



September 9, 2022

VIA HAND DELIVERY AND ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
9050 Junction Drive
Annapolis Junction, MD 20701

RE: Request for Confidential Treatment, Application for Review; *In re Long Form Application of Starlink Services, LLC*, File No. 0009395128; *Rural Digital Opportunity Fund (Auction 904)*, WC Docket No. 19-126, AU Docket No. 20-34; *Petition of Starlink Services, LLC for Designation as an Eligible Telecommunications Carrier*, WC Docket No. 09-197

Dear Ms. Dortch:

Starlink Services, LLC, a wholly-owned subsidiary of Space Exploration Technologies Corp. (collectively, “SpaceX”) hereby submits the attached Application for Review of the Wireline Competition Bureau’s (“Bureau’s”) decision denying SpaceX’s long-form application (“Long Form”) to obtain support for its winning bids in the Rural Digital Opportunity Fund Phase I auction (“RDOF Auction”).

Pursuant to 47 C.F.R. §§ 0.457, 0.459, SpaceX requests confidential treatment for the company-specific, highly sensitive, and proprietary commercial information in the attached Application for Review, including Exhibit A. The confidential information has been redacted from the version marked “REDACTED, FOR PUBLIC INSPECTION” and electronically filed with the Commission. In addition, the confidential information constitutes confidential commercial and/or financial information that falls within Exemption 4 of the Freedom of Information Act (“FOIA”).

In support of this request and pursuant to Section 0.459(b) of the Commission’s rules, SpaceX hereby states as follows:

1. Identification of the specific information for which confidential treatment is sought.

SpaceX requests confidential treatment with respect to the confidential information that is highlighted in yellow in the version marked “CONFIDENTIAL, NOT FOR PUBLIC INSPECTION,” and redacted from the version marked “REDACTED, FOR PUBLIC INSPECTION” and filed electronically with the Commission.

2. Identification of the circumstance giving rise to the submission.

SpaceX is submitting an Application for Review of the Bureau’s decision denying SpaceX’s Long Form to obtain support for its winning bids in the RDOF Auction.

3. Explanation of the degree to which the information is commercial or financial or contains a trade secret or is privileged.

The confidential information in the Application for Review and associated Long Form is highly sensitive commercial information specific to the business strategies, financial position, satellite technology, and network operations of SpaceX. This information is generally safeguarded from competitors and is not made available to the public.

4. Explanation of the degree to which the information concerns a service that is subject to competition.

The confidential information in the Application for Review is highly sensitive commercial information regarding SpaceX's provision of broadband internet access service. The broadband industry is highly competitive, and SpaceX's services are subject to significant competition.

5. Explanation of how disclosure of the information could result in substantial competitive harm.

Disclosure of the redacted information could cause substantial competitive harm to SpaceX because it would provide competitors insight into SpaceX's business strategies, financial information, deployment plans, technological development, and network operations that would not otherwise be available, which would work to SpaceX's severe competitive disadvantage.

6. Identification of any measures taken to prevent unauthorized disclosure.

SpaceX routinely treats the redacted information as highly confidential and exercises significant care to ensure that such information is not disclosed to its competitors or the public.

7. Identification of whether the information is available to the public and the extent of any previous disclosure of the information to third parties.

SpaceX does not make the redacted information available to the public, and this information has not been previously disclosed to third parties, except pursuant to arrangements intended to maintain confidentiality, including the confidential treatment of SpaceX's Long Form.

8. Justification of the period during which the submitting party asserts that the material should not be available for public disclosure.

SpaceX requests that the redacted information be treated as confidential on an indefinite basis as it cannot identify a date certain on which this information could be disclosed without causing competitive harm to SpaceX.

Additionally, SpaceX requests that access to the redacted information not be provided to any party through a protective order and maintains that the Bureau lacks the delegated authority to issue such a protective order. Previously, the Commission explicitly declined to allow outside parties to review confidential information in RDOF winning bidders' long-form applications

pursuant to a protective order.¹ It specifically stated, “We are not persuaded that we should allow outside parties to review confidential information in the winning bidders’ applications.”² In light of the Commission’s prior decision on this issue, the Bureau does not have the delegated authority to issue a protective order permitting access to the confidential information in SpaceX’s Long Form, even if that information is discussed, by necessity, in the Application for Review. Such a decision would directly contradict the Commission’s prior judgment on this question. Additionally, the Commission’s earlier decision on this matter was correct. There is a risk that the highly confidential information contained in SpaceX’s Long Form could be disclosed to its competitors in the event that a protective order is issued, which would cause SpaceX irreparable harm, and the Commission has correctly determined that other parties do not need to be provided with access to such information in order for the Commission to adjudicate RDOF long-form applications. Accordingly, all confidential information from SpaceX’s Long Form, including any redacted information discussed in the Application for Review, should be withheld from public inspection as well as any inspection through a protective order, consistent with the Commission’s prior determination regarding the confidentiality of long-form applications.

For the foregoing reasons, SpaceX submits that good cause has been demonstrated in support of this request for confidential treatment and, accordingly, urges the Commission, or the Bureau, to grant this request and withhold the redacted information from public inspection.

Respectfully submitted,

/s/ David Goldman

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Attachments

¹ See *In re Rural Digital Opportunity Fund; Connect America Fund*, Report & Order, 35 FCC Rcd 686, n. 248 (2020) (explicitly rejecting a proposal by Windstream and Frontier to adopt a protective order allowing access to long-form applications).

