stage 2 funding recipients to make every effort to cooperate with local authorities (e.g., PRTRB and the U.S. Virgin Islands' PSC) in sharing information about proposed and actual construction projects, both during Stage 2-funded deployment and during any future post-disaster recovery efforts. Cooperation will allow other entities an opportunity to request joint access and cooperate on joint construction thus facilitating efficient use of the Commission's Stage 2 support and expediting restoration.⁴⁵¹
- 142. Wireless Resiliency Cooperative Framework. Although the Wireless Resiliency Cooperative Framework is not mandatory, we strongly encourage Stage 2 support recipients to continue to comply voluntarily. We expect that compliance with the Framework would carry many benefits and commenters were in consensus that the flexibility of the Framework allowed wireless carriers to quickly and effectively tailor response efforts to individual communities without undue administrative delays. As we consider longer-term Stage 3 support for mobile providers, we expect the Commission will evaluate again whether to require support recipients to commit to compliance with the Framework.
- 143. Reasonably Comparable Rates. Stage 2 recipients must meet the same reasonably comparable rates standard for recipients as we require of all high-cost recipients, consistent with our proposal in the Notice. We consider rates reasonably comparable if they are "at or below the applicable benchmark to be announced annually by public notice issued by the Wireline Competition Bureau." Although PRTC and Viya argue that additional funds are needed to cover their costs to rebuild, neither carrier provided evidence that rates in Puerto Rico and the U.S. Virgin Islands are substantially higher than in the contiguous United States. Tri-County Telephone Association (TCT) states that there is little if any evidence of higher rates in the Territories. The evidence we have from the Urban Rate Survey

⁴⁵⁰ See Viya Comments at 46-47 (opposing adoption of mandatory DIRS reporting on the basis that it will divert resources away from restoration following a disaster).

⁴⁵¹ See, e.g., PRMA Comments at 1-3 (reviewing lessons learned following the 2017 hurricanes); Verizon Comments, PS Docket No. 18-339, at 2 (rec. Dec. 17, 2018) (observing that Verizon's Hurricane Michael recovery was frustrated by "repeated fiber cuts by electric contractors [and] road contractors").

⁴⁵² We note that the Commission is currently involved in reexamining the efficacy of the Framework for purposes of restoring communications during and following disasters, *see*, *e.g.*, *Public Safety and Homeland Security Bureau Seeks Comment on Improving the Wireless Resiliency Cooperative Framework*, PS Docket No. 11-60, 34 FCC Rcd 2047 (PSHSB 2019), and expect that recipients of Stage 2 funding will voluntarily comply with any amendments to the framework.

⁴⁵³ See AT&T Comments at 18-19. Commenters also reported that industry successfully cooperated under the current Framework. See id.; see also CTIA Comments, PS Docket No. 18-339, at 14 (rec. Dec. 17, 2018) (observing that in the context of Hurricane Michael "no party was denied any request for disaster-based roaming" under the Framework); Sprint Comments, PS Docket No. 18-339, at 6-7 (rec. Dec. 17, 2018) (observing that in the context of Hurricane Michael there were no known instances in which "Sprint or another carrier declined a request for mutual aid or roaming").

⁴⁵⁴ See 47 U.S.C. § 254(b)(3); USF/ICC Transformation Order, 26 FCC Rcd at 17695, para. 86; see also 2019 Urban Rate Survey PN at 3; Urban Rate Survey Data & Resources, https://www.fcc.gov/economics-analytics/industry-analysis-division/urban-rate-survey-data-resources.

⁴⁵⁵ See 47 CFR § 54.309(a).

⁴⁵⁶ Tri-County Telephone Association Comments at 6.

suggests that urban voice rates in Puerto Rico may be lower than the mainland urban average and that the urban broadband rates in Puerto Rico may be higher than on the mainland, but still within the comparability benchmarks.⁴⁵⁷ Accordingly, we find no reason to deviate from the typical rates standard.

- 144. *No Double Recovery*. We adopt the same protections against double recovery as we did with Stage 1 support.⁴⁵⁸ We agree with Free Press that support recipients should not be entitled to support for the same losses reimbursed by insurance funds.⁴⁵⁹ Therefore, to protect against duplicative recovery and guard against waste, fraud, and abuse, Stage 2 support recipients may not use their support for costs that are (or will be) reimbursed by other sources, including federal or local government aid or insurance reimbursements.⁴⁶⁰ Further, carriers are prohibited from using Stage 2 support for other purposes, such as the retirement of company debt unrelated to eligible expenditures, or other expenses not directly related to fulfilling the obligations for support recipients set forth in this Order.⁴⁶¹
- adopt additional specific obligations as a condition of receiving Stage 2 support, such as requiring compliance with TIA-222-H standards or any other industry standards or best practices promulgated by the FCC's Communications Security, Reliability and Interoperability Council (CSRIC).⁴⁶² We do not want to be unduly prescriptive in how carriers manage their networks or operations. We also decline to adopt proposals outside the scope of the Commission's authority and expertise, such as a Commission-created local building or manufacturing industry in Puerto Rico or a comprehensive island-wide disaster recovery and continency plan to be supervised by the Commission.⁴⁶³ While we appreciate the role of first-responders and emergency services, hospitals, and local organizations, particularly in the aftermath of a natural disaster, we decline to require specified entities to receive priority access to communications networks in the context of this proceeding.⁴⁶⁴ We can more uniformly and effectively address any such issues in proceedings regarding priority communications nationwide.⁴⁶⁵

IV. ORDER ON RECONSIDERATION

146. We also take this opportunity to dispose of two petitions related to Uniendo a Puerto Rico Fund and Connect USVI Fund advance support and Stage 1 support.

⁴⁵⁷ See 2019 Urban Rate Survey at 1-3; Urban Rate Survey Data & Resources, https://www.fcc.gov/economics-analytics/industry-analysis-division/urban-rate-survey-data-resources. The Commission conducts a survey of the fixed voice and broadband service rates offered to consumers in urban areas annually and uses the survey data to determine the local voice rate floor and reasonable comparability benchmarks for fixed voice and broadband rates for universal service purposes.

⁴⁵⁸ PR-USVI Fund Notice, 33 FCC Rcd at 5410, para. 21.

⁴⁵⁹ See Letter from Joseph Torres, Senior Director of Strategy and Engagement, Free Press, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-143 et al., at 3 (filed July 20, 2018) (Free Press July 20, 2018 Ex Parte) (asking the Commission to preclude carriers from receiving high-cost support as reimbursement where insurance reimbursements are received for the same loss).

⁴⁶⁰ PR-USVI Fund Notice, 33 FCC Rcd at 5410, para. 21 (adopting this same requirement for Stage 1).

⁴⁶¹ See 47 U.S.C. § 254(e) ("A carrier that receives [universal service] support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended.").

⁴⁶² PR-USVI Fund Notice, 33 FCC Rcd at 5426, para. 91.

⁴⁶³ See PRMA Comments at 3.

⁴⁶⁴ Aspira Association Comments at 2.

⁴⁶⁵ See generally FCC, Public Safety, Operations and Emergency Management Division, *Public Safety & Homeland Security Policy Areas - Priority Services*, https://www.fcc.gov/general/public-safety-homeland-security-policy-areas-priority-services.

A. WorldNet Petition for Clarification, or in the Alternative, Reconsideration

- 147. We deny WorldNet's request to obtain support equal to the amount of advance support it declined. We recognize that WorldNet acted with incomplete information, because it declined the advance support at a time when the Commission had stated that the advance support would be offset by future support, but the Commission later decided to treat the advance support as a one-time payment that would not be offset. We must be responsible stewards of the Fund, however, and will not award funding meant for immediate post-hurricane relief after the immediate period has ended.
- 148. Background. In the 2017 Hurricane Funding Order, the Commission allowed providers the option of requesting an emergency advance of high cost support in an amount up to or equal to seven months of support. The Commission stated that the advance payments would later be offset against future support but that it would revisit the support payment schedule at a later time and consider the schedule for offsetting the funds against future payments. The Commission stated that the purpose for the advance support was to provide immediate support for the large restoration costs in the aftermath of the hurricanes. Pecifically, the Commission stated that it made available advanced payment of high-cost support to facilitate expeditious restoration of essential communications services. The Commission required providers to notify USAC of their election to receive advance support by October 13, 2017. VorldNet did not request an advance.
- 149. In the *2018 PR-USVI Fund Order*, the Commission declined to offset the advance support.⁴⁷³ The Commission reasoned that restoration was still ongoing and no longer believed it was prudent to offset the support.⁴⁷⁴ The Commission also stated that current levels of frozen high-cost support to carriers in PR and USVI would not be altered.⁴⁷⁵ In doing so, it listed WorldNet as one of the carriers whose support would not be impacted, as WorldNet receives \$24,555 per month in frozen high-cost support as a competitive ETC.⁴⁷⁶
 - 150. In its petition, WorldNet requests the Commission disburse the additional \$171,885 it

⁴⁶⁶ See WorldNet Telecommunications, Inc., Petition for Clarification or, in the Alternative, Reconsideration, WC Docket Nos. 18-143 et al. (filed June 28, 2018) (WorldNet Petition); WorldNet Telecommunications, Inc., Request for Action on Petition for Clarification or, in the Alternative, Reconsideration, WC Docket Nos. 18-143 et al. (filed Dec. 17, 2018) (WorldNet Request for Action); see also PR-USVI Fund Order, 33 FCC Rcd at 5407, para. 10; WorldNet Telecommunications, Inc., Second Request For Action On Petition for Clarification, or, in the Alternative, Reconsideration, WC Docket Nos. 18-143 et al. (filed Aug. 2, 2019) (WorldNet Second Request for Action); WN Sept. 16, 2019 Ex Parte.

⁴⁶⁷ PR-USVI Fund Notice, 33 FCC Rcd at 5407-08, paras. 10-12.

⁴⁶⁸ 2017 Hurricane Funding Order, 32 FCC Rcd at 7985, para. 14.

⁴⁶⁹ *Id*.

⁴⁷⁰ *Id*.

⁴⁷¹ *Id.* at 7985, para. 15.

⁴⁷² *Id*.

⁴⁷³ PR-USVI Fund Order, 33 FCC Rcd at 5407, para. 10.

⁴⁷⁴ *Id*

⁴⁷⁵ *Id.* at 5407-08, para. 11.

⁴⁷⁶ In the *PR-USVI Fund Order*, the Commission inadvertently and incorrectly referred to WorldNet as a mobile carrier. *See PR-USVI Fund Order*, 33 FCC Rcd at 5407-08, para. 11; *see also* WorldNet Petition at 2, n.6.

could have received had it elected the full seven months of advance payments in October 2017.⁴⁷⁷ WorldNet argues the offset was the reason it did not elect to receive the advance payments and, due to the change in the Commission's policy, it should be entitled to this additional support.⁴⁷⁸ WorldNet seeks clarification or reconsideration because, it argues, the *2018 PR-USVI Fund Order* was unclear as to whether WorldNet would benefit from the "no offset of advance payments" decision, and to the extent it would not, WorldNet is being "inequitably" denied "the special financial assistance that the Commission extended to other Puerto Rico providers—a situation that it argues puts WorldNet and its customers at an undue disadvantage and denies Puerto Rico the full measure of financial relief the Commission seemingly intended to provide."⁴⁷⁹

- 151. *Discussion*. We deny WorldNet's petition. First, to the extent WorldNet seeks clarification of the *2018 PR-USVI Fund Order*, we note that the Order stated that WorldNet would continue to receive its monthly frozen support and did not make any other specific mention of WorldNet, so it is clear the Commission did not confer any additional benefit on WorldNet.⁴⁸⁰
- stewards of the Fund. As to WorldNet's reconsideration request, our statutory obligation is to act as responsible stewards of the Fund. Therefore, we must provide support only for specific and statutorily permissible purposes. In the 2017 Hurricane Funding Order, the Commission provided advance support for the express purpose of injecting additional resources into immediate restoration after the hurricanes. The Commission measured this period of immediate need as seven months, ending with the April 2018 payments. Payment to WorldNet following the conclusion of that immediate need period would not serve the time-sensitive purpose of the support. It was WorldNet's own determination not to accept the accelerated financial assistance for large repairs and immediate restoration of its essential communications. WorldNet does not dispute that its petition was filed in June 2018, following the immediate need period and only after the Commission had decided not to offset the support. Further, in that petition, WorldNet made no showing that it was still in the process of restoring its network other than to aver that the lack of support is an "undue disadvantage" to WorldNet and its customers. WorldNet now provides information that it claims supports its entitlement to the advanced funding, specifically that it has not recovered all of its costs to restore and repair its network and that it anticipates significant additional costs to further harden its network against future disasters. While we understand the

⁴⁷⁷ See WorldNet Petition at 3, n.8; see also 2017 Hurricane Funding Order, 32 FCC Rcd at 7987, Appendix (identifying the support amounts available to the carriers). WorldNet's advance funding offer was its monthly frozen support (\$24,555) multiplied by seven months (the maximum number of months of the offer).

