24 June 2026

The Independent Communications Authority of South Africa
For attention of: Mr Mandla Mchunu, Project Manager
By email: RRamendments@icasa.org.za
copied to: mmchunu@icasa.org.za

Dear Mr Mchunu,

WRITTEN SUBMISSIONS IN RESPONSE TO ICASA NOTICE 3926 OF 2026 — DRAFT AMENDMENT OF THE RADIO FREQUENCY SPECTRUM FEES REGULATIONS, 2010

Vox welcomes the opportunity to make written representations on the Draft Amendment of the Radio Frequency Spectrum Fees Regulations, 2010, published under Notice 3926 of 2026 in Government Gazette No. 54677 of 15 May 2026 ("the Draft Regulations").

Vox is a South African communications and connectivity provider with a substantial customer base reliant on satellite broadband, including VSAT and emerging Ka-band terminal services for businesses and customers in areas where terrestrial connectivity is unavailable or unreliable. Vox therefore has a direct interest in a spectrum fee regime that is internally consistent, rationally connected to actual spectrum use, and supportive of affordable satellite broadband.

Vox supports the principal reforms in the Draft Regulations:

1. the introduction of a blanket licence for satellite terminal networks (regulation 1; Explanatory Memo paras 2.1, 2.7);

2. the Authority's confirmation that the Gateway Earth Station ("GES") licence and the User-Terminal network licence are both radio frequency spectrum ("RFS") licences (Explanatory Memo para 1.6); and

3. the introduction of the FREQ factor in the GES formula, with lower factors for higher bands, expressly designed to "incentivise operators to use the higher, less congested frequency bands" (Explanatory Memo para 2.5).

Vox's representations focus on three matters:

1. the omission of the FREQ factor from the Satellite Terminal Network Formula in regulation 5(e), which is inconsistent with the Authority's own stated rationale in para 2.5 and which Vox respectfully submits is irrational and should be corrected (section 3);

2. the treatment of Ka-band terminal uplinks around the 30 GHz boundary, compounded by the omission of the 23–30 GHz row from the FREQ table (section 4); and

3. clarity on who bears the licence and fee obligation for a blanket terminal-network licence — the network operator, not the individual terminal or end-user (section 5).

Vox raises these matters constructively with a view of assisting the Authority to publish clear regulations that also advance and promote the roll-out of connectivity to areas of the country where no other connectivity is viable. Our detailed comments follow below.

Omission of the FREQ factor from the Satellite Terminal Network Formula

1. The inconsistency on the face of the Draft Regulations

1.1. The GES formula in regulation 5(d) is:

*Hub ground station Fee = Max (Rui; UNIT * FREQ * BW * SEC)*

1.2. The Satellite Terminal Network Formula in regulation 5(e) is:

*Terminal network Fee = (UNIT * BW * SEC)*

1.3. The FREQ factor present in the GES formula is absent from the terminal-network formula. The Authority confirms this in para 2.7:

"Apart from this addition [of SEC], the formula is left unchanged as compared to [the] VSAT formula."

1.4. The omission is inconsistent with the Authority's own rationale.

1.4.1. In para 2.5, the Authority sets out at length the rationale for the FREQ factor: it *"will ensure that the [fee for] operation of [a] GES is reduced according to the frequency band being licensed"*, and it *"incentivises operators to use the higher, less congested frequency bands."*

1.4.2. The Authority explains that the benefit is "*not only exclusively applied to HTS, but also to any GES operating in the higher bands*."

1.4.3. That rationale applies with equal — indeed greater — force to user terminals. Ka-band VSAT terminals transmit their uplink in approximately 27.5–31 GHz, and receive their downlink in approximately 17.7–21.2 GHz. The terminals therefore transmit in precisely the higher, less congested bands that the Authority says it wishes to incentivise. The current generation of terminals operates largely below 30 GHz, and newer generations use extended Ka-band segments up to approximately 31 GHz.

1.4.4. The result of the omission is that regardless of the frequency on which the terminal transmits, the fee for a given bandwidth is constant. A terminal network transmitting in congested lower bands pays the same per-MHz fee as one transmitting in the higher bands the Authority wishes to encourage. That defeats the express purpose of the FREQ factor.

1.5. The asymmetry is also internally anomalous: a GES transmitting in a high band attracts the reduced FREQ factor, while a terminal network transmitting in the same or higher band attracts no frequency-based reduction at all. There is no apparent technical or policy basis for incentivising high-band migration on the

hub side but not on the terminal side. The Authority itself records that, for both formulas, "*only the frequency band and bandwidth in the uplink direction*" are considered[1] — confirming that the uplink frequency band is already the relevant unit of analysis for both. It is therefore difficult to see any principled reason for omitting the frequency factor from one side only.