² *Id.*

**Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Long Form Application of Starlink Services, LLC)	File No. 0009395128
)	
Rural Digital Opportunity Fund (Auction 904))	WC Docket No. 19-126
)	AU Docket No. 20-34
)	
Petition of Starlink Services, LLC for Designation as an Eligible Telecommunications Carrier)	WC Docket No. 09-197
)	

APPLICATION FOR REVIEW OF STARLINK SERVICES, LLC

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September 9, 2022

EXECUTIVE SUMMARY

The Wireline Competition Bureau’s decision to exclude Starlink from the Rural Digital Opportunity Fund (“RDOF”) is flawed as a matter of both law and policy. It fails legally because it contradicts the record—including SpaceX’s and Starlink’s proven capabilities—it contradicts the Commission’s stated rules for the program, and it rests on unsupported conjecture and outside-the-record information apparently cherry-picked from somewhere on the Internet.

Worse, it fails the RDOF’s very purpose: closing the digital divide. As the last few years have highlighted, it is critical to connect all Americans as quickly as possible, whether to enable kids to do their homework, empower parents to work from home, help doctors provide telehealth services, or assist first responders with emergency situations. The Bureau’s decision undermines this goal, leaving the very Americans that RDOF was supposed to connect stranded indefinitely on the wrong side of the digital divide. This decision is so broken that it is hard not to see it as an improper attempt to undo the Commission’s earlier decision, made under the previous Administration, to permit satellite broadband service providers to participate in the RDOF program. The decision appears to have been rendered in service to a clear bias towards fiber, rather than a merits-based decision to actually connect unserved Americans. Commissioner Starks, in adopting the RDOF Order, correctly foresaw that “next-generation satellite broadband holds tremendous technological promise for addressing the digital divide and is led by strong American companies with a lengthy record of success.” Rightly, he directed the Bureau to “evaluate those applications on their own merits.” But the Bureau inexplicably ignored this direction and instead applied far different standards to SpaceX’s application precisely because SpaceX proposes to use satellites. Among many other errors, the Bureau’s decision improperly:

- **Misused data outside the record to penalize SpaceX alone for its system’s current speeds, which are irrelevant to whether SpaceX can meet RDOF’s speed**

requirements starting three years from now, as is actually required. RDOF was, by design, meant to provide funding—and time—for participating service providers to meet these requirements. Indeed, most RDOF applicants currently provide *no* service in many/any of their RDOF areas today. The fact the Bureau relied on unauthorized outside speed tests without even notifying SpaceX that its decision was based on these tests only compounds the error.

- **Ignored robust record evidence of SpaceX’s proven ability to quickly expand and upgrade its network.** On August 10, 2022—the day the Bureau issued its decision—SpaceX launched its 21st Starlink mission—and 35th Falcon 9 mission—of the year. Since then, SpaceX has completed its 26th Starlink mission and 40th overall successful launch of 2022. This world-leading launch cadence gives SpaceX an unmatched ability to deploy its satellites and has enabled SpaceX to launch over 3,000 satellites to date. SpaceX’s satellites have also operated with over 99% reliability since being licensed by the FCC in 2018, far surpassing the deployment and reliability requirements in its FCC license and demonstrating it will readily exceed all RDOF deployment requirements.
- **Failed to accurately contrast SpaceX’s transparent all-in pricing against the opaque pricing—which disguises the true cost to consumers—common in the industry.** The suggestion that Starlink pricing justified the Bureau’s decision likewise makes no sense. SpaceX never claimed it would use its current pricing in the RDOF territories (indeed by law it cannot). More fundamentally, any suggestion that Starlink is relatively expensive is unsupported by an apples-to-apples comparison because SpaceX, unlike other RDOF bidders, fully discloses its true cost to consumers, with no hidden fees, no installation costs, no perpetual equipment rentals, no early termination fees, no ballooning “promotional” prices, etc.

The Bureau’s decision holds SpaceX to standards not adopted by the Commission for the RDOF program. Indeed, these are standards that no bidder could meet today. Changing the rules to undo a prior policy is grossly unfair after SpaceX has invested thousands of employee-hours and millions of dollars preparing to meet its RDOF obligations on the reasonable assumption that the Bureau would apply the Commission’s rules in an even-handed manner. Far more troubling, as no RDOF applicant offering fiber even bid in the majority of the territories SpaceX committed to serve through RDOF, the Bureau’s decision leaves the Commission with no plan to connect many unconnected Americans, undermining the very purpose of this program. The decision should not be allowed to stand, leaving the people in these rural areas across our country behind yet again.