⁴⁷⁸ WorldNet Petition at 2-3.

⁴⁷⁹ *Id*. at 2.

⁴⁸⁰ PR-USVI Fund Order, 33 FCC Rcd at 5408, para. 11.

⁴⁸¹ See 47 U.S.C § 254(e).

⁴⁸² 2017 Hurricane Funding Order, 32 FCC Rcd at 7985, para. 14 (providing support "to assist with carriers' immediate needs").

⁴⁸³ *Id.* at 7985, para. 14 (directing advance payment of up to seven months of high-cost support and stating the schedule for offsetting would be revisited prior to April 2018 payments).

⁴⁸⁴ See WorldNet Sept. 16, 2019 Ex Parte at 3-4.

⁴⁸⁵ See WorldNet Petition at 2. Likewise, WorldNet made no argument or showing of need in its Request for Action, filed six months later, or its Second Request for Action, filed 14 months later, except to state that the lack of support "unduly and unnecessarily prejudices WorldNet." See WorldNet Request for Action at 1; WorldNet Second Request for Action at 2.

⁴⁸⁶ See WorldNet Sept. 16, 2019 Ex Parte at 5, Declaration of Maria Virella (stating it did not receive the expected insurance payments for structural and network damage, that it has incurred additional expense to restore leased circuits, and that it expects to incur additional expense to fully restore and create a resilient network).

financial hardship that continued restoration and hardening presents for WorldNet, those challenges are shared by other carriers in the Territories, and the fact that work still remains does not justify the provision of time-restricted support after that period has passed.⁴⁸⁷ Moreover, WorldNet received over \$1.3 million in Stage 1 support for restoration of its network in August 2018.⁴⁸⁸ Therefore, we find that WorldNet was aware of its options for obtaining high-cost support after the hurricanes and, while it may not have covered all costs, received significant support for restoring its facilities and service.

153. Last, despite its argument, WorldNet is not being distinguished or disqualified from receiving any benefit offered to the providers in Puerto Rico by the 2017 Hurricane Funding Order. 489 WorldNet had the same opportunity as every other eligible carrier to elect support; it simply elected not to receive the advance funds within the timeframe identified in the 2017 Hurricane Funding Order. 490 The Commission determined that the pace of restoring critical communications networks would have only been further delayed by offsetting advance support. 491 The Commission's decision to change course and decline to offset the support against future disbursements is entirely within its authority, and such decisions do not result in any obligation by the Commission to retroactively cure the consequences of its decision. When WorldNet declined to take advance funds, that support was repurposed by the Fund, and is no longer available for disbursement. Although we understand WorldNet lost out on an opportunity for additional restoration support, it fails to articulate compelling grounds for reconsideration, and our responsibility to use the Fund efficiently outweighs the fairness-based justification that WorldNet sets forth. 492

B. Tri-County Telephone Association Petition for Reconsideration

- 154. We deny the petition for reconsideration of Tri-County Telephone Association, Inc. (TCT) requesting we revisit several of the Commission's decisions in the *2018 PR-USVI Fund Order*.⁴⁹³ We find the petition fails on the merits, and we affirm the Commission's decision to issue Stage 1 support immediately.
- 155. *Background*. In the *2018 PR-USVI Fund Order*, the Commission established the Uniendo a Puerto Rico Fund and the Connect USVI Fund and directed a one-time disbursement of \$64 million through Stage 1 to facilities-based providers of voice and broadband services to aid the restoration of their facilities in the Territories in the aftermath of the 2017 hurricanes.⁴⁹⁴ The program provided

⁴⁸⁷ We note that WorldNet could have elected, by notifying USAC, to receive any remaining portion of its advance funds up until April 2018, had it decided after October 2017 that it needed support for restoration. *See 2017 Hurricane Funding Order*, 32 FCC Rcd at 7985, para. 14 & n.33.

⁴⁸⁸ See WorldNet Certification (filed June 27, 2018) (identifying its subscriber count as election for Stage 1 funding); Wireline Competition Bureau Announces Stage 1 Restoration Funding For the Uniendo A Puerto Rico and the Connect USVI Fund, Public Notice, WC Docket No. 18-143, 10-90, 33 FCC Rcd 8044, 8046, Attach. A (WCB Aug. 7, 2018) (Stage 1 Public Notice) (showing Stage 1 allocation for WorldNet of \$1,303,987.09 as an authorized fixed provider); see also PR-USVI Fund Order, 33 FCC Rcd at 5409, para. 16.

⁴⁸⁹ See WorldNet Petition at 3 (arguing it was disqualified from receiving the same level of financial assistance).

⁴⁹⁰ See 2017 Hurricane Funding Order, 32 FCC Rcd at 7987, Appendix (listing WorldNet along with all other eligible carriers); see also id. at 7985, para 14 (identifying Oct. 13, 2017 as the deadline to notify USAC for its seven-month advance).

⁴⁹¹ PR-USVI Fund Order, 33 FCC Rcd at 5407, para. 10.

⁴⁹² We note that pursuant to the Order adopted herein, WorldNet is eligible for Stage 2 support provided it meets all the requirements for application.

⁴⁹³ Tri-County Telephone Association, Petition for Reconsideration, WC Docket Nos. 18-143, 10-90, 14-58 (filed July 13, 2018) (TCT Petition).

⁴⁹⁴ See PR-USVI Fund Order, 33 FCC Rcd at 5408-12, paras. 14-27.

support to carriers who were already ETCs or committed to becoming ETCs, whether or not they had previously received universal service support.⁴⁹⁵ The Commission provided Stage 1 support immediately upon publication of the *2018 PR-USVI Fund Order* in the Federal Register, reasoning that it was in the public interest based on the immediate need for relief.⁴⁹⁶

- 156. TCT argues that the Commission failed to undertake notice and comment or provide adequate record support for the immediate disbursement of Stage 1 support.⁴⁹⁷ Additionally, TCT alleges that Congress did not intend the high-cost program to be used for disaster relief and that in providing Stage 1 support the Commission has "unlawfully expanded the scope and purpose of the USF."⁴⁹⁸
- Discussion. We find the Commission was not required to undertake notice and comment for Stage 1 support and provided acceptable justification for doing so. Specifically, the PR-USVI Fund Order stated that using notice and comment procedures for the interim and one-time relief would delay its effectiveness, would be impracticable and contrary to the public interest. 499 It further reasoned that due to the emergency situation and the devastation to communications networks caused by the hurricanes, the sooner providers received additional funds, the sooner service could be restored to the people of Puerto Rico and the U.S. Virgin Islands. 500 Accordingly, it invoked the good cause exception of the Administrative Procedure Act (APA), which "excuses notice and comment in emergency situations, or where delay could result in serious harm."501 TCT uses the Sorenson case to support its argument that the Commission was required to undergo notice and comment; however, that case is clearly distinguishable. 502 In that case, the court rejected "the threat of impending fiscal peril" to a Commission program as an emergency within the meaning of the APA.503 Here, the Commission was responding to two back-to-back natural disasters that already occurred and created widespread damage that posed an acute and ongoing threat to public safety and the economy, compounded by the fact that the 2018 hurricane season was impending.⁵⁰⁴ Therefore, unlike in *Sorenson*, evidence of an emergency sufficient to forego notice and comment is clear rather than merely speculative. Indeed, many commenters later noted the benefits of receiving Stage 1 support quickly to their recovery efforts. 505

⁴⁹⁵ *Id.* at 5409, para. 19.

⁴⁹⁶ *Id.* at 5412, para. 26.

⁴⁹⁷ TCT Petition at 1-6.

⁴⁹⁸ TCT Petition at 1, 6-9.

⁴⁹⁹ See PR-USVI Fund Order, 33 FCC Rcd at 5412, para. 26; see also 5 U.S.C. § 553(b).

⁵⁰⁰ We note that carriers in these insular areas bear "significant shipping and storage expenses" from having to ship equipment and supplies over water. PRTC Emergency USF Petition at 6; Viya Hurricane Response Comments, PS Docket No. 17-344, at 3 (rec. Jan. 22, 2018) (stating that "the time and expense entailed in shipping telecommunications facilities to, and even within, the Territory increases the difficulty of providing seamless service across Viya's operational footprint").

⁵⁰¹ Jifry v. FAA, 370 F.3d 1174, 1179 (D.C. Cir. 2004) (citations omitted).

⁵⁰² TCT Petition at 2, n.10 (citing *Sorenson Commc'ns, Inc. v. FCC*, 755 F.3d 702 (D.C. Cir. 2014)).

⁵⁰³ Sorenson, 755 F.3d at 706.

⁵⁰⁴ See PR-USVI Fund Order, 33 FCC Rcd at 5411-12, para. 23-27.

⁵⁰⁵ See Viya Comments at 7 ("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."); VPNet Comments at 4 n.4 (noting that the Commission's decision to award Stage 1 support quickly addressed PRTC's petition for an emergency restoration fund); Liberty Nov. 20, 2018 Ex Parte Attach. at 2 (showing how it used Stage 1 funds to rebuild and connect homes between August and November 2018); BBVI Feb. 13, 2019 Ex Parte Attach. at 9 (stating that it was using Stage 1 support to continue network restoration); Data@ccess Comments at 3 (thanking the Commission for allowing Stage 1

- We also find the Commission adequately sized support for Stage 1. TCT argues the 158. amount is "pulled out of thin air" and that the Commission made no attempt to explain how the figures were determined.⁵⁰⁶ But that is not true. As TCT itself concedes, the amount of high-cost support provided in Stage 1 was about equal to the amount provided in advance funds to the carriers in the Territories.⁵⁰⁷ The Commission based the amount of advanced funds previously provided on what the carriers already received under the high-cost program, although the Commission was careful to explain how the allocation in Stage 1 differed from that of frozen support. 508 The Commission provided advance funds for a period of about seven months.⁵⁰⁹ Likewise, the Commission provided that Stage 1 support was for short-term expenditures through June 30, 2019, about seven to ten months from the time of disbursement.⁵¹⁰ The Commission stated that it provided Stage 1 funds based on the determination that restoration was still incomplete.511 We find the Commission was clear in how it determined the size and allocation of Stage 1 support. We also find it was reasonable for the Commission to establish another stage of support, roughly equal to the previous disbursement in both amount and timeframe, to support similar restoration activities. We note that TCT has not provided any evidence or data to support its argument that the amount of Stage 1 funding was inappropriate.
- support between Puerto Rico and USVI is unexplained.⁵¹² The Commission's allocation between territories was based on "differences in landmass, geography, topography, and population," as TCT concedes.⁵¹³ The Commission also stated that the difference was based on "the significant financial and operational challenges faced by carriers in both areas, and the past and current availability of high-cost support to carriers."⁵¹⁴ We find this justification to be sufficient and again note that TCT fails to offer an alternative or any data to show why the Commission's approach was improper. Further, even if we were to accept TCT's contribution-based standing argument, it is unclear how the specific allocation of funds between Puerto Rico and the U.S. Virgin Islands (as opposed to the overall amount of funds) could have caused it any injury.
- 160. Additionally, TCT argues the Commission should have outlined the acceptable uses for Stage 1 and that the Commission did not provide USAC enough direction on how to audit recipients.⁵¹⁵ We disagree. Even TCT acknowledges that the Commission specified limited purposes for Stage 1 support.⁵¹⁶ The Commission went further, however, stating that the support was to be used "to help

⁵⁰⁶ TCT Petition at 3-4.

⁵⁰⁷ TCT Petition at 4.

⁵⁰⁸ See 2017 Hurricane Funding Order, 32 FCC Rcd at 7987, Appendix; PR-USVI Fund Order at 5410-11, para, 22.

⁵⁰⁹ See 2017 Hurricane Funding Order, 32 FCC Rcd at 7985, para. 14.

