Dynamic Spectrum Alliance Limited
http://www.dynamicspectrumalliance.org

December 11, 2025

Independent Communications Authority of South Africa
350 Witch-Hazel Road, Eco-Park; Centurion
South Africa

Attention:
Mr. Davis Kgosimolao Moshweunyane
dmoshweunyane@icasa.org.za

Mr. Manyaapelo Richard Makgotlho
rmakgotlho@icasa.org.za

Re: DSA comments on the 2nd draft National Radio Frequency Plan 2025

Dear Mr. Davis Kgosimolao Moshweunyane and Mr. Manyaapelo Richard Makgotlho,

The Dynamic Spectrum Alliance (DSA) appreciates the opportunity to comment on ICASA's Second Draft National Radio Frequency Plan 2025. We commend ICASA's progressive approach to the full 6 GHz band, with the lower range (5925–6425 MHz) already authorized for license-exempt WAS/RLAN use in Annexure B of the Radio Frequency Spectrum Regulations (as amended by GG No. 48643 of 23 May 2023), and the upper range (6425–7125 MHz) explicitly recognizing WAS/RLAN as a typical application in the NRFP v2 2025 draft. This forward-looking approach aligns with WRC-23 Footnote 5.457E and ATU-R Recommendation 005 (SS4-13), positioning South Africa to benefit from mature global Wi-Fi ecosystems and advance broadband inclusion.

This strategic approach positions South Africa as a continental leader in digital infrastructure, enabling rapid deployment of mature Wi-Fi 6E and Wi-Fi 7 technologies that lower broadband costs, expand digital inclusion, and support sustained economic growth across urban, peri-urban, and rural communities.

The DSA recommends that ICASA amend Annexure B of the Radio Frequency Spectrum Regulations, to specify comprehensive operating conditions for full 6425–7125 MHz band, similar to those specified for WAS/RLAN in the 5925-6425 MHz bands:

(1) Low Power Indoor (LPI) at 23 dBm e.i.r.p. for indoor-only deployment

(2) Very Low Power (VLP) at 14 dBm e.i.r.p. for both indoor and outdoor use

The DSA appreciates the draft's reference to the ongoing development of regulations on Dynamic Spectrum Access and Opportunistic Spectrum Management in the Innovation Spectrum (GG 52415 No. 6066 of 28 March 2025). We note that ICASA is already considering outdoor Standard Power (SP) operations and look forward to the timely publication of these regulations.

LPI, VLP, and SP operation in the 6 GHz band each provide distinct yet complementary benefits that together enable efficient and future-proof spectrum use. This proposed framework preserves capacity for a wide range of local broadband use cases while avoiding spectrum fragmentation that would undermine spectral efficiency and erode both consumer and enterprise benefits. For example, access to additional Upper 6 GHz spectrum is of critical importance for indoor enterprise deployments to avoid co-channel interference among densely spaced Wi-Fi access points,[1] which will be essential for

[1] The Wi-Fi industry notes that 10–12 independent, non-overlapping 80 MHz channels are needed for interference-free channel plans in enterprise-grade networks.

reducing latency and enabling the capabilities of Wi-Fi 7 and Wi-Fi 8 to support mission-critical applications.

LPI supports high-capacity indoor broadband—essential for residential, enterprise, and public-building environments—while naturally minimising interference through indoor-only restrictions and building attenuation. VLP permitted both indoors and outdoors, supports short-range, low-interference connectivity for emerging mobile and wearable applications such as AR/VR, robotics, sensors, and other innovative low-power devices, enhancing flexibility and fostering new technology ecosystems. SP managed by an Automated Frequency Coordination (AFC) system, enables robust outdoor and wide-area Wi-Fi deployments for rural broadband, smart-city infrastructure, enterprise campuses, and industrial sites where extended range and higher power are required, while ensuring real-time protection of incumbent fixed and fixed-satellite services through dynamic channel and power management.

In addition to extensive studies already conducted (e.g., CEPT 18,[2] FCC,[3] ISED[4]), real-world experience confirms that WAS/RLAN operations can safely coexist with fixed and satellite incumbents across the 6 GHz band. Not only do LPI and VLP devices currently operate without interference to 6 GHz incumbents, but AFC-managed SP devices also operate on a commercial basis without any impact.

These proven international frameworks successfully deployed across 75 countries[5] adopting license-exempt policies for the 6 GHz band, fostering a harmonized international market for devices, equipment, and services. Globally, over 19.5 billion Wi-Fi devices are in use with an annual shipment of 3.8 billion units,[6] highlighting its widespread adoption and the ongoing evolution through advancements like Wi-Fi 6E, Wi-Fi 7, and soon Wi-Fi 8.

These new technologies expand Wi-Fi's ability to drive social and economic progress. Unlocking the full 6 GHz band, including the upper 6 GHz band from 6425 to 7125 MHz is essential. Examining precedents such as South Africa's regulatory approach reveals the necessity of allocating sufficient spectrum to support the latest Wi-Fi generations. Industry anticipates a need for at least fifteen 80 MHz channels or seven 160 MHz channels to fully utilize Wi-Fi 7 and future Wi-Fi 8 protocols, with increasing demand expected for wider 320 MHz channels in the years ahead.

This global momentum has catalysed a thriving ecosystem of Wi-Fi 6E and Wi-Fi 7 products, resulting in lower device costs, increased innovation, and faster adoption. For these reasons, the DSA supports licence-exempt access to the entire 6 GHz band (5945-7125 MHz).

The DSA respectfully urges ICASA to finalise these arrangements through the NRFP 2025 process. The DSA would welcome the opportunity to present these recommendations during public hearings and stands ready to assist ICASA with technical implementation.

Sincerely,

Dr. Martha Suárez
President
Dynamic Spectrum Alliance

---

[2] ECC Report 366: https://docdb.cept.org/document/28650
[3] https://docs.fcc.gov/public/attachments/FCC-20-51A1.pdf
[4] https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/spectrum-allocation/radio-local-area-network-rlan-6-ghz-band/decision-technical-and-policy-framework-licence-exempt-use-6-ghz-band
[5] https://6ghz.info/#MAP
[6] https://www.wi-fi.org/beacon/the-beacon/wi-fi-by-the-numbers-technology-momentum-in-2023.