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APPLICATION FOR REVIEW OF STARLINK SERVICES, LLC

Starlink Services, LLC, a wholly-owned subsidiary of Space Exploration Technologies Corp. (collectively, “SpaceX”), submits this Application for Review of the Wireline Competition Bureau’s (“Bureau”) decision denying SpaceX’s long-form application (“Long Form”) to obtain support for its winning bids in the Rural Digital Opportunity Fund Phase I auction (“RDOF Auction”).¹

In the Long Form, including clarifying responses to questions posed by Commission staff, SpaceX submitted voluminous evidence demonstrating its technical and financial ability to meet its performance obligations in the areas it won in the RDOF Auction. The Bureau, however, largely ignored that substantial record and instead relied on unfounded speculation and basic errors. It also disregarded the rules the Commission set for the program, substituting its

¹ [REDACTED] The Bureau’s denial of SpaceX’s Long Form was also discussed in a Public Notice issued by the Bureau, Rural Broadband Auctions Task Force, and Office of Economics and Analytics. *See* Public Notice, DA 22-848 (Aug. 10, 2022). Out of an abundance of caution, Starlink also seeks review here of that Public Notice.

own policy judgment for that of the Commission. As a result, every conclusion upon which the Bureau based its decision is contrary to the record and/or violates Commission-established process. Here are just some examples:

- **The Bureau relied on current nationwide speed tests that have no bearing on future speeds in RDOF territories.** To assess SpaceX's ability to meet RDOF's speed requirement in its awarded areas, the Bureau looked at *current* speed tests averaged across the entire country. These tests were irrelevant because SpaceX has no obligation to meet *any* speed requirements for more than three years, and those obligations are limited to RDOF territories. Not one RDOF recipient is currently meeting its speed requirements throughout its awarded areas because the whole point of RDOF is to enable recipients to build out new networks, which takes years. The Bureau also disregarded detailed evidence showing how SpaceX will ensure its RDOF customers receive the required level of service by all milestone dates.

[REDACTED]

[REDACTED]

In effect, the Bureau failed to evaluate the merits of the Long Form according to the rules adopted by the Commission and held SpaceX to standards that no bidder could meet.

Worse than just improper, the Bureau Decision, if allowed to stand, would leave the Commission with no plan to connect the many Americans living and working in the areas covered by SpaceX's winning bids, stranding them on the wrong side of the digital divide

indefinitely. It would also undermine the Commission's auction process by calling into question whether the policies and standards announced before an auction will be applied fairly and consistently, or unilaterally abandoned by staff, without notice, based on its own policy whims.

Accordingly, SpaceX asks the Commission to grant this Application for Review, reverse the Bureau Decision and grant the specific relief requested herein because the Bureau: (1) disregarded Commission policy in applying heightened scrutiny to SpaceX's Long Form, 47 CFR § 1.115(b)(2)(i), and that failure violated the Fifth Amendment's Due Process Clause; (2) erroneously concluded that SpaceX was not capable of meeting its performance obligations, 47 CFR § 1.115(b)(2)(iv); (3) impermissibly overlooked the critical role the Commission assigned to the letter of credit requirement, 47 CFR § 1.115(b)(2)(i); and (4) improperly ignored and implicitly denied SpaceX's timely request for waiver of the Commission's deadline to submit evidence of Eligible Telecommunications Carrier ("ETC") designations, 47 CFR § 1.115(b)(2)(v).

BACKGROUND

SpaceX is an American aerospace and telecommunications company. Its launch business designs, manufactures, launches, and reuses the world's most advanced rockets to deliver satellites, cargo, and humans to space. Founded in 2002, SpaceX has had an unparalleled record of innovation and success in space launch. For example, in 2020, SpaceX returned to the United States the ability to fly humans to space, a capability for which the country had to rely on Russia after the Space Shuttle was retired in 2011; SpaceX remains the only American ride for humans to space. SpaceX's Falcon 9 is arguably the most reliable launch vehicle in history²; in the first

² See <https://arstechnica.com/science/2022/02/spacexs-falcon-9-rocket-has-set-a-record-for-most->

half of 2022, Falcon 9 deployed more than two-thirds of the world’s mass to orbit.

SpaceX has also created Starlink³, the world’s first high-speed, low-latency satellite internet service. With over 3,000 satellites in orbit and ground infrastructure around the world, it currently provides service to about [REDACTED] customers in over [REDACTED] markets, figures that all increase regularly. In the United States alone, Starlink is actively serving hundreds of thousands of users in 49 states, Puerto Rico, and the U.S. Virgin Islands.⁴ Many of these users had been on the wrong side of the digital divide for too long, including Americans in rural areas and members of historically overlooked communities like the Hoh Tribe in rural Washington and the Cherokee Nation in rural Oklahoma. Starlink has also proven to be one of the most resilient broadband technologies, having restored connectivity to areas affected by natural disasters—from Hurricane Ida in Louisiana to tornadoes in Kentucky to the tsunami in Tonga—when other broadband connections were severed. And when Ukrainians needed a way to stay connected during the Russian invasion, Starlink answered the call. As a result of its remarkable accomplishments, SpaceX is now valued at \$125 billion, making it among the most valuable companies in the world.⁵

This is just the beginning. SpaceX continues to rapidly build out its satellite network (the

[consecutive-successes/](#) (Last visited Sept. 8, 2022).

³ Herein, the term “SpaceX” will refer to the corporate RDOF applicant and “Starlink” will refer to the system of satellites and ground infrastructure that SpaceX uses to deliver broadband connectivity and to the service that it proposed to use to meet its obligations under RDOF.

⁴ As of SpaceX’s last RDOF submission on July 1, 2022, Starlink had over [REDACTED] customers in North America and approximately [REDACTED] in over [REDACTED] countries worldwide. The numbers continue to grow.

⁵ For context, AT&T also has a \$125 billion market capitalization, making it the 58th largest publicly traded American Company. See <https://companiesmarketcap.com/usa/largest-companies-in-the-usa-by-market-cap/>. (Last visited Sept. 2, 2022).

“Starlink Network”⁶) by regularly launching more satellites. As explained in the Long Form, the Starlink Network will ultimately include 4,408 satellites and offer significantly better capacity and speeds than today.