⁵¹⁰ See PR-USVI Fund Order, 33 FCC Rcd at 5410, para. 20; see also Stage 1 Public Notice, 33 FCC Rcd 8044 (WCB Aug. 2018) (associated disbursements were made between August 2018 - October 2018 depending on whether a recipient was already an ETC or still needed designation).

⁵¹¹ See PR-USVI Fund Order, 33 FCC Rcd at 5408, paras. 13-14.

⁵¹² TCT Petition at 5.

⁵¹³ *Id.*; *PR-USVI Fund Order* at 5408-09, para. 15.

⁵¹⁴ TCT Petition at 5; *PR-USVI Fund Order* at 5408-09, para. 15.

⁵¹⁵ TCT Petition at 4-5.

⁵¹⁶ See id. at 6 ("The Commission explicitly designed the Stage 1 Funding to restore networks that were damaged as a result of a natural disaster.").

restore and improve coverage and service quality to pre-hurricane levels and to help safeguard their equipment against future natural disasters."⁵¹⁷ The Commission specifically identified appropriate uses for support, including "repairing, removing, reinforcing or relocating network elements damaged during the hurricanes; repairing or restoring customer premise equipment; replacing, rebuilding, and reinforcing the physical outside plant (poles, fiber, nodes, coaxial cables, and the like); hardening networks against future disasters; and increasing network resilience to power outages or other potential service interruptions due to natural disasters."⁵¹⁸ The Commission also articulated purposes for which the support may not be used.⁵¹⁹ Moreover, all recipients of Stage 1 were required to be or become ETCs to receive support, and all ETCs have specific high-cost record-keeping and reporting obligations, which can be used for auditing.⁵²⁰ The Commission directed USAC specifically to audit Stage 1 recipients based on all of this direction.⁵²¹ USAC has a great deal of experience and effective procedures in place for auditing recipients of the Fund for compliance with the Act and our rules, so contrary to TCT's argument, we find that USAC has more than sufficient information to complete the directed audits.

161. We also find that the Commission did not unlawfully expand the scope of the high-cost fund in contravention of congressional intent by establishing Stage 1 support. Congress recognized that universal service is ever evolving and requires the Commission to consider a variety of factors in determining what services are supported by the Fund, including public health and safety. The Commission found that Stage 1 support was necessary as an immediate, one-time distribution of funds to existing carriers to continue the repair and restoration required to allow existing consumers to use the essential communications networks of the Territories in the aftermath of enormous destruction from multiple natural disasters. In the 2017 Hurricane Funding Order, the Commission determined that, based on the circumstances and lack of access to services comparable to urban areas on the mainland, the entirety of Puerto Rico and USVI were presumptively high-cost. Further, the Commission had already provided many recipients of Stage 1 support significant amounts of USF support for years to deploy and maintain those networks, and if a provider was not already an ETC, it was required to become one in

⁵¹⁷ PR-USVI Fund Order, 33 FCC Rcd at 5410, para. 20.

⁵¹⁸ *Id*.

⁵¹⁹ *Id.* at 5410, para. 21.

⁵²⁰ *Id.* at 5409-10, paras 19, 21.

⁵²¹ *Id.* at 5410, para. 21. *See* 47 U.S.C. § 254(e); 47 CFR §§ 54.7, 54.314.

⁵²² In addition to the reasons we set forth here, we find that the Commission had authority to provide Stage 1 support for the same reasons that we find we have authority to provide Stage 2 support. *See supra* Sec. III.A.5 (discussing the Commission's authority to establish Stage 2 of the Uniendo a Puerto Rico and USVI Funds). In concluding that the Commission had authority to provide Stage 1 support, we reject TCT's arguments that the Commission does not have authority to provide universal service support for disaster recovery and that it does not have authority to use the Fund as "insurance" for natural disasters—and we note that we see the second argument as merely restating the first. *See* TCT Petition at 6-9.

⁵²³ See 47 U.S.C. §254(c). We note that the Commission has broad authority to balance the interests of the Fund. See In re: FCC 11-161, 753 F.3d at 1046-47 (emphasizing that under section 254(e) of the Act, Congress intended to delegate to the Commission the task "to determine and specify precisely how USF funds may or must be used"); Rural Cellular Assn., 588 F.3d at 1103 (finding that the Commission "enjoys broad discretion" when balancing a number of statutory objectives under section 254); Alenco, 201 F.3d at 620-21 ("The agency's broad discretion to provide sufficient universal service funding includes the decision to impose cost controls to avoid excessive expenditures that will detract from universal service"); Id. at 615 (finding that while "the FCC is required to obey statutory commands, the guiding principles reflect congressional intent to delegate difficult policy choices to the Commission's discretion."); see also Fresno Mobile Radio, Inc. v. FCC, 165 F.3d 965, 971 (D.C. Cir. 1999) ("When an agency must balance a number of potentially conflicting [statutory] objectives . . . judicial review is limited to

order to receive Stage 1 support.⁵²⁶ To become an ETC, a provider must satisfy several Commission requirements. Just as the Commission previously found it may condition receipt of high-cost support on offering minimum levels of broadband service, we affirm that we can provide support for maintenance of ETC networks in the Territories, thereby facilitating the ability of the ETCs receiving support to provide access to advanced telecommunications and information services for all consumers.⁵²⁷

V. PROCEDURAL MATTERS

- 162. Paperwork Reduction Act Analysis. This document contains new information collection requirements subject to the PRA. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002,⁵²⁸ we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. In this Report and Order, we adopt new rules relating to the Uniendo a Puerto Rico Fund and the Connect USVI Fund. We have assessed the effects of the new rules on small business concerns. We find that the rules and procedures adopted here will minimize the information collection burden on affected entities, including small businesses.
- 163. Final Regulatory Flexibility Certification. The Regulatory Flexibility Act of 1980, as amended (RFA),⁵²⁹ requires that a regulatory flexibility analysis be prepared for rulemaking proceedings, unless the agency certifies that "the rule will not have a significant economic impact on a substantial number of small entities."⁵³⁰ The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."⁵³¹ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.⁵³² A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁵³³

⁵²⁴ See PR-USVI Fund Order, 33 FCC Rcd at 5408, paras. 14-15.

⁵²⁵ See 2017 Hurricane Funding Order, 32 FCC Rcd at 7984-85, paras. 10-15.

⁵²⁶ See PR-USVI Fund Order, 33 FCC Rcd at 5409, para. 19.

⁵²⁶ *Id*.

⁵²⁷ See 47 U.S.C. § 254(b), (e).

⁵²⁸ Small Business Paperwork Relief Act of 2002, Pub. L. No. 107-198, 116 Stat 729 (2002); see 44 U.S.C. § 3506(c)(4).

⁵²⁹ The RFA, see 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

⁵³⁰ 5 U.S.C. § 605(b).

⁵³¹ 5 U.S.C. § 601(6).

⁵³² 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁵³³ Small Business Act, 15 U.S.C. § 632.

- 164. This Order adopts annual support to rebuild, improve, and expand fixed and mobile services in Puerto Rico and the U.S. Virgin Islands. The Order makes support available to any eligible fixed or mobile provider that obtains an ETC designation, using a competitive and subscriber-based process, respectively. Fifteen fixed and mobile carriers in Puerto Rico and the U.S. Virgin Islands currently receive high-cost support.⁵³⁴
- 165. Although impossible to predict, even assuming other carriers will obtain an ETC designation to receive the additional support provided in this Order, we do not anticipate the proposed rule to affect more than 25 providers out of the 737 providers currently receiving high-cost support. Accordingly, we anticipate that this Order will not affect a substantial number of carriers, and so we do not anticipate that it will affect a substantial number of small entities.
- 166. Therefore, we certify that the requirements of this Order will not have a significant economic impact on a substantial number of small entities.
- 167. Congressional Review Act. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report and Order and Order on Reconsideration to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

VI. ORDERING CLAUSES

- 168. Accordingly, IT IS ORDERED, pursuant to the authority contained in sections 1, 2, 4(i), 214, 254, 303(r), 403, and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 214, 254, 303(r), 403, and 405, sections 1.1, 1.3, 1.425 and 1.429 of the Commission's rules, 47 CFR §§ 1.1, 1.3, 1.425 and 1.429, that this Report and Order and Order on Reconsideration IS ADOPTED. The Report and Order and Order on Reconsideration SHALL BE EFFECTIVE 30 days after publication in the Federal Register, except for portions containing information collection requirements in sections 54.313, 54.316, 54.1503, 54.1505, 54.1508, and 54.1513 through 54.1515 that have not been approved by OMB. The Federal Communications Commission will publish a document in the Federal Register announcing the effective date of these provisions.
- 169. IT IS FURTHER ORDERED that Part 54 of the Commission's rules IS AMENDED as set forth in Appendix A, and that any such rule amendments that contain new or modified information collection requirements that require approval by the Office of Management and Budget under the Paperwork Reduction Act SHALL BE EFFECTIVE after announcement in the Federal Register of Office of Management and Budget approval of the rules, and on the effective date announced therein.
- 170. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 2, 4(i), 254, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 254, 303(r), sections 1.1 and 1.425 of the Commission's rules, 47 CFR §§ 1.1, 1.425, that the Petition for Reconsideration filed by Tri-County Telephone Association, Inc. on July 13, 2018 is DENIED.
- 171. IT IS FURTHER ORDERED that, pursuant to the authority contained in in sections 1, 2, 4(i), 254, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 254, 303(r), sections 1.1 and 1.425 of the Commission's rules, 47 CFR §§ 1.1, 1.425, that the Petition for Clarification Or, In The Alternative, Reconsideration filed by WorldNet Telecommunications, Inc. on June 28, 2018 is DENIED.
- 172. IT IS FURTHER ORDERED that, pursuant to the authority contained in 1, 2, 4(i), 254, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 254, 303(r),

⁵³⁴ See Wireline Competition Bureau Announces Stage 1 Restoration Funding For the Uniendo a Puerto Rico and the Connect USVI Fund, WC Docket No. 18-143, 10-90, 33 FCC Rcd 8044, 8046-47, Attachments A and B (WCB Aug. 2018).

- sections 1.1, 1.3, and 1.425 of the Commission's rules, 47 CFR §§ 1.1, 1.3, 1.425, that the Petition of Puerto Rico Telephone Company, Inc. for the Creation of an Emergency Universal Service Fund filed on Jan. 19, 2018, the Emergency Petition of Virgin Islands Telephone Corp. dba Viya for Wireline Hurricane Restoration Support filed on Dec. 6, 2017, the Vitelcom Cellular, Inc. Emergency Petition filed on Oct. 5, 2017, and the PRWireless, Inc. dba Open Mobile Emergency Petition for Waiver and Other Relief filed on Oct. 4, 2017 are DISMISSED.
- 173. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order and Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. § 801(a)(1)(A).
- 174. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order on Reconsideration, including the Initial Regulatory Flexibility Certification and the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

APPENDIX A

Final Rules

For the reasons set forth above, Part 54 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 54 – UNIVERSAL SERVICE

1. The authority for part 54 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

SUBPART D – UNIVERSAL SERVICE SUPPORT FOR HIGH COST AREAS

2. Amend section 54.313 by revising paragraph (e) and adding paragraphs (n) and (o) to read as follows:

§ 54.313 Annual reporting requirements for high-cost recipients.

* * *

(e) In addition to the information and certifications in paragraph (a) of this section, the following requirements apply to recipients of Phase II, Remote Areas Fund, Uniendo a Puerto Rico Fund Stage 2 fixed, and Connect USVI Fund Stage 2 fixed support:

* * *

(2) Any recipient of Phase II, Remote Areas Fund, Uniendo a Puerto Rico Fund Stage 2 fixed, or Connect USVI Fund Stage 2 fixed support awarded through a competitive bidding or application process shall provide:

* * *

- (n) Recipients of Uniendo a Puerto Rico Fund Stage 2 fixed and mobile support and Connect USVI Fund Stage 2 fixed and mobile support shall certify that such support was not used for costs that are (or will be) reimbursed by other sources of support, including of federal or local government aid or insurance reimbursements; and that support was not used for other purposes, such as the retirement of company debt unrelated to eligible expenditures, or other expenses not directly related to network restoration, hardening, and expansion consistent with the framework of the Uniendo a Puerto Rico Fund or Connect USVI Fund, respectively. Recipients of fixed and mobile support from Stage 2 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund shall certify that they have conducted an annual review of the documentation required by section 54.1515(a)-(c) to determine the need for and to implement changes or revisions to disaster preparation and recovery documentation.
- (o) Recipients of Uniendo a Puerto Rico Fund or Connect USVI Fund Stage 2 mobile support shall certify that they are in compliance with all requirements for receipt of such support to continue receiving Stage 2 mobile disbursements.
- 3. Amend section 54.316 by revising paragraphs (a) and (b) to read as follows:

§ 54.316 Broadband deployment reporting and certification requirements for high-cost recipients.

