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Subject: SpaceX and Starlink India's counter-comments viz. Consultation on
"Assignment of Spectrum in E&V Bands..."

Sir,

We thank the Telecom Regulatory Authority of India for this opportunity to contribute on the crucial and timely subject of assigning spectrum in the E&V bands. Having reviewed the comments submitted by the other 25 stakeholders, we respectfully submit the following brief counter-comments.

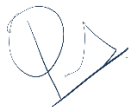
- (1) **It is imperative that the TRAI immediately prioritize the availability of this spectrum for next-generation satellite broadband FSS gateway earth stations:** The use and deployment of E-band gateways for augmenting high-speed next generation satellite broadband is a reality today. Several next-generation satellite operators have cited the importance of E-band for satellite broadband in this consultation, and have provided both current examples (such as Starlink) as well as immediate plans for use in the very near future. SpaceX is actively deploying gateways that augment Ka capabilities with E-band for enhanced connectivity. The use of E-band as an additional spectrum resource for satellite gateways is especially important given the increasing intensive use of Ka band by existing satellite operations and several new operators planning to deploy using Ka in the immediate future. Any discussion on these bands must incorporate clear provisions to promote their use by FSS gateway earth stations at every step.
- (2) **The TRAI must recommend administrative assignment and shared, non-exclusive access to E-band spectrum via a database-assisted and light licensing framework:** Light licensing will create an environment that maximizes innovation through its flexibility and simplicity. The Indian Telecommunications Act, 2023 has authoritatively established the legal and technical soundness of administrative spectrum assignment for use by (*inter-alia*) satellite-based services as well as radio backhaul. This completely vindicates the TRAI's prior recommendations in favor of light licensing and administrative assignment, and nullifies any stakeholder comments that erroneously position auctions as the only permissible method of spectrum assignment.

As a result, we strongly urge the TRAI to disregard demands for imposing hurtful restrictions such as LSA-based exclusive assignment (and the dubious subleasing models recommended by some stakeholders), or calls for restricting usage of these bands to only TSPs with Access Service licenses. FSS gateway earth stations are currently being deployed in E-band and these earth stations are being coordinated with other users in the E-band. A modern, database-assisted approach that accommodates the unique propagation characteristics of these bands will enable a very high degree of shared use of this spectrum by both terrestrial and satellite operators - to the benefit of users and businesses across the length and breadth of India.

- (3) **The TRAI must allow use of the entire 10 GHz of additional, contiguous E-band spectrum by FSS satellite gateway earth stations:** The high-gain, narrow "pencil beam" properties of links in the E-band allow for ready co-existence - as acknowledged by the ITU, CEPT, ECC, FCC, and Ofcom.

Common operator-to-operator coordination techniques can sufficiently mitigate instances of harmful interference, even when deployed links operate in close proximity or are co-linear. The TRAI must thus permit aggregation of channels (up to the full 10 GHz) for use by FSS gateway earth stations, and fully unlock the benefits of high-speed satellite broadband for all Indian users, but not at the cost of other services or uses.

The new Indian Telecommunications Act, 2023 is a historic legislation that empowers the TRAI to issue recommendations that can enable a modern framework to readily supports next-generation services. An approach that incorporates features such as a link-registration database, flexible channelization, technology neutrality, and reasonable spectrum fees will firmly position India as a leader in spectrum management, promote the rapid deployment of powerful new co-primary networks (including 5G mobile backhaul), and benefit both service providers and users across India.



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