A critical goal for Starlink is to bring high-speed connectivity to those in rural areas, many of whom lack adequate broadband access. In promulgating procedures for the RDOF Auction, the Commission rightly recognized the important role that low earth orbit (“LEO”) satellite broadband services like Starlink could play in closing the digital divide. The Commission expressed its interest “in funding innovative technologies that could potentially make an efficient use of universal service funds.” Rural Digital Opportunity Fund, Notice and Filing Requirements and Other Procedures for Auction 904, Public Notice, 35 FCC Rcd 6077, 6119 (2020) (“Procedures PN”). Commissioner Starks, in particular, stated that “next-generation satellite broadband holds tremendous technological promise for addressing the digital divide and is led by strong American companies with a lengthy record of success. Commission staff should evaluate those applications on their own merits.” *Id.* at 6197.

Although the Commission did initially express skepticism about LEO satellite systems meeting the low-latency tier requirements, it did not close the door on them bidding in that tier. It merely said that satellite providers would “face a substantial challenge demonstrating to Commission staff that their networks can deliver real-world performance to consumers below the

⁶ Herein the term “Starlink Network” refers to SpaceX’s initial constellation that the Commission licensed on March 29, 2018, (Call Sign S2983) and subsequent modifications to that license. [REDACTED]

Commission’s 100 ms low-latency threshold.” *Id.* at 6118.⁷ So when SpaceX applied to participate in the RDOF Auction in the Above Baseline (100/20) tier for speed and the low-latency tier, it met the Commission’s latency challenge. Specifically, it provided substantial evidence, including speed tests, demonstrating that its Starlink Network would provide broadband service of at least 100/20 Mbps with latency below 100 ms. SpaceX Short Form Application, Figures 9-10. The Bureau approved SpaceX’s short form application, necessarily concluding that Starlink would be “reasonably capable of meeting the relevant public interest obligations for each state it select[ed].” Procedures PN, 35 FCC Rcd at 6100.⁸

SpaceX proceeded to participate successfully in the RDOF Auction. It won bids for some \$885 million in support over ten years to serve 19,234 census block groups with 642,925 model locations across 35 states.⁹ SpaceX then timely filed its comprehensive Long Form, which contained all of the information required by the Commission’s rules, as well as its letter of credit commitment. In particular, SpaceX’s Long Form contained comprehensive technical and financial information establishing that it was capable of meeting its public interest obligations in those areas where it had winning bids.¹⁰

[REDACTED]

[REDACTED]

⁷ Critically, the Commission did not establish a higher burden on any satellite providers applying for the “Above Baseline” tier (100 Mbps downlink speed / 20 Mbps uplink speed).

⁸ See also *Rural Digital Opportunity Fund, 386 Applicants Qualified to Bid in Auction 904*, Public Notice, 35 FCC Rcd 11356, Att. A. (Oct. 13, 2020).

⁹ *Rural Digital Opportunity Fund Phase I Auction (Auction 904) Closes*, Public Notice, 35 FCC Rcd 13888 (Dec. 7, 2020) (“RDOF Closing PN”).

¹⁰ As part of the application process, Commission staff held phone calls with SpaceX on [REDACTED] and [REDACTED] to discuss the technical and financial portions of SpaceX’s Long Form. Commission staff and SpaceX had further phone calls regarding SpaceX’s application on [REDACTED] and [REDACTED]. See Declaration of David Finlay, attached as Exhibit A.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Although SpaceX provided overwhelming evidence to support its Long Form, including responses to every one of the Bureau’s clarifying requests, the Bureau denied its application on August 10, 2022, claiming that SpaceX had “failed to show that it is reasonably capable of meeting its RDOF auction obligations, specifically offering broadband at speeds of 100/20 Mbps, over the extensive area where it has winning bids.” Bureau Decision at 1.

ARGUMENT

I. THE BUREAU DISREGARDED COMMISSION POLICY AND THE LONG FORM REVIEW PROCESS

As an overarching error, the Bureau improperly applied a presumption of default to SpaceX’s application [REDACTED]

[REDACTED]

[REDACTED] This presumption of default directly contradicted the Commission’s directive “not [to] adopt any presumptions or exclude any type of technology” from the 100/20 Mbps Above Baseline tier in which SpaceX bid. Procedures PN, 35 FCC Rcd at 6119.

The Commission delegated responsibility for reviewing winning bidders’ long forms to Commission staff, led by the Bureau. Rural Digital Opportunity Fund, Report and Order, 35 FCC Rcd 686, 725 (2020) (“RDOF Order”). The Commission directed the Bureau to assess whether a long form applicant is “reasonably capable” of meeting its performance obligations and provided the Bureau with specific guidance on the scope of its review. Procedures PN, 35 FCC Rcd at 6098-99; *see also id.* at 6163-76 (providing detailed filing requirements for each

component of long forms). The Commission defined “reasonably capable” to mean a “reasonable expectation the applicant can meet those obligations.” *Id.* at 6099. The Commission also established the long form as the “framework and requirements for winning bidders to demonstrate their qualifications for support.” RDOF Order at 725.

But instead of assessing the technical and financial information submitted by SpaceX in its Long Form, the Bureau Decision—as explained in more detail below—relied on provably inaccurate conclusions, unsupported speculation of future risks, and outside-the-record evidence with little to no relevance to SpaceX’s ability to meet future RDOF obligations. In practice, rather than assessing whether SpaceX was “reasonably capable” of meeting its performance obligations, the Bureau denied the Long Form because it was not 100% certain that SpaceX could meet its requirements. This was not the test mandated by the Commission.