(a) * * *

- (7) Recipients subject to the requirements of section 54.1506 shall report the number of locations for Puerto Rico and the U.S. Virgin Islands and locational information, including geocodes, where they are offering service at the requisite speeds. Recipients shall also report the technologies they use to serve those locations.
 - (b) * * *
- (7) Recipients of Uniendo a Puerto Rico Fund Stage 2 fixed and Connect USVI Fund fixed Stage 2 fixed support shall provide: On an annual basis by the last business day of the second calendar month following each service milestone in section 54.1506, a certification that by the end of the prior support year, it was offering broadband meeting the requisite public interest obligations specified in section 54.1507 to the required percentage of its supported locations in Puerto Rico and the U.S. Virgin Islands as set forth in 54.5406. The annual certification shall quantify the carrier's progress toward or, as applicable, completion of deployment in accordance with the resilience and redundancy commitments in its application and in accordance with the detailed network plan it submitted to the Wireline Competition Bureau.

* * *

4. Add new Subpart O to part 54 to read as follows:

Subpart O—Uniendo a Puerto Rico Fund and Connect USVI Fund

Sec.

- 54.1501 Uniendo a Puerto Rico Fund and Connect USVI Fund—Stage 2 for service to fixed locations
- 54.1502 Geographic areas eligible for Stage 2 fixed support
- 54.1503 Geographic area and locations to be served by Stage 2 fixed support recipients
- 54.1504 Term of Stage 2 fixed support and phase-down of legacy fixed support
- 54.1505 Stage 2 fixed support application process
- 54.1506 Stage 2 fixed support deployment milestones
- 54.1507 Stage 2 public interest obligations for service to fixed locations
- 54.1508 Letter of credit for Stage 2 fixed support recipients
- 54.1509 Uniendo a Puerto Rico Fund and the Connect USVI Fund—Stage 2 for mobile service
- 54.1510 Stage 2 mobile carrier eligibility
- 54.1511 Appropriate uses of Stage 2 mobile support
- 54.1512 Geographic area eligible for Stage 2 mobile support
- 54.1513 Provision of Stage 2 mobile support
- 54.1514 Stage 2 mobile additional annual reporting
- 54.1515 Disaster preparation and response measures

§ 54.1501 Uniendo a Puerto Rico Fund and Connect USVI Fund—Stage 2 for service to fixed locations.

The Commission will use a competitive application process to determine the recipients of high-cost universal service support for offering voice and broadband service to fixed locations, and the amount of support that they may receive from Stage 2 of the fixed Uniendo a Puerto Rico Fund and of the fixed Connect USVI Fund for specific geographic areas in Puerto Rico and the U.S. Virgin Islands, respectively, subject to applicable procedures following the selection of competitive applications.

§ 54.1502 Geographic areas eligible for Stage 2 fixed support.

High-cost universal service support may be made available for Stage 2 of the fixed Uniendo a Puerto Rico Fund and the fixed Connect USVI Fund for all areas of Puerto Rico and the U.S. Virgin Islands, respectively, as announced by public notice.

§ 54.1503 Geographic area and locations to be served by Stage 2 fixed support recipients.

- (a) For Stage 2 of the fixed Uniendo a Puerto Rico Fund, proposals will be accepted for each municipio in Puerto Rico.
- (b) For Stage 2 of the fixed Connect USVI Fund, proposals will be accepted for one geographic area composed of St. John and St. Thomas islands together, and a second geographic area of St. Croix island.
- (c) For both Funds, all locations must be served within each defined geographic area by the deployment milestone as defined in § 54.1506. The number of supported locations will be identified for each geographic area in the territories by public notice.

§ 54.1504 Term of Stage 2 fixed support and phase-down of legacy fixed support.

- (a) Support awarded through Stage 2 of the fixed Uniendo a Puerto Rico Fund and of the fixed Connect USVI Fund shall be provided for ten years.
- (b) *Phase-down of legacy support*. Stage 2 of the fixed Uniendo a Puerto Rico and of the fixed Connect USVI Fund shall replace the legacy frozen high-cost support for the Territories. Beginning on a date determined by the Wireline Competition Bureau and announced by public notice following authorization of a winning application, frozen support recipient carriers will receive 2/3 frozen fixed support amortized for the first 12 months following the date announced by public notice; 1/3 frozen fixed support amortized over the second 12-month period; and zero frozen support thereafter.

§ 54.1505 Stage 2 fixed support application process.

(a) *Provider Eligibility*. A provider shall be eligible to submit an application for support from Stage 2 of the fixed Uniendo a Puerto Rico Fund or of the fixed Connect USVI Fund if it had its own fixed network and provided broadband service in Puerto Rico or the U.S. Virgin Islands, respectively, according to its June 2018 FCC Form 477 data. A provider must obtain eligible telecommunications carrier designation no later than sixty (60) days after public notice of selection to receive fixed support. Any entity that is awarded support but fails to obtain ETC designation within sixty (60) days shall be considered in default and will not be eligible to receive high-cost funding.

- (b) No application will be considered unless it has been submitted in an acceptable form during the period specified by public notice. No applications submitted or demonstrations made at any other time shall be accepted or considered.
- (c) All applications must be substantially in the format as specified and announced by the Wireline Competition Bureau.
- (1) Any application that, as of the submission deadline, either does not identify the applicant seeking support as specified in the public notice announcing application procedures or does not include required certifications shall be denied.
- (2) An applicant may be afforded an opportunity to make minor modifications to amend its application or correct defects noted by the applicant, the Commission, the Administrator, or other parties. Minor modifications include correcting typographical errors in the application and supplying non-material information that was inadvertently omitted or was not available at the time the application was submitted.
- (3) Applications to which major modifications are made after the deadline for submitting proposals shall be denied. Major modifications may include, but are not limited to, any changes in the ownership of the applicant that constitute an assignment or change of control, or the identity of the applicant, or the certifications required in the application.
- (d) In addition to providing information required by the Wireline Competition Bureau, any applicant for support from Stage 2 of the fixed Uniendo a Puerto Rico Fund or of the fixed Connect USVI Fund shall:
 - (1) Include ownership information as set forth in §1.2112(a) of this chapter;
 - (2) Submit a detailed network plan and documents evidencing adequate financing for the project;
- (3) Disclose its status as an eligible telecommunications carrier to the extent applicable and certify that it acknowledges that it must be designated as an eligible telecommunications carrier for the area in which it will receive support prior to being authorized to receive support;
- (4) Describe the technology or technologies that will be used to provide service for each application; and
- (5) To the extent that an applicant plans to use spectrum to offer its voice and broadband services, demonstrate it has the proper authorizations, if applicable, and access to operate on the spectrum it intends to use, and that the spectrum resources will be sufficient to cover peak network usage and deliver the minimum performance requirements to serve all of the fixed locations in eligible areas, and certify that it will retain its access to the spectrum for the term of support; and
- (6) Provide a letter from a bank meeting the eligibility requirements outlined in section 54.1508 committing to issue an irrevocable stand-by letter of credit, in the required form, to the winning applicant. The letter shall at a minimum provide the dollar amount of the letter of credit and the issuing bank's agreement to follow the terms and conditions of the Commission's model letter of credit.
- (e) After receipt and review of the proposals, a public notice shall identify each winning applicant that may be authorized to receive support from Stage 2 of the fixed Uniendo a Puerto Rico Fund and the fixed Connect USVI Fund support after the winning applicant submits a letter of credit and an accompanying opinion letter, as described in this section, in a form acceptable to the Commission. Each such winning applicant shall submit a letter of credit and accompanying opinion letter in a form acceptable to the

Commission no later than the number of days provided by public notice.

(f) After receipt of all necessary information, a public notice will identify each winning applicant that is authorized to receive Uniendo a Puerto Rico Fund and the Connect USVI Fund Stage 2 fixed support.

§ 54.1506 Stage 2 fixed support deployment milestones.

Recipients of support from Stage 2 of the fixed Uniendo a Puerto Rico Fund and the fixed Connect USVI Fund must complete deployment to at least 40 percent of supported locations at the end of the third year of support, at least 60 percent at the end of the fourth year, at least 80 percent at the end of the fifth year, and 100 percent by the end of the sixth year. Compliance with the percentage of completion shall be determined based on the total number of supported locations in each geographic area. Recipients will be subject to the notification and default rules in section 54.320(d).

§ 54.1507 Stage 2 public interest obligations for service to fixed locations.

- (a) Recipients of Stage 2 Uniendo a Puerto Rico and the Connect USVI Fund fixed support are required to offer broadband service with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas, at rates that are reasonably comparable to rates for comparable offerings in urban areas.
- (1) For purposes of determining reasonable comparable usage capacity, recipients are presumed to meet this requirement if they meet or exceed the usage level announced by public notice issued by the Wireline Competition Bureau.
- (2) For purposes of determining reasonable comparability of rates, recipients are presumed to meet this requirement if they offer rates at or below the applicable benchmark to be announced annually by public notice issued by the Wireline Competition Bureau, or at or below the non-promotional prices charged for a comparable fixed wireline service in urban areas in the state or U.S. Territory where the eligible telecommunications carrier receives support.
- (b) Support recipients are required to offer broadband service meeting the performance standards as proposed in their selected applications, as follows:
- (1) Actual speeds of at least 25 Mbps downstream and 3 Mbps upstream, and a minimum usage allowance of 200 GB per month or an amount that reflects the average usage of a majority of fixed broadband customers, using Measuring Broadband America data or a similar data source, whichever is higher, and announced annually by public notice issued by the Wireline Competition Bureau over the 10-year term.
- (2) Actual speeds of at least 100 Mbps downstream and 20 Mbps upstream and at least 2 terabytes of monthly usage.
- (3) Actual speeds of at least 1 Gigabit per second downstream and 500 Mbps upstream and at least 2 terabytes of monthly usage.
- (c) For each of the tiers in paragraphs (b)(1) through (3) of this section, support recipients are required to meet one of two latency performance levels:
 - (1) Low latency recipients will be required to meet 95 percent or more of all peak period

measurements of network round trip latency at or below 100 milliseconds; and

(2) High latency recipients will be required to meet 95 percent or more of all peak period measurements of network round trip latency at or below 750 ms and, with respect to voice performance, and to demonstrate a score of four or higher using the Mean Opinion Score (MOS).

§ 54.1508 Letter of credit for stage 2 fixed support recipients.

