



Second Draft | National Radio Frequency Plan 2025 (NRFP-25)

VODACOM SUBMISSION



Introduction

Vodacom wishes to thank the Authority for the opportunity to submit comments and present views on the **Second Draft National Radio Frequency Plan 2025** (Government Gazette No. 53637, 07 November 2025)

This consultation is **critical for guiding decisions on new technology deployment.**

ROLE

- As the leading network provider in South Africa and on the African continent, Vodacom is committed to **innovation, investment** and **efficient spectrum** use, through **fair and sustainable competition**.

OBJECTIVE

- To support ICASA's objective of efficient and transparent spectrum management.
- To highlight areas where **additional regulatory clarity** is required to unlock investment.
- To ensure that new technologies and use cases are introduced in a manner that **protects existing IMT networks** while enabling innovation.

FOCUS

- Ensuring a **level playing field**, **protecting national security**, **supporting law enforcement**, and **fostering industry growth**.



General Comments

- Vodacom welcomes ICASA's acknowledgment of concerns in the initial NRFP draft and supports identifying additional IMT spectrum across low, mid, and high bands.
- Spectrum identification alone is not enough. We recommend:
 - Clear timelines for RFSAP development and spectrum auctions
 - Effective coexistence rules for emerging technologies (e.g., HIBS) to prevent interference with terrestrial IMT networks
 - Licensing and pricing frameworks that incentivize investment
- These measures are essential to accelerate 4G and 5G deployment, especially in underserved areas



450-470 MHz

- Vodacom supports the identification of the 450–470 MHz band for IMT services due to its **excellent propagation** characteristics, enabling **rural coverage** and **deep indoor IoT penetration**.
- However, we believe successful deployment is dependent on the availability of a **viable device ecosystem**.
- Engagement with global vendors will be critical to ensure **multi-band, cost-effective devices aligned** with international standards.



HIBS in IMT bands (700/800/1800/2100/2600 MHz)

- Vodacom welcomes ICASA's forward-looking inclusion of HIBS operating on a secondary basis within IMT bands, in line with WRC-23 outcomes.
- While HIBS can supplement terrestrial networks in remote areas, it poses a **significant risk of harmful interference** to primary IMT networks.
- We therefore request that ICASA publish **effective technical guidelines** for interference management, including **coordination requirements** and **protection criteria**, to ensure existing IMT services remain unconstrained and protected.



HIBS in IMT bands: Clarification

- The applicable **power flux density (PFD) limits** are referenced in ITU Resolution 212, though these limits are open to potential and/or inadvertent misinterpretation.
- To ensure regulatory clarity, ICASA should consider specifying the **default PFD limit** that would apply to the protection of IMT base stations in South Africa.
- We recommend the pfd limits for the protection of IMT base stations to be captured as follows in line with Res 212;

$$-136 + 0.21 (\theta)^2 \quad \text{dB(W/(m}^2 \cdot \text{MHz}) \quad \text{for} \quad 0^\circ \leq \theta \leq 8.3^\circ$$

$$-121.8 + 0.08 (\theta) \quad \text{dB(W/(m}^2 \cdot \text{MHz}) \quad \text{for} \quad 8.3^\circ < \theta \leq 90^\circ$$

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees ;

- Vodacom proposes a pragmatic approach, including **public disclosure of planned HIBS deployments and commercial agreements with affected mobile operators.**



Mid-Band Spectrum

- Vodacom welcomes ICASA's alignment of the **1500 MHz band** with the existing RFSAP and WRC-23 outcomes and recommends its inclusion in the **next IMT auction roadmap**.
- For the **3300–3800 MHz band**, critical for nationwide 5G, **clarity is needed** on migration plans for **legacy Broadband Fixed Wireless Access (BFWA) services**, including **definitive timelines**.
- We also request **confirmation of consultation and availability timelines** for the **4800–4990 MHz band**, as this is essential for future mid-band capacity.



Upper 6 GHz (6425–7125 MHz) Band

- Vodacom appreciates ICASA's recognition of the **extensive use of the upper 6 GHz band for fixed services**, particularly **long-haul microwave backhaul**.
- A significant portion of MNO infrastructure depends on this band, particularly in **semi-urban and remote areas** where fiber is not feasible.
- Vodacom also notes that this band may be attractive for the deployment of IMT once **the applicable technology ecosystem** has matured.
- **Recommendation:** Conduct a **comprehensive feasibility study** before considering repurposing.



mmWave Bands

- Vodacom supports the identification of the **26 GHz band for IMT** and the Authority's broader mmWave strategy.
- However, this band remains **critical for current mobile backhaul and enterprise connectivity**.
- **Recommendation:** Prioritize IMT deployment in the **26.5–27.5 GHz range** to minimize interference risks.
- For **37–43.5 GHz and 45–48.2 GHz bands**, Vodacom is ready to **participate in feasibility studies** and requests **clarity on migration planning** to enable informed long-term investment decisions.



Conclusion

- Vodacom supports the publication of the **Second Draft NRFP-25** and commends ICASA for its continued engagement with industry stakeholders.
- With **clear timelines, robust coexistence frameworks, and predictable migration strategies**, the NRFP can become a **powerful enabler of digital inclusion, economic growth, and global competitiveness**.
- Vodacom remains available for **further engagement and collaboration** to ensure South Africa's spectrum roadmap delivers **maximum national benefit**.