To justify this heightened scrutiny of SpaceX’s application, the Bureau relied on several out-of-context statements from the RDOF Order and the Procedures PN that the Bureau claims counsel against awarding support to supposedly “nascent” satellite technology. Bureau Decision at 1-2. In particular, the Bureau misinterpreted the Commission’s concerns with potential LEO satellite broadband providers bidding in the low-latency and Gigabit bidding tiers to mean the Commission was generally skeptical of LEO satellite systems meeting download/upload speed requirements in *any* tier.¹¹ But the Commission ultimately decided that LEO satellite systems could participate—without any presumptions of default—in the Above Baseline speed tier, which is what SpaceX did.¹² As a result, the Bureau’s application of heightened scrutiny and its

¹¹ *See* Bureau Decision at 6 (arguing that the Commission had expressed skepticism toward the ability of low-earth orbit systems to scale to meet any download and upload performance requirements).

¹² The Bureau Decision implicitly recognizes that SpaceX has overcome the Commission’s

decision were “in conflict with . . . established Commission policy,” moved the legal goalposts for approval by misapplying the relevant standard, and must be reversed. 47 CFR § 1.115(b)(2)(i).

Indeed, it is difficult to read the Bureau’s unauthorized application of heightened scrutiny to SpaceX’s application as anything other than an impermissible attempt to second-guess the Commission’s policy judgment to allow LEO satellite providers to participate in the RDOF program. In any event, it infects the entire Bureau Decision with error.¹³

II. THE BUREAU’S DENIAL OF SPACEX’S LONG FORM WAS CONTRARY TO THE EVIDENCE, ERRONEOUS, AND UNREASONABLE

Through the voluminous information it submitted into the record via its Long Form, SpaceX clearly demonstrated that it was reasonably capable, from both technical and financial perspectives, of meeting its RDOF obligations in its winning bid areas within the timeline set by

skepticism about LEO satellite systems meeting the requirements for the low-latency tier: While the Ookla data cited by the Bureau includes both speed and latency data, the Bureau Decision curiously never mentions Starlink’s current U.S. latency performance, which averaged 43 ms in the first quarter of 2022, well below the Commission’s 100 ms threshold. Ookla, *Here’s How Fast Starlink Has Gotten Over the Past Year*, (June 28, 2022), <https://www.ookla.com/articles/starlink-hughesnet-viasat-performance-q1-2022> (last visited Sept. 8, 2022).

¹³ Agency action must satisfy the requirements of the Fifth Amendment’s Due Process Clause where the agency’s “implementing regulations place substantive limitations on official discretion to withhold award of the benefit upon satisfaction of the eligibility criteria.” *NB ex rel. Peacock v. Dist. of Columbia*, 794 F.3d 31, 41-42 (D.C. Cir. 2015). By disregarding the “reasonably capable” standard established by the Commission, applying in practice its invented standard requiring Starlink to demonstrate that there exists effectively no set of circumstances under which Starlink would not meet its RDOF performance obligations, and providing no notice of that heightened standard or the criteria by which Starlink’s satisfaction thereof would be measured, the Bureau deprived Starlink of fair notice and violated fundamental principles of due process. *See FCC v. Fox Tele. Stations, Inc.*, 567 U.S. 239, 258 (2012). The Bureau Decision thus (i) deprived Starlink of a protected property interest, (ii) did so through the operation of government action, and (iii) failed to provide the process that is “due” under the Fifth Amendment, and therefore must be overturned by the Commission. *NB ex rel. Peacock*, 794 F.3d at 41; *see also Mathews v. Eldridge*, 424 U.S. 319, 334-335 (1976).

the Commission. In denying SpaceX’s application, the Bureau ignored the record evidence, made basic factual errors, and relied upon unsupported speculation and irrelevant information.

A. SpaceX Established That It Was More Than Reasonably Capable of Meeting Its Technical RDOF Obligations in Its Winning Bid Areas

When the Bureau approved SpaceX’s short form application in 2020, it determined that its Starlink Network was technically capable of providing broadband service with speeds of at least 100/20 Mbps and latency at or below 100 ms roundtrip. Bureau Decision at 2. That was true then, and it unquestionably remains true today. [REDACTED]

[REDACTED] In other words, it claimed SpaceX had not demonstrated that its Starlink Network would have the capability to meet its performance obligations in all of its winning bid areas. But that conclusion is unsupported, and indeed contradicted, by the record.

The Bureau inexplicably ignored the evidence in SpaceX’s Long Form that clearly shows the Starlink Network will easily meet the applicable performance requirements in SpaceX’s winning bid areas by the RDOF milestones, starting in 2025. Here are just some of the facts that were absent from the Bureau Decision: When the Starlink Network is fully deployed, less than [REDACTED]% of its capacity in the United States will generally be needed to serve customers living in SpaceX’s winning bid areas with broadband service meeting SpaceX’s performance obligations, with the capacity requirement never exceeding [REDACTED]% at peak hour. SpaceX Financial Follow Up Responses at 4-5 (June 23, 2022) (“Financial Follow Up Response”). Moreover, for forecasting purposes, SpaceX was quite conservative, starting with an average peak period data rate of [REDACTED] Mbps per subscriber, which is substantially higher than its actual peak period data usage of [REDACTED] Mbps per subscriber. *Id.* at 4. Then, SpaceX assumed a [REDACTED]% year-over-year increase in data usage per subscriber, despite actually seeing recent year-over-year increases of [REDACTED]%. *Id.*

The Bureau did not confront this evidence. Rather, it relied on *recent* nationwide speed test data from Ookla that was collected between Q4 2021 and Q2 2022 to cast doubt on Starlink’s ability to deliver 100/20 Mbps speeds starting in 2025. Bureau Decision at 7. The Bureau’s endorsement of Ookla’s data over SpaceX’s detailed submissions is unexplained, unjustified, and fails on its own terms.