- (a) Before being authorized to receive support from Stage 2 of the fixed Uniendo a Puerto Rico Fund or the fixed Connect USVI Fund, a winning applicant shall obtain an irrevocable standby letter of credit which shall be acceptable in all respects to the Commission. No later than the number of days provided by public notice, the applicant shall submit a letter from a bank meeting the eligibility requirements outlined herein committing to issue an irrevocable stand-by letter of credit, in the required form, to the winning applicant. The letter shall at a minimum provide the dollar amount of the letter of credit and the issuing bank's agreement to follow the terms and conditions of the Commission's model letter of credit. The letter of credit must remain open until the recipient has certified it has deployed broadband and voice service meeting the Commission's requirements to 100% of the required number of locations, and USAC has verified that the entity has fully deployed.
- (b) *Value*. Each recipient authorized to receive the Uniendo a Puerto Rico Fund and the Connect USVI Fund Stage 2 fixed support shall maintain the standby letter of credit or multiple standby letters of credit in an amount equal to at a minimum the amount of fixed support that has been disbursed and that will be disbursed in the coming year, until the Universal Service Administrative Company has verified that the recipient met the final service milestone.
- (1) Once the recipient has met its 60 percent service milestone, it may obtain a new letter of credit or renew its existing letter of credit so that it is valued at a minimum at 90 percent of the total support amount already disbursed plus the amount that will be disbursed in the coming year.
- (2) Once the recipient has met its 80 percent service milestone, it may obtain a new letter of credit or renew its existing letter of credit so that it is valued at a minimum at 80 percent of the total support that has been disbursed plus the amount that will be disbursed in the coming year.
- (c) The bank issuing the letter of credit shall be acceptable to the Commission. A bank that is acceptable to the Commission is:
 - (1) Any United States bank
 - (i) That is insured by the Federal Deposit Insurance Corporation, and
 - (ii) That has a bank safety rating issued by Weiss of B- or better; or
- (2) CoBank, so long as it maintains assets that place it among the 100 largest United States Banks, determined on basis of total assets as of the calendar year immediately preceding the issuance of the letter of credit and it has a long-term unsecured credit rating issued by Standard & Poor's of BBB- or better (or an equivalent rating from another nationally recognized credit rating agency); or
- (3) The National Rural Utilities Cooperative Finance Corporation, so long as it maintains assets that place it among the 100 largest United States Banks, determined on basis of total assets as of the calendar year immediately preceding the issuance of the letter of credit and it has a long-term unsecured credit rating issued by Standard & Poor's of BBB- or better (or an equivalent rating from another nationally recognized credit rating agency); or

- (4) Any non-United States bank:
- (i) That is among the 100 largest non-U.S. banks in the world, determined on the basis of total assets as of the end of the calendar year immediately preceding the issuance of the letter of credit (determined on a U.S. dollar equivalent basis as of such date);
- (ii) Has a branch office in the District of Columbia or such other branch office agreed to by the Commission;
- (iii) Has a long-term unsecured credit rating issued by a widely-recognized credit rating agency that is equivalent to a BBB- or better rating by Standard & Poor's; and
 - (iv) Issues the letter of credit payable in United States dollars
- (d) A winning applicant of the Uniendo a Puerto Rico Fund and the Connect USVI Fund Stage 2 fixed support shall provide with its letter of credit an opinion letter from its legal counsel clearly stating, subject only to customary assumptions, limitations, and qualifications, that in a proceeding under Title 11 of the United States Code, 11 U.S.C. 101 *et seq.* (the "Bankruptcy Code"), the bankruptcy court would not treat the letter of credit or proceeds of the letter of credit as property of the winning bidder's bankruptcy estate under section 541 of the Bankruptcy Code.
- (e) Authorization to receive the Uniendo a Puerto Rico Fund and the Connect USVI Fund Stage 2 fixed support is conditioned upon full and timely performance of all of the requirements set forth in this section, and any additional terms and conditions upon which the support was granted.
- (1) Failure by a Uniendo a Puerto Rico Fund and the Connect USVI Fund Stage 2 fixed support recipient to meet its service milestones as required by §54.1506 above will trigger reporting obligations and the withholding of support as described in §54.320(c). Failure to come into full compliance within 12 months will trigger a recovery action by the Universal Service Administrative Company. If the Uniendo a Puerto Rico Fund or Connect USVI Fund Stage 2 fixed support recipient does not repay the requisite amount of support within six months, the Universal Service Administrative Company will be entitled to draw the entire amount of the letter of credit and may disqualify the Uniendo a Puerto Rico Fund or Connect USVI Fund Stage 2 fixed support recipient from the receipt of any or all universal service support.
- (2) A default will be evidenced by a letter issued by the Chief of the Wireline Competition Bureau, or the Chief's designee, which letter, attached to a standby letter of credit draw certificate, shall be sufficient for a draw on the standby letter of credit for the entire amount of the standby letter of credit.

§ 54.1509 Uniendo a Puerto Rico Fund and the Connect USVI Fund—Stage 2 for mobile service.

- (a) *Term of support.* Uniendo a Puerto Rico Fund or the Connect USVI Fund Stage 2 mobile support shall be provided to eligible mobile carriers that elect to make a commitment to its eligible service area for a three-year term to begin on a date determined by the Wireline Competition Bureau.
- (b) *Election of support*. Eligible mobile carriers as provided in Section 54.1510 shall have a one-time option to elect to participate in Stage 2 of the mobile Uniendo a Puerto Rico Fund and the mobile Connect USVI Fund for the eligible service area. An eligible mobile carrier may elect to receive all or a subset of the Stage 2 support for which it is eligible. To participate, an eligible provider must submit an election to participate within 30 days following publication in the Federal Register of the order adopting Stage 2 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund. Each provider must provide to the Commission through the Commission's Electronic Comment Filing System as well as by emailing a copy

to ConnectAmerica@fcc.gov either a renewal of its Stage 1 certification specifying the number of subscribers (voice or broadband Internet access service) it served in the territory as of June 30, 2017; or a new certification specifying the number of subscribers (voice or broadband Internet access service) it served in the territory as of June 30, 2017, along with accompanying evidence. Each provider will make two simultaneous elections. First, each provider may elect to receive Stage 2 support for which it is eligible to restore, harden, and expand networks capable of providing 4G LTE or better services. Second, each provider may elect to receive Stage 2 support for which it is eligible to deploy networks capable of providing 5G service.

- (c) Support amounts. A carrier exercising this option shall receive a pro rata share of the available mobile support based on the number of subscribers reported in its June 2017 FCC Form 477. Each carrier may receive up to 75% of its eligible pro rata support amount to restore, harden, and expand networks capable of provider 4G LTE or better services meeting the minimum service requirements provided in Section 54.1514(b). Each carrier may also elect to receive up to 25% of its eligible pro rata support amount to deploy networks capable of providing 5G service.
- (d) Each eligible mobile provider that elects to participate in Stage 2 of the Uniendo a Puerto Rico Fund or the USVI Connect Fund will receive monthly installments of its pro rata share of mobile support amortized over the three-year support period provided in subsection (a). Each recipient's pro rata share will be adjusted according to its election to receive or decline support for 4G LTE or 5G deployment. A mobile provider that fails to meet its commitment to use its eligible support for 4G LTE or 5G deployment shall return an amount equal the unused amount of Stage 2 support to the Administrator within 30 days following the end of the three-year support period.
- (e) *Phase-down of legacy support*. An eligible mobile carrier may elect or decline to participate in Stage 2 of the mobile Uniendo a Puerto Rico and/or the mobile Connect USVI Fund. Beginning on a date to be determined by the Bureau and announced by public notice, an eligible mobile carrier that declines to participate in Stage 2 will receive one-half of its prior frozen fixed support amortized for a 12-month period and zero fixed support thereafter.

§54.1510 Stage 2 mobile carrier eligibility.

Facilities-based mobile carriers that provided mobile wireless services to consumers in the Territories as reported by their June 2017 FCC Form 477 shall be eligible to participate in Stage 2 of the mobile Uniendo a Puerto Rico Fund and the mobile Connect USVI Fund, respectively.

§ 54.1511 Appropriate uses of Stage 2 mobile support.

Recipients of Uniendo a Puerto Rico and Connect USVI Stage 2 mobile support shall use the support solely for (1) deployment, replacement, and upgrade at 4G LTE or better technological network level, as specified; and (2) hardening of 4G LTE or better network facilities to help prevent future damage from natural disasters.

§ 54.1512 Geographic area eligible for Stage 2 mobile support.

Uniendo a Puerto Rico Fund and Connect USVI Fund Stage 2 mobile support may be used for all geographic areas of Puerto Rico or of the U.S. Virgin Islands within a recipient's designated eligible telecommunications carrier service area consistent with the parameters of Stage 2 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund.

§ 54.1513 Provision of Stage 2 mobile support.

- (a) A recipient of Stage 2 mobile support shall commit to, at a minimum, the full restoration of its prehurricane network coverage area, as determined by FCC Form 477 reporting standards, at a level of service that meets or exceeds pre-hurricane network levels and at reasonably comparable levels to those services and rates available in urban areas.
- (b) Each recipient of Stage 2 mobile support shall demonstrate mobile network coverage that is equal to or greater than 66 percent of its pre-hurricane coverage by the end of year two of the Stage 2 term of support, and that is equal to or greater than 100 percent of its pre-hurricane coverage by the end of year three of the Stage 2 term of support.

§ 54.1514 Stage 2 mobile additional annual reporting.

- (a) Each recipient of Stage 2 mobile support shall submit no later than 30 days following the end of the calendar year reports demonstrating and certifying to the fact that its mobile network coverage is equal to or greater than 66 percent of its pre-hurricane coverage by the end of year two of the Stage 2 term of support and 100 percent of its pre-hurricane coverage by the end of year three of the Stage 2 term of support.
- (1) A recipient of Stage 2 mobile support shall submit with the report required by this section the following documentation in support of its milestone obligations:
 - (i) Electronic shapefiles site coverage plots illustrating the area reached by mobile services;
 - (ii) A list of all census blocks in the Territories reached by mobile services; and
 - (iii) Data received or used from drive, drone, and/or scattered site tests, analyzing network coverage for mobile services.
- (b) Each recipient of Stage 2 mobile support shall report and certify, no later than thirty (30) days following the end of the third year of the Stage 2 term of support for all eligible areas where a provider used Stage 2 support, mobile transmissions supporting voice and data to and from the network meeting or exceeding the following:
 - (1) For 4G LTE service, outdoor data transmission rates of at least 10 Mbps download /1 Mbps upload, at least one service plan that includes a data allowance of at least 5 GB that is offered to consumers at a rate that is reasonable comparable to similar service plans offered by mobile wireless providers in urban areas, and latency of 100 milliseconds or less round trip; and
 - (2) For 5G service, outdoor data transmission rates of at least 35 Mbps download/3 Mbps upload and a plan offered to consumers at a rate that is reasonably comparable to similar service plans offered by mobile wireless providers in urban areas.
- (c) Each recipient of Stage 2 mobile support shall submit no later than thirty (30) days after the end of the third year of the Stage 2 term of support a certification that it has met the requisite public interest obligations.
- (d) Each recipient of Stage 2 mobile support shall submit no later than thirty (30) days following the end of the calendar year an annual map reporting the network hardening activities undertaken during the prior calendar year. The recipient must submit, along with the map, a detailed narrative description of the network hardening activities identified and of how it made use of the support to facilitate those network hardening activities.

- (e) Each recipient that elects to receive Stage 2 mobile support for the deployment of 5G technological networks shall submit an annual certification no later than thirty (30) days after the end of each 12-month period the use of Stage 2 support for the deployment of 5G technology to ensure compliance with its commitment. Each recipient must report the total cost incurred and total amount of Stage 2 support spent related to the deployment of 5G technology during the preceding 12-month period. Each recipient must describe in detail how it used the support for deployment of 5G technology.
- (f) Each report shall be submitted to the Office of the Secretary of the Commission, clearly referencing the appropriate docket for the Uniendo a Puerto Rico Fund and the Connect USVI Fund; the Administrator; and the authority in the U.S. Territory, or Tribal governments, as appropriate.
- (g) Recipients of Stage 2 mobile support have a continuing obligation to maintain the accuracy and completeness of the information provided in their milestone reports. All recipients of Stage 2 mobile support shall provide information about any substantial change that may be of decisional significance regarding their eligibility for Stage 2 support and compliance with Uniendo a Puerto Rico Fund and the Connect USVI Fund requirements as an update to their milestone report submitted to the entities listed in paragraph (2) of this subsection. Such notification of a substantial change, including any reduction in the network coverage area being served or any failure to comply with any of the Stage 2 requirements, shall be submitted within ten (10) business days after the reportable event occurs.
- (h) In order for a recipient of Stage 2 mobile support to continue to receive mobile support for the following calendar year, it must submit the milestone reports required by this section by the deadlines set forth above.

§ 54.1515 Disaster preparation and response measures.

- (a) Each recipient of fixed and mobile support from Stage 2 of the Uniendo a Puerto Rico Fund and the Connect USVI Fund shall create, maintain, and submit to the Wireline Competition Bureau for its review and approval a detailed Disaster Preparation and Response Plan document that describes and commits to the methods and procedures that it will use, during the period in which it receives Stage 2 support, to prepare for and respond to disasters in the territories, including detailed descriptions of methods and processes to strengthen infrastructure; to ensure network diversity; to ensure backup power; to monitor its network; and to prepare for emergencies.
- (b) Each Stage 2 support recipient shall submit the Disaster Preparation and Response Plan to the Bureau for its review and approval prior to receiving Stage 2 support. The Bureau shall approve submitted Disaster Preparation and Response Plans that are complete and thoroughly address the criteria enumerated in subsection (a). The Bureau shall notify the support recipient of deficiencies identified in the Disaster Preparation and Response Plan and withhold authorization to receive funding until the support recipient has cured the deficiencies. Recipients shall materially comply with the representations in the document, once approved.
- (c) Recipients shall amend their Disaster Preparation and Response Plan following any material change(s) to internal processes and responsibilities and provide the updated Disaster Preparation and Response Plan to the Bureau within 10 business days following the material change(s).
- (d) Stage 2 support recipients shall perform mandatory Disaster Information Reporting System reporting.