1.6. Vox respectfully submits that the omission of FREQ from regulation 5(e) is, on the Authority's own reasoning, not rationally connected to the stated objective, and should be corrected. Vox proposes that regulation 5(e) be amended to read:

*Terminal network Fee = (UNIT * FREQ * BW * SEC)*

with the explanatory sentence corrected to read:

"The fee is the multiplication of the unit price (UNIT) by the frequency factor (FREQ), the bandwidth (BW) in MHz, and the security factor (SEC)."

1.7. This also cures a second drafting defect: the existing explanatory sentence in regulation 5(e) omits SEC even though SEC appears in the formula.

1.8. Applying FREQ to the terminal-network formula would give effect to the Authority's stated objective, restore parity between the hub and terminal sides, and improve the affordability of Ka-band satellite broadband — advancing the efficiency and affordability objects of the ECA.

The missing 23–30 GHz band and the 30 GHz boundary

1. The FREQ table omits the band most relevant to Ka-band uplinks

1.1. Para 2.5 states expressly: "*if the frequency band is between 23 GHz and 30 GHz, a factor of 0.1 will apply*." But the FREQ table reproduced immediately below para 2.5 runs:

- 17 GHz – 23 GHz → 0.15
- [no entry]
- 30 GHz – 50 GHz → 0.05

1.2. The 23–30 GHz row, and the 0.1 factor the text describes, are missing from the table. This is a material omission: 23–30 GHz is precisely the band into which much Ka-band uplink traffic falls. As drafted, an operator cannot determine which factor applies to a terminal or GES transmitting between 23 and 30 GHz. The table must be corrected to include the 23–30 GHz / 0.1 row that para 2.5 already describes.

2. The 30 GHz boundary sits within the Ka-band uplink

[1] At paragraph 2.6

2.1. Even once corrected, the 30 GHz boundary between the 0.1 band (23–30 GHz) and the 0.05 band (30–50 GHz) sits within the Ka-band uplink range. Ka-band terminal uplinks operate across approximately 27.5–31 GHz. The practical consequence is that, within a single terminal network, some terminals transmit below 30 GHz (attracting 0.1) and others above 30 GHz (attracting 0.05), and a single terminal's authorised uplink may itself straddle the boundary.

2.2. The Draft Regulations do not say how the FREQ factor is to be determined where the authorised uplink crosses a band boundary.

3. Vox submits that the most rational and administrable approach is to apply the FREQ factor pro rata by authorised MHz in each band. Where the authorised uplink bandwidth falls partly in one band and partly in another, the fee should be calculated separately for the portion of bandwidth in each band and the results aggregated. Vox proposes interpretive wording to the following effect:

Where the authorised uplink bandwidth falls within more than one frequency range in the FREQ table, the fee must be calculated separately for the portion of the authorised bandwidth within each range, applying the FREQ factor applicable to that range, and the resulting amounts must be aggregated.

Alternatively

Vox submits the FREQ factor table be updated to align with uplink frequencies of Ka-band terminals, being 27.5–31 GHz.

4. This avoids arbitrary fee differences caused merely by where a regulatory boundary happens to fall within the Ka-band allocation, and it makes the regime workable for the extended Ka-band equipment now entering service.

Who bears the fee — the network, not the terminal or the end-user

1. The Authority's stated principle

1.1. Para 2.7 states that the terminal-network licence "*should not be seen as the licence associated with the terminal stations/equipment, but instead as the licence of the network that makes it possible to connect those terminals*", and that this "*will ensure accountability of operations even in an event where the satellite network's gateway is not located in South Africa*."[2] Regulation 9 confirms that the Terminal Network Fee applies to "*satellite terminal networks (including VSAT networks and ESIM terminals)*".

1.2. Vox agrees with this principle. The fee obligation should attach to the network, not to the individual terminal or the customer using it. Unfortunately, the drafting does not clearly give effect to the principle.

1.3. While the Explanatory Memorandum articulates the principle, the operative regulations do not expressly identify who holds the blanket licence and bears the

[2] Regulation 9 (item 6.1)

fee. This matters because the satellite value chain commonly separates roles across different entities:

4. Role in the satellite value chain	5. Function performed
6. Satellite / space-segment operator	7. Operates the satellite payload and network control, often outside South Africa
8. Network operator	9. Operates the South African terminal network and is accountable to the Authority
10. Hub operator	11. Operates the gateway/hub, which may be the network operator or a subcontractor
12. ISP / reseller	13. Sells connectivity to end-users
14. End-user / customer	15. Uses an individual terminal

1.4. Vox's interpretation of para 2.7 is that it is the network that attracts the fee obligation, not the terminal or the customer. The Authority should send the account to the network operator. The network operator will frequently also be the hub operator, but need not be: hub operation may be subcontracted to another entity. The mere fact that a party operates a hub, installs terminals, or supplies a terminal to a customer should not, by itself, make that party (or the customer) liable for the blanket terminal-network spectrum fee.