First, the Ookla data covers a period of time *more than three years before* SpaceX’s first mandatory deployment milestone in 2025. But by 2025, the Starlink Network will have substantially more capacity than it did at the time of the speed tests in question. SpaceX Response to Technical Follow Up Questions at 4-7 (July 1, 2022) (“Tech. Response”); SpaceX Long Form Technical Submission at 72-77 (July 1, 2022) (“Revised Long Form Technical Submission”). Capacity on the Starlink Network is a function of [REDACTED]. As detailed in Table 2 of the Long Form, [REDACTED] as it builds out the constellation (and even after the total authorized number of satellites (4,408) has been placed into orbit, as it continually replaces satellites at end of life). [REDACTED] will enable SpaceX to grow the capacity of the Starlink Network from less than [REDACTED] in the United States at the time the Ookla speed tests were performed to [REDACTED], and to [REDACTED]. Notably, at the time of Ookla’s Q1 measurements, SpaceX had launched less than half of the licensed 4,408 satellites in the Starlink Network, and some of those were still in orbit raise and not yet contributing to available capacity. Equally important, Ookla’s data reflects only the technologies deployed to the existing satellites. [REDACTED]

Second, the Bureau Decision ignores that SpaceX was given no notice that its nationwide speeds in 2021 and 2022 would be used as a proxy for determining its ability to meet 2025 speed requirements for its RDOF territories. SpaceX was neither advertising nor attempting to offer a 100/20 Mbps service during the time period Ookla surveyed the network speeds. [REDACTED]

[REDACTED]

[REDACTED] The Bureau Decision ignored these circumstances with no explanation.

Third, the Bureau relied on Ookla speed test data for the United States as a whole, not SpaceX's winning bid areas. [REDACTED]

[REDACTED]

[REDACTED] But SpaceX was not required to take these steps before 2025.

For all of these reasons, the Ookla data lacks any predictive value in assessing whether SpaceX is reasonably capable of meeting its RDOF performance obligations by 2025.¹⁴ Indeed, the

¹⁴ Conspicuously missing from the Bureau's review of the Ookla data is the fact that this data actually demonstrates the ability of SpaceX's network to deliver RDOF-level speeds. *Id.* (showing Starlink speeds well above 100/20 Mbps in several European markets including France, Spain, Portugal, Italy, Ireland, and many more). Thus, the very data the Bureau relied upon to deny SpaceX's application actually demonstrates that Starlink is "technically capable" of delivering RDOF-level service, as the Commission determined at the Short Form stage.

Bureau appears to be penalizing SpaceX for making an initial broadband service available to under-served Americans ahead of its RDOF deployment milestones.

[REDACTED]

15 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The Bureau provided no reason to doubt that SpaceX will meet its proposed (and demonstrated) pace of Falcon 9 launches.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Next, the Bureau improperly speculated that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

16 [REDACTED]

17 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The

18 [REDACTED]

19 [REDACTED]

Bureau Decision makes no mention of these means by which SpaceX could comfortably meet its RDOF commitments, measures that SpaceX, by participating in the RDOF program, committed to use as needed to meet its obligations. As described above, SpaceX’s plan for meeting its RDOF performance obligations has built in a considerable margin of error, with no more than █% of the network’s capacity in the United States ever required to serve its winning bid areas in compliance at the required performance levels.²⁰

B. SpaceX Established That It Was More than Reasonably Capable of Meeting Its Financial RDOF Obligations in Its Winning Bid Areas

The information SpaceX provided to the Bureau establishes beyond any reasonable doubt that SpaceX has the financial ability to meet its RDOF performance obligations in the winning bid areas. SpaceX is in an extremely strong financial position with assets exceeding █, including more than █ in available cash and financial instruments, and more than █ in contracted revenue backlog. Financial Follow Up Response at 30. █

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²⁰ See Revised Long Form Technical Submission at Table 4 (demonstrating a █ Gbps requirement in 2025 representing a peak █ of United States capacity).

²¹ █
█

²² Krystal Hu, *Elon Musk’s SpaceX is Poised to Become the Most Valuable U.S. Startup*, Reuters, May 17, 2022, <https://www.reuters.com/markets/us/elon-musks-spacex-is-poised-become-most-valuable-us-startup-2022-05-17/> (last visited Sept. 8, 2022).

[REDACTED]

Most glaringly, the Bureau irrationally both overstates the project costs of Starlink deployment during the first two years while simultaneously ignoring Starlink revenues.

The Bureau stated that SpaceX “estimated to us that the total cost of its project to deploy a constellation of 4,408 satellites that could serve all RDOF locations would be [REDACTED]” Bureau Decision at 8. This simply misreads SpaceX’s finances. The referenced [REDACTED] figure does *not* represent the cost of RDOF deployment for [REDACTED]

[REDACTED] It also includes, for example, [REDACTED] in non-cash depreciation expense irrelevant to financing needs. Financial Follow Up Response at 30-31, Tables 27-28.