APPENDIX B

Disaster Preparation and Response Plan

Each recipient of Stage 2 support is responsible for a detailed Disaster Preparation and Response Plan describing and committing to the methods it will use, during the period in which it receives Stage 2 support, to prepare for and respond to disasters in Puerto Rico and/or the U.S. Virgin Islands according to five criteria: (1) Strengthening Infrastructure; (2) Ensuring Network Diversity; (3) Ensuring Backup Power; (4) Network Monitoring; and (5) Emergency Preparedness. These criteria are further defined below. Your detailed Disaster Preparation and Response Plan must include, for each criterion:

- a description of your commitments to maintain, improve or modify your facilities based on reasonably-selected best practices, checklists and industry standards;
- commitments that are auditable and your agreement to be subject to reasonable audit procedures; and
- identification of your employee official(s) responsible for management and compliance.

For each criterion, we have provided example best practices, checklists, and/or standards below. You may find it useful to consider and/or incorporate some or all of these materials in preparing your response. We do not endorse any of the specific examples below, but rather we simply provide them as examples that may prove useful. The support recipient should explain why it believes compliance with any specific standard it identifies will prove adequate to meet the criteria we set forth.

1. STRENGTHENING INFRASTRUCTURE

Please provide in your Disaster Preparation and Response Plan a description of methods and procedures that you have in place, or will soon have in place, to strengthen (storm harden) your infrastructure, including to be more likely to withstand Category 5 wind speeds and severe floods.

Description

Strengthening infrastructure refers to physically maintaining or changing your infrastructure to make it less susceptible to damage from extreme wind, flooding, flying debris and related disaster phenomena. This improves the durability and stability of infrastructure, making it better able to withstand the impacts of hurricanes and other weather events without sustaining major damage.

Example Best Practices, Checklists and/or Standards

The Alliance for Telecommunications Industry Solutions (ATIS) Network Reliability Steering Committee's (NRSC's) *Emergency Preparedness Checklist* (ATIS checklist) provides example techniques to strengthen infrastructure equipment. These relate to:

- assessing whether critical facilities, network equipment, and power connections are located in areas that are likely to flood;¹
- assessing whether there are mitigation plans implemented in sites located in flood prone areas (e.g., including the elevation of equipment platforms);²
- deploying high tensile strength aerial service wire;³

³ *Id.* at ref. no. 1.1.3.

¹ ATIS NRSC, ATIS-0100019 Emergency Preparedness and Response Checklist at ref. no. 1.1.1 (2019), https://www.atis.org/01_committ_forums/nrsc/documents/.

² *Id*.

- negotiating a wider right-of-way to prevent trees from obstructing aerial cable;⁴
- designing the outside portion of a network to better withstand flooding and severe weather, and make restoration easier;⁵ and
- utilizing Closed Circuit Television (CCTV), water intrusion hardware, or aerial photography/video to allow remote viewing of critical facilities that may flood.⁶

2. NETWORK RESILIENCE

Please provide in your Disaster Preparation and Response Plan a description of methods and procedures that you have in place, or will soon have in place, to implement network resilience.

Description

Network resilience refers to the ability of your network facility to recover quickly from damage to its components or to any of the external systems on which it depends. Resilience-improving measures do not absolutely prevent damage; rather they enable your network facility to continue operating despite damage and/or promote a rapid return to normal operations when damage does occur. A technique for achieving resilience is to add diversity at critical places, *e.g.*, by providing redundant facilities and redundant routes.⁷

Example Best Practices, Checklists and/or Standards

The Federal Communications Commission's (FCC's) Security, Reliability and Interoperability Council (CSRIC) has issued a number of best practices that describe example techniques for ensuring network resilience. These include CSRIC Best Practice Nos. 11-9-0580 (applying redundancy and diversity to network elements), 11-9-0510 (managing critical Network Elements), 11-9-5113 (providing multiple cable entry points at critical facilities), 11-9-0566 (placing and maintaining networks over diverse interoffice transport facilities) and 11-9-0568 (establishing a routing plan for Public Safety Answering Points (PSAPs)).8

3. BACKUP POWER

Please provide in your Disaster Preparation and Response Plan a description of methods and procedures that you have in place, or will soon have in place, to implement backup power solutions.

Description

Network elements, particularly those located outdoors, are often powered by the electric grid. Hurricanes and other natural disasters can cause the temporary loss of commercial power. Backup power refers to your plans to provide backup power to keep your communications facilities running until commercial power is restored.

Example Best Practices, Checklists and/or Standards

The FCC's CSRIC has issued a number of best practices that describe example techniques for

⁴ *Id.* at ref. no. 1.1.4.

⁵ *Id.* at ref. no. 1.1.7.

⁶ *Id.* at ref. no. 1.1.8.

⁷ In light of the importance of such resilience, in addition to requiring all Stage 2 support recipients to develop and document network resilience plans, we also award additional points to fixed Stage 2 support applicants for having a backup network or path diversity.

⁸ See FCC, CSRIC Best Practice Nos. 11-9-0580, 11-9-0510, 11-9-5113, 11-9-0566 and 11-9-0568, https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data.

implementing backup power solutions. These include CSRIC Best Practice Nos. 11-9-5204 (ensuring the availability of emergency/backup power), 11-9-0657 (designing standby generator systems for fully automatic operation and for ease of manual operation) and 11-9-1028 (engaging in preventative maintenance programs for network site support systems).

4. NETWORK MONITORING

Please provide in your Disaster Preparation and Response Plan a description of methods and procedures that you have in place, or will soon have in place, to implement network monitoring.

Description

Network monitoring refers to your diagnostics, alarms, collection, analysis, and visualization techniques and systems to detect, correlate and address potential network faults.

Example Best Practices, Checklists and/or Standards

The FCC's CSRIC has issued a number of best practices that describe example techniques for implementing backup power solutions. These include CSRIC Best Practice Nos. 11-9-0401 (monitoring networks to enable quick response) and 11-9-0417 (designing and implementing procedures to evaluate failure and emergency conditions affecting network capacity).

5. EMERGENCY PREPAREDNESS

Please provide in your Disaster Preparation and Response Plan a description of methods and procedures that you have in place, or will soon have in place, related to emergency preparedness.

Description

Emergency preparedness refers to your activities, including planning activities, intended to maintain your continuity of network operations in an area affected by a major weather event, including coordination with other entities.

Example Best Practices, Checklists and/or Standards

The FCC's CSRIC has issued CSRIC Best Practice Nos. 11-9-0655 (coordinating hurricane and other disaster restoration work with electrical and other utilities). In addition, the ATIS checklist provides example techniques to strengthen infrastructure equipment. These relate to:

- reserving and activating primary or back-up Emergency Operation Centers (EOCs) outside of a storm's path for tactical operations;¹¹ and
- verifying designations for high priority circuits are maintained in a database for speed of restoration.¹²
- coordination agreements between communications providers and power companies regarding mutual preparation and restoration efforts that can be activated when a storm

94

⁹ See FCC, CSRIC Best Practice Nos. 11-9-5204, 11-9-0657 and 11-9-1028, https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data.

¹⁰ See FCC, CSRIC Best Practice No. 11-9-0655, https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data.

¹¹ ATIS NRSC, ATIS-0100019 Emergency Preparedness and Response Checklist at ref. no. 2.10.1 (2019), https://www.atis.org/01 committ forums/nrsc/documents/.

¹² *Id.* at ref. no. 1.2.5.

APPENDIX C

Illustrative Form of Letter Of Credit

- · ·	ing Bank Requirements]	
[Name and Address of Issuing Bank]		
	[Date of Issuance]	
	[AMOUNT]	
	[EXPIRATION DATE]	
BENEFICIARY [USAC]		
[Address]		
LETTER OF CREDIT PROVIDER [Winning Bidder Name]		

Ladies and Gentlemen:

[Address]

We hereby establish, at the request and for the account of [Winning Applicant], in your favor, as required under the Report and Order, adopted on [June XX, 2019], issued by the Federal Communications Commission ("FCC") in the matter of [Connect America Fund, WC Docket 10-90, The Uniendo a Puerto Rico Fund and the Connect USVI Fund, WC Docket 18-143, and ETC Annual Reports and Certifications, WC Docket No. 14-58] (the "Order"), our Irrevocable Standby Letter of Credit No. ______, in the amount of [State amount of Letter of Credit in words and figures. NOTE: The amount of the Letter of Credit shall increase/additional letter(s) of credit shall be issued as additional funds are disbursed pursuant to the terms of the Order], expiring at the close of banking business at our office described in the following paragraph, on [the date which is ____ years from the date of issuance/ or the date which is one year from the date of issuance, provided the Issuing Bank includes an evergreen clause that provides for automatic renewal unless the Issuing Bank gives notice of non-renewal to USAC by a nationally recognized overnight delivery service, with a copy to the FCC, at least sixty days but not more than 90 days prior to the expiry thereof], or such earlier date as the Letter of Credit is terminated by [USAC] (the "Expiration Date"). Capitalized terms used herein but not defined herein shall have the meanings accorded such terms in the Order.

Funds under this Letter of Credit are available to you against your draft in the form attached hereto as Annex A, drawn on our office described below, and referring thereon to the number of this Letter of Credit, accompanied by your written and completed certificate signed by you substantially in the form of Annex B attached hereto. Such draft and certificates shall be dated the date of presentation or an earlier date, which presentation shall be made at our office located at [BANK ADDRESS] and shall be effected either by personal delivery or delivery by a nationally recognized overnight delivery service. We hereby commit and agree to accept such presentation at such office, and if such presentation of documents

appears on its face to comply with the terms and conditions of this Letter of Credit, on or prior to the Expiration Date, we will honor the same not later than the first banking day after presentation thereof in accordance with your payment instructions. Payment under this Letter of Credit shall be made by [check/wire transfer of Federal Reserve Bank of New York funds] to the payee and for the account you designate, in accordance with the instructions set forth in a draft presented in connection with a draw under this Letter of Credit.

Partial drawings are not permitted under this Letter of Credit. This Letter of Credit is not transferable or assignable in whole or in part.

This Letter of Credit shall be canceled and terminated upon receipt by us of the [USAC's] certificate purportedly signed by two authorized representatives of [USAC] in the form attached as Annex C.

This Letter of Credit sets forth in full the undertaking of the Issuer, and such undertaking shall not in any way be modified, amended, amplified or limited by reference to any document, instrument or agreement referred to herein, except only the certificates and the drafts referred to herein and the ISP (as defined below); and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except for such certificates and such drafts and the ISP.

This Letter of Credit shall be subject to, governed by, and construed in accordance with, the International Standby Practices 1998, International Chamber of Commerce Publication No. 590 (the "ISP"), which is incorporated into the text of this Letter of Credit by this reference, and, to the extent not inconsistent therewith, the laws of the State of New York, including the Uniform Commercial Code as in effect in the State of New York. Communications with respect to this Letter of Credit shall be addressed to us at our address set forth below, specifically referring to the number of this Letter of Credit.

[NAME OF BANK]
[BANK SIGNATURE]

ANNEX A

Form of Draft

To: [Issuing Bank]		
DRAWN ON LETTE	R OF CREDIT No	:
AT SIGHT		
PAY TO THE	ORDER OF [USA	AC] BY [CHECK/WIRE TRANSFER OF FEDERAL
RESERVE BA	ANK OF NEW YO	ORK]
FUNDS TO:		
	Account ()
REPAYMEN'		A PUERTO RICO FUND OR CONNECT USVI FUND
[AMOUNT I	N WORDS] DOLL	ARS AND NO/CENTS
\$[AMOUNT]	IN NUMBERS]	
		Universal Service Administrative Company
		Ву:
		Name: Title:
		11010.