1.5. This is precisely analogous to mobile networks, where the spectrum licence fee is borne by the mobile network operator and not by each individual handset user. The same principle should apply to satellite terminal networks: the customer using a terminal is not separately liable for an RFS fee, and no individual per-terminal RFS licence is required for terminals covered by the blanket licence.

2. Vox submits that the final regulations should expressly state that the holder of a blanket licence, and the party liable for the Terminal Network Fee, is the network operator authorised to operate the satellite terminal network within the Republic and accountable to the Authority, whether or not the satellite network's gateway is located within the Republic. The subcontracting of hub operation, network management, installation or maintenance does not transfer that liability to the subcontractor, and individual end-users are not required to hold or pay for a separate radio frequency spectrum licence for terminals covered by the blanket licence.

3. This gives operative effect to the accountability principle the Authority articulates in para 2.7 and removes the uncertainty Vox has identified.

The definition of "blanket licence"

1. The proposed definition (regulation 1) reads:

"*an authorisation that covers the operation of a network that connect to an unlimited number of terminals with similar technical and operational characteristics*".

2. Vox supports the concept proposes wording that will more clearly delineate between limitations on the number of terminals versus other technical and operational characteristics:-

   "***Blanket Licence***" *means a radio frequency spectrum licence authorising a network operator to operate a satellite terminal network connecting multiple terminals (including VSAT and ESIM terminals) with substantially similar technical and operational characteristics, within the frequency bands, technical parameters and conditions specified in the licence, without requiring a separate radio frequency spectrum licence for each terminal.*

Drafting and internal-consistency corrections

3. Vox draws the following to the Authority's attention for correction before finalisation:

16.	Provision	17.	Issue	18.	Suggested correction
19.	**Regulation 5(e)**	20.	FREQ omitted, contrary to the rationale in para 2.5	21.	Insert FREQ: UNIT * FREQ * BW * SEC (section 3)
22.	**Regulation 5(e)**	23.	Explanatory sentence omits SEC	24.	Align the explanation with the formula
25.	**Para 2.5 / FREQ table**	26.	Text refers to a 0.1 factor for 23–30 GHz; the table omits this row	27.	Insert "23 GHz – 30 GHz → 0.1" (section 4.1)
28.	**FREQ table**	29.	No rule for uplinks crossing a band boundary	30.	Add pro-rata-by-MHz wording (section 4.3)
31.	**Regulation 5(d)**	32.	"Rui" in the formula; "Ru" in the explanation; "RUL" in para 2.5	33.	Adopt and define one consistent term
34.	**Regulation 1**	35.	"a network that connect"	36.	"a network that connects" (section 6)
37.	**Regulation 5(e)**	38.	Liable party not identified in the operative text	39.	State that the network operator is liable (section 5.3)

Summary of requested amendments

1. Vox respectfully requests that the Authority:

1.1. include the FREQ factor in the Satellite Terminal Network Formula (regulation 5(e)), to align it with the rationale in para 2.5;

1.2. insert the missing 23–30 GHz / 0.1 row into the FREQ table;

1.3. provide that the FREQ factor is applied pro rata by MHz where authorised uplink bandwidth crosses a band boundary (addressing the 30 GHz boundary within the Ka-band uplink);

1.4. state expressly that the network operator is the holder of the blanket licence and the party liable for the Terminal Network Fee, and that individual end-users do not require or pay for separate per-terminal RFS licences;

1.5. correct the SEC inconsistency in the regulation 5(e) explanatory sentence;

1.6. refine the "blanket licence" definition for grammar and clarity; and

1.7. adopt a single consistent term for the minimum uplink fee (Rui/Ru/RUL).

Conclusion and oral hearing

Vox supports the Authority's modernisation of the satellite spectrum fee regime, and in particular the blanket licence and the FREQ factor. The single most important refinement is to apply the FREQ factor to the user-terminal side as well as the hub side: as the Draft Regulations stand, the FREQ factor's express purpose — to incentivise migration to higher, less congested bands — is undermined by its omission from the terminal-network formula, even though Ka-band terminals transmit in precisely those higher bands.

Correcting this, together with the missing 23–30 GHz band, the boundary-apportionment rule, and the identification of the liable network operator, would make the final regulations consistent, administrable, defensible on rationality grounds, and supportive of affordable satellite broadband.

In terms of the invitation in Notice 3926 of 2026, Vox indicates that it wishes to make oral representations should the Authority elect to hold public hearings.

Keith Laaks
Executive Head - Technology

_____