Also plainly erroneous was the Bureau’s complete failure to credit (or even mention) SpaceX’s substantial revenues from Starlink when discussing cash flows, even though the majority of its projected operating expenses accounted for by the Bureau would not be incurred were it not for the existence of customers who generate offsetting revenue. [REDACTED]

[REDACTED] These projections are not hypothetical; much of it comes from existing contracts. SpaceX had approximately [REDACTED] active Starlink users when it made its last RDOF submission (almost [REDACTED] today), which provided a projected [REDACTED] in annual recurring revenue at that time [REDACTED] now). It had also received more than [REDACTED] additional residential orders, representing another [REDACTED] in projected annual recurring revenue along with [REDACTED] of projected revenue in kit sales. [REDACTED]

[REDACTED]. Financial Follow Up Response at 27. With these revenues, [REDACTED]

[REDACTED], Financial Follow Up Response at 31, Table 28, a fact the Bureau did not even mention in its financial calculations. Would any applicant pass a financial test that counted only costs but no resulting revenues?

[REDACTED]

[REDACTED] Further, this conclusion of strong financial health was independently validated by letter of credit documents

[REDACTED]

[REDACTED] submitted by SpaceX. And SpaceX's financial good standing increased significantly during the RDOF application process, as noted in the financial

submissions, which show that between December 2020 and June 2022, SpaceX's valuation

increased by [REDACTED] from [REDACTED] billion to \$125 billion; total assets increased by [REDACTED] from [REDACTED]

[REDACTED] to [REDACTED]; and cash and financial investments increased by [REDACTED] from [REDACTED] to

[REDACTED], all measures providing clear evidence of exceptional and strengthening financial good standing. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Financial Follow-up Response, Tables 24-26.

[REDACTED]

²⁴ Bureau Demand Letter at 7 (“Provide verifiable evidence that Starlink has more than [REDACTED] in an undrawn revolving credit facility and that the interest rate is less than [REDACTED]”).

[REDACTED]

Third, the timing and nature of any broadband deployment funded through new federal programs in SpaceX’s winning bid areas are highly uncertain. Even assuming the federal government does eventually decide to subsidize competitors in SpaceX’s RDOF territories, that deployment will not come for years. For example, it will be years before project funding under the NTIA’s BEAD program moves from federal sources, to states and localities, and then to broadband providers to construct actual networks. Finally, in most areas won by SpaceX, it appears no fiber or 1 Gbps provider even submitted a bid. Of the 19,233 census block groups

awarded to SpaceX, 11,024 (57.3%) did not receive a single Gigabit tier bid. Rural Digital Opportunity Fund Dashboard, FCC Public Reporting System.²⁵ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

²⁵ <https://auctiondata.fcc.gov/public/projects/auction904>.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In sum, SpaceX’s Long Form and supplemental submissions included overwhelming evidence that it is capable of meeting its RDOF performance obligations. SpaceX demonstrated that its LEO satellite system can provide service at the relevant speed and latency tiers to its winning bid areas by the applicable milestones, that its Falcon 9 rocket system can deploy the necessary satellites, and that it has the financial ability to implement its plan. The Bureau’s conclusions to the contrary were erroneous, 47 CFR § 1.115(b)(2)(iv), and the Commission therefore should grant SpaceX’s Application for Review.

III. THE BUREAU IGNORED THE CRITICAL ROLE THAT THE COMMISSION ASSIGNED TO THE LETTER OF CREDIT REQUIREMENT

The Commission directed the Bureau, when evaluating a long-form application, to “rely on an eligible bank’s willingness to issue the applicant a letter of credit to determine whether an applicant is reasonably capable of meeting its Rural Digital Opportunity Fund auction obligations in the specific areas where it has winning bids.” Procedures PN, 35 FCC Rcd at 6098-99. The Commission has recognized that a key benefit of requiring letters of credit is that “an issuing bank will be performing its own financial review of the winning bidder . . .”²⁶ That is particularly true for RDOF because issuing banks must make significant bets on the success of RDOF bidders throughout the program. First, the letters of credit must be substantial from the

²⁶ *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949, 5989 (2016). In the RDOF Order, the Commission based its decision to rely on letters of credit from qualified banks on its analysis from the Connect America Fund auction proceeding. RDOF Order, 35 FCC Rcd at 729.

outset, equal to the *entire* first year of RDOF support—more than \$88.5 million in SpaceX’s case—and then increase each year to account for the cumulative support paid to the RDOF recipient until the provider’s entire deployment obligation has been met and verified by the Universal Service Administrative Company (“USAC”). 47 CFR § 54.804. As a result, once they issue a letter of credit, eligible banks are all but committed to making a continued investment for the life of the RDOF deployment cycle: If the bank refuses to issue a letter of credit in the second year, the recipient is ineligible to continue receiving RDOF support, and could be subject to repaying the support it has received, resulting in USAC drawing on the letter of credit. Any bank making such a commitment must undertake significant due diligence.