ANNEX B

Draw Certificate

The undersigned hereby certifies to [Name of Bank] (the "Bank"), with reference to (a) Irrevocable Standby Letter of Credit No. [Number] (the "Letter of Credit") issued by the Bank in favor of the Universal Service Administrative Company ("USAC") and (b) [paragraph ___] of the Report and Order, adopted on [June XX, 2019], issued by the Federal Communications Commission in the matter of [Connect America Fund, WC Docket 10-90, The Uniendo a Puerto Rico Fund and the Connect USVI Fund, WC Docket 18-143, and ETC Annual Reports and Certifications, WC Docket No. 14-58] (the "Order"), pursuant to which [Name of Winning Bidder] (the "LC Provider") has provided the Letter of Credit (all capitalized terms used herein but not defined herein having the meaning stated in the Order), that:

evidenced by a letter signed by the Chi	s [describe the event that triggers the draw], and is lef of the [Wireline Competition Bureau] or [his/her] py of which is attached hereto.] Accordingly, a draw of the o is authorized.]
OR	
failure of the account party to obtain a	on-renewal of Letter of Credit No and satisfactory replacement thereof, pursuant to the Order, f \$ representing the entire amount of]
IN WITNESS WHEREOF, the understanday] on the day of	igned has executed this certificate as of [specify time of, 20
	Universal Service Administrative Company
	By: Name:
	Title:

ANNEX C

Certificate Regarding Termination of Letter of Credit

The undersigned hereby certifies to [Name of Bank] (the "Bank"), with reference to (a)
Irrevocable Standby Letter of Credit No. [Number] (the "Letter of Credit") issued by the Bank in favor of
the Universal Service Administrative Company ("USAC"), and (b) paragraph [] of the Report and
Order adopted on [June XX, 2019], issued by the Federal Communications Commission ("FCC") in the
matter of [Connect America Fund, WC Docket 10-90, The Uniendo a Puerto Rico Fund and the Connect
USVI Fund, WC Docket 18-143, and ETC Annual Reports and Certifications, WC Docket No. 14-58] (the
"Order"), (all capitalized terms used herein but not defined herein having the meaning stated or described
in the Order), that:

in the Order),	that:				
(1)	[inclu	[include one of the following clauses, as applicable]			
	(a)	The Order has be	en fulfilled in accordance with the provisions thereof; or		
	(b)	[LC Provider/Wi satisfactory to the	nning Bidder] has provided a replacement letter of credit e FCC.		
(2)	By reason of the event or circumstance described in paragraph (1) of this certificate and effective upon the receipt by the Bank of this certificate (countersigned as set forth below), the Letter of Credit is terminated.				
IN WITNESS			ed has executed this certificate as of the day of		
		-	Universal Service Administrative Company		
			By:		
			Name:		
			Title:		
			By:		
			Name:		
			Title:		
COUNTERS	IGNED:				
Federal Com	nunicatio	ons Commission			
Ву:					
Name:					
Its Authorized	i Signato	ory			

STATEMENT OF CHAIRMAN AJIT PAI

Re: The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al., WC Docket No. 18-143; Connect America Fund, WC Docket No. 10-90; ETC Annual Reports and Certifications, WC Docket No. 14-58.

Hurricanes Irma and Maria wrought unprecedented devastation on Puerto Rico and the U.S. Virgin Islands. The FCC's response to help the territories recover and rebuild was unprecedented as well. Among other steps, we provided carriers approximately \$130 million in extra subsidies from the Universal Service Fund (USF) to assist with the restoration of communications networks.

The road to recovery in Puerto Rico and the U.S. Virgin Islands has been long. I saw that in Utuado, Puerto Rico, where utility poles were broken like matchsticks and fiber lines severed as easily as spider webs. I saw it in St. Thomas in the U.S. Virgin Islands, where I saw the utterly destroyed radio and television station WTJX. But since then, the good news with respect to communications is that service has been largely restored.

However, the FCC's work isn't done. Now we need to and will execute a long-term strategy to improve, expand, and harden broadband networks on the islands, for at least two reasons. First, hurricanes are an annual misfortune, and we know that Puerto Rico and the U.S. Virgin Islands will be hit again by severe storms. So we need hardened communications networks that can withstand hurricanes and will continue serving Americans living in the territories when they need them the most.

Second, we need to close the digital divide in the territories. Simply put, everyone in Puerto Rico and the U.S. Virgin Islands who wants it should have high-speed Internet access and the economic, health care, educational, and civic services it enables. Digital opportunity is not a value limited to the mainland.

To execute this long-term strategy, today we allocate almost a billion dollars in funding from the USF to deploy improved, expanded, and hardened fixed and mobile broadband networks in Puerto Rico and the U.S. Virgin Islands. On the fixed side, we implement a balanced approach for awarding support that will reward carriers that will provide high-quality service in a cost-efficient manner and help build resilient networks. On the mobile side, for the first time ever, we specifically set aside USF funding to support 5G deployment. This was important to me because I don't want Puerto Ricans and U.S. Virgin Islanders to be left behind when it comes to the next generation of wireless connectivity and the enormous potential it holds.

I'm pleased with the broad support that our approach has received from those who live in and serve Puerto Rico and the U.S. Virgin Islands. For example, U.S. Representative Jennifer González-Colón of Puerto Rico wrote this week:

Resilient telecommunications, improved connectivity, increased bandwidth and easier access are essential for the education of our future generations, the safety of our communities, and reestablishing economic and workforce growth in Puerto Rico[,] helping us to face future challenges. I strongly support this initiative and urge the Commissioners to make the proposed resources available to the people of the U.S. Caribbean.

As Puerto Rico continues to work to resolve its crisis, telecommunications will be a key sector in our economic recovery. Chairman Pai's proposal will be an invaluable tool in this task.

I would like to thank Representative González-Colón for all that she has done to help the people of Puerto Rico in the two years following Irma and Maria. In 2018, she organized and kindly invited me to join her at a communications roundtable in Puerto Rico, and the feedback that we received at that event helped to shape my thinking on the Order that we are adopting today.

I also would like to thank other officials in the government of Puerto Rico and the U.S. Virgin Islands who have supported our efforts from the earliest days. In particular, I am grateful to Sandra

Torres López, President of the Negociado de Telecomunicaciones de Puerto Rico, the territory's FCC counterpart, and Alexandra Fernández Navarro, Associate Member of the Junta Reglamentadora de Servicio Público and also a member of the FCC's Intergovernmental Advisory Committee. I appreciate as well the work of the Public Service Commission of the U.S. Virgin Islands, including Chairman Emeritus and Commissioner John Clendenin, who also serves on the IAC. The dedication these and other officials have shown to their territories and the assistance they've given us in our deliberations have been incredibly helpful.

Last but not least, I would also like to thank the incredible efforts of Commission staff that are working to secure a connected future for Puerto Rico and the U.S. Virgin Islands, including Talmage Cox, Rebekah Douglas, Jesse Jachman, Daniel Kahn, Sue McNeil, Alexander Minard, Kris Monteith, Dangkhoa Nguyen, and Ryan Palmer of the Wireline Competition Bureau; Octavian Carare, Patrick DeGraba, Chelsea Fallon, Evan Kwerel, Kenneth Lynch, Eliot Maenner, Catherine Matraves, Giulia McHenry, Eric Ralph, Steve Rosenberg, Emily Talaga, and Margaret Wiener of the Office of Economics and Analytics; Chris Anderson, Justin Cain, Lisa Fowlkes, Jeffrey Goldthorp, John Healy, Jennifer Holtz, Lauren Kravetz, Ahmed Lahjouji, Nicole McGinnis, Roberto Mussenden, Renee Roland, and Brenda Villanueva of the Public Safety and Homeland Security Bureau; Erin Boone, Ben Freeman, Garnet Hanly, Pramesh Jobanputra, Ziad Sleem, and Matthew Warner of the Wireless Telecommunications Bureau; Martin Doczkat, Barbara Pavon, and Ron Repasi of the Office of Engineering and Technology; Denise Coca and Kerry Murray of the International Bureau; and Malena Barzilai, Deborah Broderson, Michael J. Carlson, Neil Dellar, Thomas Driscoll, David Horowitz, Richard Mallen, Keith McCrickard, Linda Oliver, and William Richardson of the Office of General Counsel.

STATEMENT OF COMMISSIONER MICHAEL O'RIELLY

Re: The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al., WC Docket No. 18-143; Connect America Fund, WC Docket No. 10-90; ETC Annual Reports and Certifications, WC Docket No. 14-58.

This item is a well-intended effort to reform the Commission's legacy approach in Puerto Rico and the U.S. Virgin Islands, where leadership has historically been poor, and providers have earned questionable reputations. While I support many parts of the draft and commend the Chairman's office and staff for their hard work, I am concerned about certain departures from sound universal service funding practices, as well as some of the precedent we set in the mobile support context.

A fundamental tenet of the Commission's recent universal service policy is that scarce funding should not be spent to overbuild existing networks. Nonetheless, the draft determines that an exception is warranted in this case and therefore designates all areas of Puerto Rico and the U.S. Virgin Islands—no matter the state of their networks—eligible for support. While I recognize the interest in distributing funding expeditiously and promoting resiliency, I would respectfully argue that this is a big mistake. At the very least, there should be *some* guardrail mechanism to prevent duplication and waste. After all, not only will Stage 2 funding distort non-subsidized competition and undermine investment in already-served areas, but carriers awarded Stage 2 support may end up directly competing against those that received funding under Stage 1. We've, of course, seen the use of USF funding to overbuild privately-funded networks, as well as duplicative funding between USF programs, but authorizing a USF program to undermine its *own* funding projects takes overbuilding to a whole different level.

Ultimately, even though our current deployment data is far from reliable, and a challenge process would create delays, departing so drastically from the Commission's long-held approach to overbuilding in the high-cost program is hard to justify. Moreover, it directly undercuts repeated Congressional admonishments against government-funded overbuilding.

Further departing from the Commission's usual high-cost framework, the draft also lowers the high-cost funding threshold across the board and eliminates any limit on support for extremely high-cost locations. While Puerto Rico certainly has a challenging economy and is prone to debilitating hurricanes, it doesn't seem fair to provide so much extra support in this instance if we're not willing to make the same adjustments to similarly-situated disaster-prone areas of the continental U.S.

On another point, I have been assured that the one-round, sealed-bid process will result in winning prices below our established reserve ones, at least in some areas, such that overall spending will be well under the topline budget. Even if that ultimately proves true, I am troubled that we depart from our tried-and-true multi-round reverse auction approach, that we used in CAF II and most recently proposed in the Rural Digital Opportunity Fund proceeding. The Commission has repeatedly endorsed simultaneous multi-round auctions over other bidding mechanisms, as the market approach provides the best way to ensure price discovery, value maximization, bidder flexibility, and minimization of the overall subsidies. Adopting a single-round process—especially one subject to so much subjectivity on the part of bid reviewers—therefore seems to take multiple steps backward.

On the mobile side, while I would have much preferred a reverse auction there as well, I am willing to stomach the possibility that a different method is more appropriate for such a short period. What I do find troubling, however, is our decision to allocate a portion of mobile support to 5G deployment, rather than to the deployment of mobile service at an objective speed threshold, and the apparent codification of a 5G standard. As a matter of public policy, the FCC has always left standard-setting to the more appropriately-situated private sector and avoided, as much as possible, adopting specific standards into our rules. I also take issue with our decision to mandate DIRS reporting, which seems fundamentally at odds with the voluntary nature of that data system.

Despite some real issues, this item will hopefully make considerable progress in overcoming the inefficient and unaccountable legacy system in Puerto Rico and the U.S. Virgin Islands. I will be carefully watching the outcome of the competitive bidding process and vote to approve.

STATEMENT OF COMMISSIONER BRENDAN CARR

Re: The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al., WC Docket No. 18-143; Connect America Fund, WC Docket No. 10-90; ETC Annual Reports and Certifications, WC Docket No. 14-58.

Roberto Mussenden has worked here at the FCC on public safety issues for more than 20 years. With Hurricanes Irma and Maria having devasted Puerto Rico and the U.S. Virgin Islands, he immediately volunteered to deploy as part of the FCC's initial response.

Having grown up in Puerto Rico, Roberto said that, for him, it was personal. And since that initial trip two years ago, Roberto has spent one week per month on the island as part of the FCC's ongoing recovery efforts. He has spoken about his experience there and the work he did to help turn things around, and I'd like to share just a snapshot of his service.

When he first landed, he found the island "close to apocalyptic"—vegetation ripped out, no lights, no traffic, just silence and devastation. The storms had torn apart the power grid, pulled down 1,000-foot television towers, and destroyed people's homes. When various agencies and organizations arrived—from federal entities like FEMA to the NYPD—they were all using different frequencies to communicate. Roberto immediately set about coordinating frequencies to ensure that those who needed to communicate could reach each other, while avoiding interference to others.