But, the Bureau Decision assigned no weight whatsoever to the commitment letter an eligible bank gave to issue SpaceX an irrevocable letter of credit for the amount required by the Commission’s rules. Letter of Credit Commitment Letter of [REDACTED] [REDACTED]. Remarkably, the Bureau Decision did not even acknowledge that SpaceX had secured an eligible bank’s commitment for the required letter of credit. This failure impermissibly ignored the Commission’s specific instruction to rely on eligible banks’ informed judgment that a winning bidder is reasonably capable of meeting its performance obligations. *See* 47 CFR § 1.115(b)(2)(i).

IV. THE BUREAU IGNORED AND IMPLICITLY DENIED SPACEX’S TIMELY REQUEST TO WAIVE THE ETC DESIGNATION DEADLINE

Winning bidders were required to submit documentation of their high-cost Eligible Telecommunications Carrier (“ETC”) designation, in areas for which they were designated to receive support, within 180 days after the release of the RDOF Closing Public Notice. Procedures PN, 35 FCC Rcd at 6176. In the event that a long form applicant was unable to obtain the necessary ETC designations by this deadline, the Commission explained that it would

be “appropriate to waive the 180-day timeframe if the long form applicant is able to demonstrate that it has engaged in good faith efforts to obtain an ETC designation, but the proceeding is not yet complete.” *Id.* The Commission further stated that it would “presume that a long-form applicant acted in good faith” if it filed such applications with the appropriate state commissions “within 30 days of the release of the Auction 904 closing public notice.” *Id.*

In compliance, SpaceX filed applications for ETC designation—with all state regulatory commissions that had not disclaimed jurisdiction over SpaceX’s ETC proceedings—within 30 days of the release of the RDOF Closing PN.²⁷ After submitting the applications, SpaceX made every effort to cooperate with the relevant state commissions in their respective ETC designation proceedings, including by providing timely responses to all data requests, in order to help them reach a decision on SpaceX’s applications.

Despite SpaceX’s efforts, five states still had not granted SpaceX’s applications by the June 7, 2021 deadline to submit ETC documentation. Accordingly, SpaceX timely submitted a request for waiver of the deadline for these states.²⁸ Since then, just three states included in the waiver request have not yet approved SpaceX’s applications for ETC designation: California, Hawaii, and Mississippi. In these states, the ETC designation proceedings have been excessively delayed for reasons wholly outside of SpaceX’s control.

The Bureau Decision inexplicably failed to mention SpaceX’s timely-filed and well-

²⁷ A total of nine states disclaimed jurisdiction over Starlink’s ETC applications, and Starlink submitted an application asking the Commission to grant it ETC status in these states. *See* 47 U.S.C. § 214(e)(6). The initial application to the FCC, submitted on February 3, 2021, requested ETC status in seven states. This application was subsequently amended twice to include two additional states that later disclaimed jurisdiction over Starlink’s ETC applications. The Commission never acted on this application, which remains pending as of the date of this filing.

²⁸ Starlink Services, LLC Petition for Waiver and Extension of the June 7, 2021 ETC Designation Deadline, AU Docket No. 20-34, WC Docket Nos. 19-126, 09-197 (June 7, 2021).

supported waiver request, let alone consider, discuss, or rule on it. Instead, the Bureau simply stated that SpaceX could not receive support for the areas it won in Hawaii and Mississippi because it had failed to submit proof of ETC status in those states. Bureau Decision at 5. This was a fundamental procedural error. *See* 47 CFR § 1.115(b)(2)(v).

CONCLUSION AND REQUESTED RELIEF

For all of these reasons, the Commission should grant the Application for Review. Specifically, the Commission should reverse the Bureau Decision by finding that SpaceX is reasonably capable of meeting its performance obligations in its winning bid areas, order the Bureau to grant SpaceX’s Long Form for those states where it has submitted proof of ETC status, and direct the Bureau to grant SpaceX’s request for waiver of the deadline to submit evidence of ETC designations in those states where it has yet to receive such designations.²⁹

Respectfully submitted,

/s/ David Goldman

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September 9, 2022

²⁹ Because hundreds of entities applied to participate in the RDOF Auction, SpaceX requests that the Commission waive the service requirement set forth in 47 CFR §1.115(f) if applicable here. *See* Public Notice, DA 21-624 (May 28, 2021), at 1-2.

EXHIBIT A

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Long Form Application of Starlink Services, LLC)	File No. 0009395128
)	
Rural Digital Opportunity Fund (Auction 904))	WC Docket No. 19-126
)	AU Docket No. 20-34
Petition of Starlink Services, LLC for Designation as an Eligible Telecommunications Carrier)	WC Docket No. 09-197
)	

DECLARATION OF DAVID FINLAY IN SUPPORT OF APPLICATION FOR REVIEW

I, David Finlay, am Senior Director of Finance of Space Exploration Technologies Corp. (“SpaceX”). I make this Declaration under penalty of perjury in support of Starlink Services, LLC’s (Starlink’s) Application for Review filed concurrently herewith.

1. On [REDACTED], [REDACTED], [REDACTED], and [REDACTED], representatives of SpaceX participated in telephone calls with Commission staff to discuss the technical and financial portions of Starlink’s Rural Digital Opportunity Fund long-form application. I participated in all of these calls.

2. During the telephone call on [REDACTED], Commission staff asked representatives of SpaceX [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

3. [REDACTED]

[REDACTED]

4. [REDACTED]

[REDACTED]

[REDACTED]

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on September 9, 2022

/s/ David Finlay
David Finlay
Senior Director of Finance
SPACE EXPLORATION TECHNOLOGIES CORP.