He served as a valuable point of contact for communications providers in Puerto Rico—a consistent and dependable face in a time of crisis. He helped broadcasters and Internet providers get the streamlined approvals and waivers they needed to start rebuilding and upgrading their infrastructure immediately. And he ensured that those who wanted to use new technologies, like Google's Loon, to get people back online obtained the experimental licenses they needed to get up and running quickly.

In short, Roberto represents the very best of public service. And we are lucky to have him and so many other dedicated professionals at the FCC.

In fact, Roberto's efforts are part of a broader and unprecedented FCC response to the hurricanes that devasted Puerto Rico and the U.S. Virgin Islands. The FCC stood up an Incident Management Team consisting of technical and policy experts drawn from the Commission's bureaus and offices. FEMA and the FCC coordinated communications-related efforts through Emergency Support Function 2. And the FCC deployed Roll Call and spectrum management experts to monitor and determine the storm's impact on wireless communications.

The FCC also expedited regulatory action in the critical days and hours after the storms. We waived Lifeline rules to ensure that consumers wouldn't be cut off, just when they need the service most. We provided additional E-Rate support to schools and libraries that needed to replace damaged equipment. And we waived rules to speed deployment. In total, we granted around 900 requests for Special Temporary Authority.

FCC leadership also undertook fact-finding missions to the hardest-hit regions. And we stood up a Hurricane Recovery Task Force that took a meticulous and comprehensive approach to the issues—holding public workshops, engaging stakeholders, and providing key findings that we have been able to build on.

These efforts helped accelerate the recovery. Within six months of the storm, one wireline provider in Puerto Rico had restored 75% of its network, nearly completing its recovery three months later. Similarly, in the U.S. Virgin Islands, another provider restored 100% of its network within eight months of Maria's landfall. And the recovery for mobile cell sites was even faster, with one provider restoring 100% of its cell sites on the Virgin Islands within four months.

FCC funding was a key part of many of these efforts. In the wake of the storm, we made available \$77 million in support for the immediate restoration of communications networks. We also established the Uniendo a Puerto Rico and Connect USVI Funds, through which we have already made available an additional \$64 million in support for restoration.

Today, we take the next step in promoting a sustainable and long-term recovery effort. We vote to make nearly \$950 million in additional funding available, with an eye toward funding resilient networks that are better able to withstand future storms. And on this score, I want to thank my colleagues for agreeing to edits that create incentives for carriers to place any new aerial lines on hardened, composite poles, which will help ensure that we have an even more robust network.

The efforts of hardworking FCC staff have not gone unnoticed. In June of 2018, the Governor of Puerto Rico thanked the FCC for "addressing the immediate need of restoring and advancing Puerto Rico communications infrastructure." In July of 2019, the Governor of the U.S. Virgin Islands, wrote, "I am extremely grateful for the FCC's prompt action in the days and weeks immediately following the disaster. These efforts helped restore our vital communications networks."

So I want to add my thanks to the FCC staff here in Washington, in our field offices, and those deployed after the storms for all the work you have done to support this recovery effort. I am proud of your work. And I also want to recognize the Public Safety and Homeland Security Bureau, as well as the Wireline Competition Bureau and the Wireless Telecommunications Bureau for your efforts on today's decision. It has my support.

CONCURRING STATEMENT OF COMMISSIONER JESSICA ROSENWORCEL

Re: The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al., WC Docket No. 18-143; Connect America Fund, WC Docket No. 10-90; ETC Annual Reports and Certifications, WC Docket No. 14-58.

It was just two years ago that Hurricane Maria ravaged Puerto Rico and the Virgin Islands. We all remember it because the images are impossible to forget. They were searing. We saw whole communities underwater, flooded with more than 30 inches of rain. We saw the destructive aftermath of winds that reached an astonishing 155 miles an hour. The damage and dislocation was so severe that the toll the storm took may never be fully understood. But experts say we lost more than 4,600 lives in the storm. And on top of the horrific loss of life, Hurricane Maria left \$90 billion in damages, including significant harm to communications networks.

In the wake of this tragedy, I visited Puerto Rico. Now, I've spent a lot of time in Puerto Rico in the past. But this trip was different. Six months after the storm I went to learn about its recovery. I was disappointed then—and I remain disappointed now—that the Federal Communications Commission refused to hold a hearing in Puerto Rico in the aftermath of the disaster—because what I saw was powerful.

The damage from Hurricane Maria was still out in the open, for all to see. Traffic lights didn't work. Streets were unexpectedly dark at night. Businesses were closed. Construction gates still surrounded stray blocks of concrete and rebar. There were gashes in infrastructure and signs missing along the roads that needed no explanation for their absence. These are the marks of a storm that just doesn't go away, that reminds its residents of the awful harm that wind and rain can do to a community, its economy, and its way of life.

But I knew it was important to get out of the city. So I headed west from San Juan to Toa Baja. It's a rural area that is near where sugar cane fields once stood, when agriculture loomed larger in the Puerto Rico economy. The low-slung houses are arranged in a tight grid along the banks of a small creek. Long ago this creek was used to irrigate those sugar cane fields. But in more recent years it just gurgled along, a border of sorts for a small neighborhood of Villa Calma.

Villa Calma was hit hard by the hurricane. The ocean swelled and the banks of that creek rose up and filled the first floor of every home in the neighborhood. As the water poured in, Milly Ortiz—who I had the privilege to meet—organized her neighbors and pulled hundreds of its residents into the school on higher ground, where they lived together for a week before the government relocated them and found them new shelter.

When I met Milly, they were rebuilding Villa Calma. She showed me the community kitchen they built and a plot of land where she was planning a neighborhood garden. But it was clear that none of this would be easy because the wet and rotten mess of the hurricane was still being pulled from each home, dried on the streets, sorted through, and what was not salvageable carried away.

From what I saw, the hardship was undeniable. But so was the heroism. When we read about Puerto Rico, the news is rough. The recovery is long. But what stays with me from that visit is the resilience of the people I met. They were extraordinary.

So today's decision is encouraging. It provides more than \$900 million to improve, expand, and harden broadband networks in communities devastated by Hurricane Maria. I support the outcome because it refashions universal service support for communications in Villa Calma, all of Puerto Rico and the Virgin Islands, in light of the damage suffered in this storm.

But I concur because this is simply not how I would have structured our response.

At the outset, in the two years since Hurricane Maria made landfall, the FCC has spent over \$100

million in universal service funds in an effort to boost the restoration of communications on Puerto Rico and the Virgin Islands. However, comb through the text of this decision, and it's apparent the FCC does not have a clear picture of where those funds were spent and what the current state of communications facilities looks like on the ground. We should know with precision what was spent and where. And we should fashion what we do today around all of that information. But we do not. That's regrettable. It's an invitation for waste because it fails to ensure we are directing funding to areas with the greatest need.

Looking forward, I also believe we need to have a better playbook for disaster. Because the hard truth is that Hurricane Maria will not be the last extreme weather evet to wreak havoc on communications infrastructure. It's time for the FCC to develop a consistent and reliable approach to ensuring the resiliency of networks in disaster.

Here are three things that a better disaster playbook would include.

First, every weather event causing significant damage to communications should be the subject of a timely report from the FCC. It should be supported by field hearings—as was done following Hurricane Katrina and Superstorm Sandy. But on this score, our approach to Hurricane Maria fell short. As I said at the start, the FCC held no field hearings. It issued a slim report summarizing damage a year after the storm took place. We owe communities a timely and comprehensive investigation of what went right, what went wrong, and how we can be better prepared in the future.

Second, the FCC must improve its situational awareness regarding communications outages. It's hard to believe, but the FCC's Network Outage Reporting System does not require carriers to report on disruptions or outages involving broadband service. That means if the infrastructure that supports our digital world and so much of modern life goes down, the FCC will not have a full picture of the problem. That's crazy. The expert agency with responsibility for our nation's communications has no mandatory reporting for what broadband was cut off and when. That means that it has no real ability to study patterns of failures and develop policies to keep our networks up and running. A proposal to address this hole in our reporting systems has been pending or three years. It's time to take action and fix it.

Third, we need to do more to ensure our networks are resilient. A good place to start is with the Wireless Resiliency Framework, which was an outgrowth of Congressman Pallone's work to improve networks in disaster following Superstorm Sandy. Last year, the Government Accountability Office reviewed FCC efforts pursuant to this framework and concluded that we need to do more to promote awareness, develop measurable objectives, and monitor outcomes to help ensure compliance. In response, the FCC has sought comment on improvements to the framework on four separate occasions. Enough. We don't need more comments, we need enforceable commitments.

But our work on wireless resiliency should not be static. Our networks are changing and our thinking should evolve, too. With the advent of 5G wireless service, we are seeing large-scale small cell deployment. That means our old way of thinking about fuel, back-up power, and tracking the percentage of cell sites out of service after a disaster requires a revamp. While virtualizing our networks might mean new self-healing capabilities, it also introduces new challenges for reliability. This is why our next infrastructure proceeding needs to be about updating our wireless resiliency policies and frameworks for the 5G era. We should get started now—and not wait for the next weather disaster.

Finally, today's order is eerily silent on the larger network security and supply chain discussion that is happening right now. So let me put it in plain terms: none of the universal service funding we authorize today should be spent on the purchase of network equipment that could raise national security concerns. I'm mystified that this was not made a clear condition of the network funding offered today, especially because there is an active United States military presence on Puerto Rico, including military installations. The FCC should have made this prohibition clear in this decision and it should not wait another day to resolve the outstanding rulemaking we have on supply chain matters more broadly.

I appreciate the work that went into today's decision and I am hopeful, despite my concerns, that it will mean real progress for network development in Puerto Rico and the Virgin Islands. I concur.

STATEMENT OF COMMISSIONER GEOFFREY STARKS

Re: The Uniendo a Puerto Rico Fund and the Connect USVI Fund, et al., WC Docket No. 18-143; Connect America Fund, WC Docket No. 10-90; ETC Annual Reports and Certifications, WC Docket No. 14-58.

Two years ago, Hurricane Maria devasted Puerto Rico and the U.S. Virgin Islands claiming more than 3,000 lives and causing tens of billions of dollars in damage. This damage included nearly complete destruction of communications networks in Puerto Rico and the U.S. Virgin Islands. The people of Puerto Rico and the U.S. Virgin Islands have demonstrated their resilience through efforts to rebuild and restore – not only their cherished way of life, but their infrastructure. The FCC has provided timely and critical funding for network restoration and initial rebuilding in Puerto Rico and the U.S. Virgin Islands over the past two years. We know that Puerto Rico is under constant threat of hurricanes and tropical storms. We need to be thoughtful of what has been done in the past in response to major storms to make sure that networks perform better, are rebuilt stronger, and are resilient in the future.

While restoration work has come a long way, it continues today. Part of that work involves rebuilding communications networks. In order to ensure that people in Puerto Rico and the U.S. Virgin Islands have the same connectivity and opportunity as any other American, communications networks in Puerto Rico and the U.S. Virgin Islands need to be rebuilt, not just to provide high-quality internet service, but also to have strength and redundancy as an essential part of their design to ensure that they withstand future storms.

Today's order sets up a process for providing funding to fixed and mobile service providers operating in Puerto Rico and the U.S. Virgin Islands to support them in rebuilding and strengthening their networks. This support will be essential to restoring networks to provide the kind of service that the people of Puerto Rico and the U.S. Virgin Islands demand and deserve, and that the Communications Act commands us to make sure is available.

This support recognizes the unique and ongoing reconstruction and restoration needs that exist in Puerto Rico and in the U.S. Virgin Islands. I was glad that the Commission recognized these unique needs and the unique conditions in Puerto Rico in two orders adopted earlier this year addressing a forbearance petition related to wired network loops and transport links. In these orders, the Commission granted portions of the petition, making changes to the way some fixed voice and broadband provider's networks are regulated. But, the Commission agreed with my requests to hold off on implementing these orders in Puerto Rico so that carriers there can focus on rebuilding rather than on regulatory changes.

Recognizing that recovery is ongoing in Puerto Rico and in the U.S. Virgin Islands and establishing a funding process to support strengthening networks, as today's order does, will provide important and necessary help to Puerto Rico and the U.S. Virgin Islands. I support this order and I thank the staff of the Wireline Competition Bureau for their hard work in preparing it.